

MACKENZIE HIGHWAY GEOTECHNICAL EVALUATION

VOLUME IV

LABORATORY TEST DATA



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& ASSOCIATES LTD.

VOLUME IV

LABORATORY TEST DATA

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SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
724-C-3	5		non	plastic						ML	
-4	5					11	54	35	0	ML	
-6	2½	14.0	25.9	18.8	7.1					CL	
723-C-2	5					(13)		87	0	SP	
-4	10		non	plastic						ML	
-6	5	75.0	32.5	24.0	8.5					CL-ML	High Ice Content
-9	5		non	plastic						ML	
722-C-1	2½	20.0	38.8	21.3	17.5					CI	
-5	2½	9.0	29.7	16.7	13.0					CL	
-9	2½	11.0	22.4	14.2	8.2					CL	
721-C-2	2½						3	97	0	SP	
-5	5		non	plastic						ML	
-8	10		non	plastic						ML	
720-C-4	5						3	97	0	SP	
-8	10					(10)		90	0	SP	
719-C-2	10	29.5	28.2	18.2	10.0					CL	
-5	5	45.5	44.0	21.6	22.4					CI	



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SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
718-C-1	2½	225.0	68.7	46.6	22.1					OH	
-5	2½	12.0	26.5	16.2	10.3					CL	
-9	5	16.0	30.4	15.3	15.1					CL	
718-S-1	2½	20.0	32.8	21.0	11.8	16	39	35	10	CL	
717-C-2	5	20.0	30.0	15.6	14.4					CL	
-4	2½	33.0	30.2	14.8	15.4					CL	
-7	2½	35.0	50.4	26.2	24.2					CH	
717-S-2	5	10.4	31.9	14.9	17.0					CL	
716-C-2	5	40.0	30.5	15.7	14.8					CL	
-6	5	20.4	33.2	16.8	16.4					CL	
-8	2½	50.0	37.5	23.8	13.7					CI	
716-S-1	2½	18.5	33.8	15.4	18.4					CL	
715-C-2	5	18.0	34.4	16.7	17.7					CL	
-8	5	20.0	29.4	15.5	13.9					CL	
-10	5	10.5	25.3	14.3	11.0					CL	
715-S-1	5	10.5	30.8	15.2	15.6					CL	
714-C-2	2½	15.0	25.5	14.6	10.9					CL	

DWG. No. 2



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
714-C-5	5	15.0	24.4	14.8	9.6					CL	
714-S-1	2½	13.0	26.6	13.4	13.2	23	42	25	10	CL	
713-C-1	2½	20.3	27.9	15.9	12.0					CL	SO ₄ - Trace
-3	14	6.7	28.5	17.4	11.1	23	71	6	0	SH(CL)	
-5	5	9.8	31.0	15.0	16.0					CL	
713-S-1	2½	49.0	29.6	16.7	12.9					CL	
713-S-2	10					25	53	22	0	CL	
712-C-3	2½	12.7	27.6	15.0	12.6					CL	
-5	5	15.6	32.8	15.8	17.0					CL	
-6	5	13.8	30.4	15.4	15.0					CL	
712-S-2	5					27	38	26	9	CL	
711-C-3	5	17.8	30.8	14.7	16.1					CL	
-7	10	13.7	33.5	20.0	13.5					CL	
-10	5	15.9	39.3	23.6	15.7	31	64	5	0	SH(CI)	
711-S-2	2½					(11)		32	57	GW	
711-S-2	5	14.0	33.7	14.8	18.9					CL	
710-C-3	2½	25.0	42.6	15.7	26.9					CI	



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
710-C-6	10	15.3	48.5	21.8	26.7					SH (CI)	
-8	2½	18.3	25.6	16.2	9.4					CL	
710-S-1	2½	83.0	40.6	17.6	23.0	30	37	23	10	CI	Organic
709-C-3	2½	36.0	65.4	27.9	37.5					CH	
-5	5	56.3	75.0	42.0	33.0	41	52	7	0	OH	
709-S-1	2½	25.0	37.5	18.8	18.7					CI	
708-C-3	5	21.4	51.4	23.8	27.6					CH	
-6	2½	14.0	27.1	14.0	13.1					CL	
708-S-1	2½	19.0	32.0	16.0	16.0					CL	
707-C-2	2½	22.8	37.1	16.1	21.0					CI	
-6	2½	13.5	26.0	16.2	9.8					CL	
706-C-2	5	15.6	31.9	16.7	15.2					CL	
-5	5	18.7	44.2	19.3	24.9					CI	
-7	5	13.6	27.8	15.3	12.5					CL	
706-S-1	5	16.0	25.1	17.0	8.1					CL	
-2	2½		non	plastic		8	20	67	5	SM	
-3	2½					18	42	31	9	CL	

DWG. No. 4



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
705-C-1	2½	14.4	24.7	14.2	10.5					CL	
-6	2½	14.8	28.7	15.7	13.0					CL	
-9	2½	21.0	37.7	26.7	11.0					CI	
705-S-1	5					7	15	44	31	SW-SM	
704-C-4	5	30.0	27.6	15.0	12.6					CL	
-7	2½	9.4	24.0	14.4	9.6	14	41	35	10	CL	
704-S-1	2½					23	32	36	9	CL	
703-C-6	2½	24.8	26.4	17.1	9.3					CL	
-9	5	10.3	28.3	14.4	13.9					CL	
703-S-2	5					8	32	33	27	GM	
702-C-2	5	12.4	22.7	14.4	8.3					CL-ML	
-4	2½	14.8	35.0	17.1	17.9					CI	
-7	5					21	43	19	17	CL	
702-S-1	2½					11	46	43	0	SM	
701-C-3	10					21	54	22	3	CL	
-8	5					13	37	35	15	CL	
-5	2½	18.4	28.0	16.4	11.6					CL	

DWG. No. 5



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No.

E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
700-C-4	2½	10.8	22.9	11.8	11.1					CL	
-8	10					24	60	14	2	CL	
-10	5	275.4	29.2	14.4	14.7					CL	
699-C-3	2½	23.9	30.7	19.3	11.4					CL	
-6	5					11	29	25	35	GM	
-9	5	12.9	32.5	17.1	15.4					CL	SO ₄ - 0.125%
699-S-1	10	28.0	30.3	18.6	11.7					CL	SO ₄ - Trace
698-C-4	5					19	59	20	2	CL-ML	
-6	10	10.2	33.1	14.7	18.4					CL	
697-C-2	2½					13	39	41	2	ML	
-5	5					20	43	27	10	CL-ML	
-8	2½	12.2	24.0	13.9	10.1					CL	
696-C-6	5	11.0	19.2	non plastic						ML	
-7	5					18	39	41	2	ML	
694-C-4	5	9.0	31.4	non plastic						GW	
694-S-1	2½					9	35	36	20	SW-SM	
693-C-4	52½	91.0	28.1	non plastic						ML	

DWG. No.



BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
693-S-1	2½						3	43	54	GW	
692-C-3	2½	107.0	68.9	44.7	24.2					OH	
"	5	38.0	47.4	24.7	22.7	41	56	3	0	CI	
692-C-6	2½					13	47	40	0	ML	
691-C-4	5					31	49	18	2	CL-ML	
-3	5 2½?	81.0	68.5	42.9	25.6					OH	
-7	2½					52	33	12	3	CL-CI	
690-C-3	10					40	43	17	0	CL	
-6	5					28	37	24	11	CL	
690-S-1	10	86.5	48.6	25.6	23.0					CI	High Ice Content
689-S-4	5	36.5	34.2	20.6	13.6	22	57	17	4	CL	
-5	10	13.0	32.8	20.1	12.7	31	41	(28)		CL	
-6	18-20					25	68	7	0	CL-ML	
-8	5	102.0	50.9	36.5	14.4					OH-MH	
-8	14-16	13.0	48.1	21.4	26.7					CI	
-8	18	12.0	45.4	26.4	19.0					CI	SO ₄ - 0.52% - pH = 6.5
-10	15	11.0	35.4	22.9	12.5					CI	



SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
689-S-12	5					16	33	51	0	SM	SO ₄ - Negligible pH=6.5
-13	10	35.0	49.9	25.8	24.1	33	57	10	0	CI	
-14	20	9.0	39.3	23.9	15.4	30	57	13	0	CI	
688-C-3	2½	79.0	53.2	29.9	23.3					CH	
"	18	12.1	37.5	21.4	16.1					CI	
688-C-6	5	34.5	40.6	21.8	18.8	42	28	28	2	CI	
687-C-2	10					(11)		17	72	GW-GC	
-4	9	38.1	53.9	28.5	25.4					CI	
686-C-2	2½	59.7	46.6	33.0	13.6	49	34	14	3	OL	
-6	2½	31.3	55.9	32.1	23.8					OH	
685-C-2	2½	21.9	42.9	25.4	17.5					CI	
-6	5	18.1	33.5	17.4	16.1	33	35	32	0	CL	
-8	5	26.3	36.8	19.2	17.6					CI	
685-S-1	5		36.5	20.4	16.0	28	44	26	2	CI	
684-C-3	10	16.5	46.7	27.8	18.9	50	48	2	0	CI	
-7	5	18.1	30.1	18.5	11.5					CL	
682-C-3	2½	11.2	25.7	17.4	8.3					CL-ML	



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
682-C-7	5	11.5	25.5	17.1	8.5					CL-ML	
682-S-1	5	20.4	50.9	24.4	26.5	43	39	15	3	CH	
681-C-2	5	23.5	32.1	16.5	15.6					CL	
-4	9	19.4	64.4	31.7	32.7					CH	
-8	5	34.3	32.8	19.3	13.5					CL	SO ₄ - 0.170%
680-C-1	5	28.0	34.9	26.0	8.9	52	31	15	2	ML	
680-S-1	10	12.0	33.2	18.4	14.8	(68)		30	2	CL	
679-C-1	5	23.6	32.9	20.2	12.8					CL	
-7	5	10.0	19.6	15.2	4.4					ML	
678-C-3	5	61.2	35.2	18.3	16.8					CI	
-7	2½	44.8	42.6	24.3	18.3	38	35	25	2	CI	
678-S-1	2½					27	50	21	2	CL	
677-C-1	5	27.9	37.5	16.9	20.6					CI	
-3	10	357.0	39.8	21.0	18.8					CI	
-7	10	12.7	30.9	17.6	13.3					CL	
676-C-1	2½	83.4	27.3	non	plastic					ML	
675-C-1	5	35.6	30.6	17.8	12.9					CL	

DWG. No. 9

EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
675-C-4	5	26.5	33.1	20.9	12.2	28	45	21	6	CL	
-8	9	21.4	26.4	22.3	3.8					ML	
674-C-4	15					10	50	(40)		ML	
-6	5	30.5	45.1	non plastic		13	65	22	0	ML	
674-S-1	5					16	44	37	3	ML	
673-C-2	5					10	23	23	44	GM	
-6	5	44.2	37.4	28.9	8.5	24	66	10	0	CI	
-8	10					49	45	6	0	CI	
673-S-1	5					22	62	16	0	CL	
672-C-2	5	52.3	46.3	30.1	16.2					CI	
-4	10	159.2	47.7	26.8	20.9					CI	
672-S-3	5	41.5	55.1	28.1	27.0	32	65	3	0	CH	
-4	10	33.5	65.1	28.8	36.3					CH	
-5	5	30.5	62.5	29.3	33.2					CH	
-1	10	44.0	61.8	28.4	33.4					CH	
-2	18	33.0	65.6	28.0	37.6					CH	
671-C-1	5	32.2	35.6	22.0	13.6	55	41	4	0	CI	



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SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
670-C-4	5	30.0	38.2	22.9	15.3	34	59	7	0	CI	
-6	2½	41.0	47.5	27.7	19.8	49	(51)			OL-CI	
670-S-1	18	31.0	63.1	28.9	34.2					CH	
-2	5	30.5	44.9	23.6	21.3					CI	
670-C-1	2½										Organic Content=11.2%
669-C-1	5	68.0	47.4	27.2	20.2					CI	
-4	5					30	58	12	0	CL	
669-S-1	10	44.0	40.1	26.4	13.7	20	52	24	4	CI	
-2	18	25.0	38.5	18.4	20.1					CI	
-3	10	26.0	56.8	27.9	28.9					CI	
-4	15					49	44	7	0	CL-CI	
-5	10	50.0	38.8	21.6	17.2	30	65	5	0	CI	
-9	18-20	33.5	61.0	32.1	28.9	68	31	1	0	CH	* Combination of Five Test Results
-9	28-30		43.5	25.8	17.7	41	55	4	0	CI	
-10	10	26.0	56.8	27.9	28.9					CH	
668-C-5	5					7	66	25	2	ML	
-7	2½					19	56	25	0	CL-ML	



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SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
668-C-3	5										Organic Content=97.87%
668-S-1	5	45.0	32.0	22.6	9.4	25	63	12	0	CL	
667-C-1	5	19.9	34.1	21.5	12.6					CL	
-3	2½					(13)		19	68	GM	
-6	2½					20	42	34	4	CL-CI	
666-C-1	2½	12.0	23.6	16.5	7.1					CL-ML	
-4	5					12	63	24	1	ML	Organic Content=5.26%
-6	5					25	43	15	17	CL	
665-C-1	10					7	25	53	15	SM-GM	
-5	5					13	66	21	0	ML	
-8	5					28	14	58	0	SC	
664-C-2	5	36.0	20.9	non plastic	8		72	20	0	ML	
-5	2½					(30)		68	2	SM	
664-S-2	5					9	36	53	2	SM	
663-C-1	2½					16	62	22	0	ML	
-3	5					(10)		14	76	GW	
-6	2½	69.5	53.2	39.2	14.0					OH-MH	



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SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
662-C-1	5		non plastic			10	38	52	0	SM	
661-C-2	5	51.7	33.8	21.0	12.8	33	59	8	0	CL	
-5	2½	46.4	23.4	17.2	6.2					CL-ML	
-7	2½					32	46	16	2	CL	
660-C-1	5	47.6	48.7	24.0	24.7					CI	
-4	2½					22	64	14	0	CL-ML	
-6	5	105.1	47.0	26.5	20.5					CI	High Ice Content
-7	5					5	31	64	0	SM-SP	
660-S-1	10					18	67	15	0	ML	
659-C-2	5					(11)		56	33	SW	
-4	5						9	78	3	SP	
-6	2½	24.0	27.0	non plastic						ML	
659-S-1	10	22.0	40.7	23.7	17.0					CI	
-2	10	18.5	20.5	17.8	2.7	8	20	55	17	SM	
-3	5						3	70	27	SW	
-4	5						12	36	52	GW	
-9	5	25.0	40.2	24.2	16.0					CI	SO ₄ - 0.434%

DWG. No. 13



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
659-S-6	10						23	68	9	SM	
658-C-1	5					14	75	11	0	OL	
-4	5					45	55	0	0	CI	
-6	2½					12	51	37	0	ML	
658-S-1	5	32.5	31.4	20.7	10.7	24	74	2	0	CL	
657-C-1	2½					(23)		35	42	GC	
-3	5	74.2	62.9	50.0	12.9					OH-MH	
-5	5	43.0	36.5	19.2	17.3					CI	
657-S-2	10	66.0	46.5	36.7	9.8	23	62	15	0	OL-ML	SO ₄ - 0.363%
656-C-3	5					(20)		80	0	SM	
-6	5						3	97	0	SP	
-8	2½					7	26	67	0	SM	
"	5					(10)		90	0	SM-SP	
655-C-2	5					(25)		75	0	SM	
-4	2½					(15)		85	0	SM	
654-C-1	2½						8	92	0	SP	
-3	5					(18)		82	0	SM	

DWG. No. 14



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH feet	NATURAL WATER CONTENT %	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L %	W _p %	PI %	% CLAY	% SILT	% SAND	% GRAVEL		
654-C-6	2½						8	92	0	SP	
653-C-4	5					(13)		87	0	SM	
-6	5					4	63	33	0	ML	
652-C-3	9						4	96	0	SP	
-6	5					7	45	48	0	SM	
-9	5	34.0	29.7	16.7	13.0	23	53	23	1	CL	
651-C-3	5	44.6	25.3	non plastic		22	46	24	8	ML	
-5	5					7	28	53	12	SM-GM	
-7	10	17.9	23.0	non plastic						ML	
651-S-1	10	41.0	52.0	40.2	11.8					OH-MH	
650-C-2	2½	65.8	34.2	21.1	13.1	23	63	13	1	CL	
-4	9						4	64	32	SW	
650-S-2	10						4	26	70	GW	
-3	15					12	49	30	9	ML	
-5	15	30.5	28.3	21.6	6.8	16	79	5	0	CL	
-7	15	25.0	25.0	19.2	5.8	11	82	7	0	CL-ML	
-8	5						2	24	74	GW	



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
649-C-7	2½					(17)		66	17	SM	
648-C-1	5						4	31	63	GW	
-4	2½	83.5	28.4	22.9	5.6					ML	
-6	5					(22)		78	0	SM	
648-S-1	5					4	13	45	38	GM	
-2	10						10	40	50	GW	
647-C-1	5					6	54	40	0	ML	
-6	5					(13)		82	0	SM	
647-S-1	15	31.0	59.1	32.0	27.0	56	41	3	0	OH	
-2	2½					7	43	(50)			Incompleted Curve
646-C-2	5					4	19	77	0	SM	
-6	9						7	93	0	SP	
645-C-2	5					(13)		87	0	SM-SP	
-5	5						9	91	0	SP	
645-S-2	5					(26)		74	0	SM	
644-C-1	5						5	95	0	SP	
-4	5						4	96	0	SP	

DWG. No. 16



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
644-S-1	2½					(28)	72	0		SM-SP	
643-C-2	5						4	96	0	SP	
-6	5						7	93	0	SP	
642-C-1	2¼					7	15	78	0	SM-SP	
-4	5					(18)	82	0		SM	
642-S-1	2½					(25)	75	0		SM-SP	
641-C-2	9						12	88	0	SP	
-4	2½					(32)	78	0		SM	
641-S-2	10						12	88	0	SP	
-3	15						9	91	0	SP	
640-C-3	5	55.6	43.5	21.4	22.1					CI	
-5	5					12	35	53	0	SM	
639-C-1	2½	35.5	43.4	non plastic						ML	
-2	9					4	72	24	0	SM	
-5	2½						11	40	49	GW	
639-S-1	5	118.0	32.1	17.8	14.3					CL	
-3	15					12	28	48	12	SM	

DWG. No.



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
638-C-2	5					12	38	26	24	ML	
-5	10					6	56	28	10	ML	
637-C-1	5					30	65	2	3	CL-CI	
-4	5	35.3	43.2	30.2	13.0					OL	
-6	5	10.4	24.8	17.1	7.6					CL	
637-S-1	5						8	34	58	GW	
636-C-3	5					14	73	13	0	ML	
-7	10	11.8	35.6	non plastic						ML	
635-C-1	2½	3.2	29.7	18.5	11.2		12	27	61	GW	
-3	5		non plastic			9	41	50	0	SM	
-6	5					4	55	41	0	ML	
-7	5	15.0	29.0	16.9	12.1					CL	
635-S-1	5					14	36	38	12	GM-SM	
634-C-2	9	24.0	34.9	19.1	15.7					CL	
-4	5	20.2	22.8	18.7	4.1	27	43	18	12	CL-ML	
-6	5						7	76	17	SW	
634-S-1	5	71.0	38.2	28.4	9.8	13	43	30	14	ML	

DWG. No. 18



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
634-S-2	10					13	46	34	7	SM-ML	
633-C-1	5					40	45	12	3	CL-CI	Organic Content 12.04%
-2	10	10.8	21.3	non	plastic					ML	
633-S-1	20					12	25	51	12	SM	
-2	10					9	22	52	17	SM	
-3	5					16	38	44	2	CL	
-3	22					8	34	58	0	SM	
632-C-4	5	29.1	30.4	19.6	10.8					CL	Organic Content 12.04% SO ₄ - 0.135%
632-S-1	5	35.0	34.0	20.5	13.5					CL	SO ₄ - 0.158%
-2	20	11.5	27.3	20.9	6.5					CL-ML	
-3	2½					(17)		29	54	GM	
-4	10					54	37	8	1	CL-CI	
-6	5					(11)		21	68	GW	
-11	15	20.9				31	50	19		CL	
-12	25	29.0	40.0	24.7	15.3	34	60	5	1	CI	

DWG. No.

19



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
721-B-4	5						2	63	35	SW	
718-B-12	10	11.2	41.0	15.9	25.1	25	48	26	1	CI	
718-B-17	5	26.1	31.0	15.6	15.4	20	47	32	1	CL	
-25	5	19.1	29.3	14.7	14.6	21	45	29	5	CL	
717-B-3	2½	18.4	36.5	21.3	15.2	20	49	23	8	CI	
-8	5	23.8	29.4	13.5	15.9					CL	
-8	10					20	35	32	13	CL	
-15	5	26.8	31.8	15.8	16.0	21	41	27	11	CL	
716-B-3	5	21.9	31.2	20.5	10.7	22	43	29	6	CL	
715-B-2	10	14.4	33.6	15.1	18.5	21	41	28	10	CL	
-9	10	12.6	29.4	15.4	14.0	21	39	33	7	CL	
714-B-3	5					7	47	33	13	ML	
-7	10	14.7	26.3	15.2	11.1	16	48	27	9	CL	
-14	5	6.1	29.8	17.0	12.8	24	61	15	0	CL	
713-B-7	10	17.9	25.3	16.7	8.6					ML	
-13	10	4.0	28.3	16.7	12.0					CL	
712-B-5	5	12.3	22.3	14.8	7.5	16	43	33	8	CL	

DWG. No.

20



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
710-B-8	5	16.9	39.1	22.3	16.8	35	57	8	0	CI	
"	10	12.7	43.4	26.6	16.8	41	53	6	0	CI	
709-B-5	10					39	58	3	0	CI	
708-B-2	5	11.2	21.5	16.1	5.4	20	42	38	0	CL	
705-B-3	10	13.9	34.9	19.4	15.5	1	56	24	19	CL	
703-B-8	10	12.0	30.9	17.4	13.5	23	45	28	4	CL	
-1	5					20	42	28	10	CL-ML	
-5	5						3	35	62	GW	
-11	5						17	46	37	SW	
702-B-3	5	12.7	33.8	20.6	13.2	26	38	25	11	CL	
701-B-1	10	15.0	28.0	17.7	10.3	21	39	22	18	CL	
-5	5	12.9	23.5	14.3	9.2	13	38	34	15	CL	
699-B-2	10	15.0	41.0	19.6	21.4	38	42	16	4	CI	
698-B-2	5	15.3	30.6	16.7	13.9	21	39	25	15	CL	
697-B-4	5						16	71	13	SW	
696-B-4	5						15	46	39	SW	
695-B-3	2½					19	38	25	18	CL	

DWG. No. 21



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
	feet	%	%	%	%						
695-B-8	5					12	36	34	18	CL	
694-B-2	2½						8	47	45	SW-GW	
690-B-3	2½	46.9	63.6	31.5	32.1	7.1	28	1	0	CH	
689-B-2	10	9.1	31.6	19.9	11.7	33	44	19	4	CL	
688-B-6	5	34.4	68.7	33.6	35.1	76	23	1	0	CH	
-5	10					43	49	7	1	CL	
685-B-4	5	22.6	33.0	19.9	13.1	31	39	30	0	CL	
680-B-2	5	20.7	28.6	15.4	13.2	14	24	34	28	GC-CL	
676-B-1	10					21	74	5	0	CL-ML	
-2	10	19.5	46.0	24.0	22.0	(8.4)		13	3	CI	
-3	10		non plastic			10	52	27	11	ML	
-4	10					9	68	20	3	ML	
-5	5		non plastic							ML	
675-B-2	5	18.7	26.4	16.8	9.6	13	52	32	3	CL	
-4	10					(7.6)		20	4	CL	
-11	5	14.4	34.8	19.9	14.9					CL	

DWG. No.

22



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI	% CLAY	% SILT	% SAND	% GRAVEL		
674-B-2	5						10	23	67	GW	
-1	10	30.0	33.4	18.8	14.6	25	61	14	0	CL	
673-B-1	5	25.1	30.4	18.8	11.6	22	65	13	0	CL	
670-B-1	10						3	23	74	GW	
-6	5						10	26	64	GW	
668-B-4	5					12	35	35	18	SM	
667-B-4	10					20	41	26	13	ML	
-5	5					11	57	32	0	ML	
-7	5	12.7	23.3	13.1	10.2	7	23	22	48	GW	
-10	5	14.5	35.3	19.5	15.8	24	66	10	0	CI	
666-B-1	5					12	37	51	0	CL-ML	
664-B-1	10					11	58	31	0	ML	
-5	10					10	46	44	0	ML-SM	
-6	10					20	56	19	5	CL-ML	

DWG. No. 23



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI	% CLAY	% SILT	% SAND	% GRAVEL		
662-B-4	5						15	47	38	SM-GM	
-7	10						13	20	67	GW	
661-B-5	10	30.1	32.3	16.5	15.8					CL	
658-B-2	10					0	2	36	62	GW	
-3	18						7	22	71	GW	
-5	5						10	24	66	GW	
657-B-1	10	22.1	21.6	17.1	4.5	11	25	34	30	GM	
656-B-2	10					0	15	85	0	SP	
654-B-1	5						9	90	1	SP	
-2	10	28.0	41.8	24.7	17.1	44	54	2	0	CI	
653-B-3	10						2	98	0	SP	
652-B-1	10					15	56	29	0	ML	
-2	5						11	89	0	SP	
649-B-2	5						6	27	67	GW	
648-B-1	10					0	0	100	0	SP	

DWG. No.

24



EBA ENGINEERING CONSULTANTS LTD.

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _p	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
647-B-1	5						23	77	0	SM	
646-B-2	10					0	0	100	0	SP	
-3	10					0	0	100	0	SP	
-4A	10					0	0	100	0	SP	
645-B-1	5						7	93	0	SP	
-3	5						12	88	0	SP	
-5	10					57	32	1	0	CI	
-7	10					0	0	100	0	SP	
641-B-2	10						6	94	0	SP	
-5	5						10	90	0	SP	
-6	5						2	98	0	SP	
640-B-1	5						5	95	0	SP	
638-B-1	10	12.2	25.2	17.5	7.7	8	34	46	12	SM-ML	
-4	10	10.2	30.3	17.0	13.3	16	35	33	16	SM-ML	
-7	10	14.9	35.7	21.2	14.5					CI	

DWG. No.

25



EBA ENGINEERING CONSULTANTS LTD.

JOB No. E-517

JOB No. E-517

[illegible]

SUMMARY OF TEST RESULTS

JOB No. E-517

BORE HOLE	DEPTH	NATURAL WATER CONTENT	Atterberg Limits			MECHANICAL ANALYSIS (M.I.T. CLASSIFICATION)				SOIL CLASSIFICATION (UNIFIED)	REMARKS
			W _L	W _P	PI						
	feet	%	%	%	%	% CLAY	% SILT	% SAND	% GRAVEL		
687-B-1	5-9										Acid Test Positive
686-B-2	9										" "
679-B-2	2½										" "
-4	5										" "
677-B-2	18										" "
668-B-1	7-11										" "
-7	4-9										" "
667-B-1	4-8										" "
	18-22										" "
-2	8-14										" Slight Pos.
	4-8										" Positive

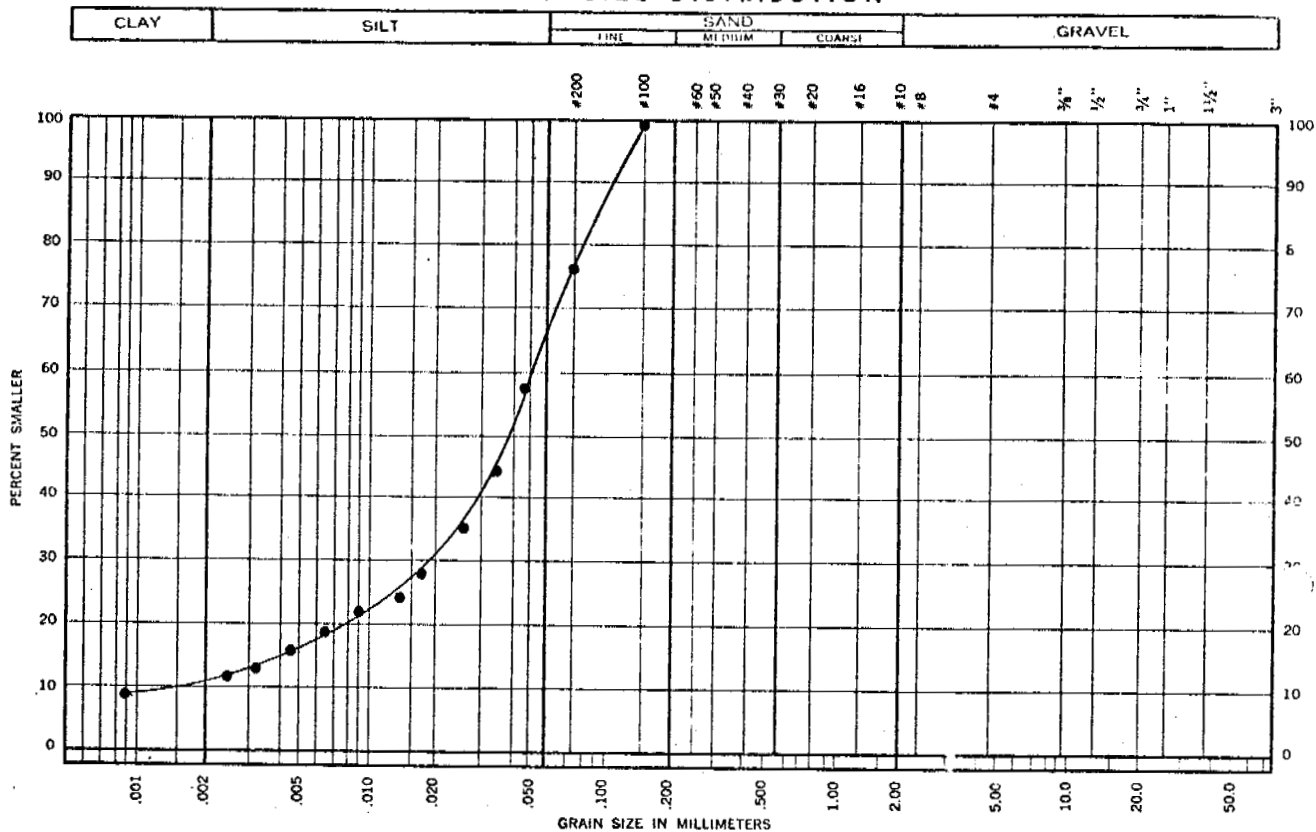
DWG. No.

27



EBA ENGINEERING CONSULTANTS LTD.

GRAIN SIZE DISTRIBUTION



FIGURE

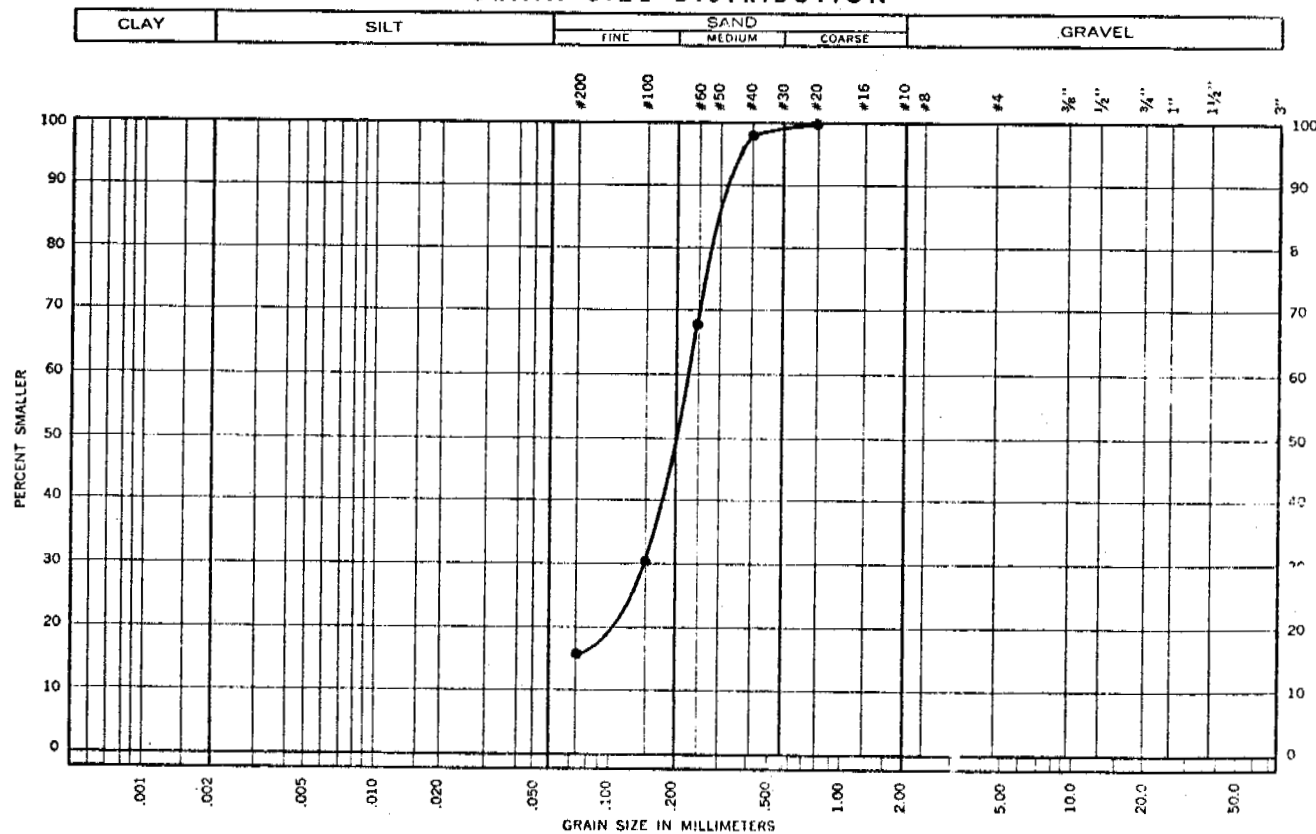


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY (FINE) SILT
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 724-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

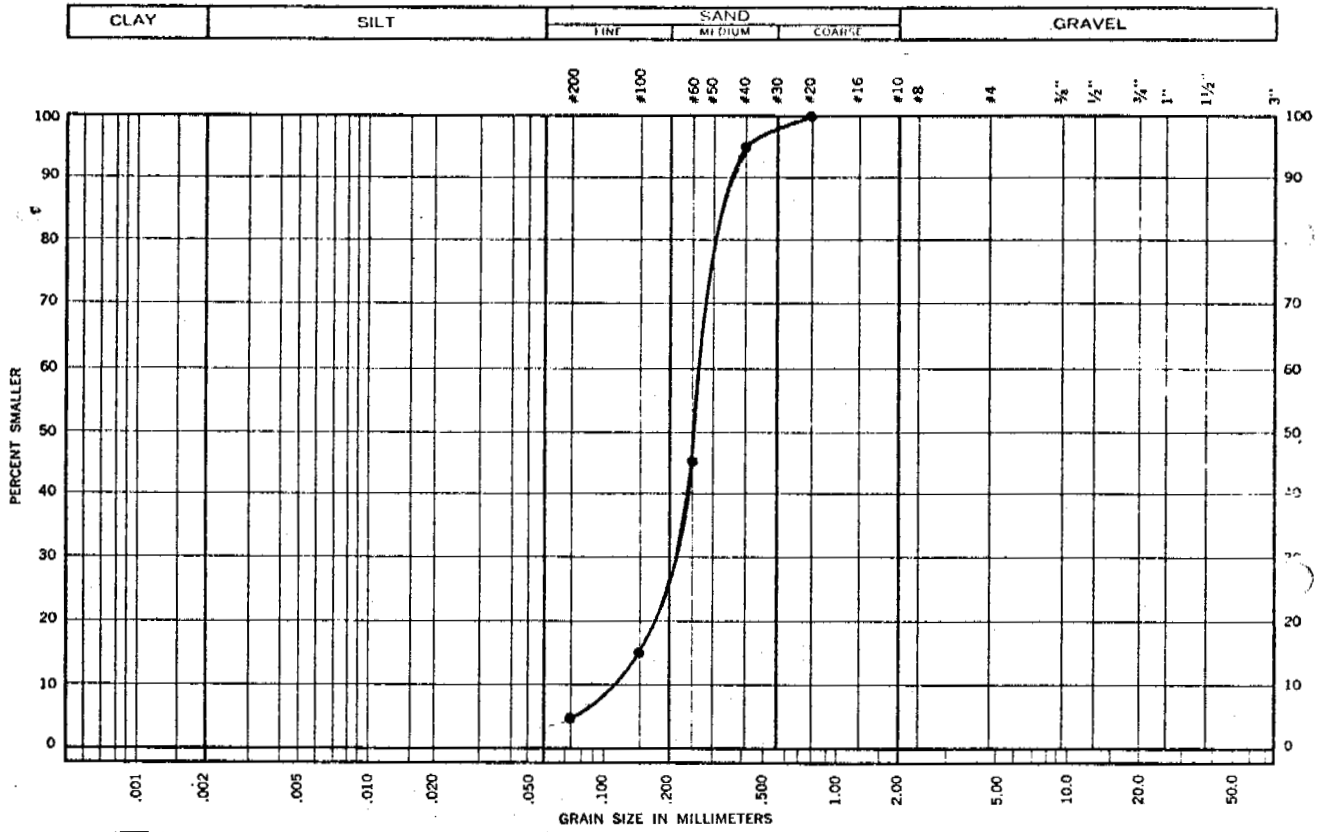


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION FINE TO MEDIUM
SAND, SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 723-C-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



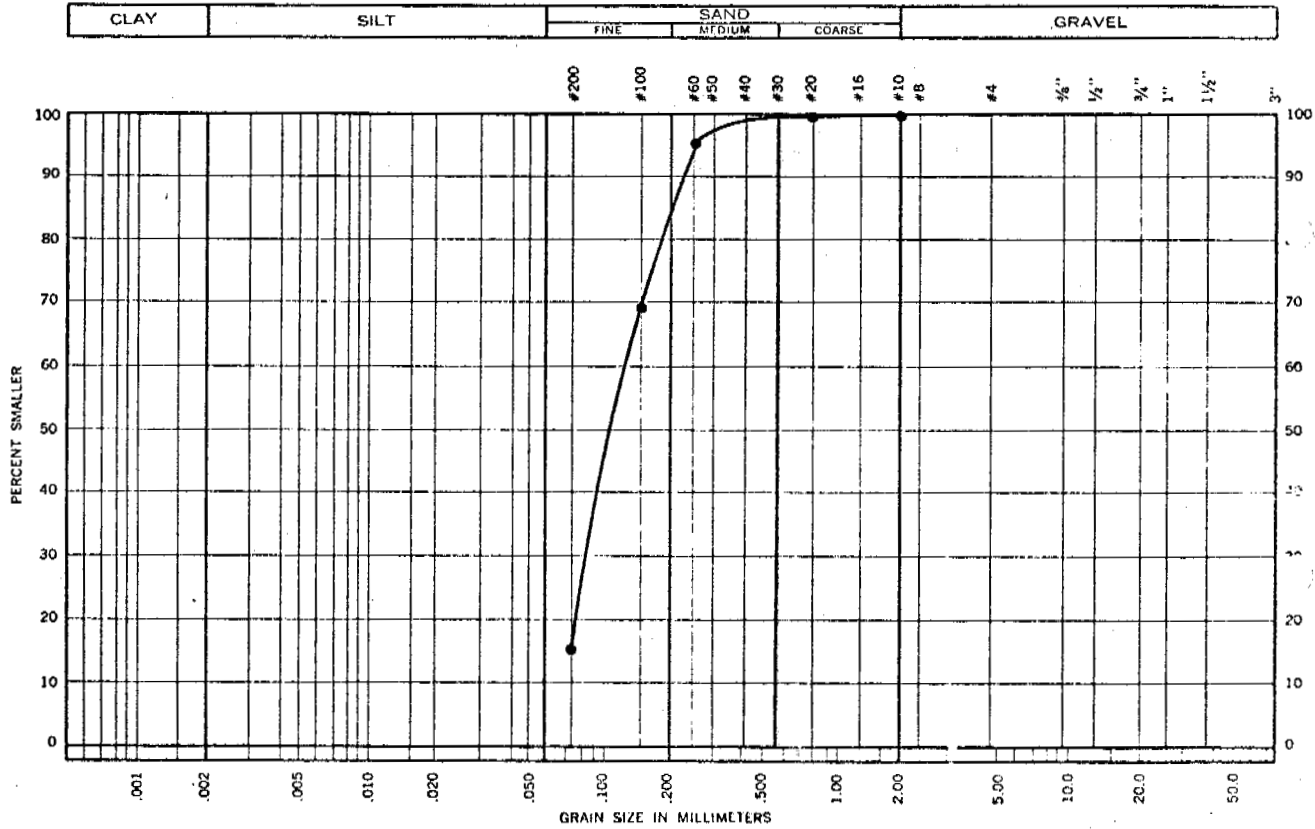
FIGURE



SAMPLE DESCRIPTION MEDIUM SAND, TRACE
OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 721-C-2
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



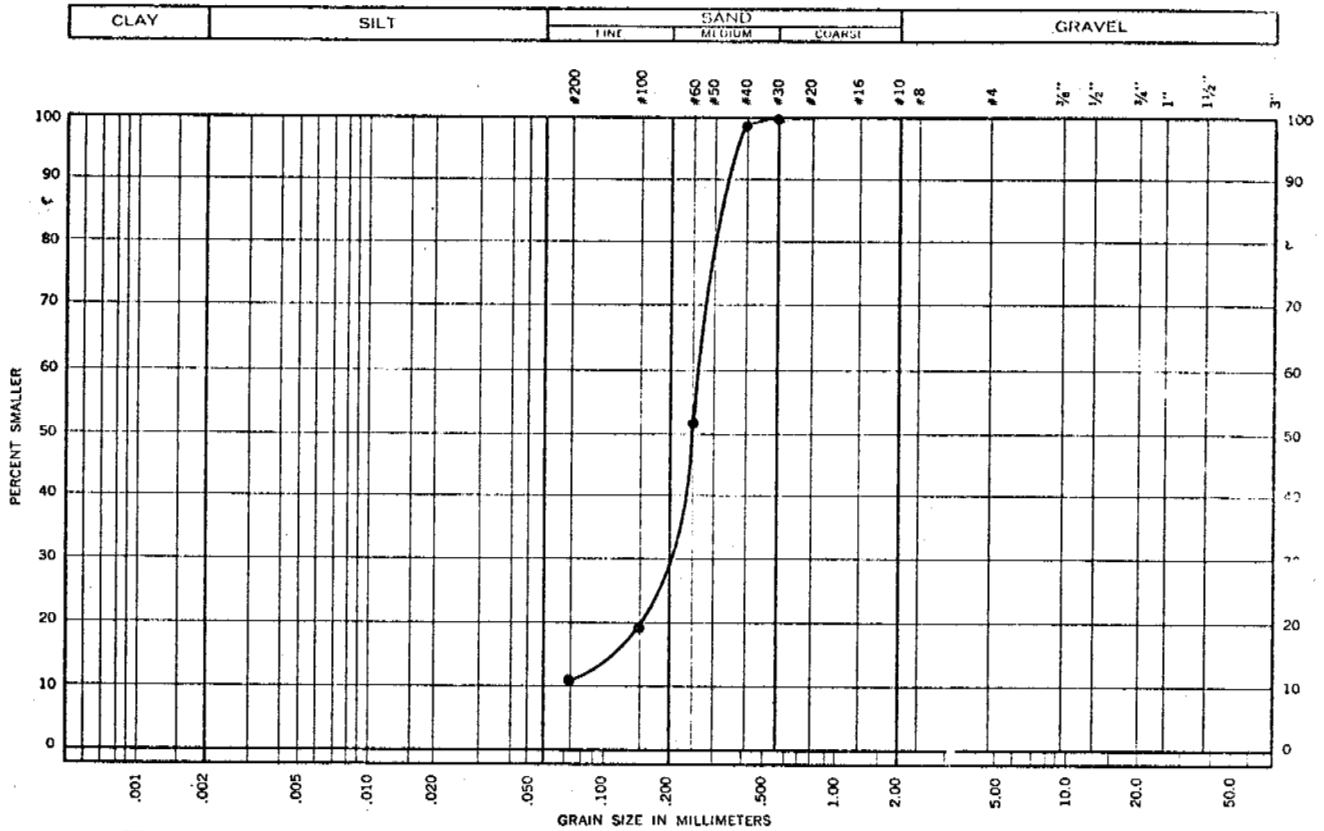
FIGURE



SAMPLE DESCRIPTION FINE SAND, TRACE
OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 720-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

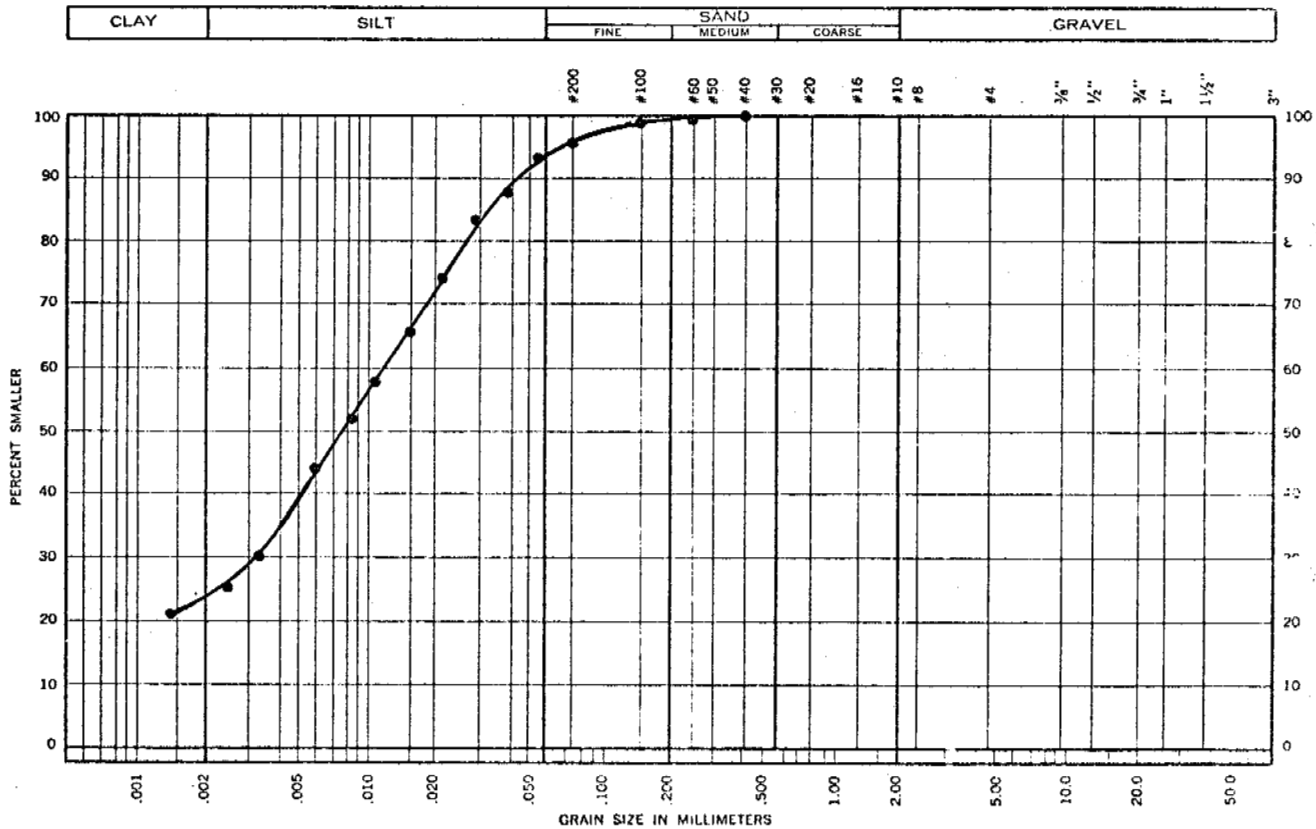


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION MEDIUM SAND, SOME
SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 720-C-8
DEPTH 10'

GRAIN SIZE DISTRIBUTION



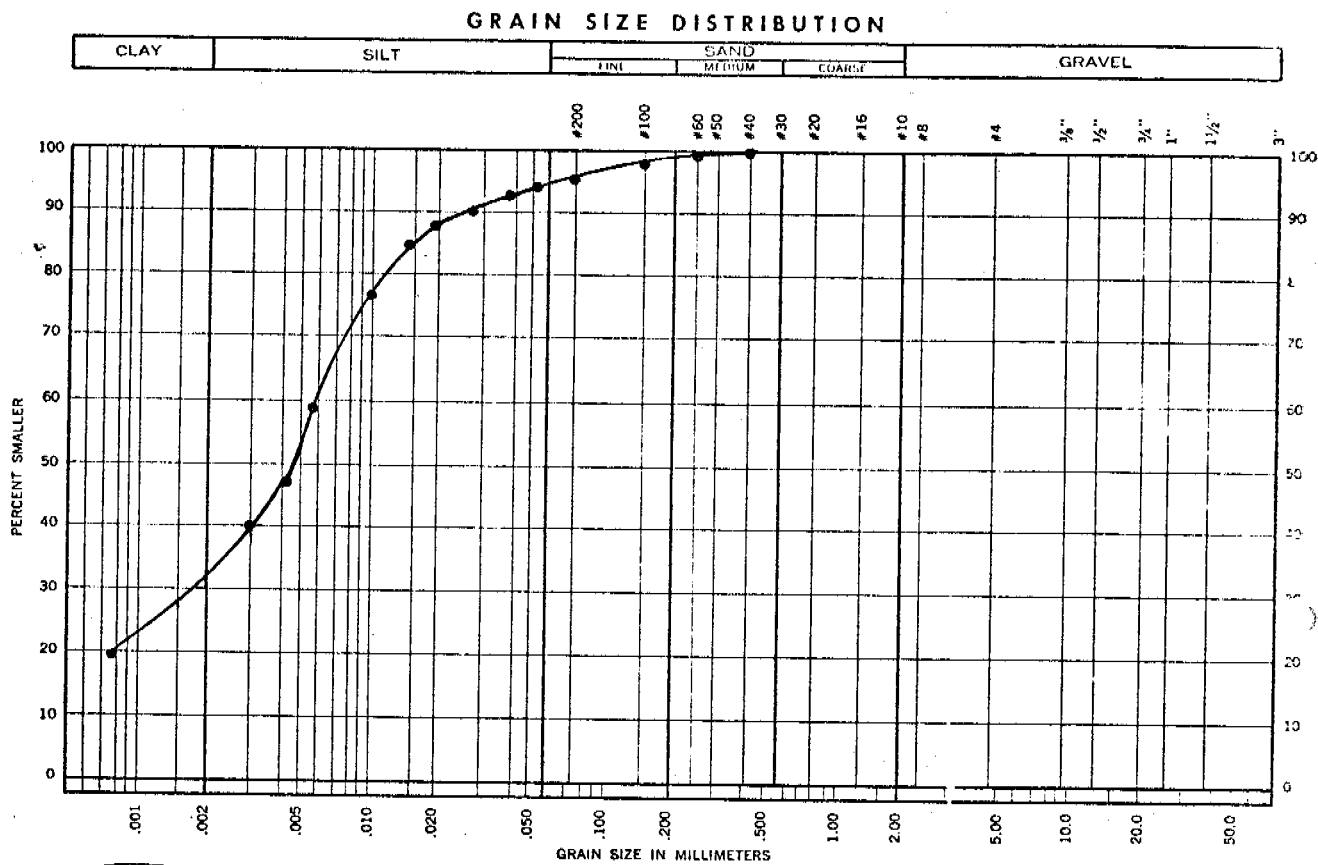
FIGURE



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 713-C-3
DEPTH 14'

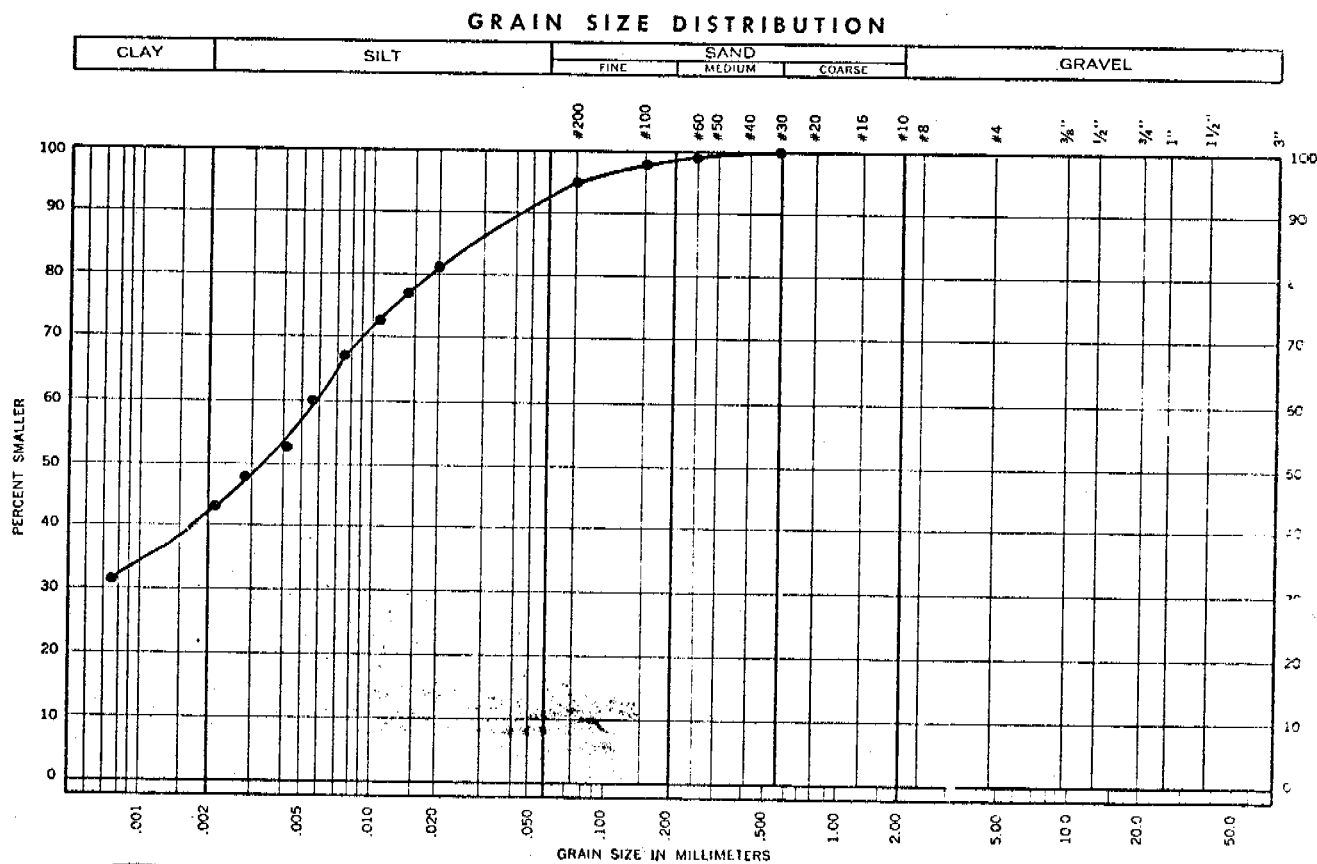


FIGURE



SAMPLE DESCRIPTION SILTY CLAY, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 711-C-10
DEPTH 5'



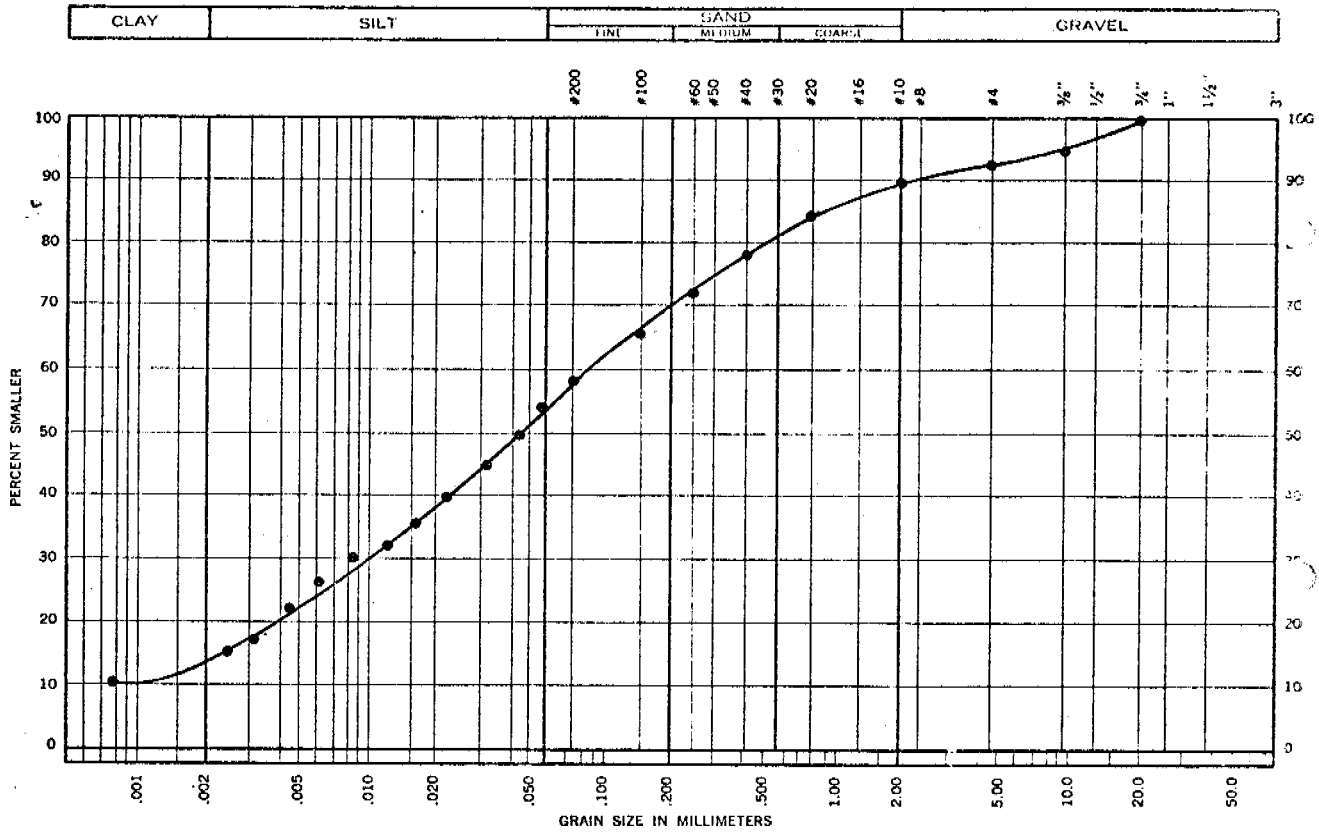
FIGURE



SAMPLE DESCRIPTION SILTY CLAY, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 709-C-5
DEPTH 5'

GRAIN SIZE DISTRIBUTION



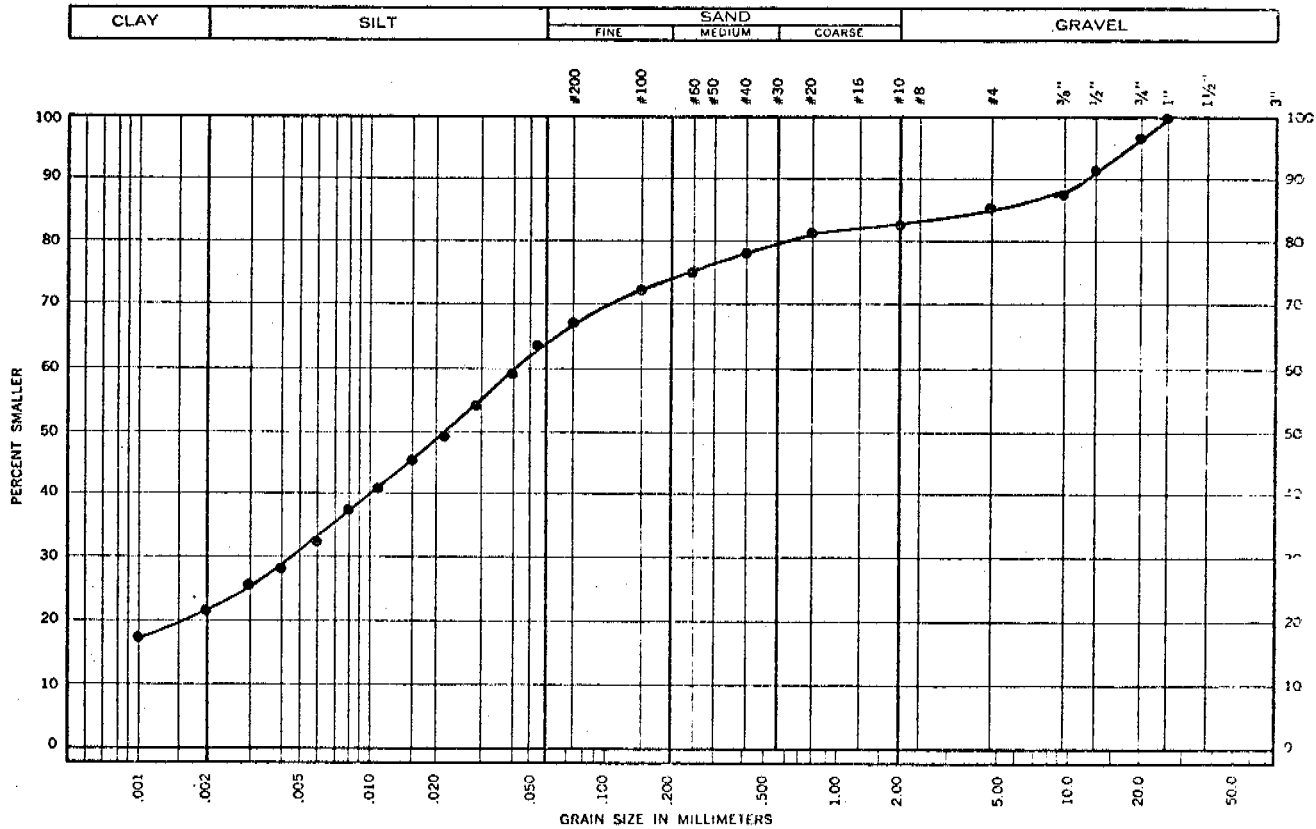
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY & GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 704-C-7
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



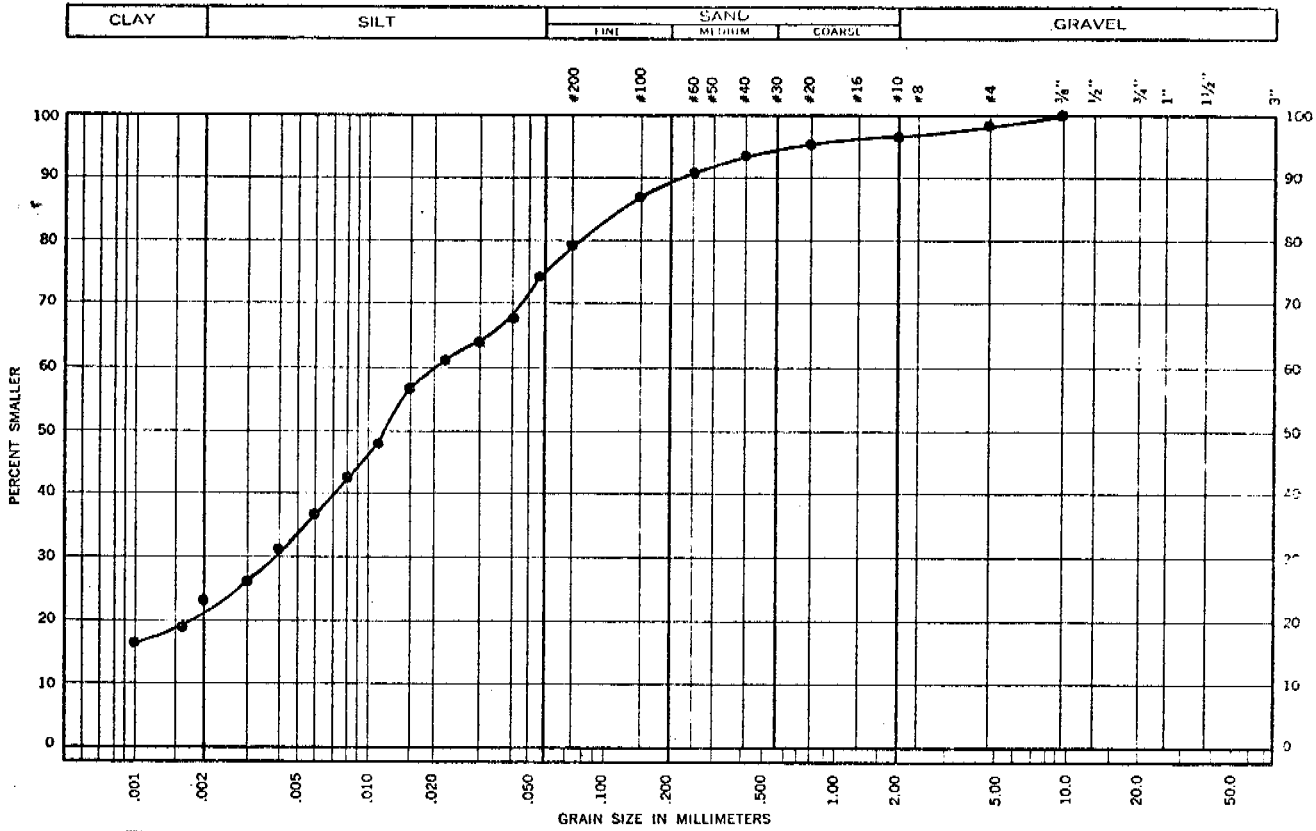
FIGURE



SAMPLE DESCRIPTION CLAY, SILT (TILL)
SANDY, GRAVELLY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR 20/73
SAMPLE No. 702-C-7
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

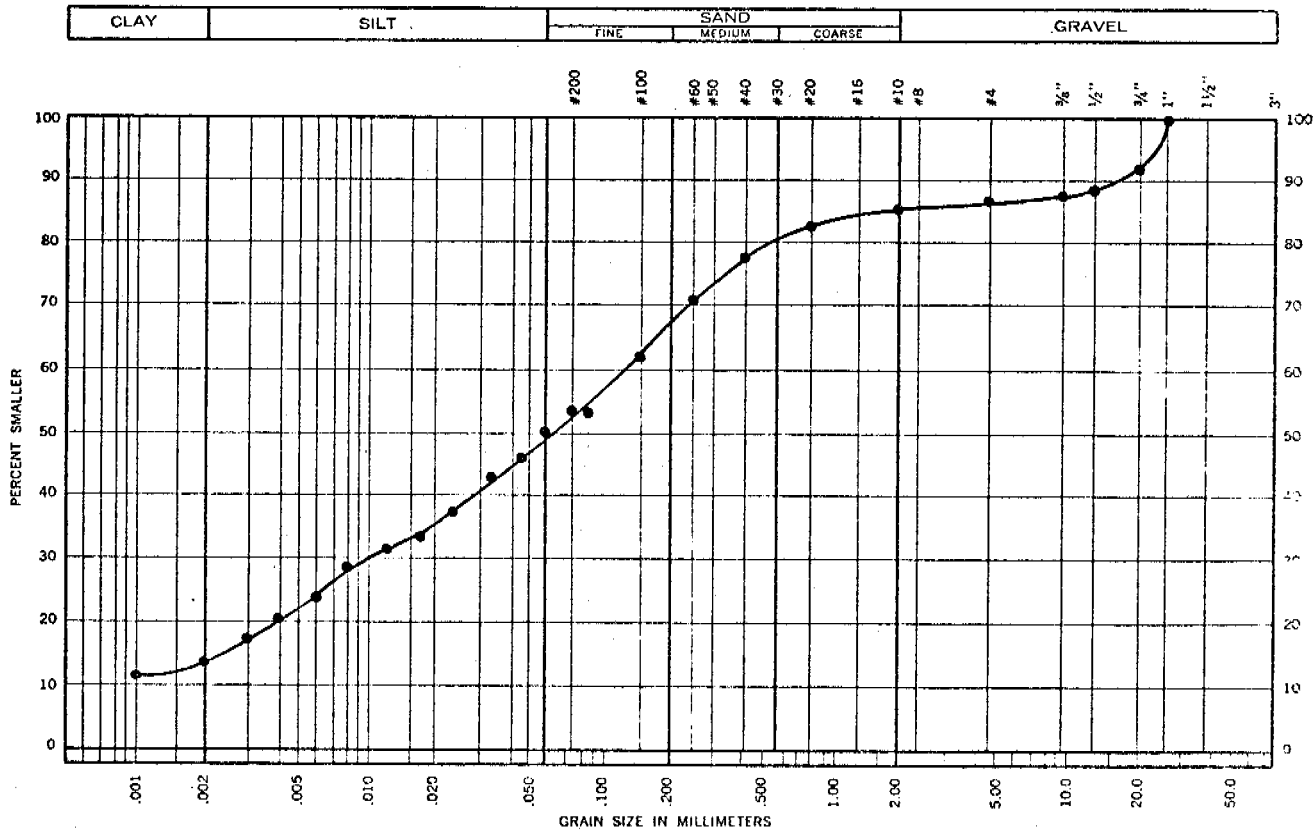


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT (TILL)
SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR 9/73
SAMPLE No. 701-C-3
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

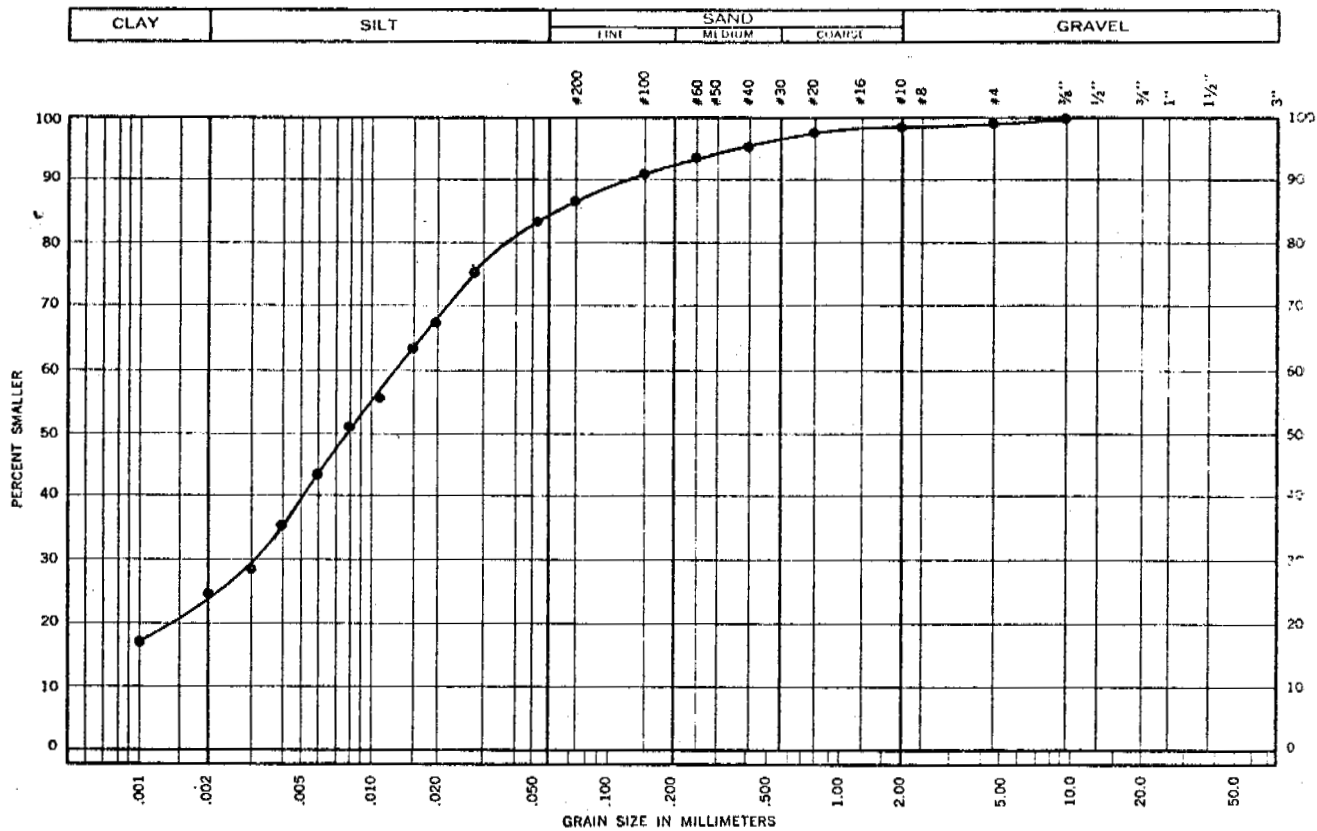


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND (TILL), SILTY
SOME GRAVEL / CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR 20/73
SAMPLE No. 701-C-8
DEPTH 5'

GRAIN SIZE DISTRIBUTION



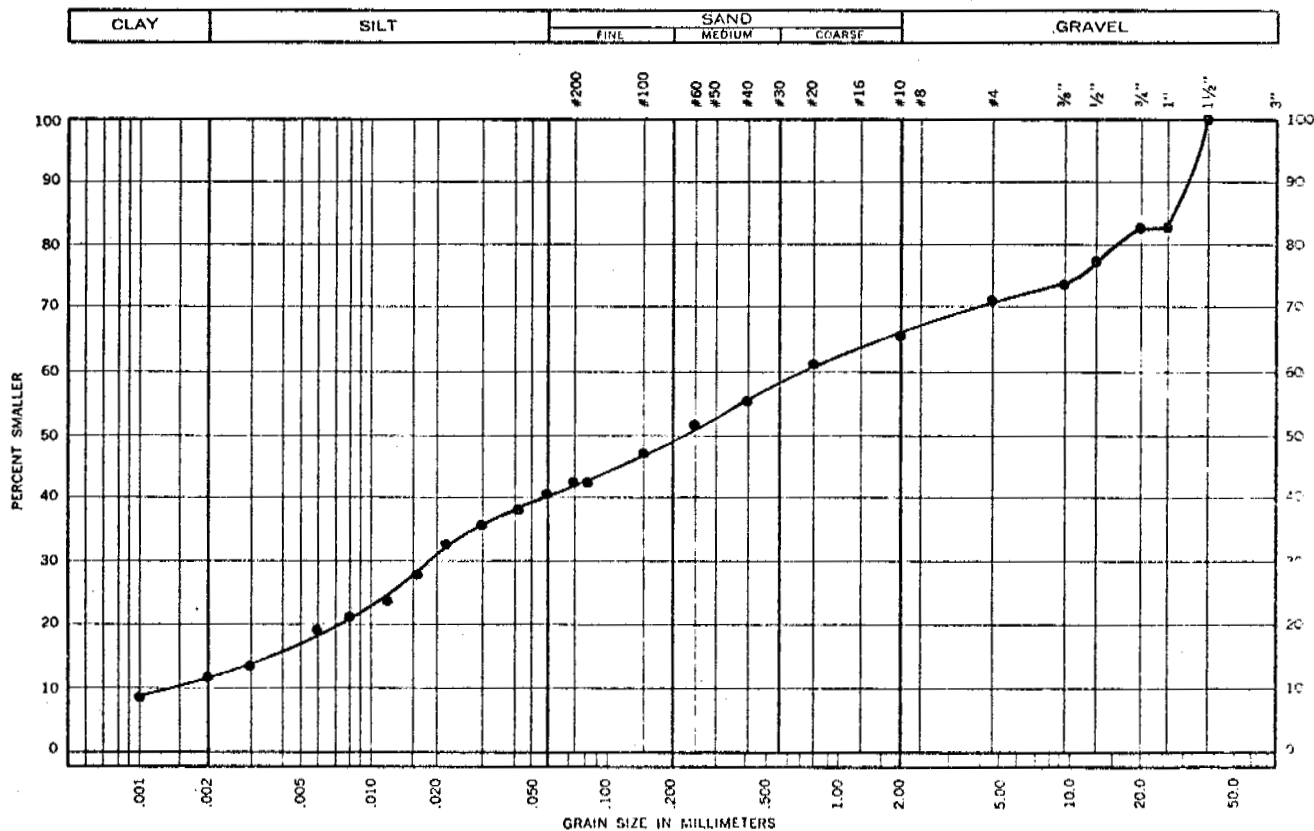
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL)
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR. 20/73
SAMPLE No. 700-C-8
DEPTH 10'

GRAIN SIZE DISTRIBUTION



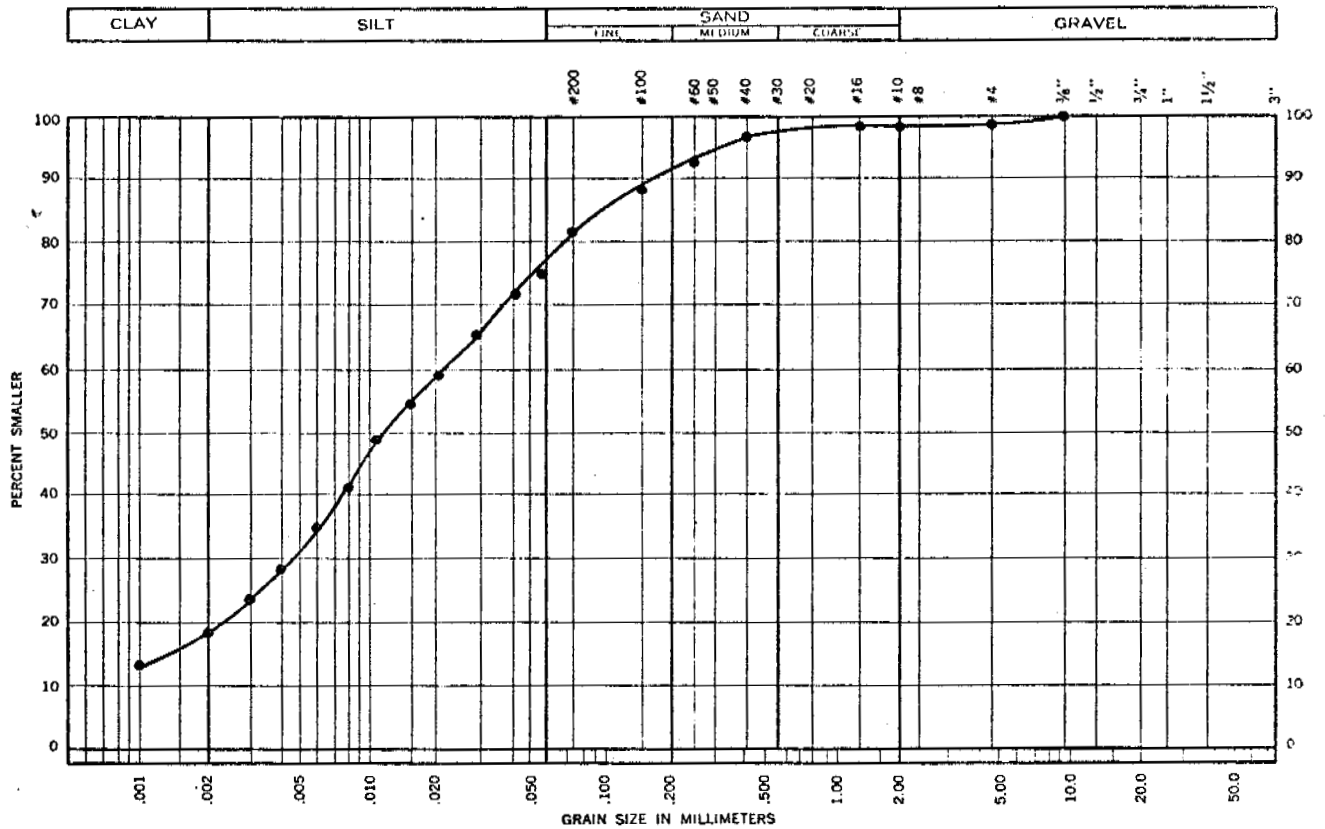
FIGURE



SAMPLE DESCRIPTION GRAVEL (TILL) SILTY
SANDY, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR. 20/73
SAMPLE No. 699-C-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



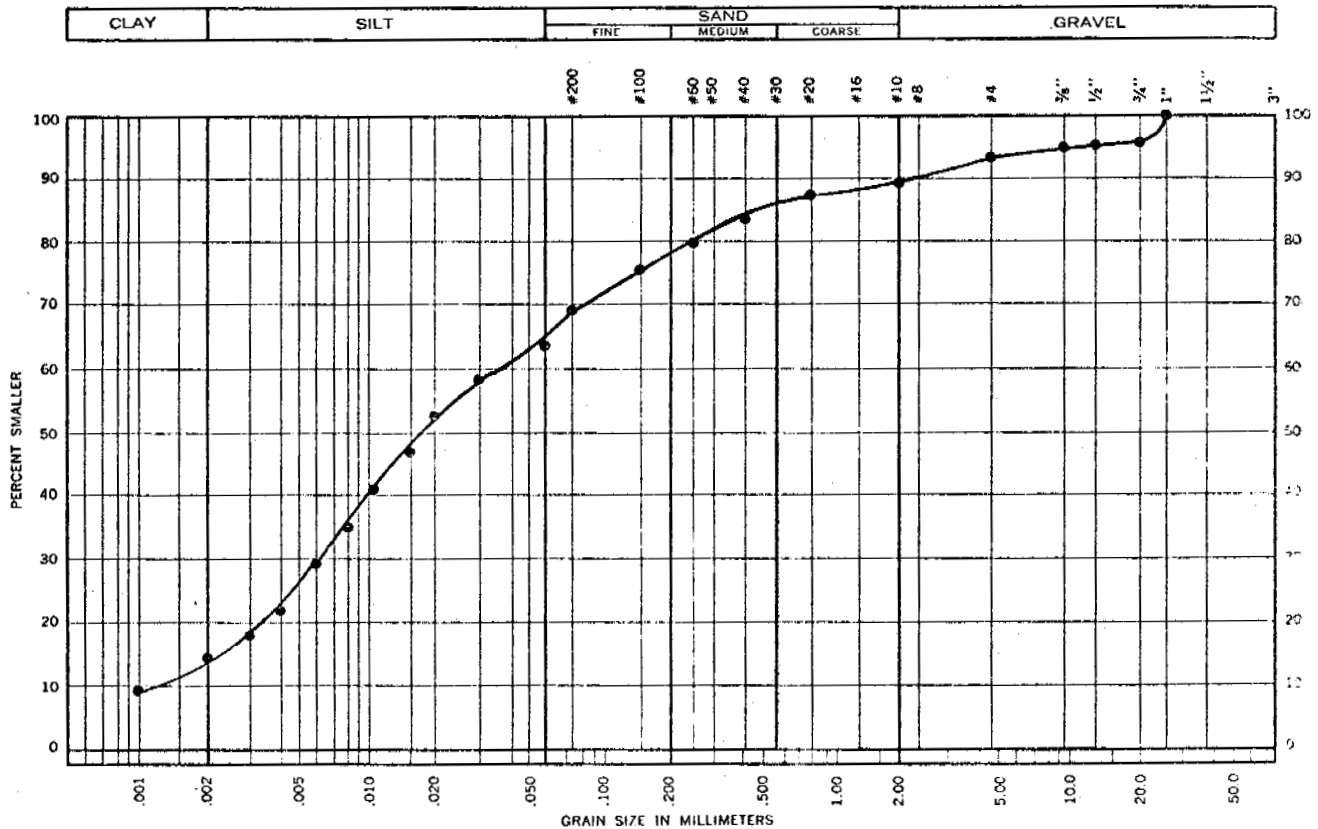
FIGURE



SAMPLE DESCRIPTION SILT (TILL) SANDY,
SOME CLAY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR 20/73
SAMPLE No. 698-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



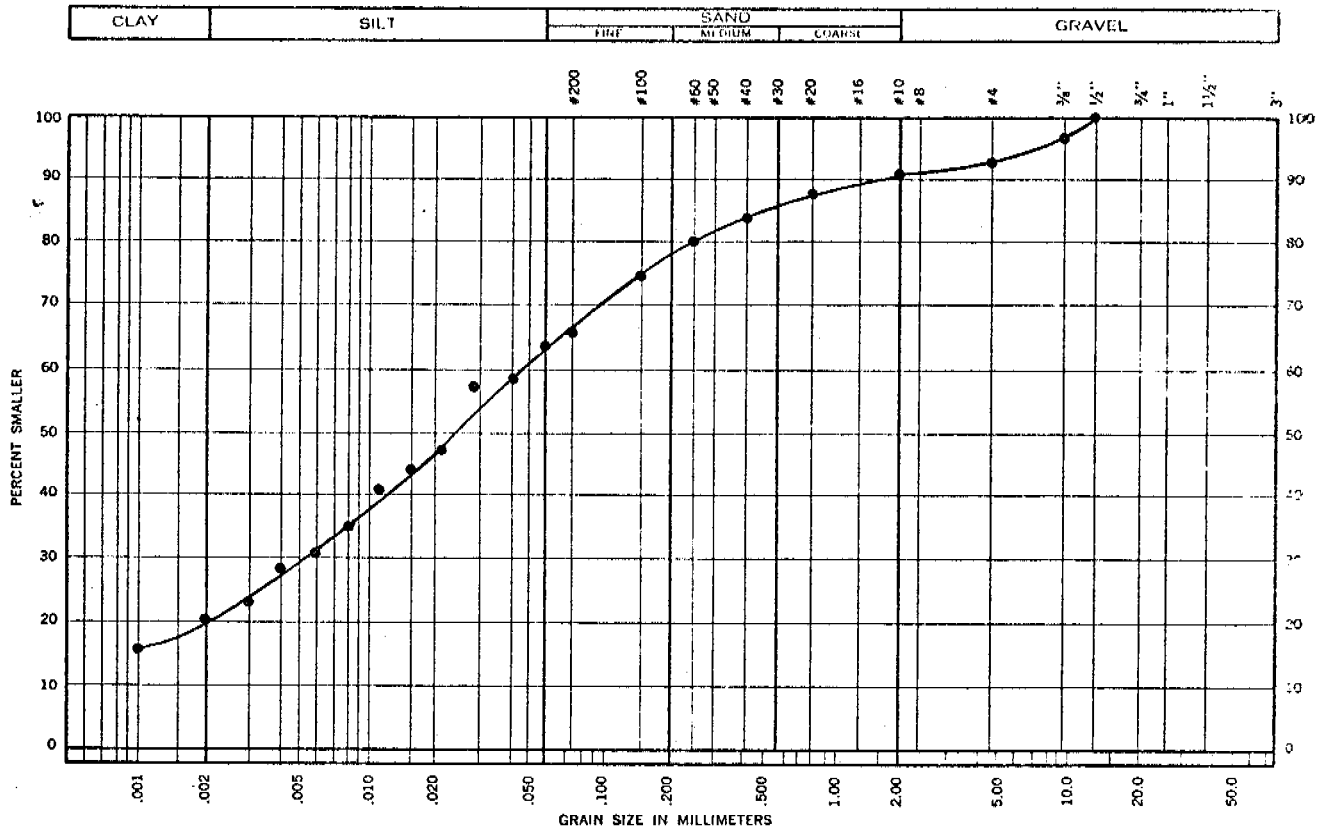
FIGURE



SAMPLE DESCRIPTION SILT (TILL) SANDY,
SOME CLAY, GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR 20/73
SAMPLE No. 697-C-2
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



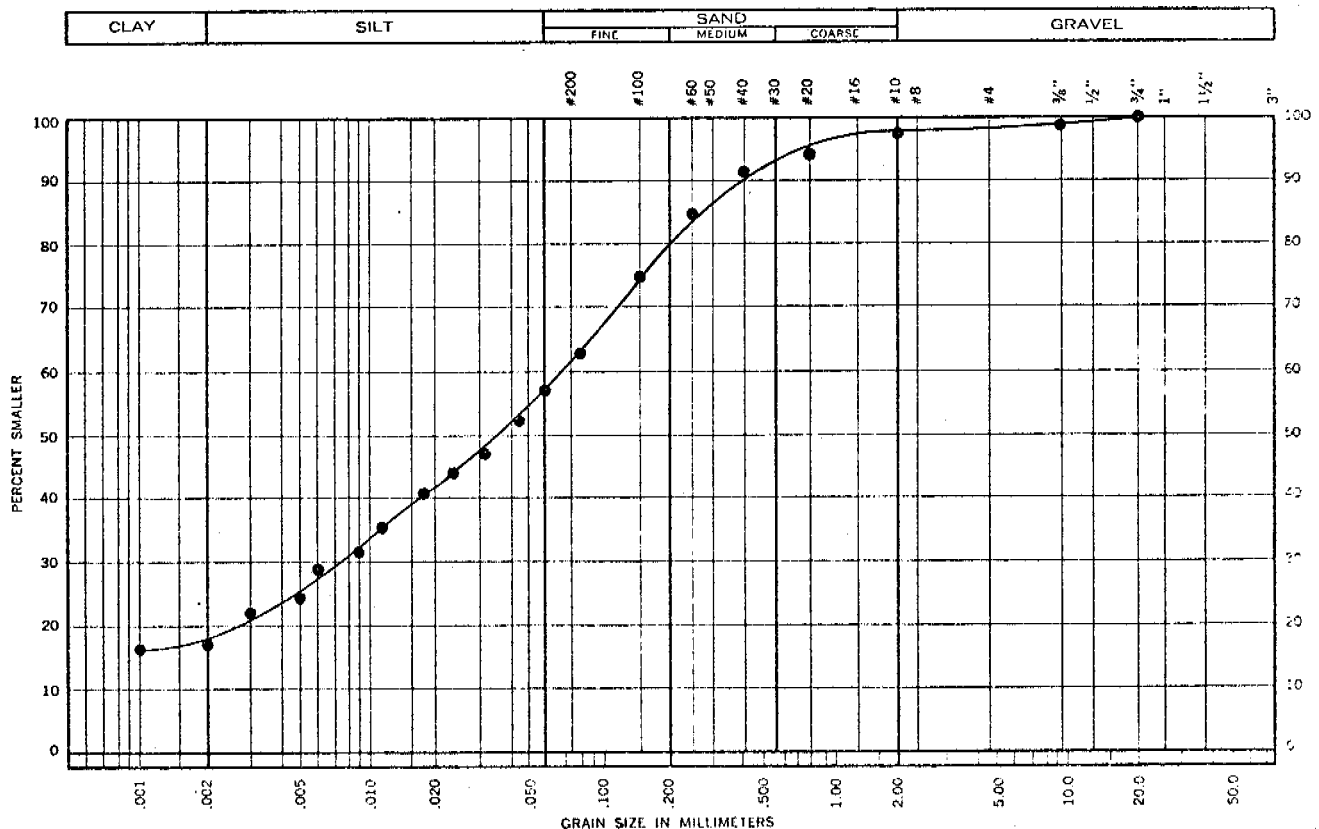
FIGURE



SAMPLE DESCRIPTION SILT (TILL), SANDY
CLAYEY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAR 20/73
SAMPLE No. 697-C-5
DEPTH 5'

GRAIN SIZE DISTRIBUTION



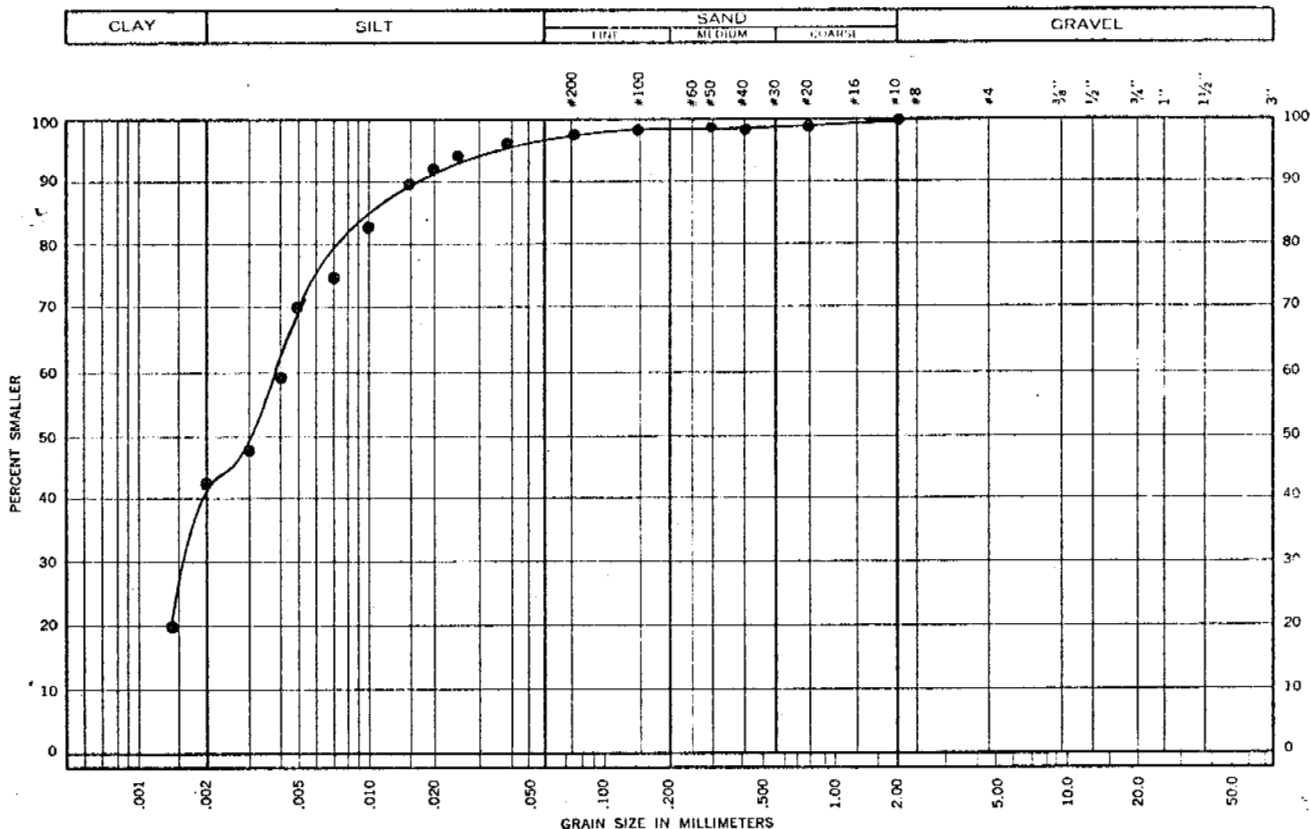
FIGURE



SAMPLE DESCRIPTION SAND, SILT, SOME
CLAY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 696-C-7
DEPTH 5'

GRAIN SIZE DISTRIBUTION



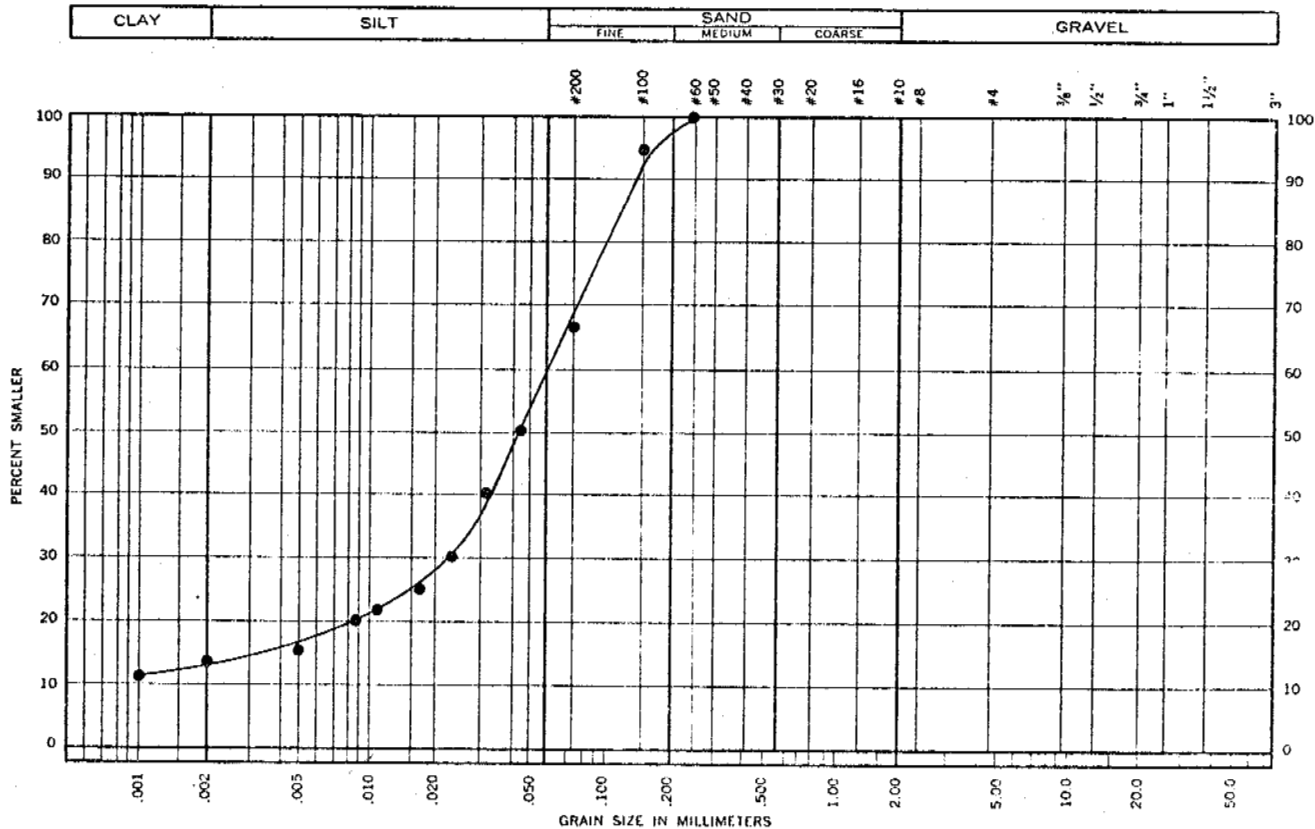
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 692-C-3
DEPTH 5'

GRAIN SIZE DISTRIBUTION



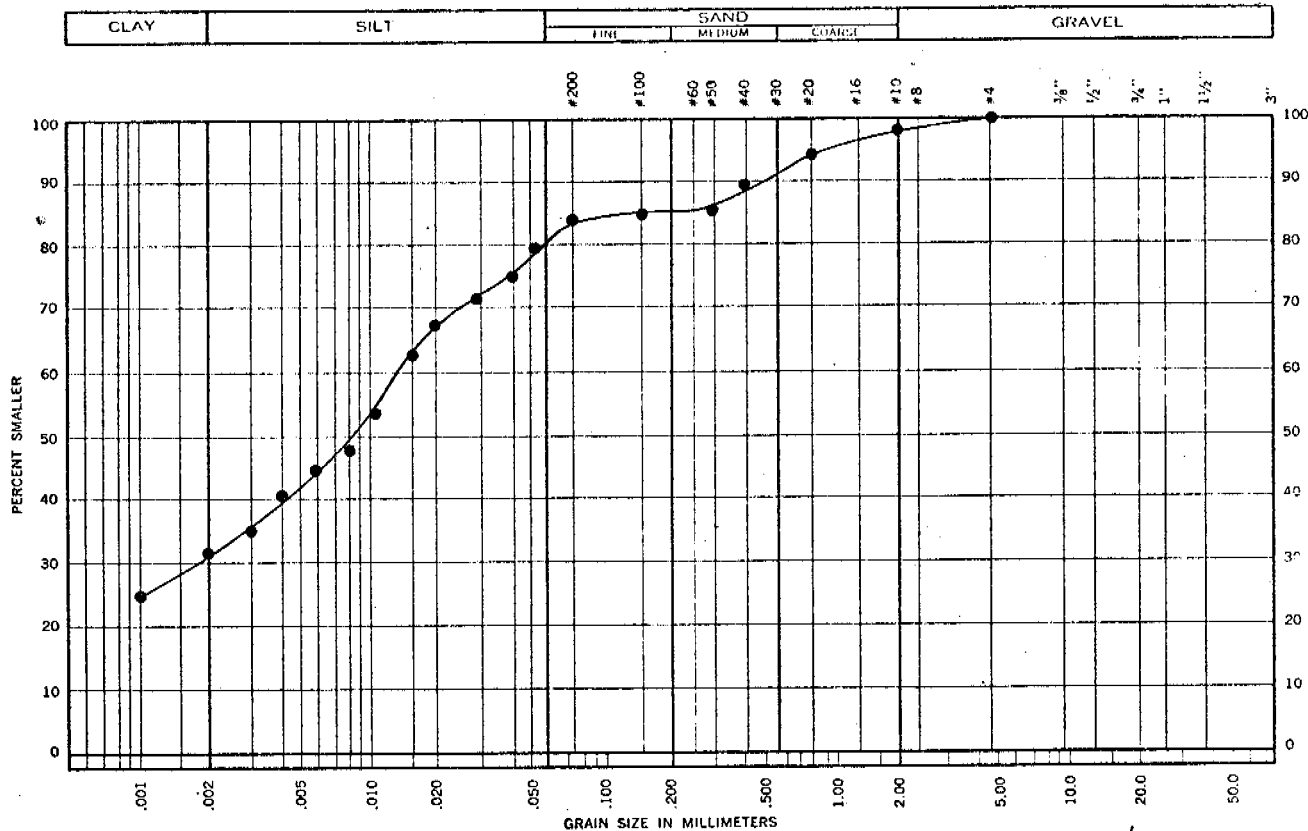
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 692-C-6
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

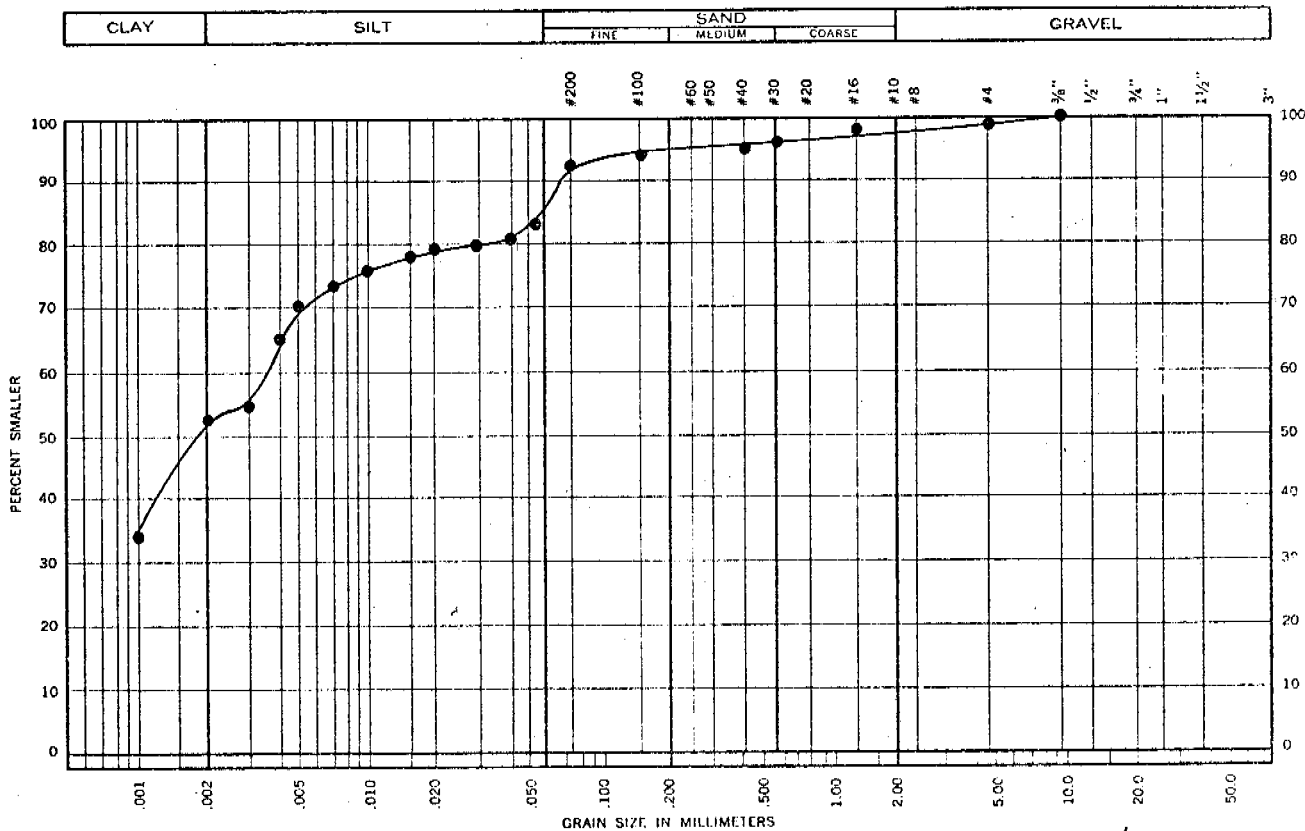


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY (TILL),
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. DATE APRIL 12/73
SAMPLE No. 691-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

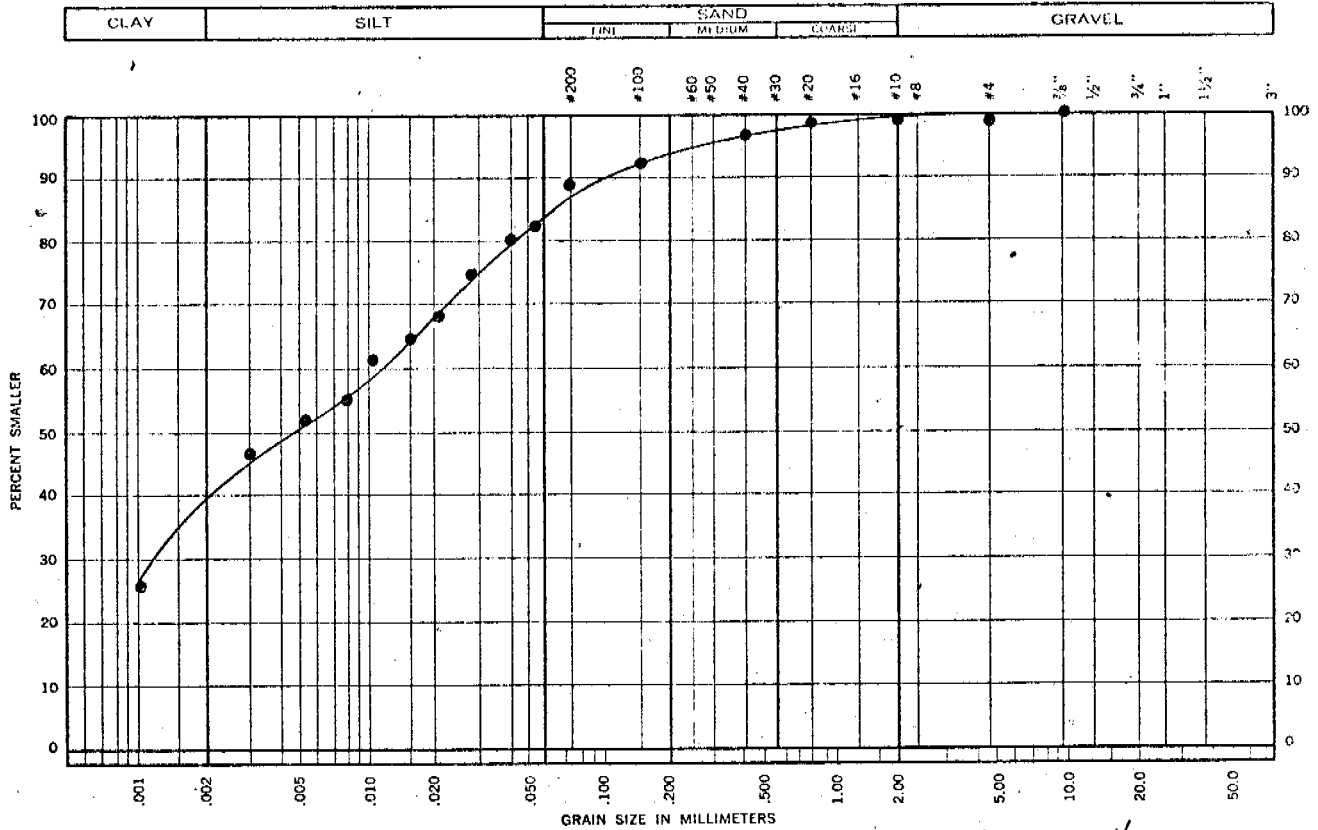


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY, SILTY, SOME
SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E517 DATE APRIL 12/73
SAMPLE No. 691-C-7
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

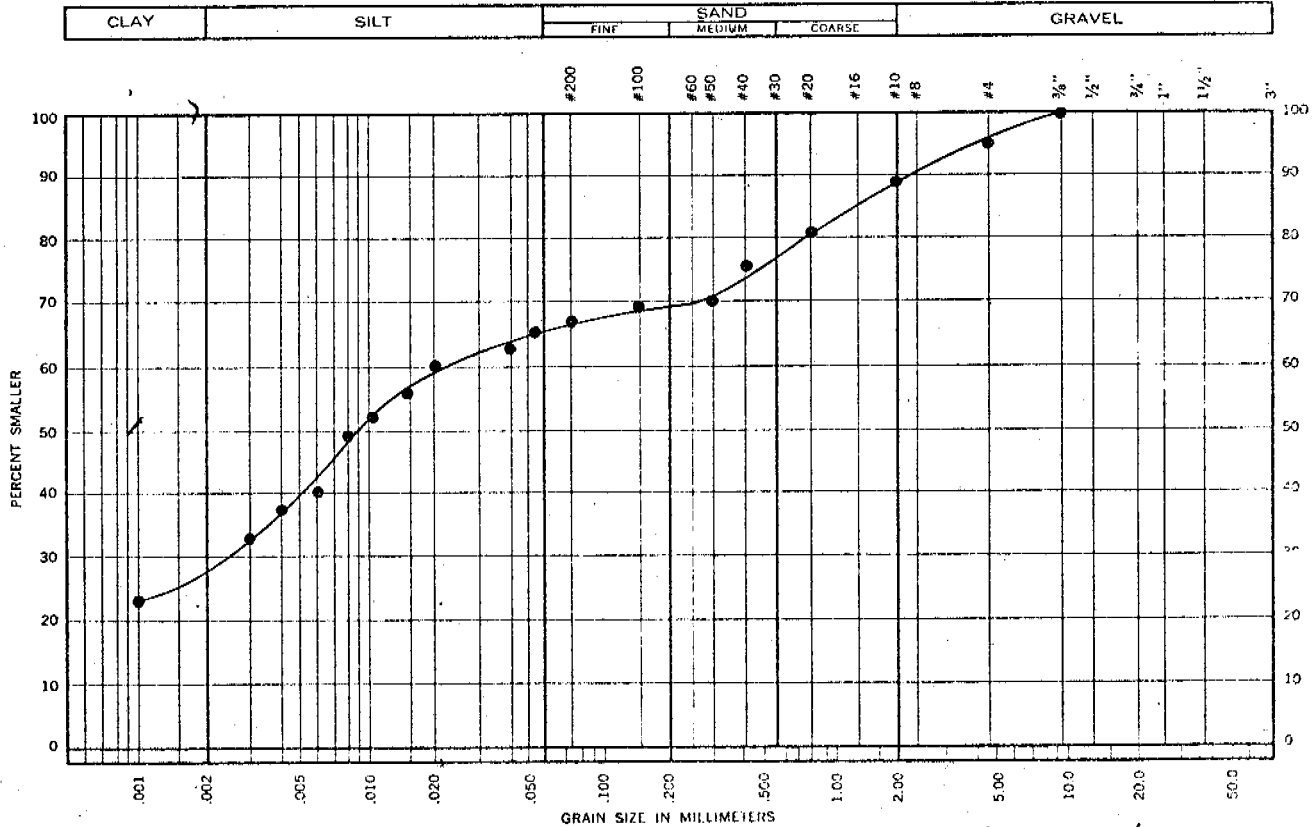


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 699-C-3
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT (FILL),
SANDY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 620-C-6
DEPTH 5'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



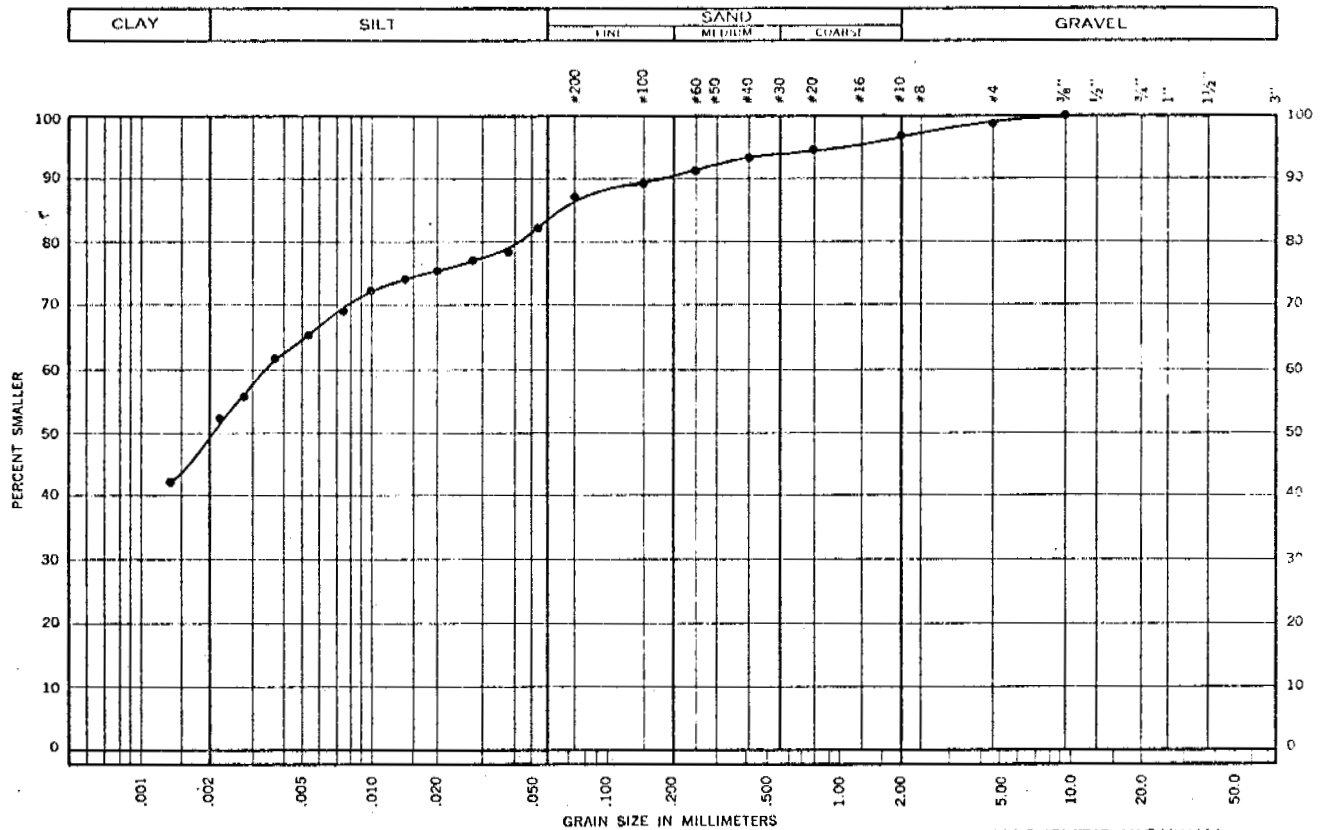
PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 688-C-6
DEPTH 5'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 687-C-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



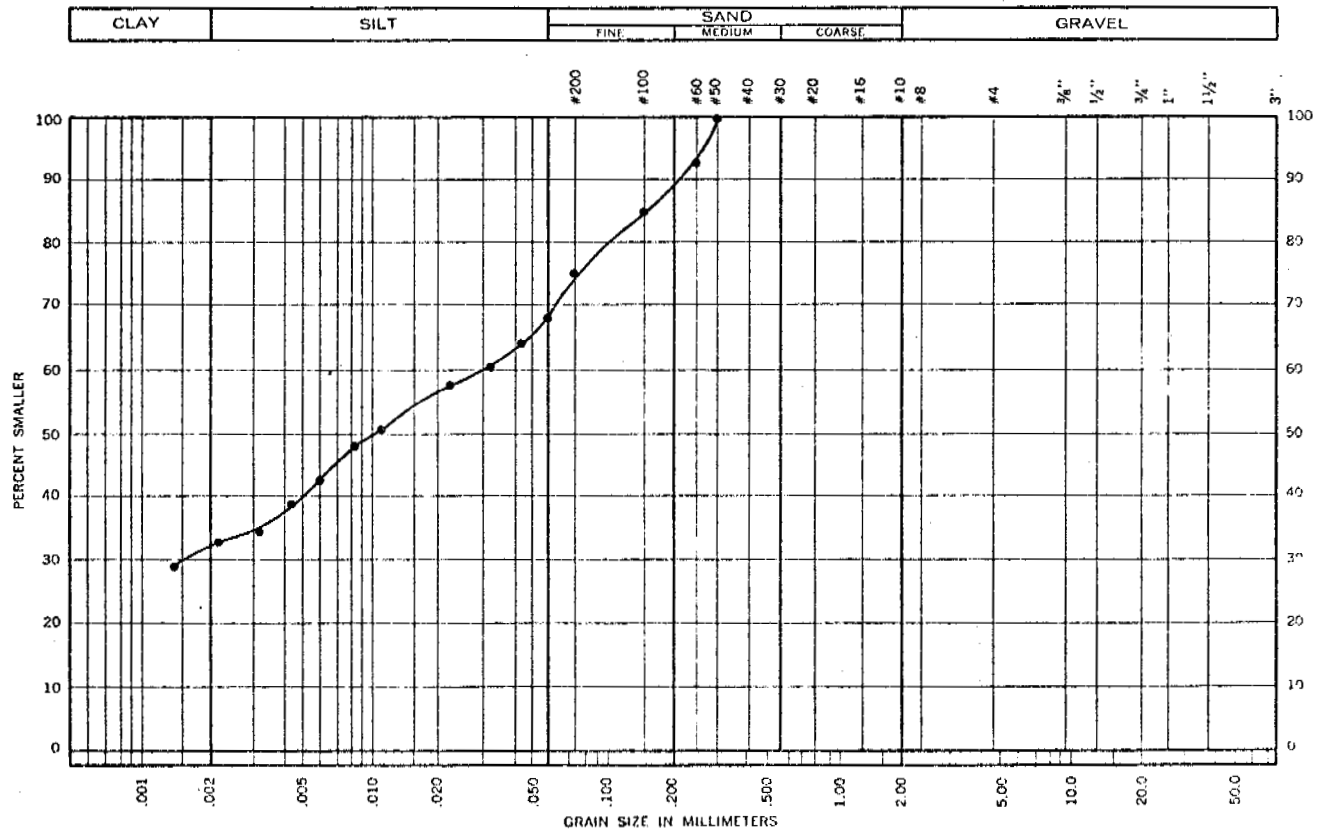
FIGURE



SAMPLE DESCRIPTION SILTY CLAY
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 686-C-2
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



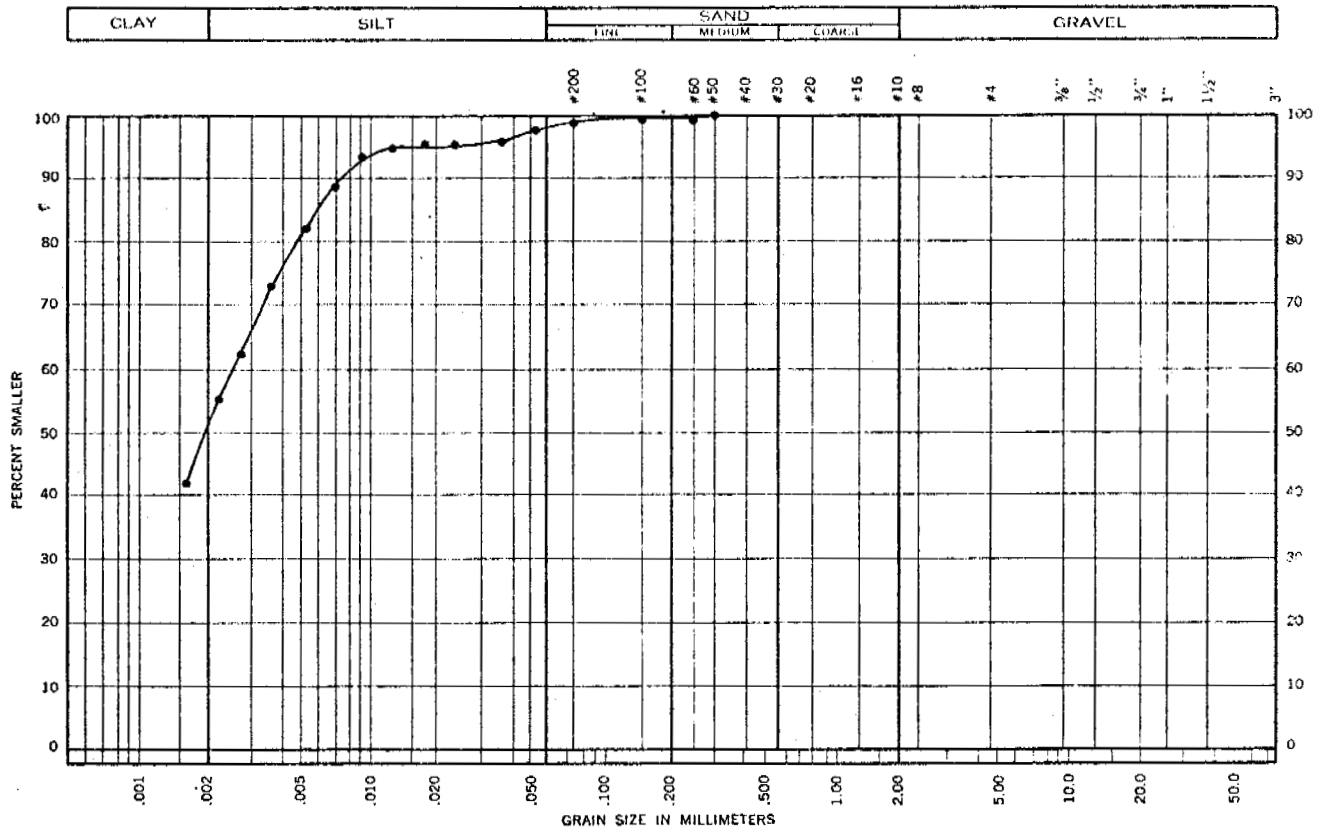
FIGURE



SAMPLE DESCRIPTION CLAY, SANDY, SILTY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 685-C-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



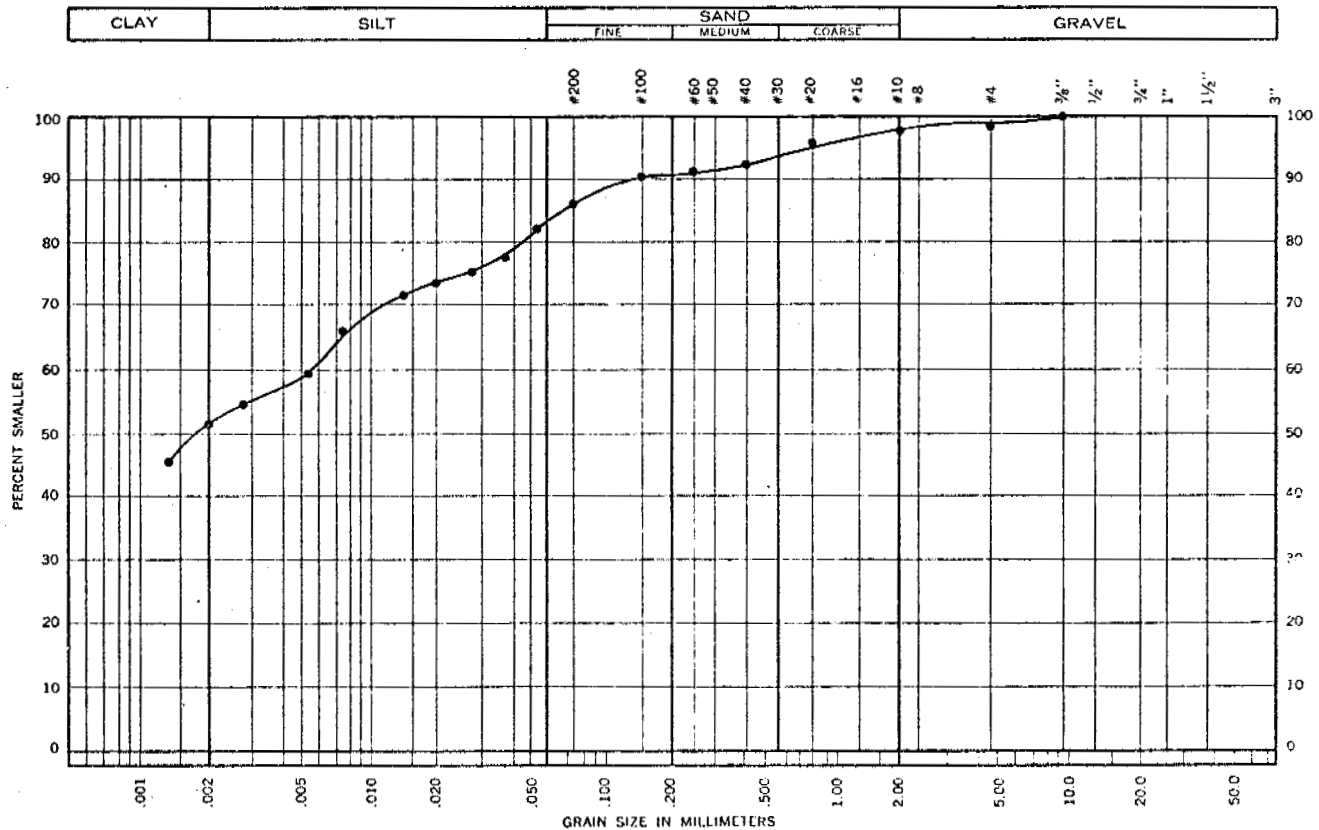
FIGURE



SAMPLE DESCRIPTION SILTY CLAY, (SHALE)
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 684-C-3
DEPTH 10'

GRAIN SIZE DISTRIBUTION



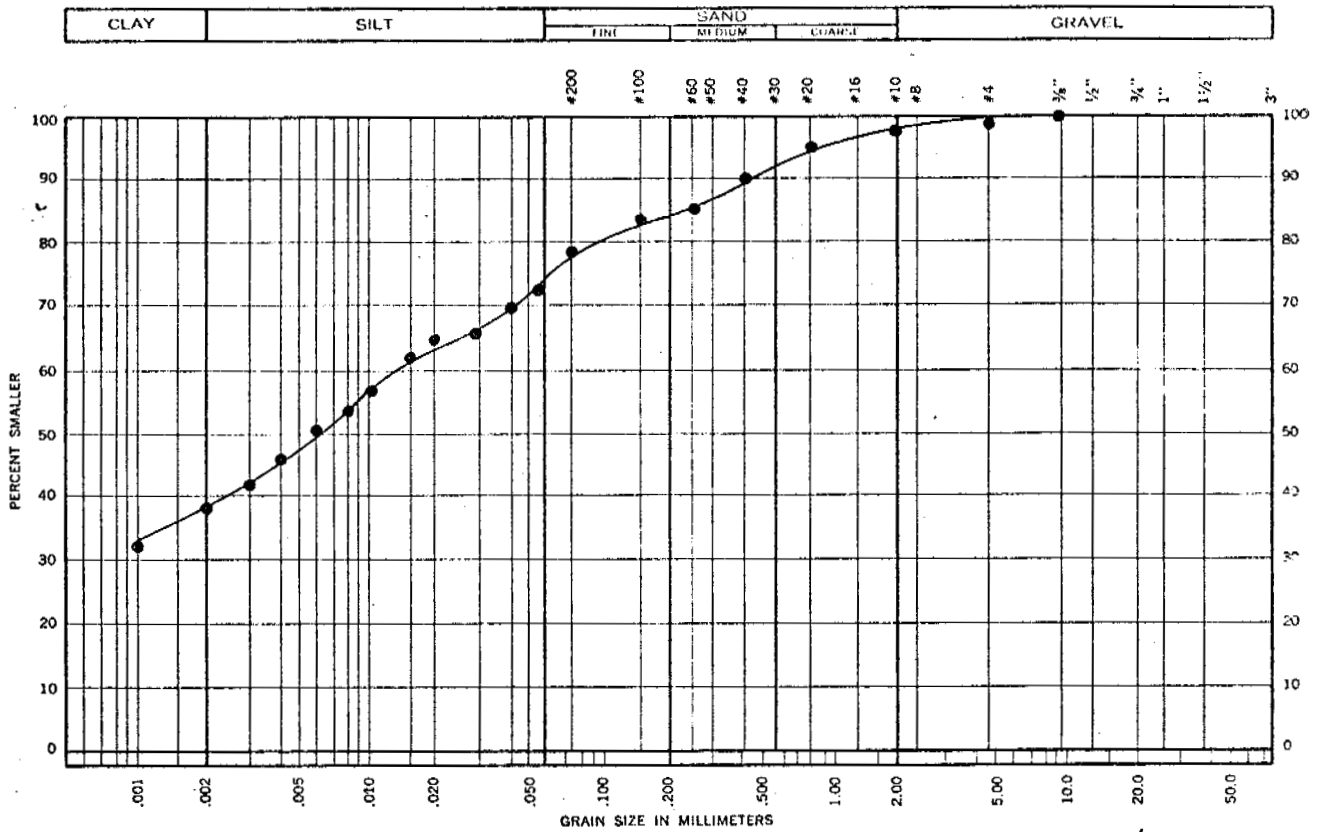
FIGURE



SAMPLE DESCRIPTION SILTY CLAY, SOME
SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 7/73
SAMPLE No. 680-C-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



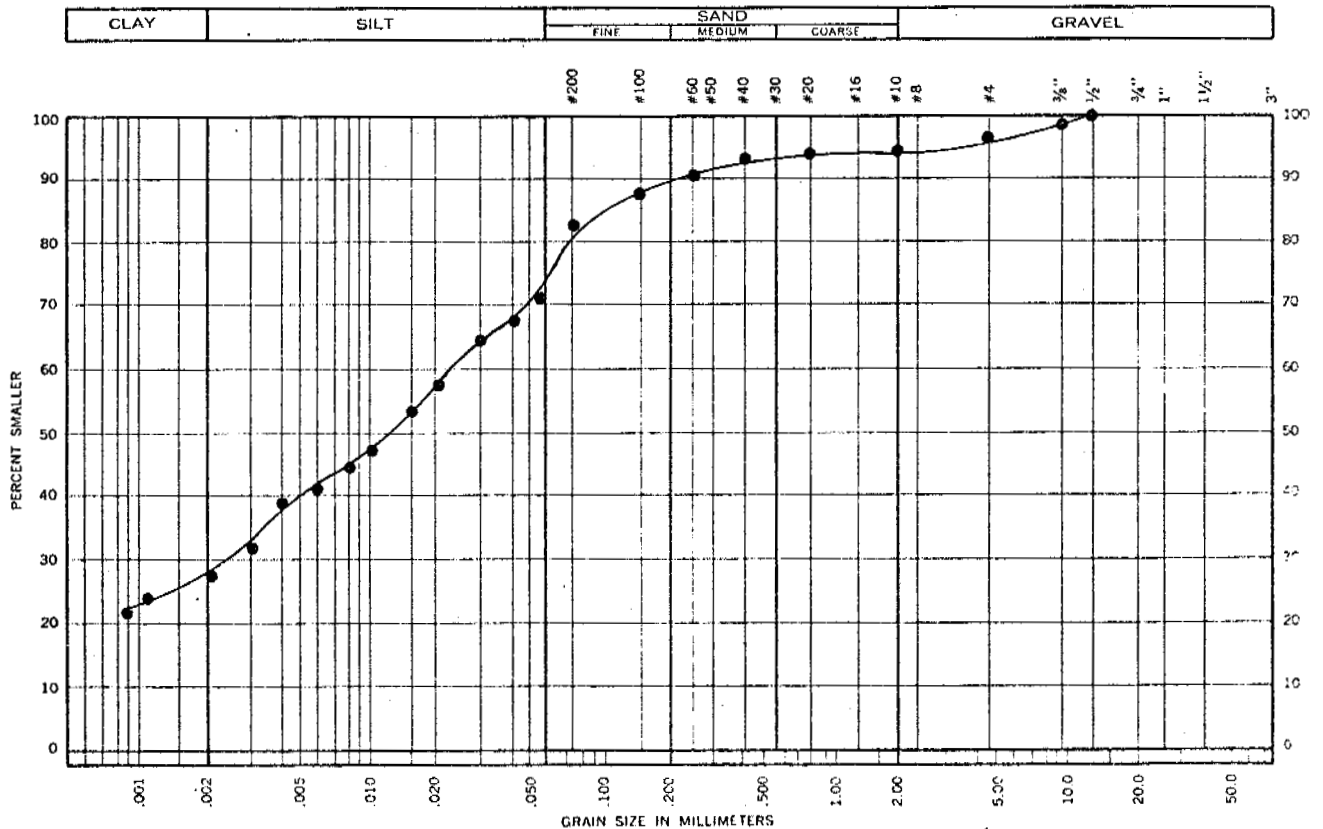
FIGURE



SAMPLE DESCRIPTION SILTY SANDY CLAY
TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 67B-C-7
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



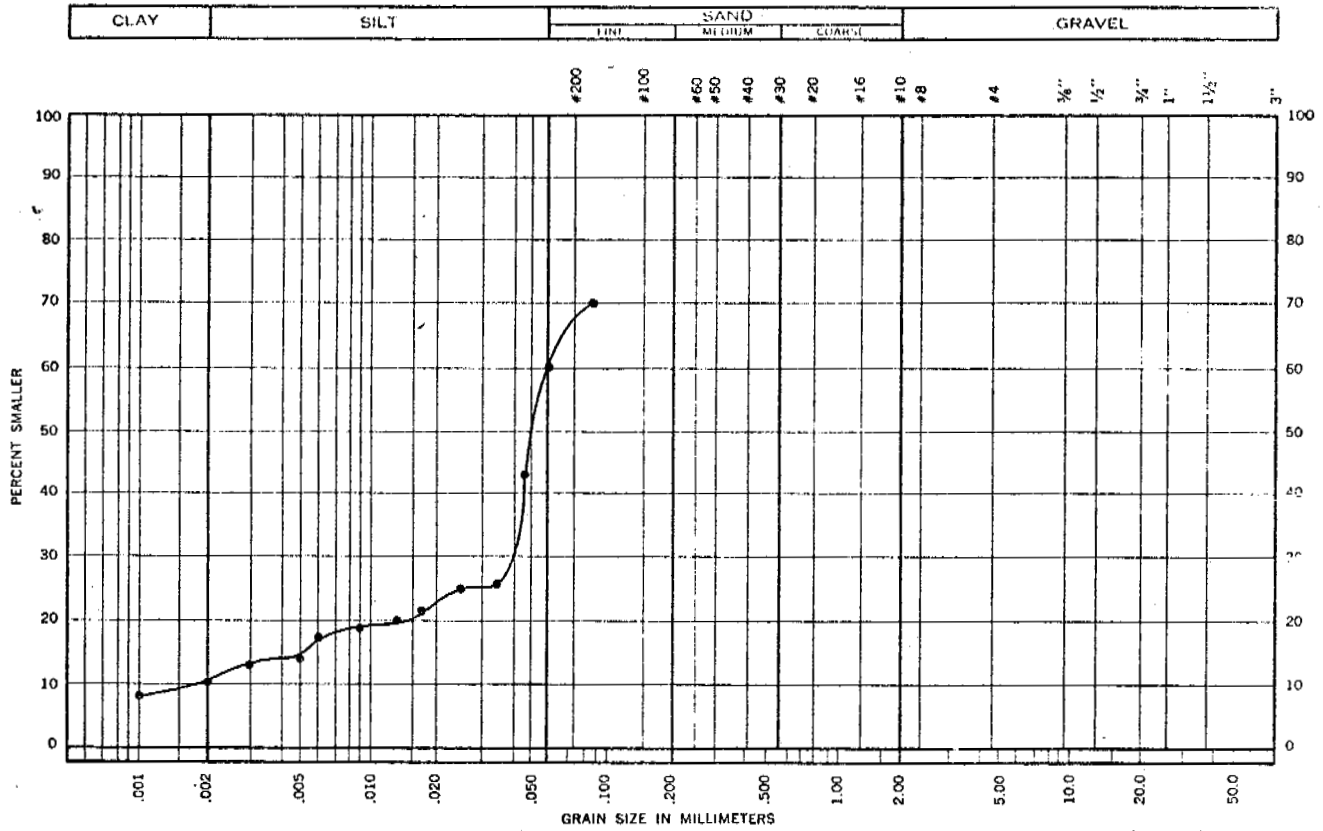
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL)
SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 675-4-C
DEPTH 5'

GRAIN SIZE DISTRIBUTION



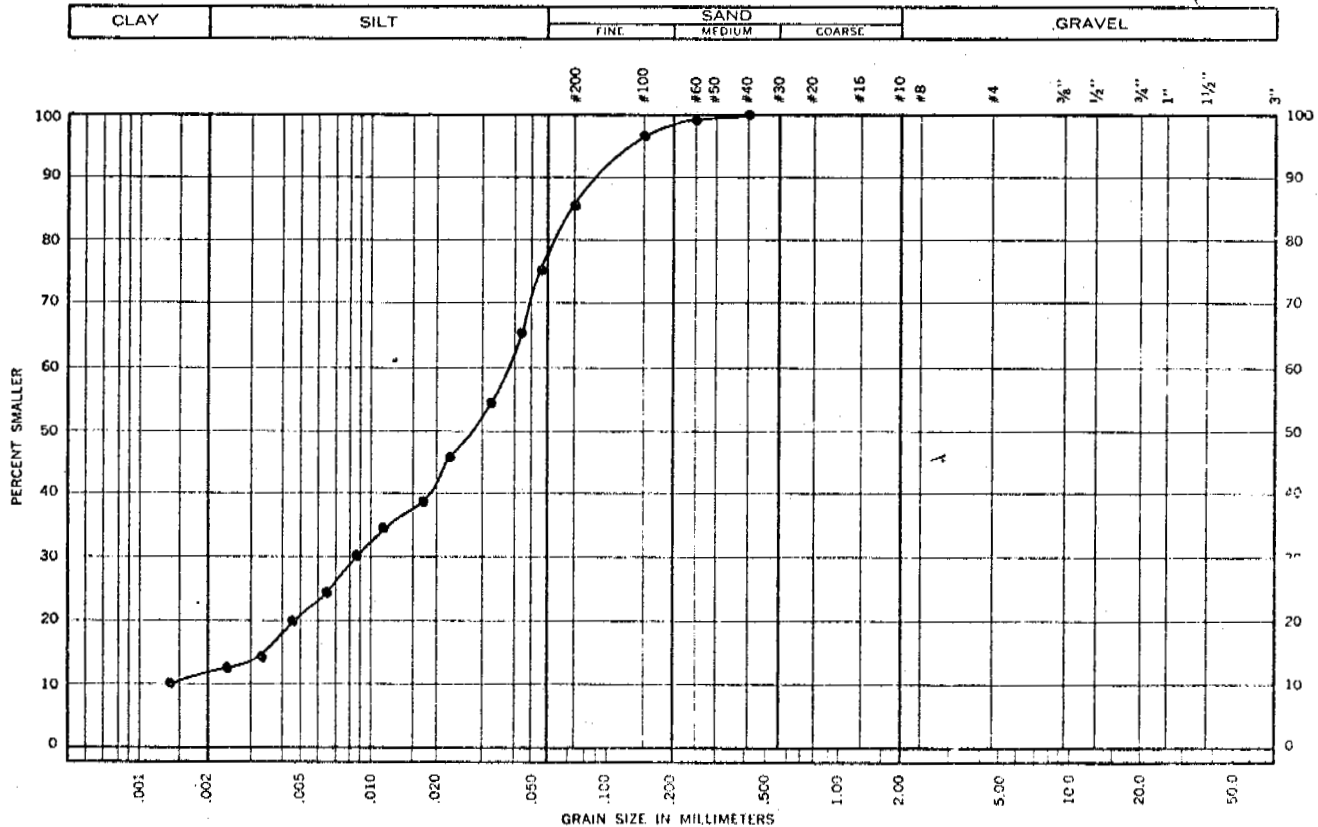
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 674-C-4
DEPTH 15'

GRAIN SIZE DISTRIBUTION



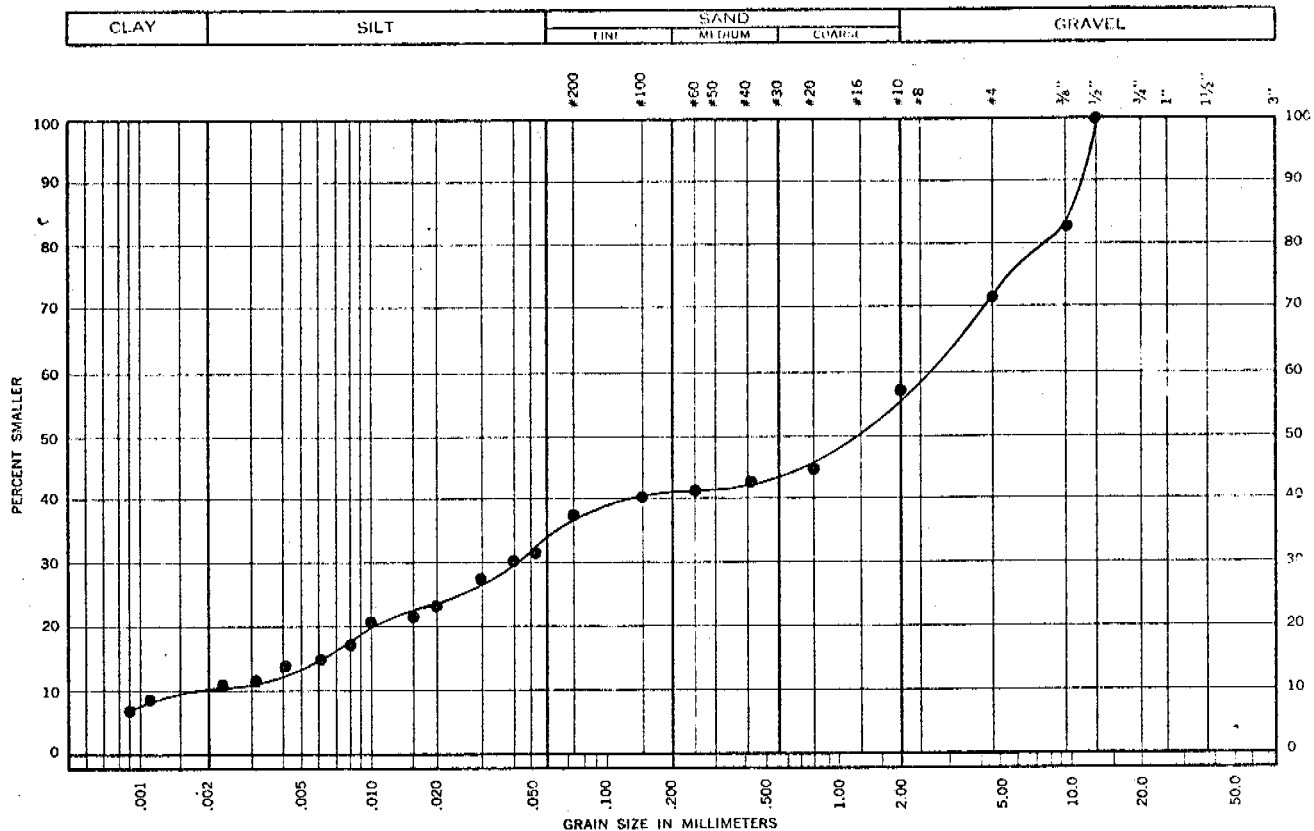
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 23/73
SAMPLE No. 674-C-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

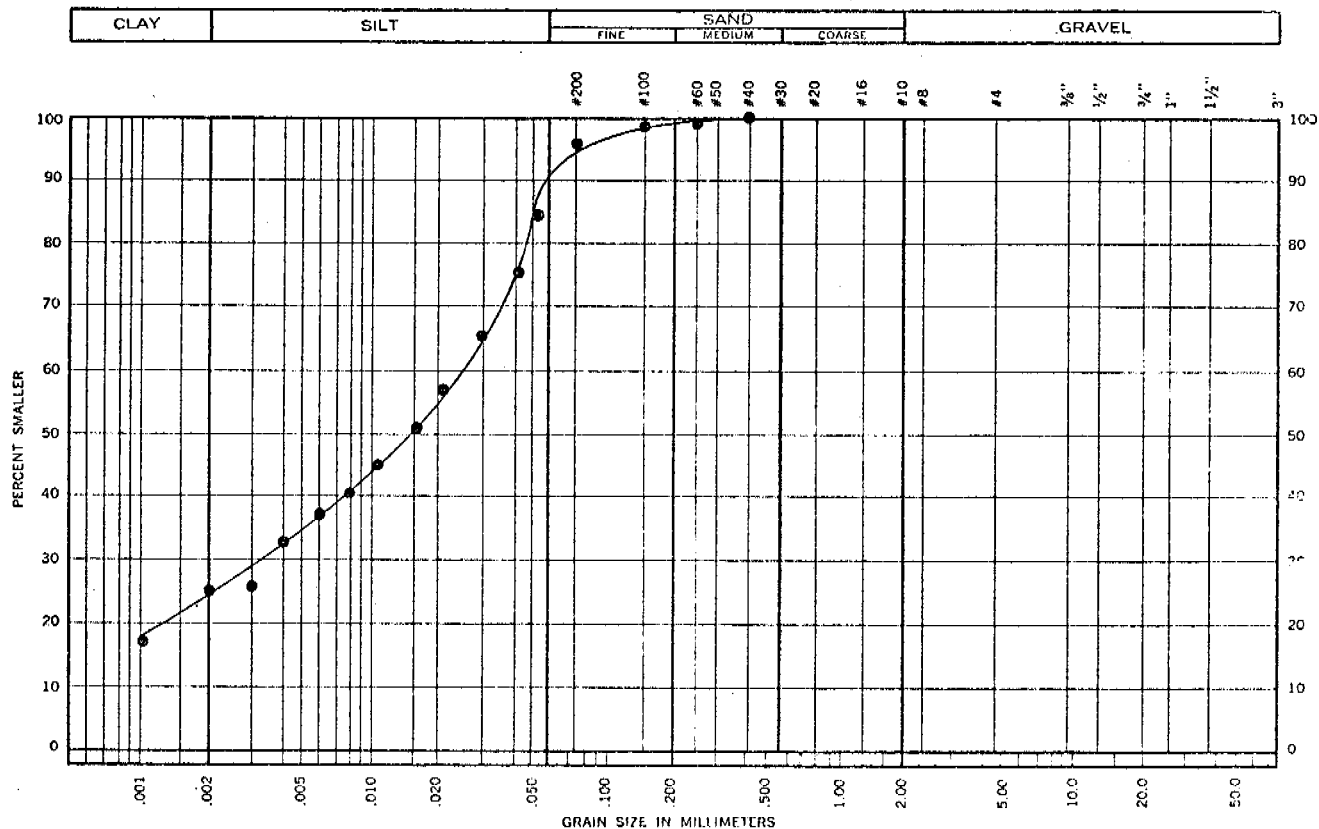


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY SANDY GRAVEL (TLL)
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 673-C-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

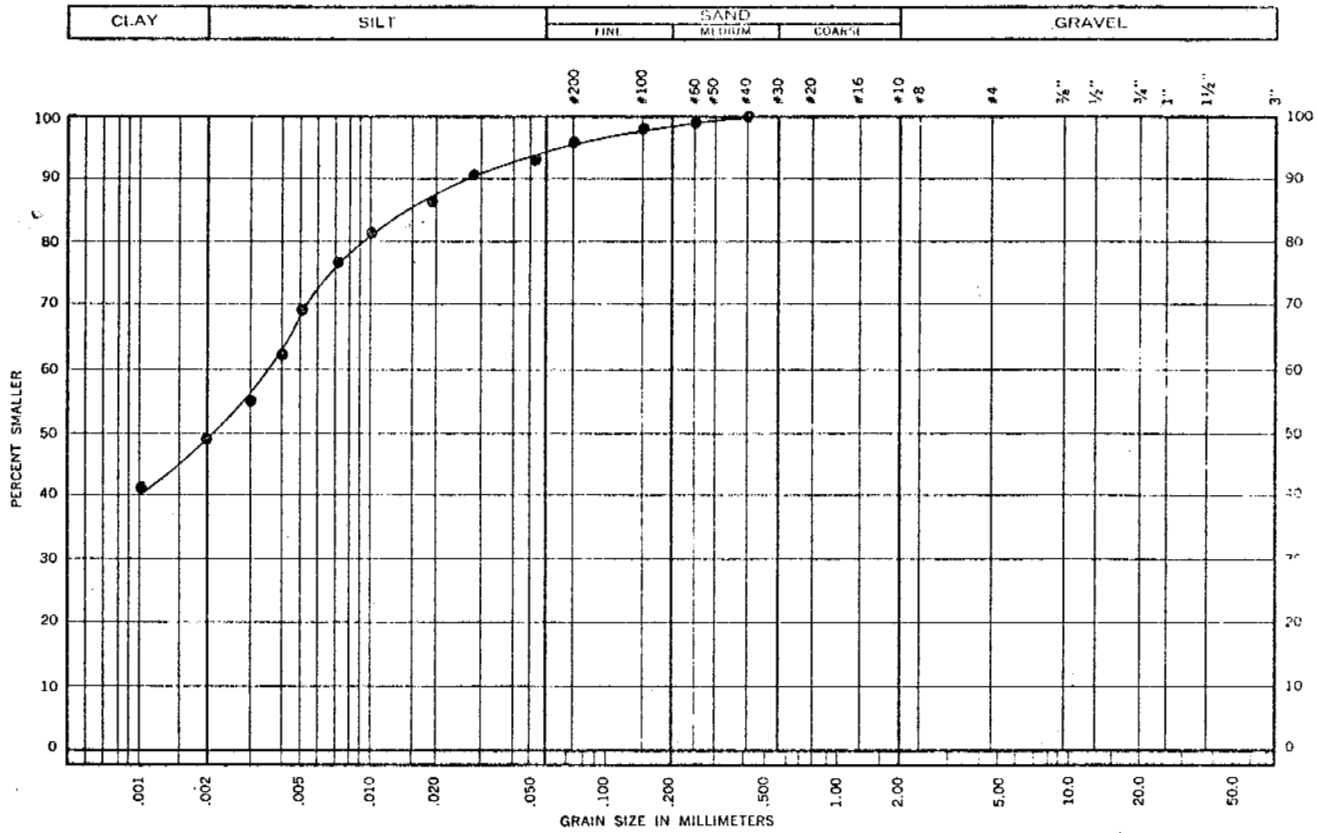


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SOME
SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 673-C-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



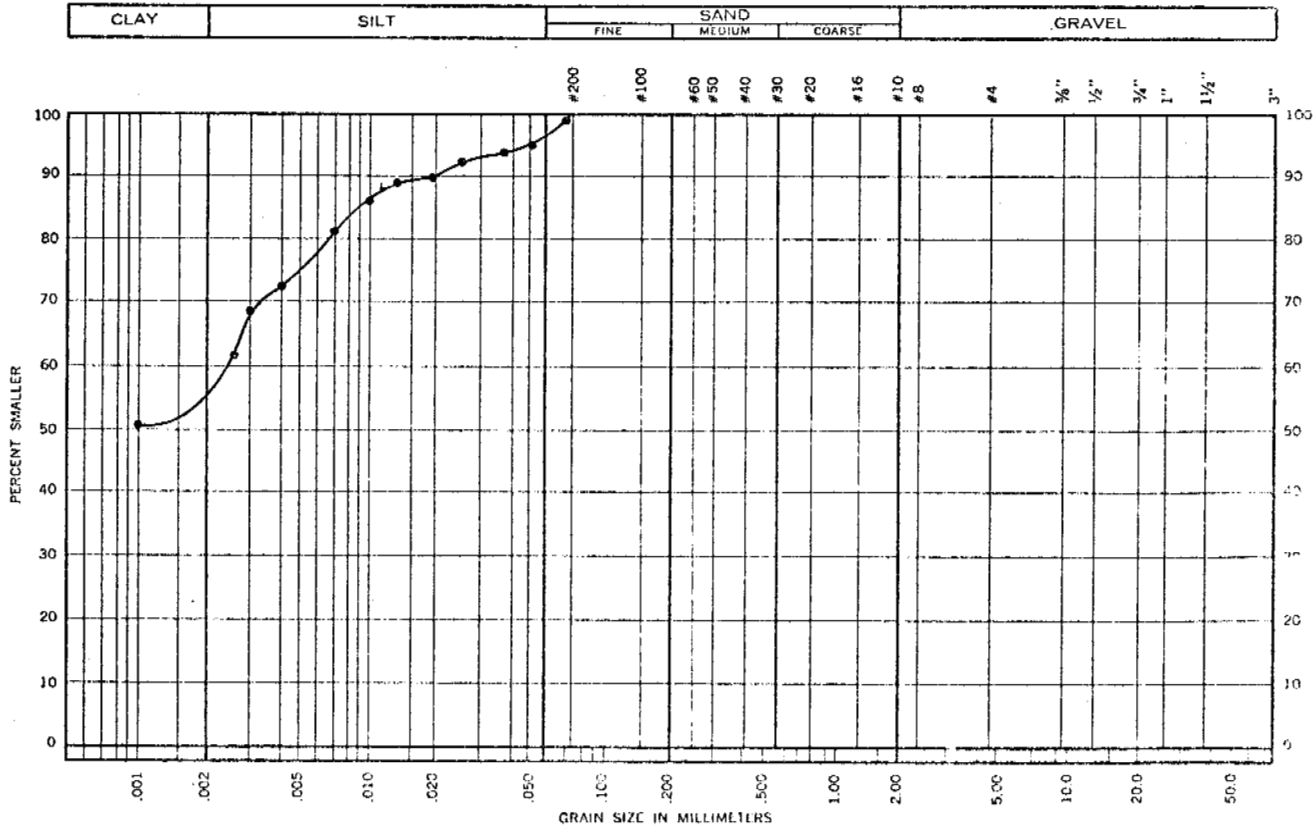
FIGURE



SAMPLE DESCRIPTION SILTY CLAY, TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 16/73
 SAMPLE No. 673-C-8
 DEPTH 10

GRAIN SIZE DISTRIBUTION



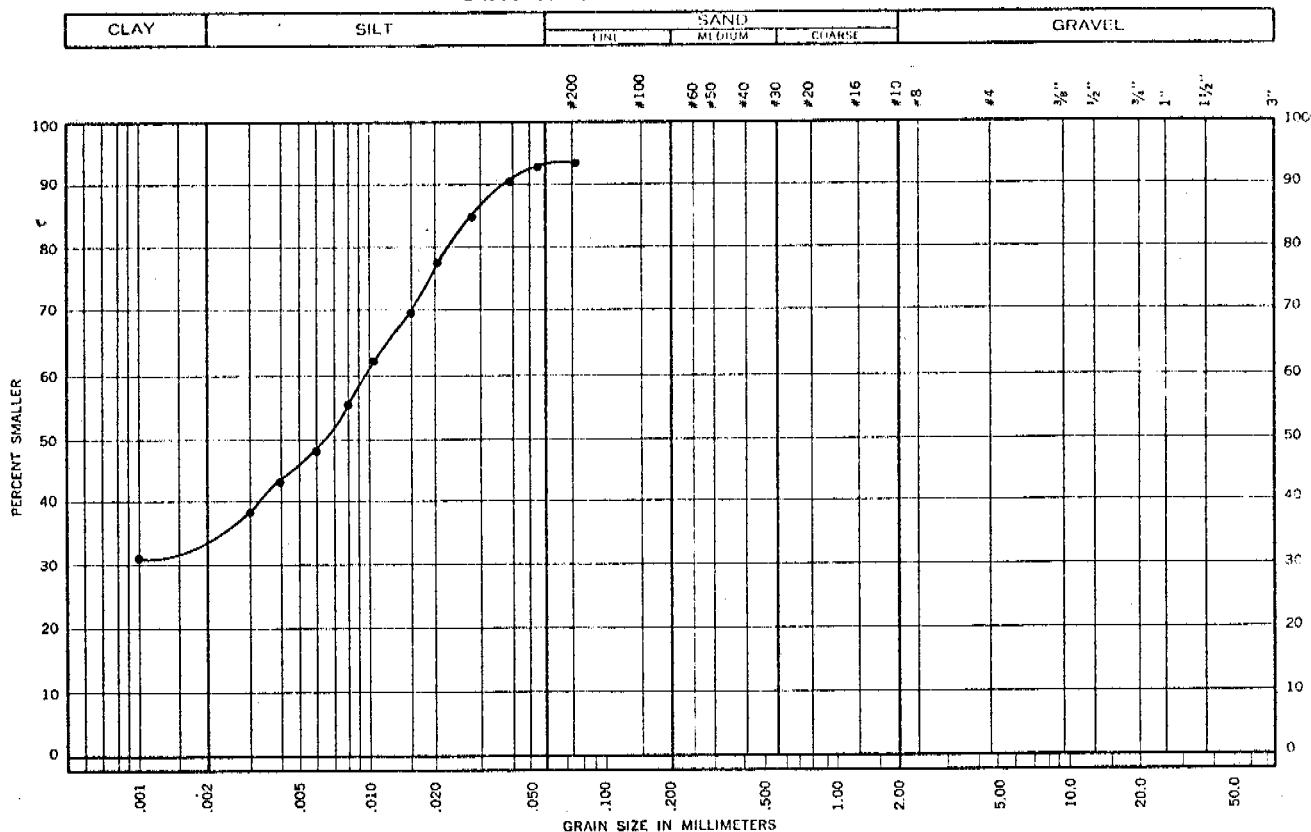
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY, TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 671-C-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY, SILTY,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-51Z DATE April 5/73
SAMPLE No. 670-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

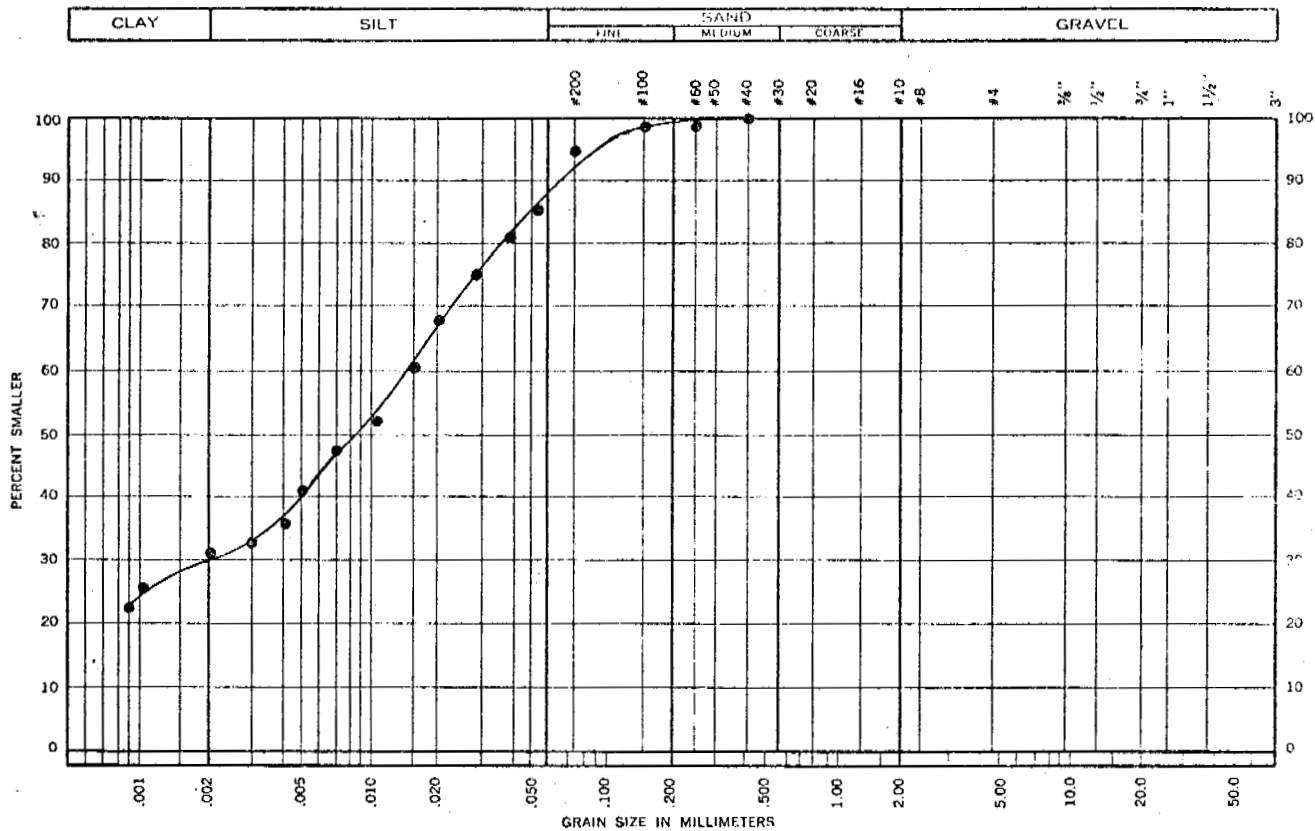


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY, SILTY, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-51Z DATE April 5/73
SAMPLE No. 670-C-6
DEPTH 2'

GRAIN SIZE DISTRIBUTION



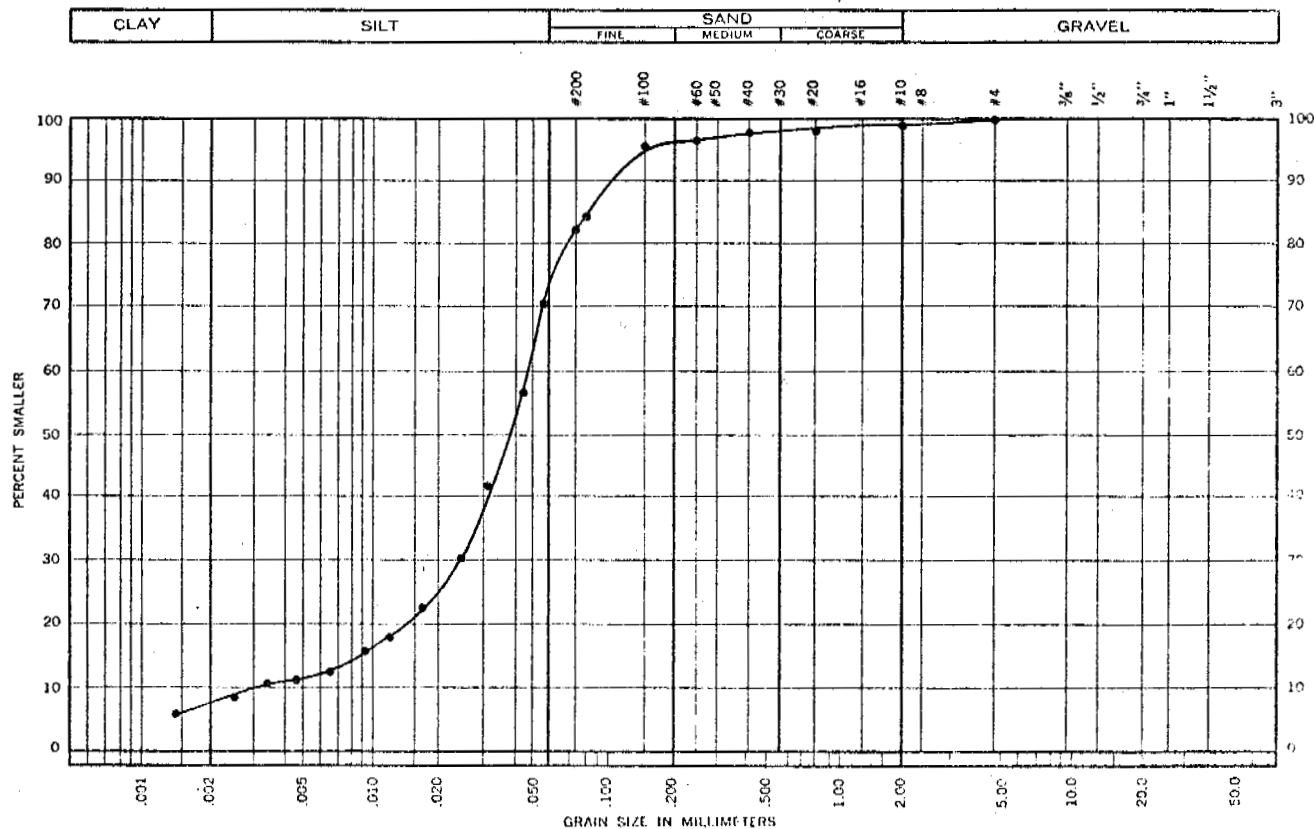
FIGURE



SAMPLE DESCRIPTION CLAY - SILT, SOME SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 12/73
 SAMPLE No. 669-C-4
 DEPTH 5

GRAIN SIZE DISTRIBUTION



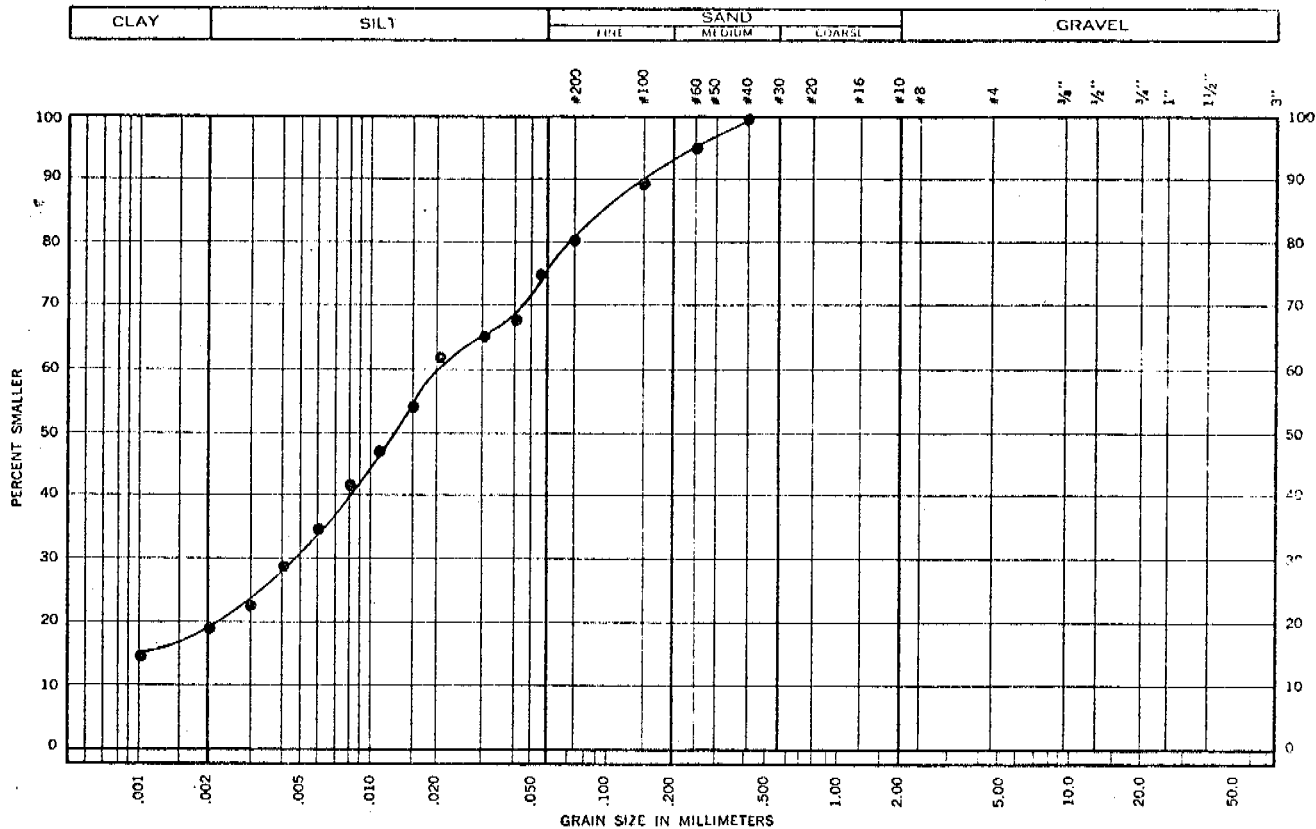
FIGURE



SAMPLE DESCRIPTION SANDY, SILT, TRACE OF CLAY, GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE MARCH 29/73
 SAMPLE No. 668-C-5
 DEPTH 5

GRAIN SIZE DISTRIBUTION



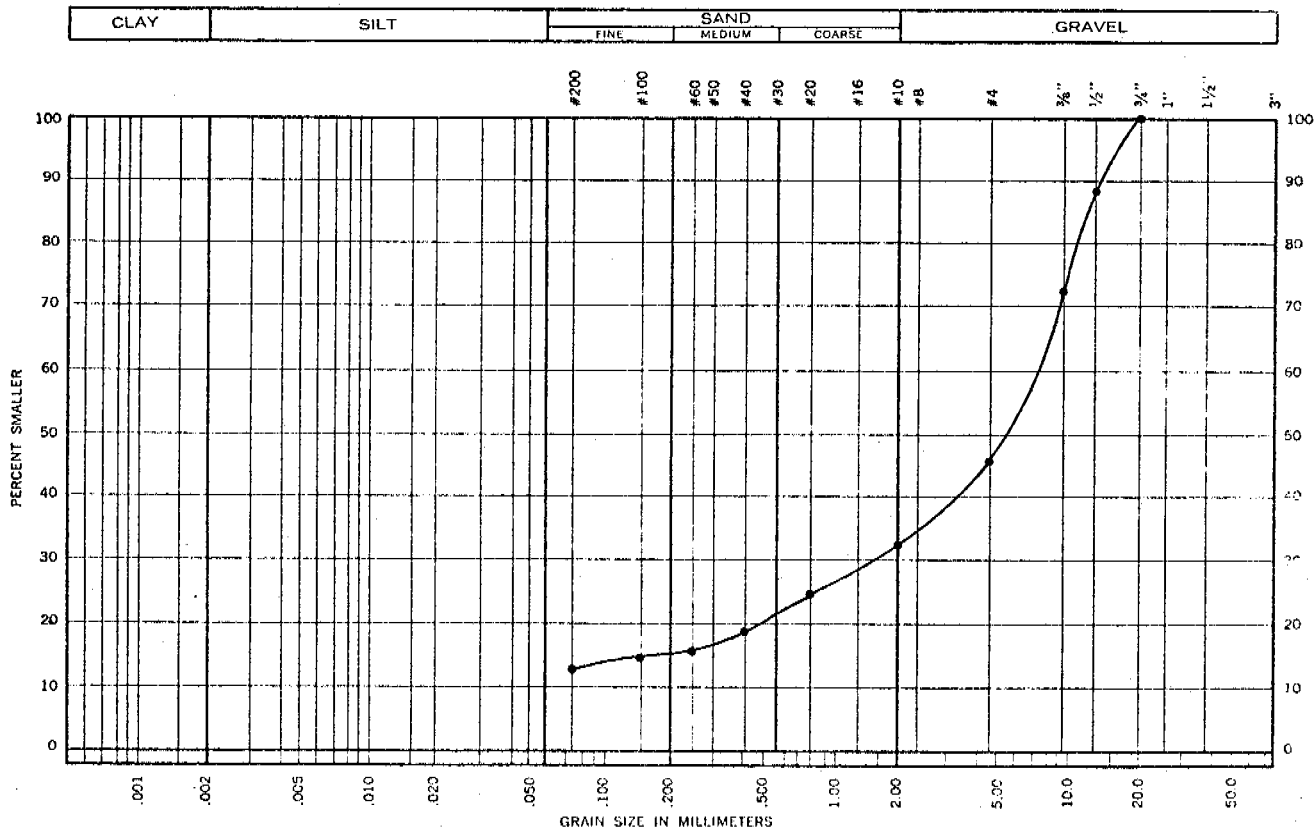
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME CLAY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 12/73
 SAMPLE No. 668-C-7
 DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



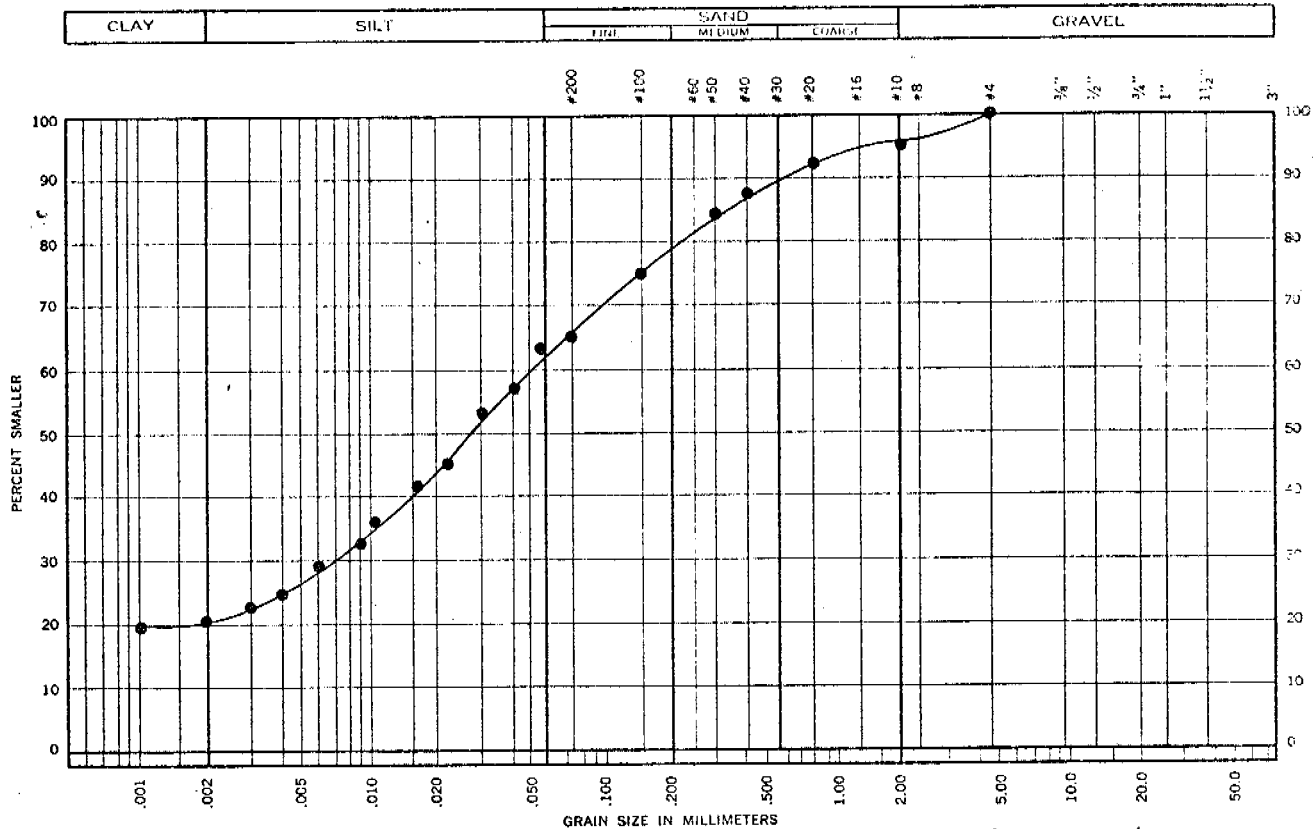
FIGURE



SAMPLE DESCRIPTION GRAVEL, SOME SAND & SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 667-C-3
 DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

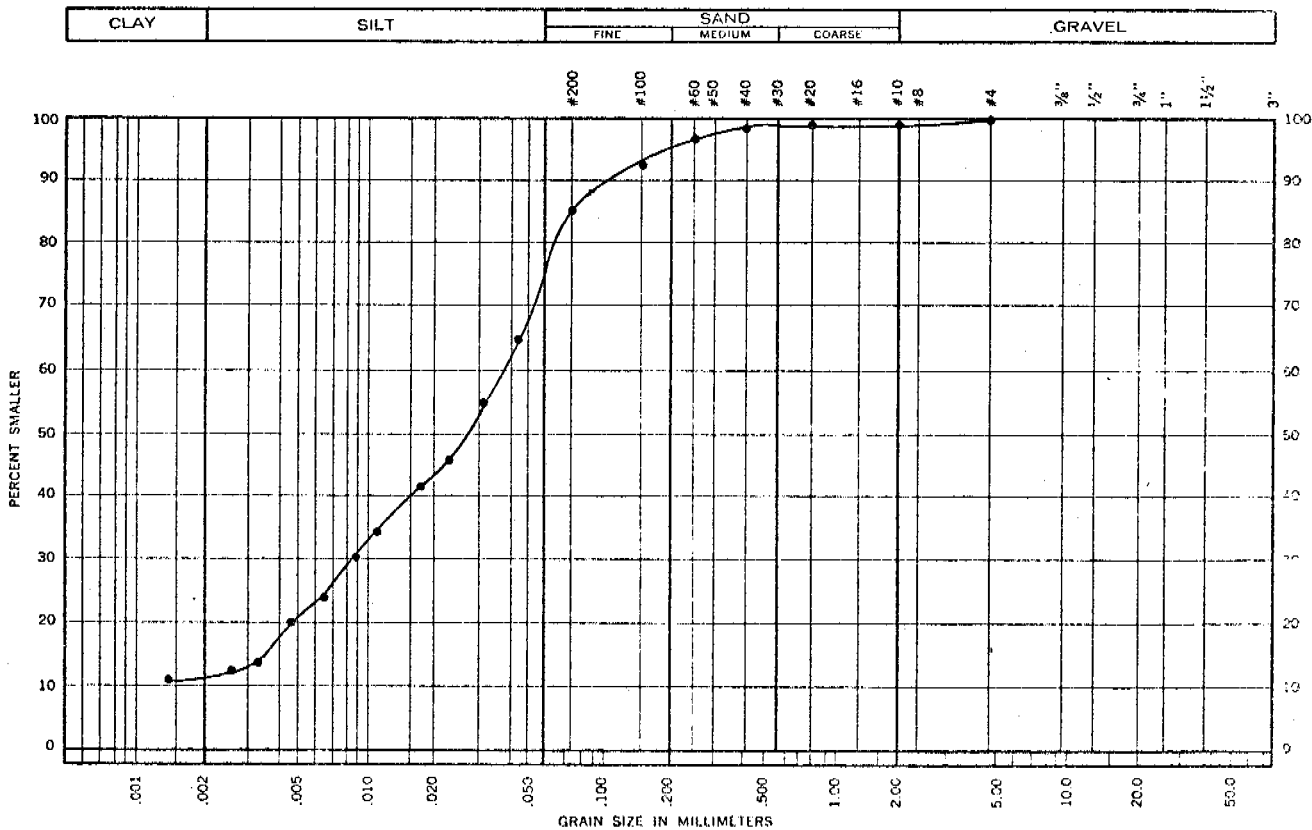


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT (71/1),
SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-317 DATE APRIL 12/73
SAMPLE No. 667-C-6
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

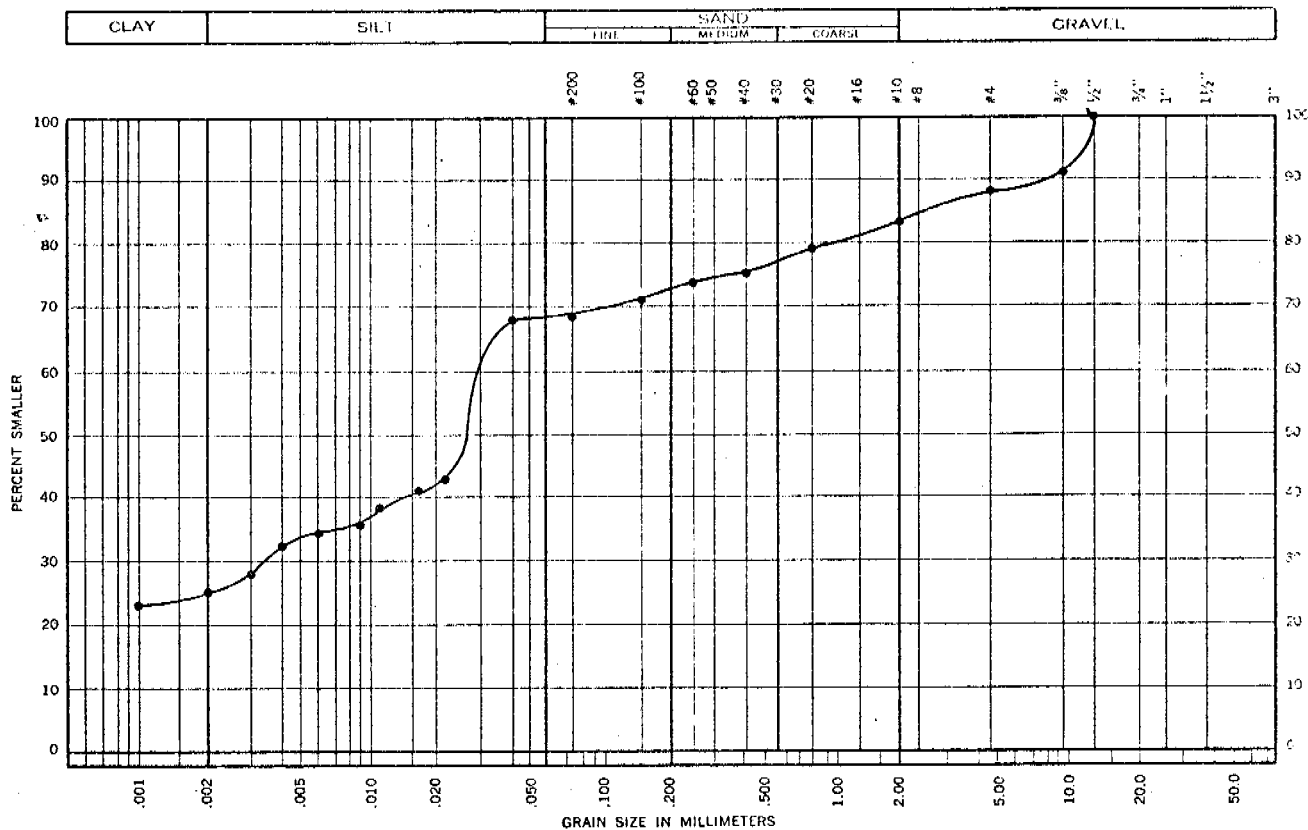


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-317 DATE MARCH 27/73
SAMPLE No. 666-C-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

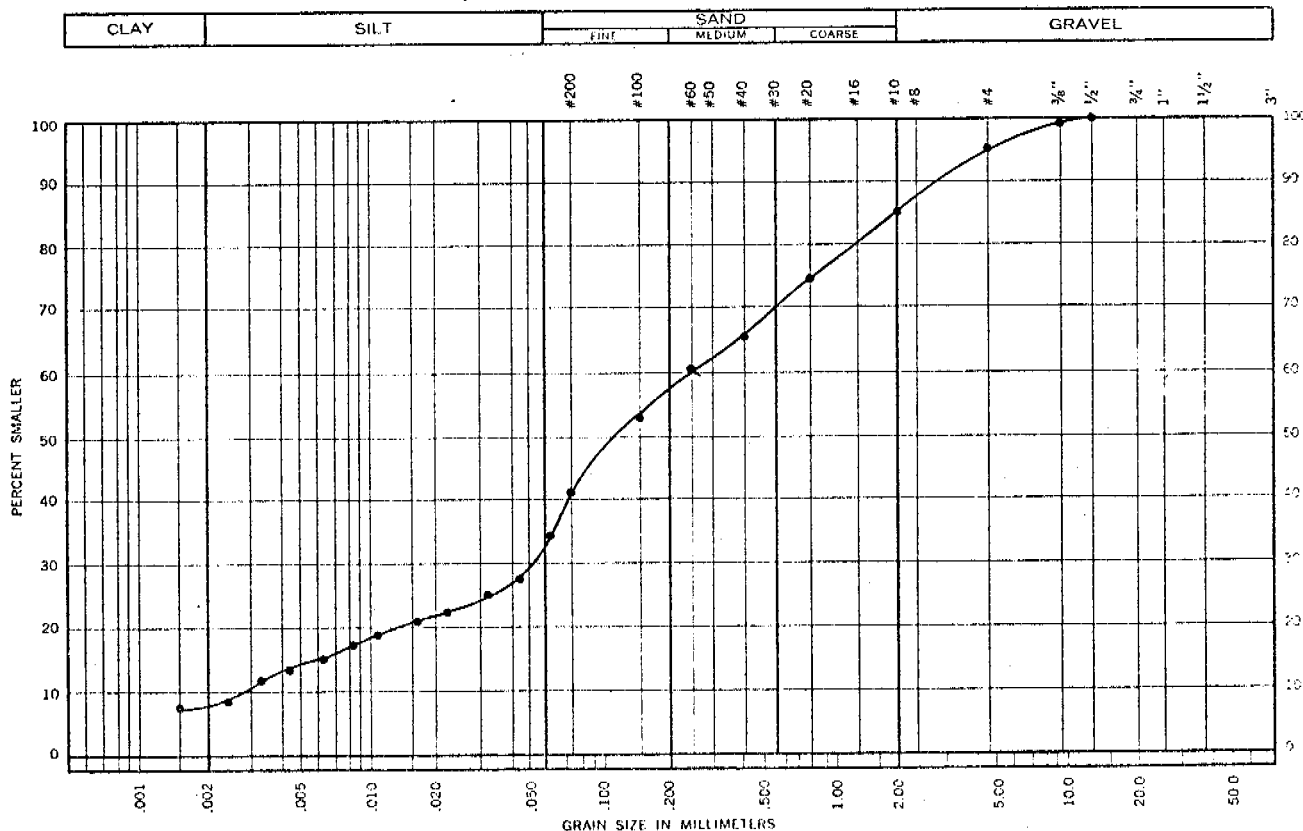


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY - SILT (TILL),
SANDY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 25 / 73
SAMPLE No. 666-C-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

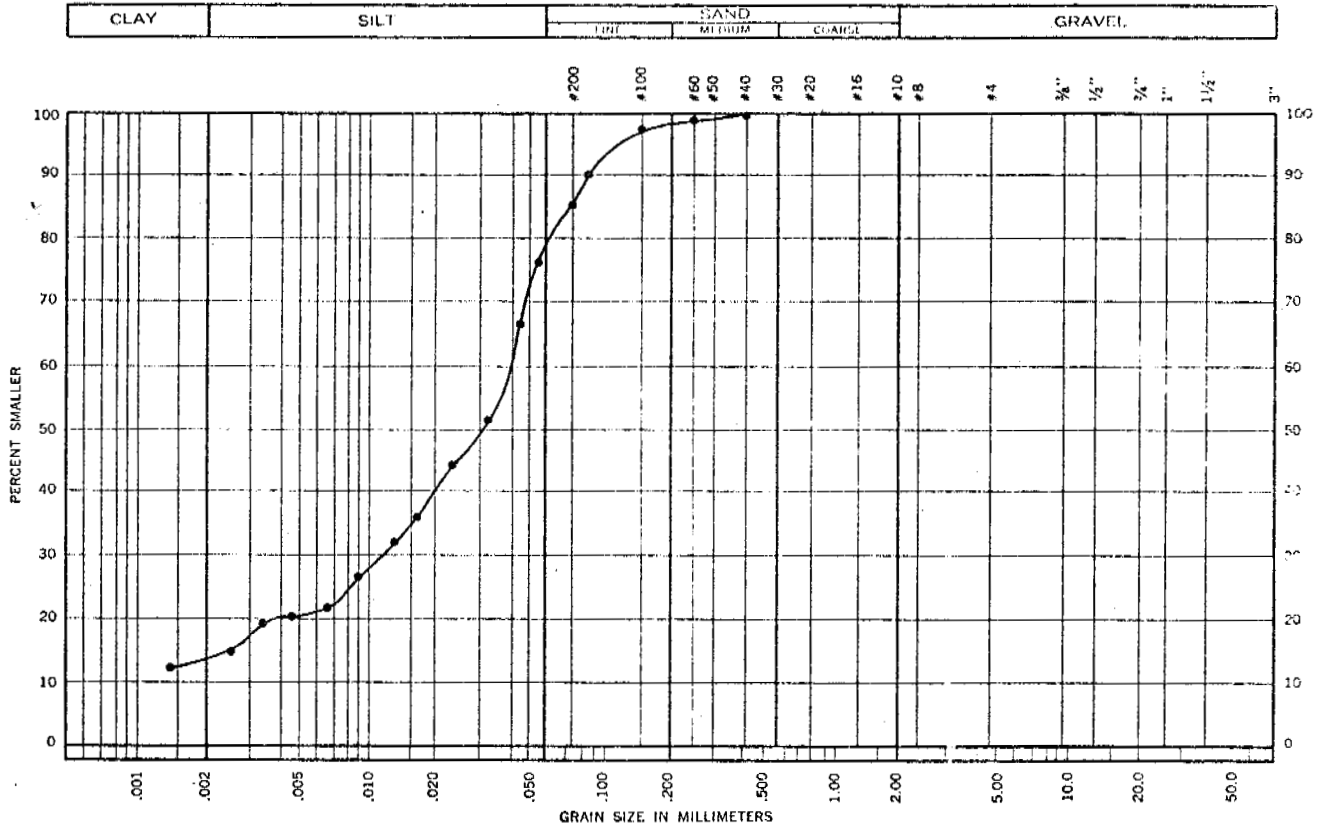


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, SILTY, SOME
GRAVEL, TRACE OF CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 665-C-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



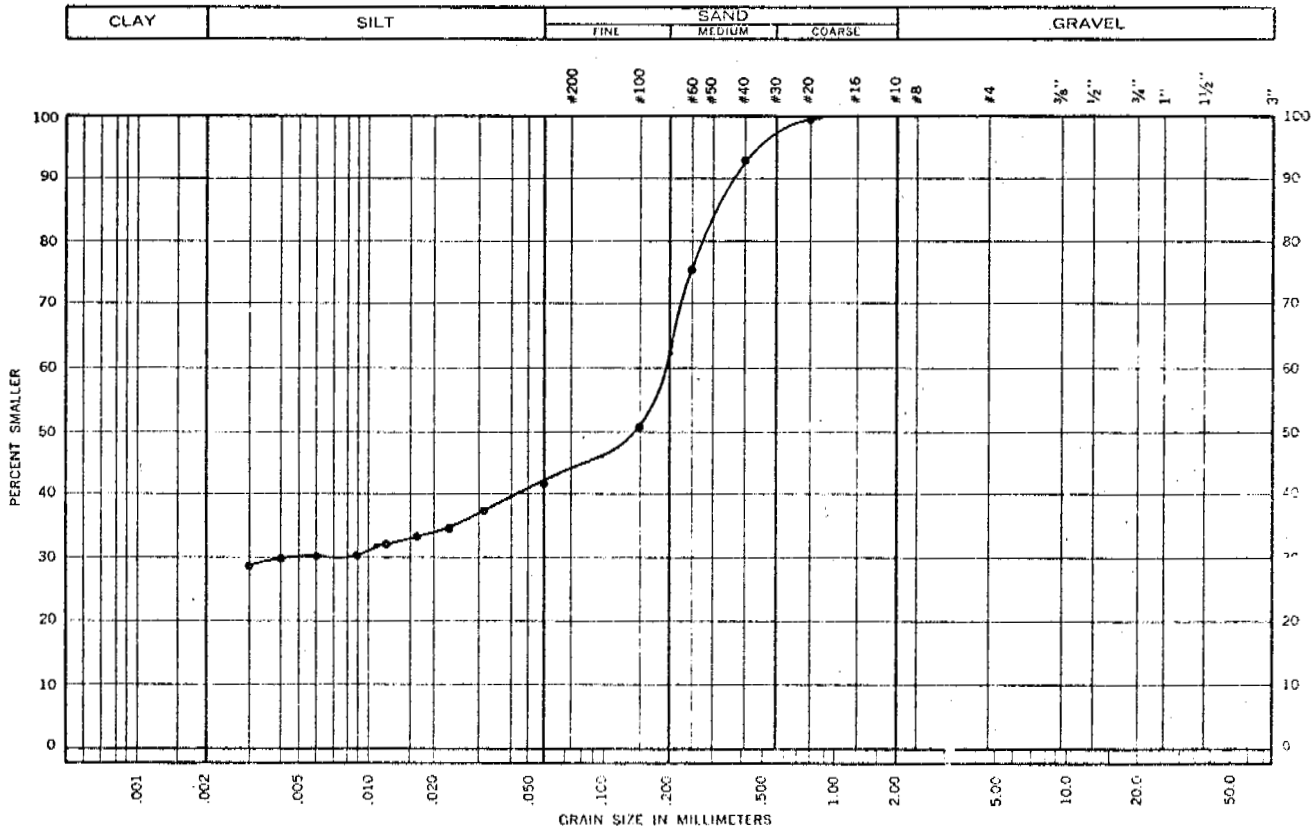
FIGURE



SAMPLE DESCRIPTION SANDY SILT,
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 665-C-5
DEPTH 5'

GRAIN SIZE DISTRIBUTION



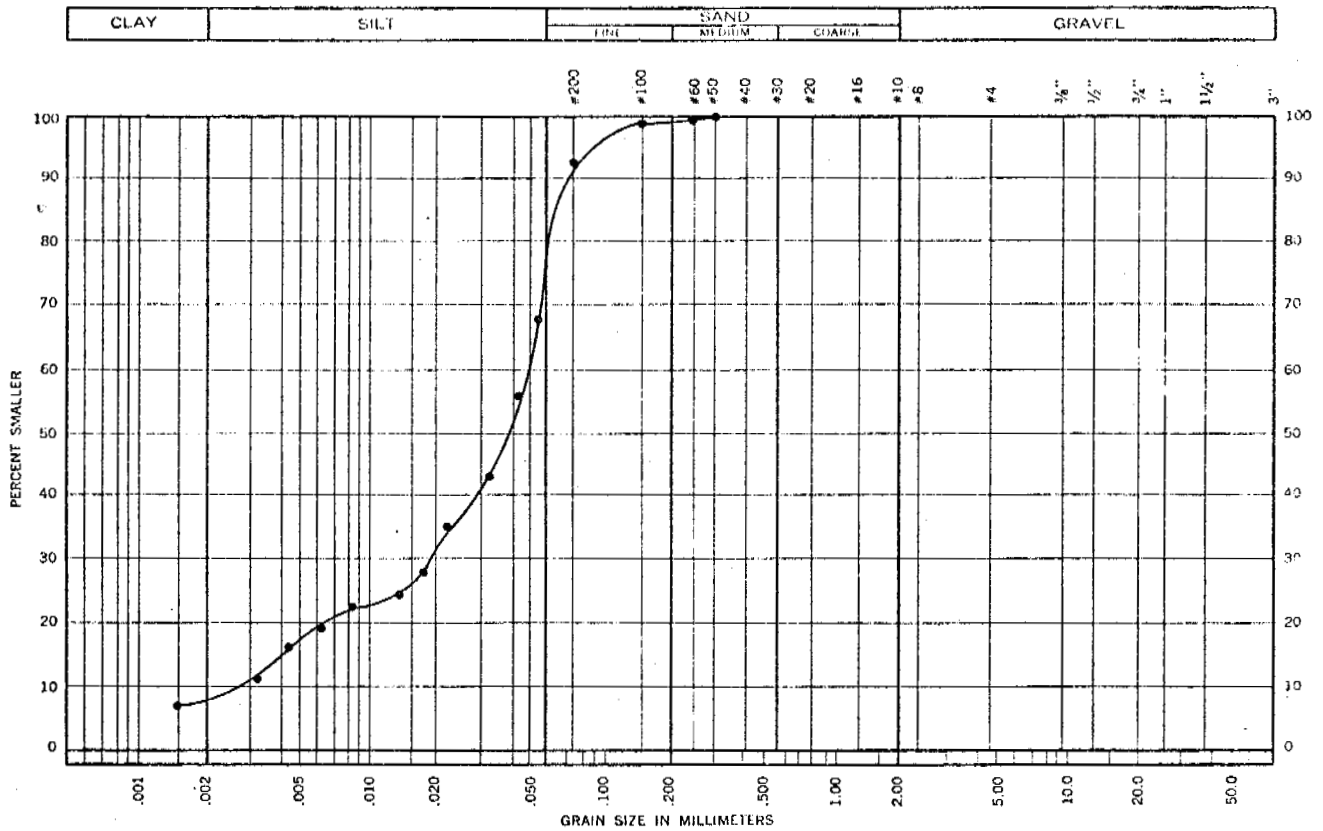
FIGURE



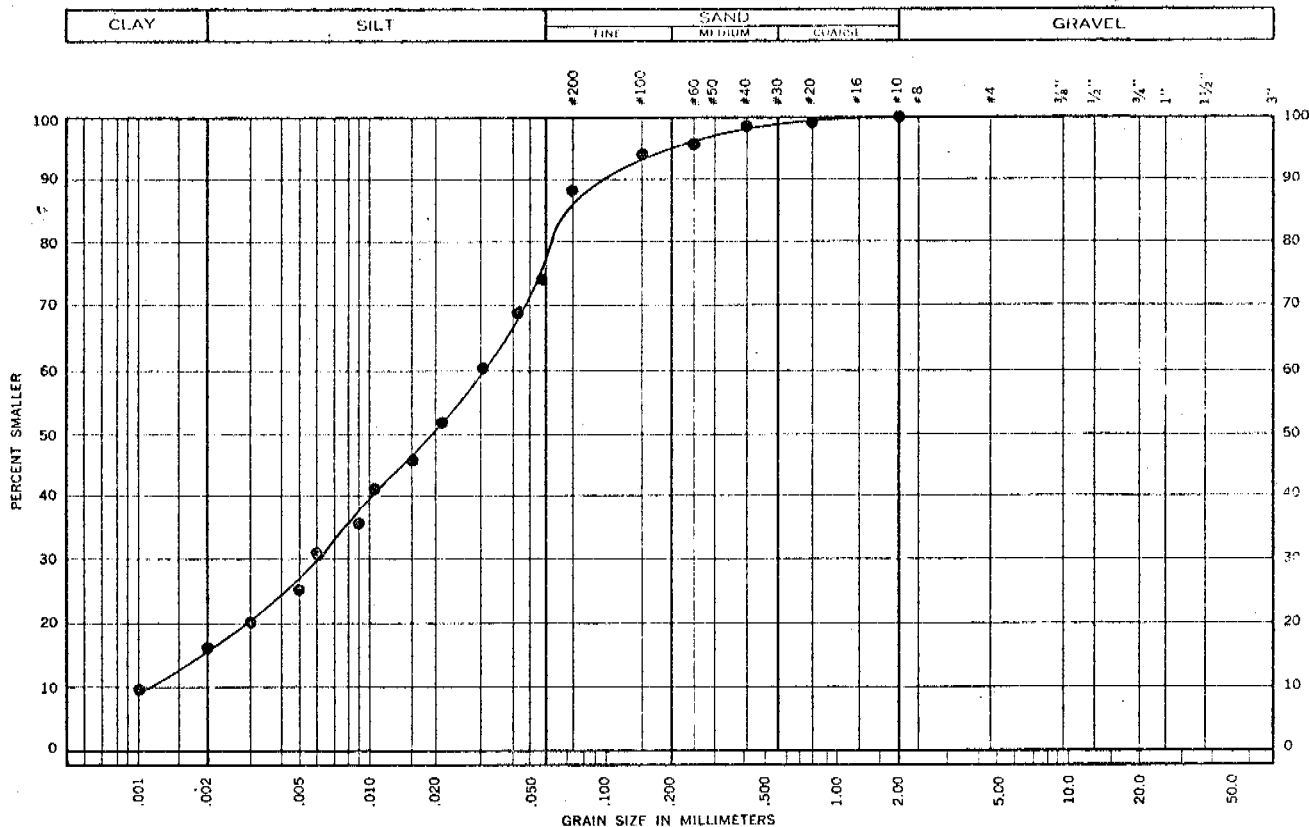
SAMPLE DESCRIPTION SAND - CLAYEY
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 665-C-8
DEPTH 5'

GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



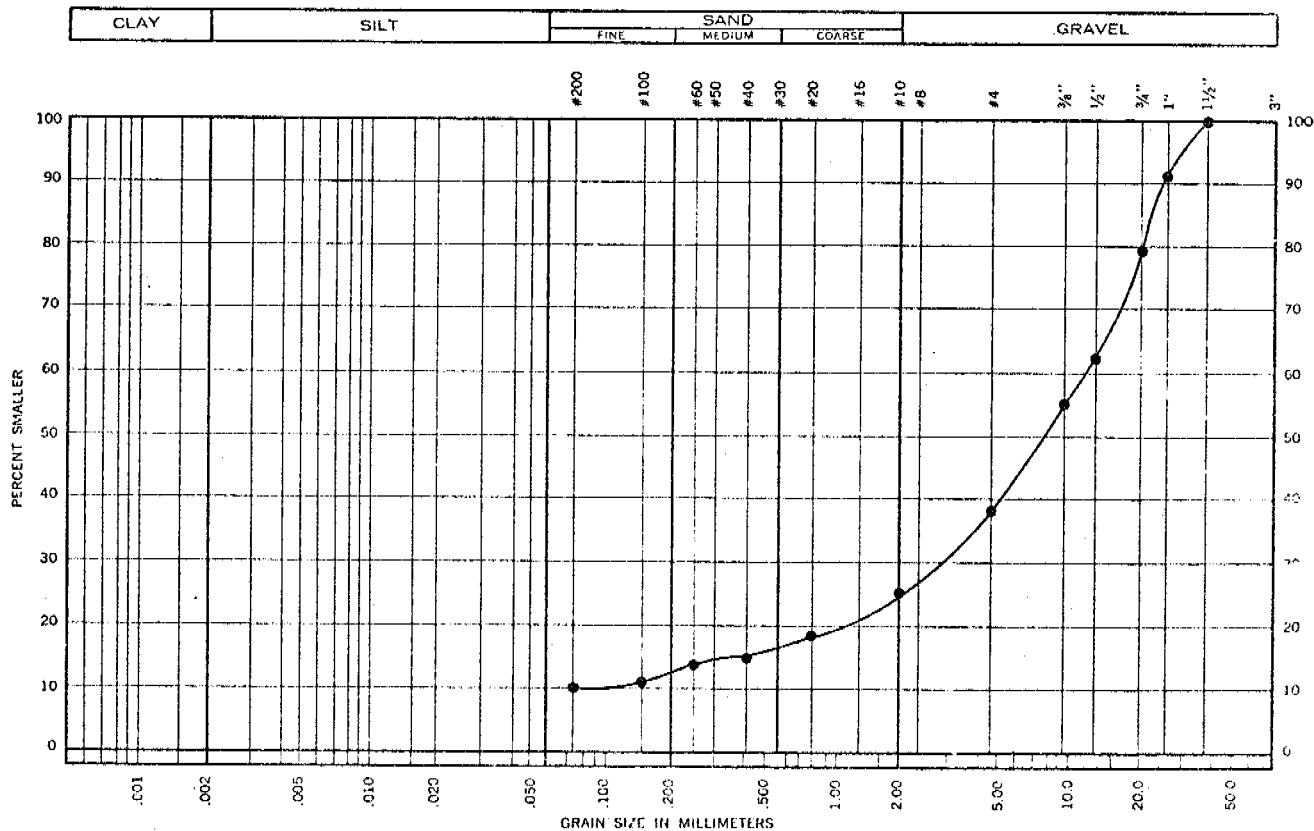
FIGURE



SAMPLE DESCRIPTION SANDY SILT,
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 663-C-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



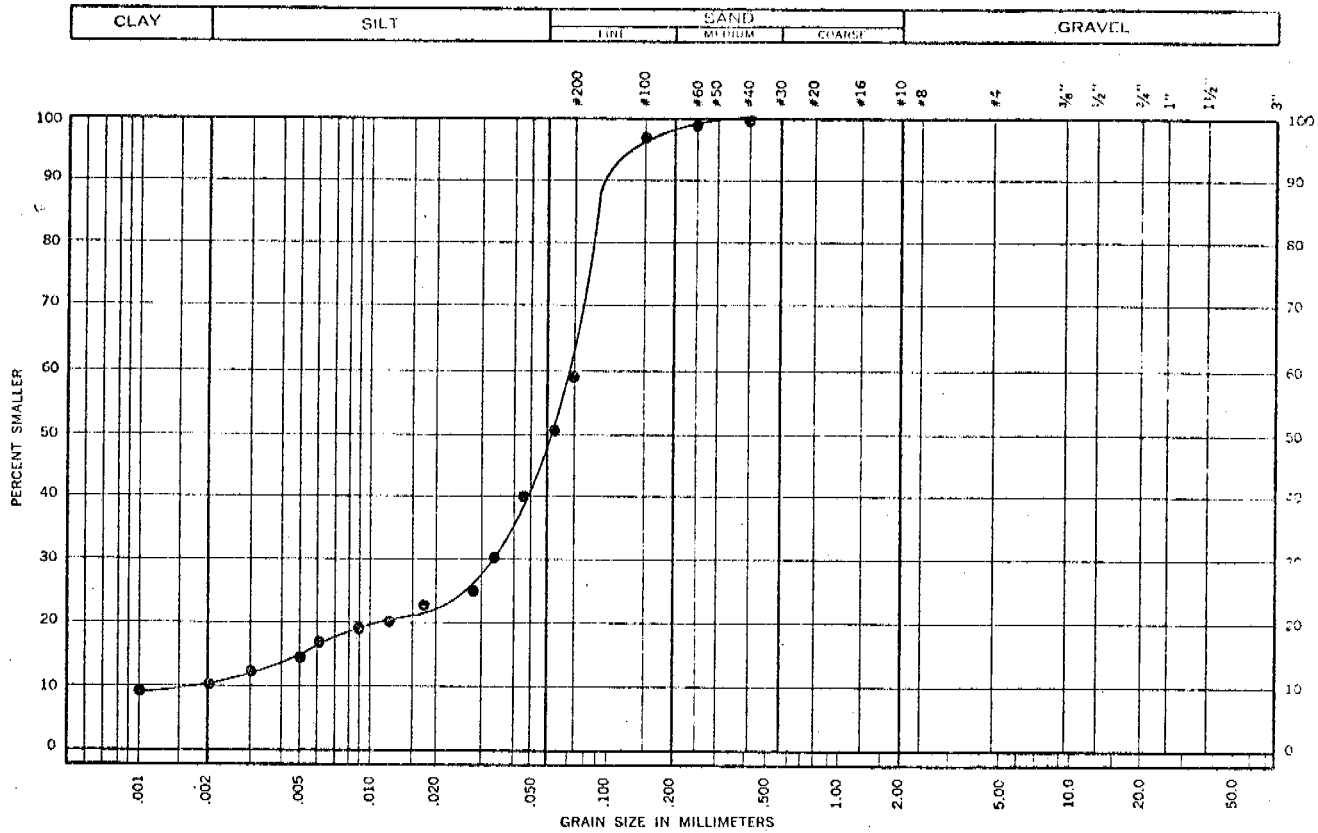
FIGURE



SAMPLE DESCRIPTION GRAVEL - SOME
SAND, TRACE OF FINES

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 20 1973
SAMPLE No. 663-C-3
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

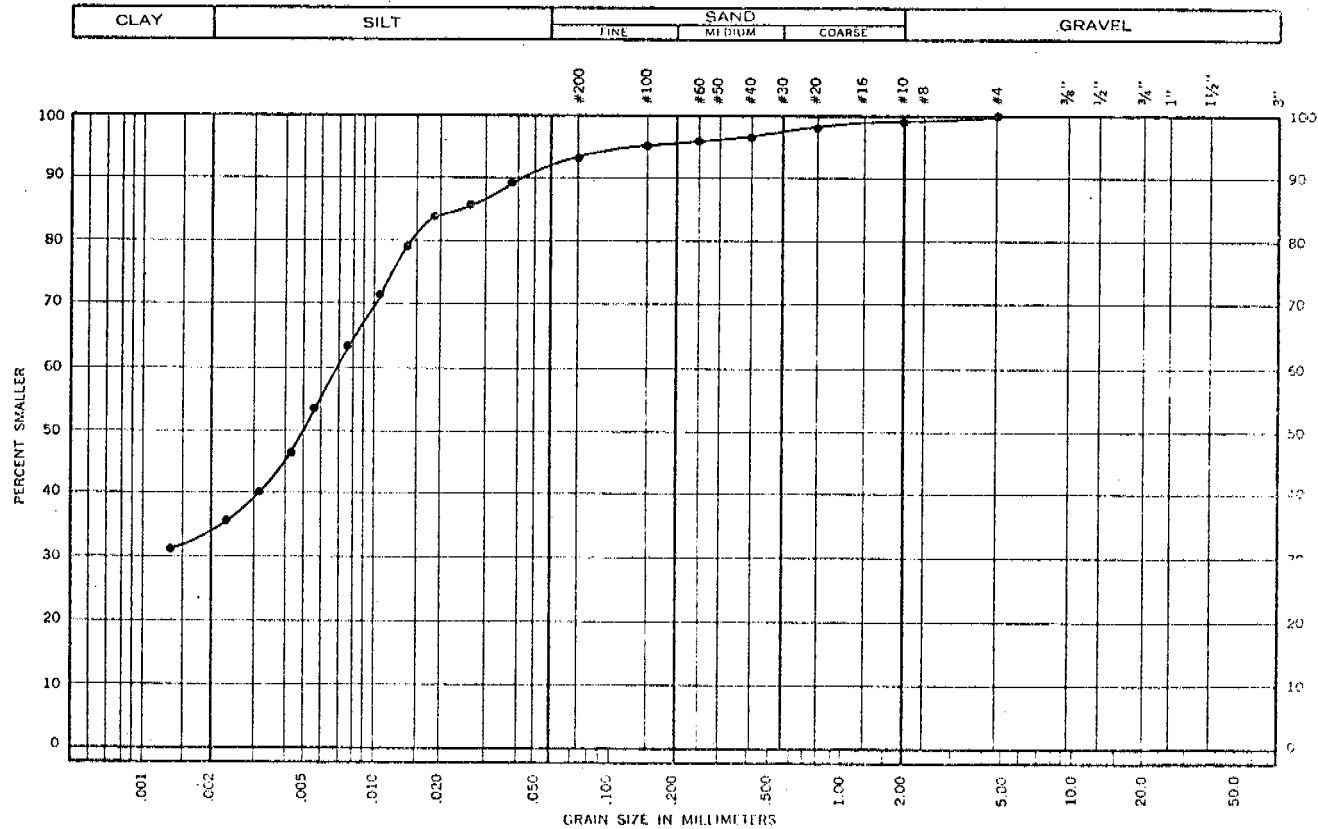


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY SAND,
TRACE OF CLAY.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 662-C-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

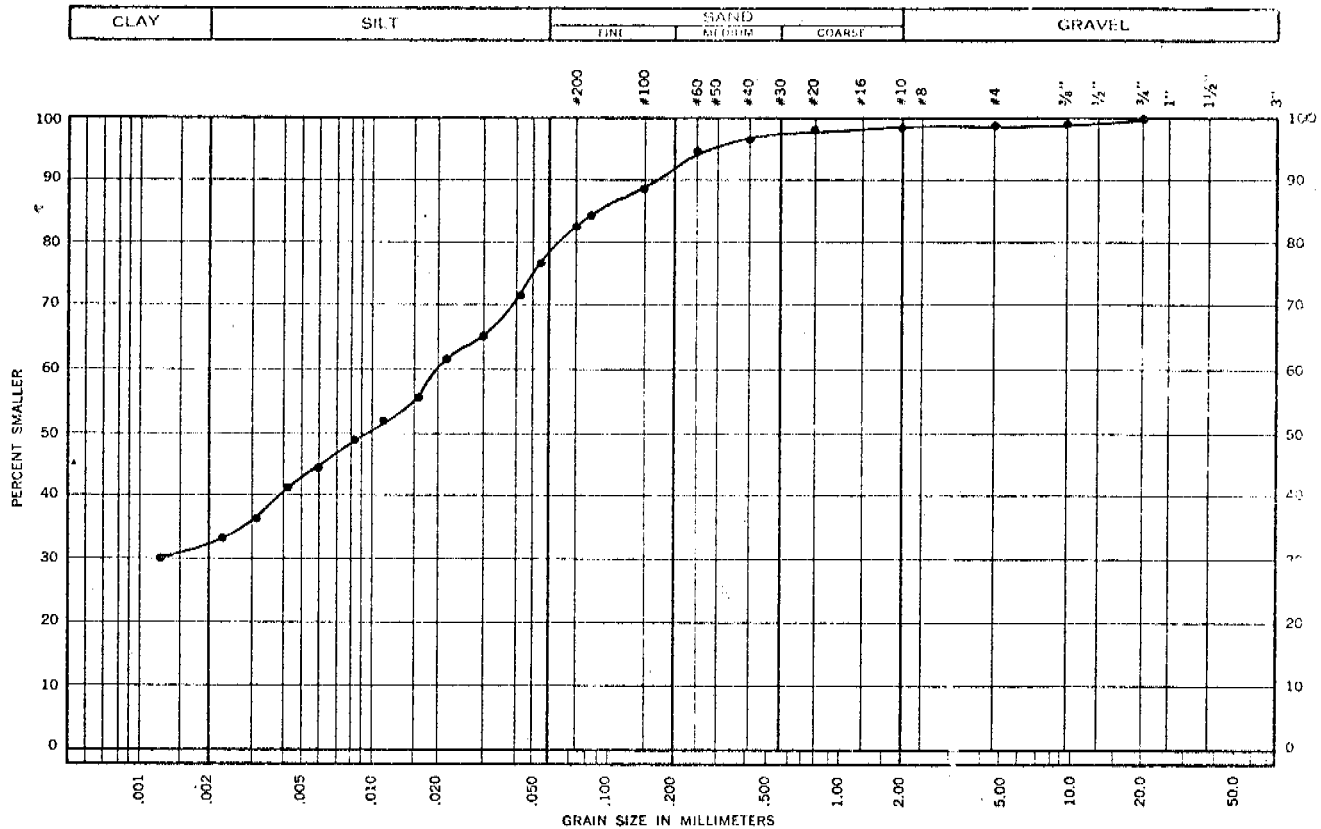


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY,
TRACE OF SAND.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 661-C-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



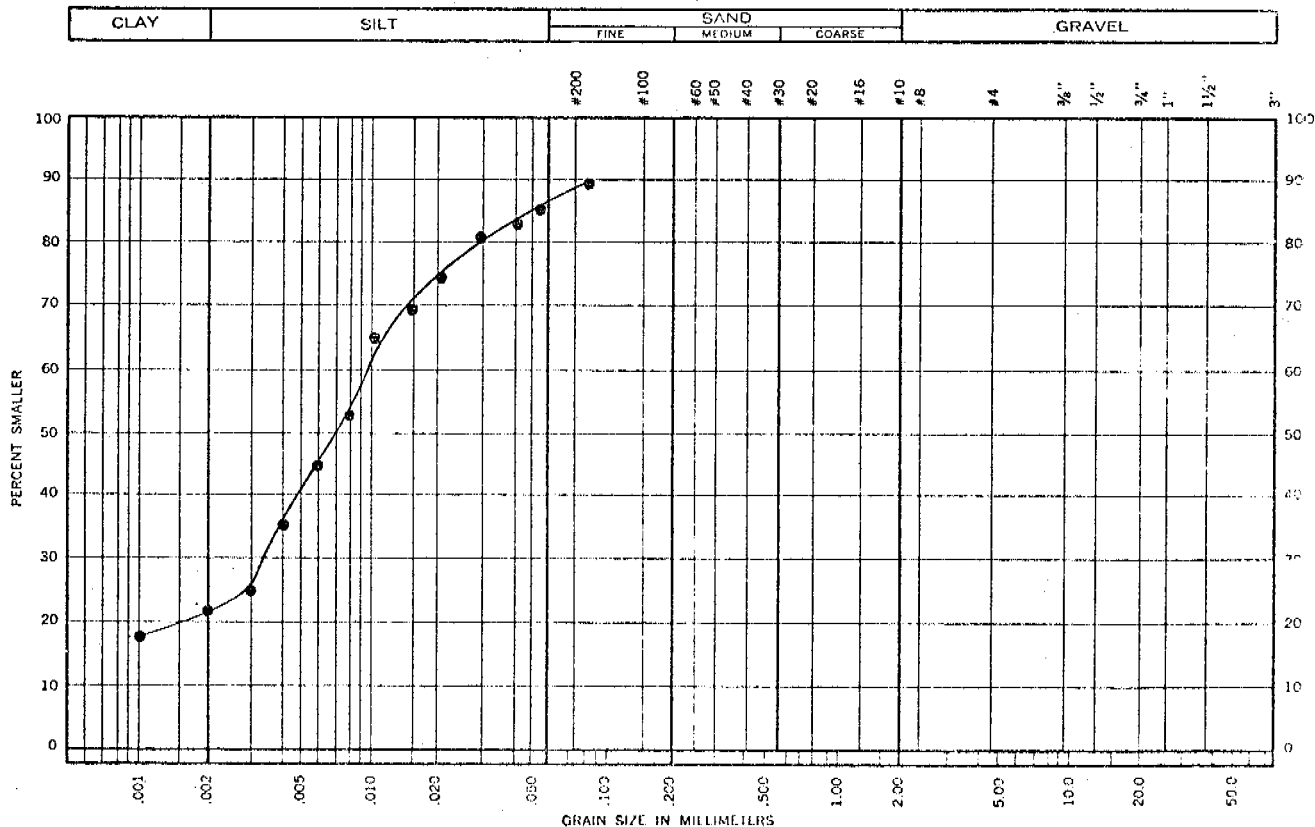
FIGURE



SAMPLE DESCRIPTION SILTY CLAY
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 661-C-7
DEPTH 2 1/2

GRAIN SIZE DISTRIBUTION



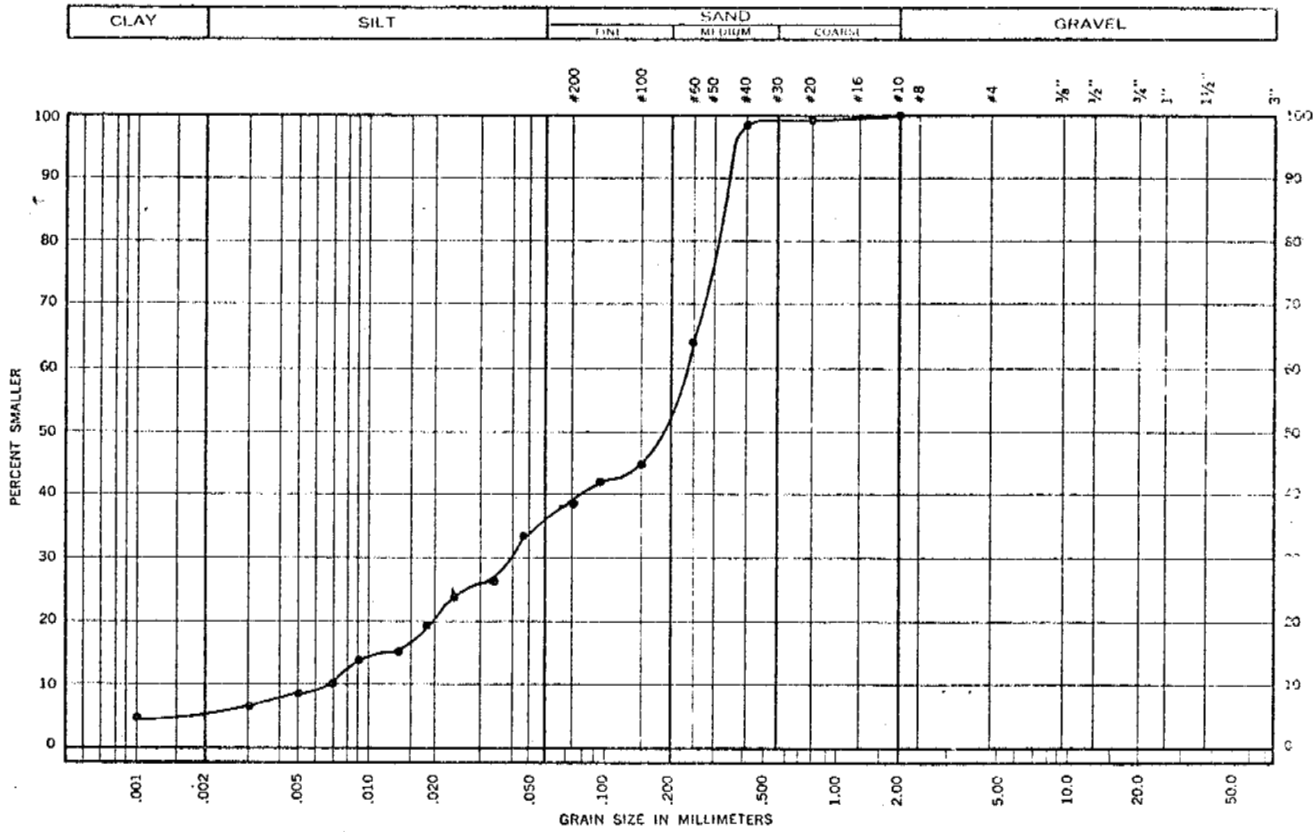
FIGURE



SAMPLE DESCRIPTION CLAY-SILT,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 2/73
SAMPLE No. 660-C-1
DEPTH 2 1/2

GRAIN SIZE DISTRIBUTION



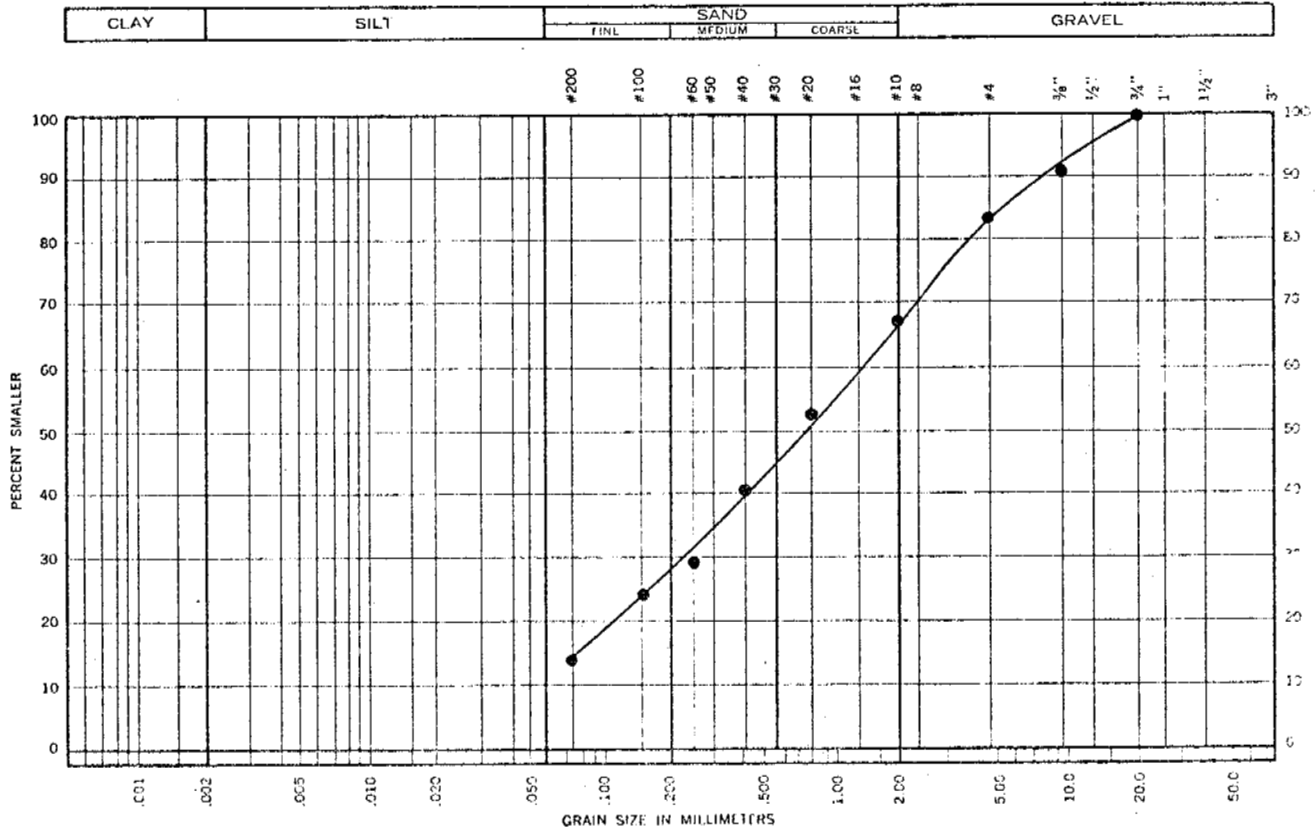
FIGURE



SAMPLE DESCRIPTION SILTY SAND
TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 660-C-7
DEPTH 5

GRAIN SIZE DISTRIBUTION



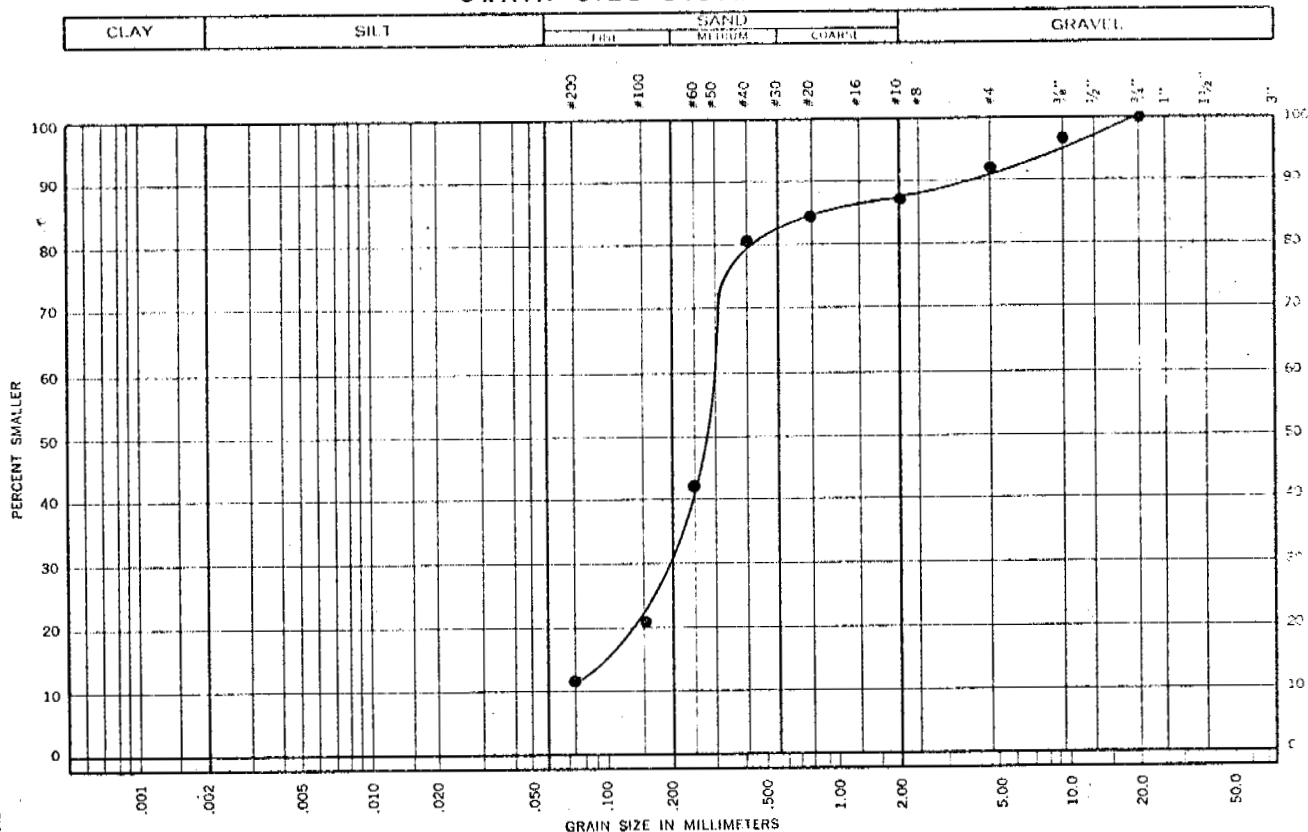
FIGURE



SAMPLE DESCRIPTION SAND, GRAVELLY
TRACE OF SILT & CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E517 DATE APRIL 11/73
SAMPLE No. 652-C-2
DEPTH 5

GRAIN SIZE DISTRIBUTION



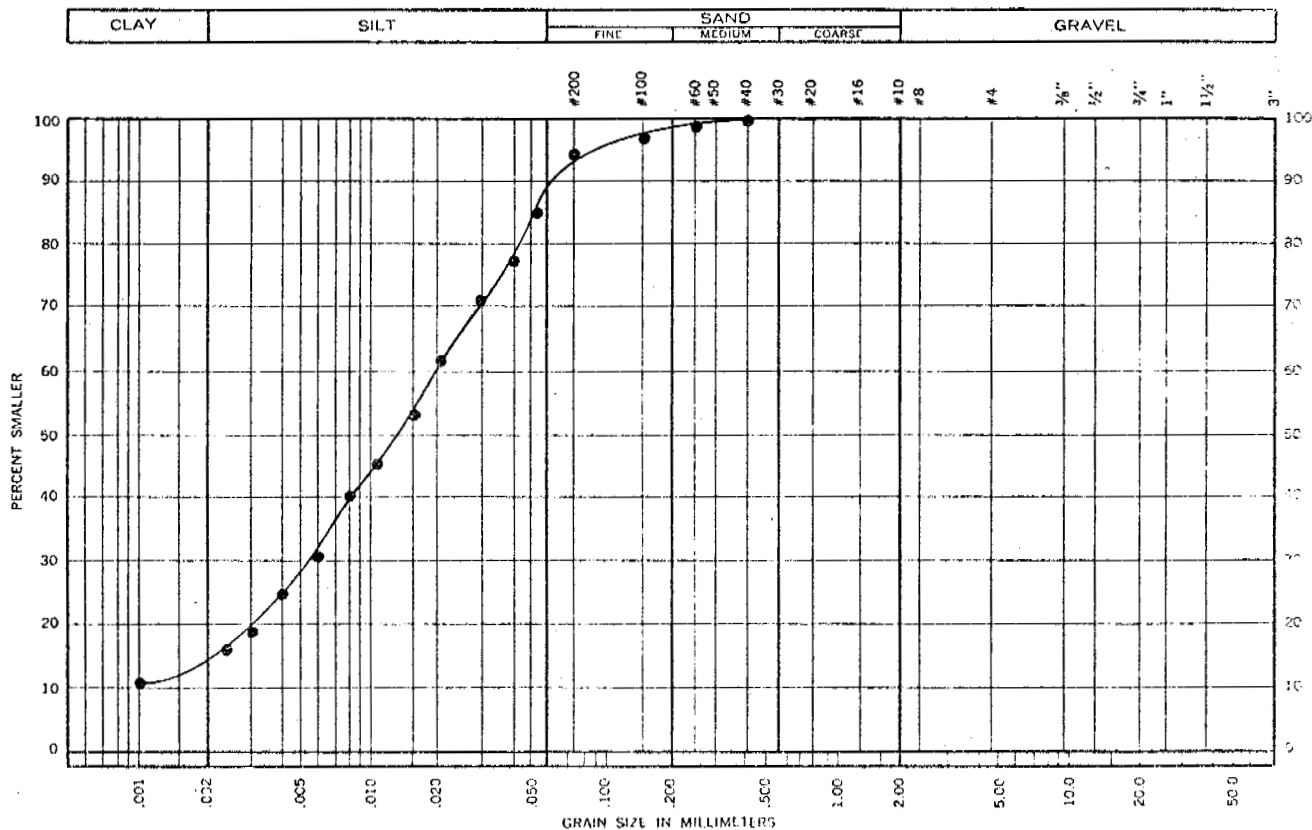
FIGURE



SAMPLE DESCRIPTION SAND, SOME GRAVEL,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 659-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



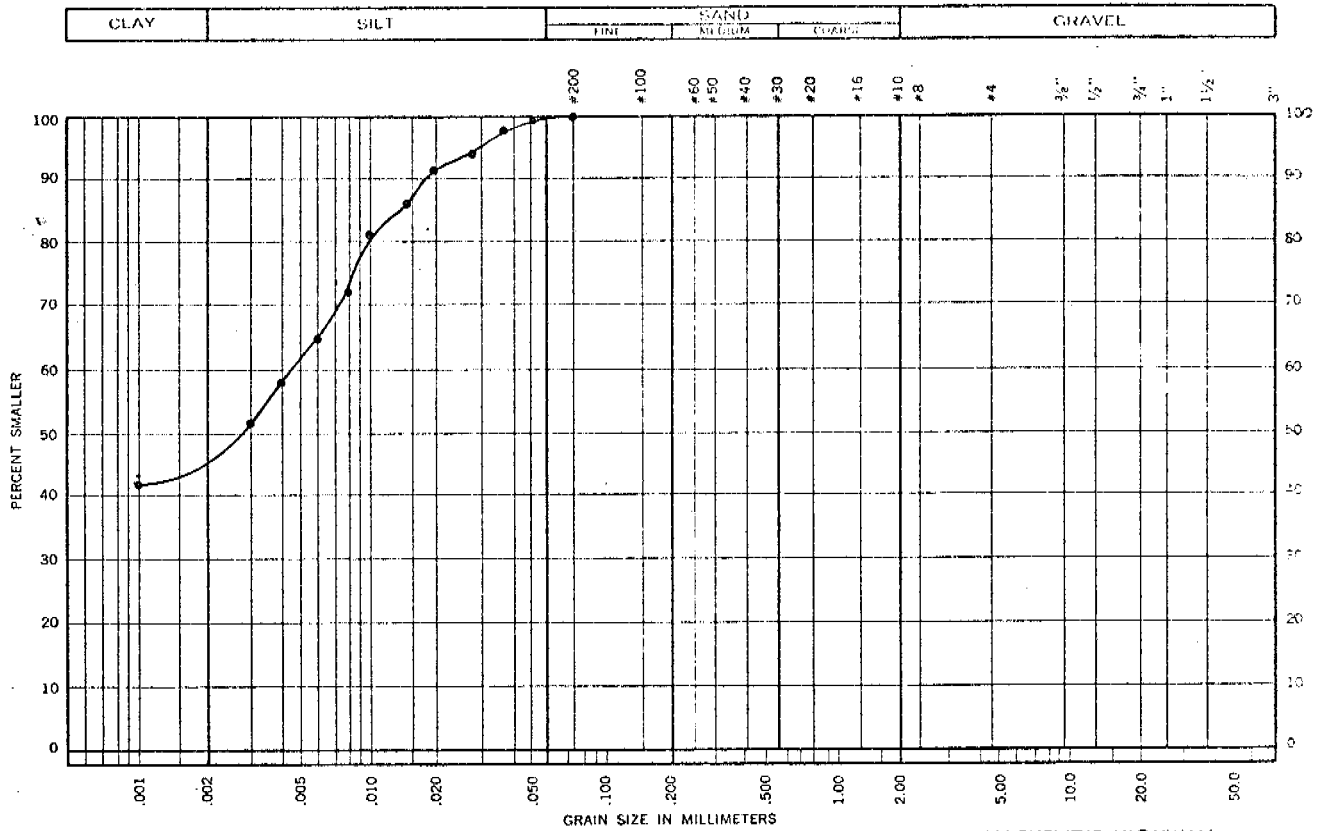
FIGURE

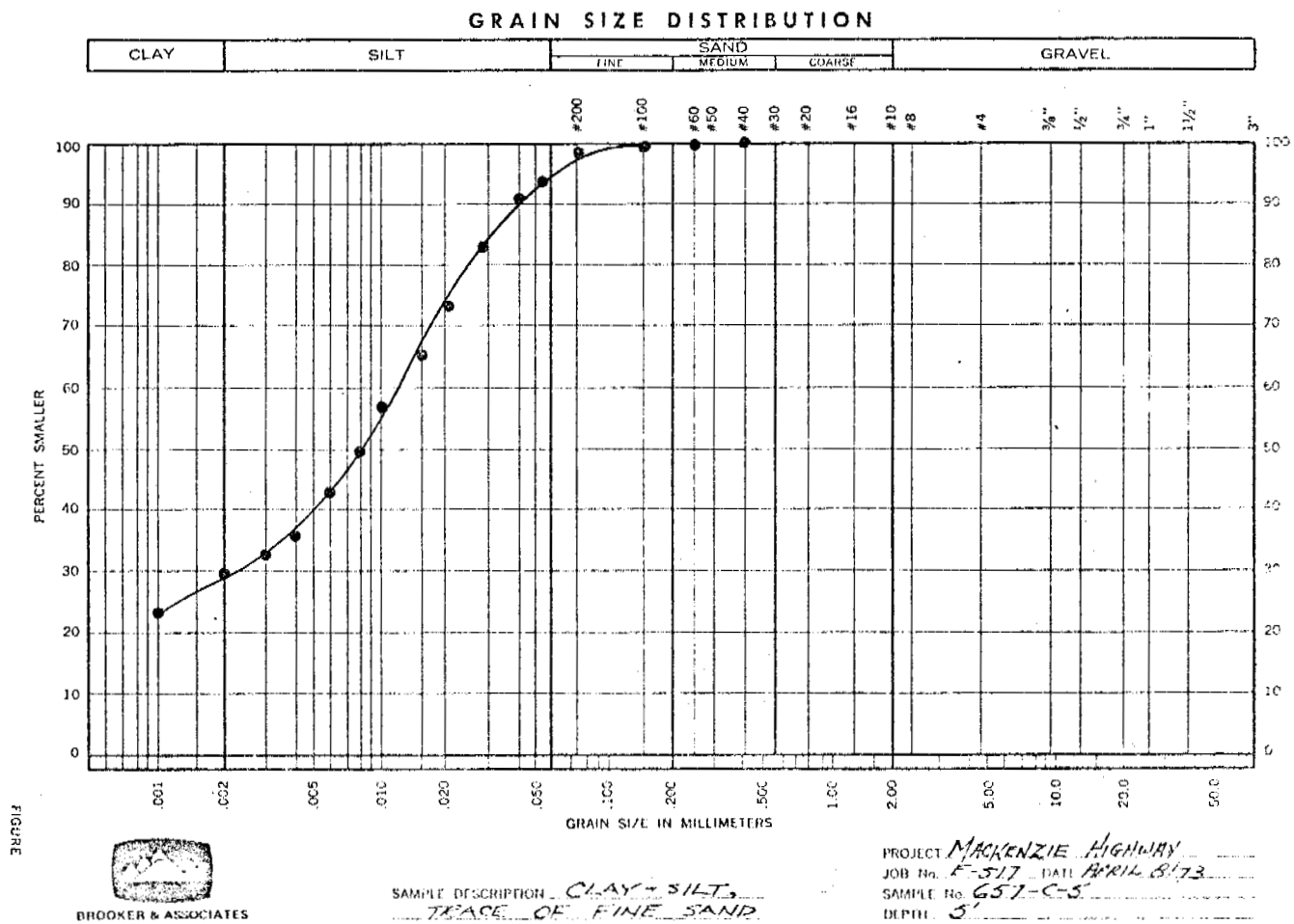
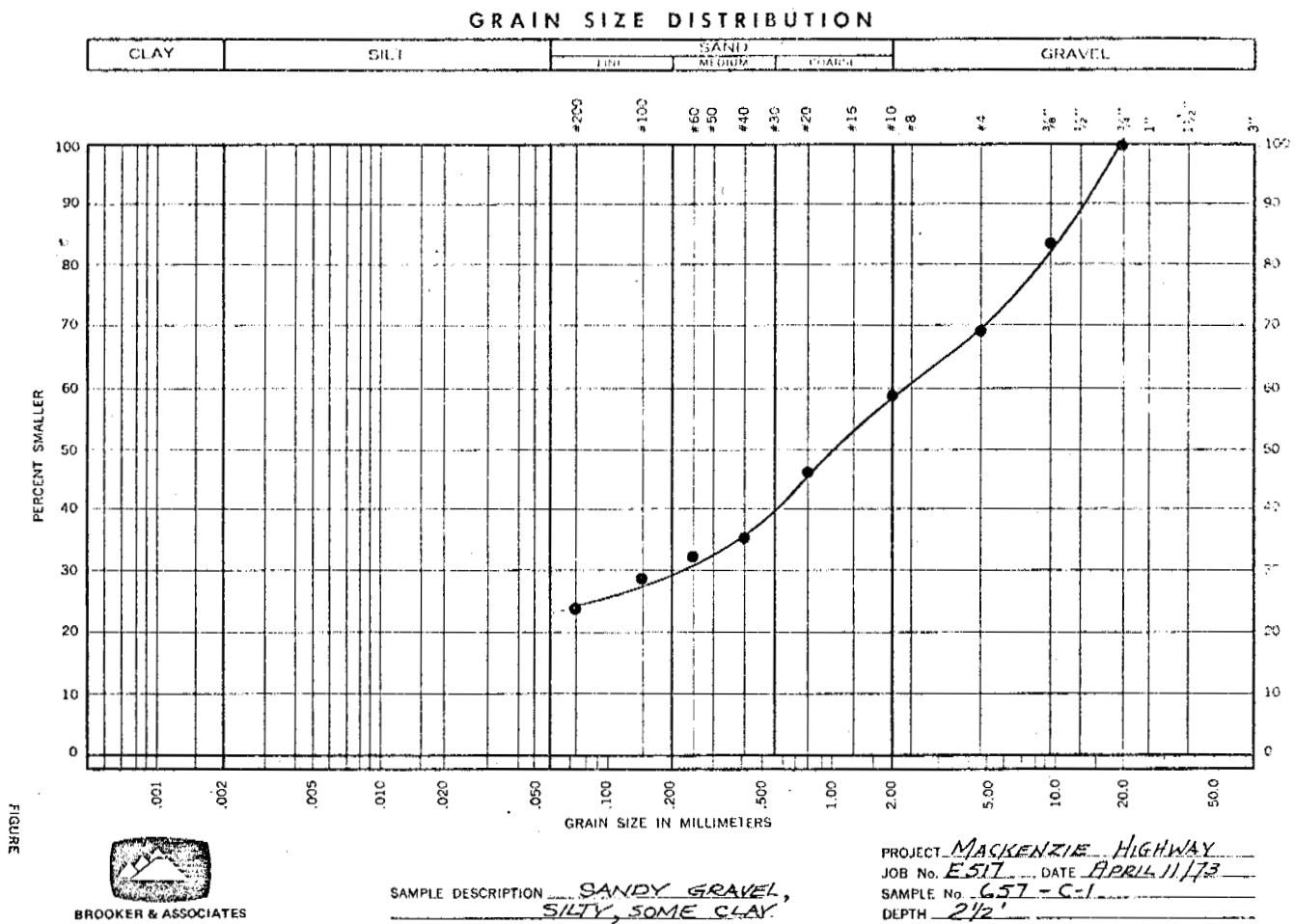


SAMPLE DESCRIPTION SILT, SOME CLAY
& SAND

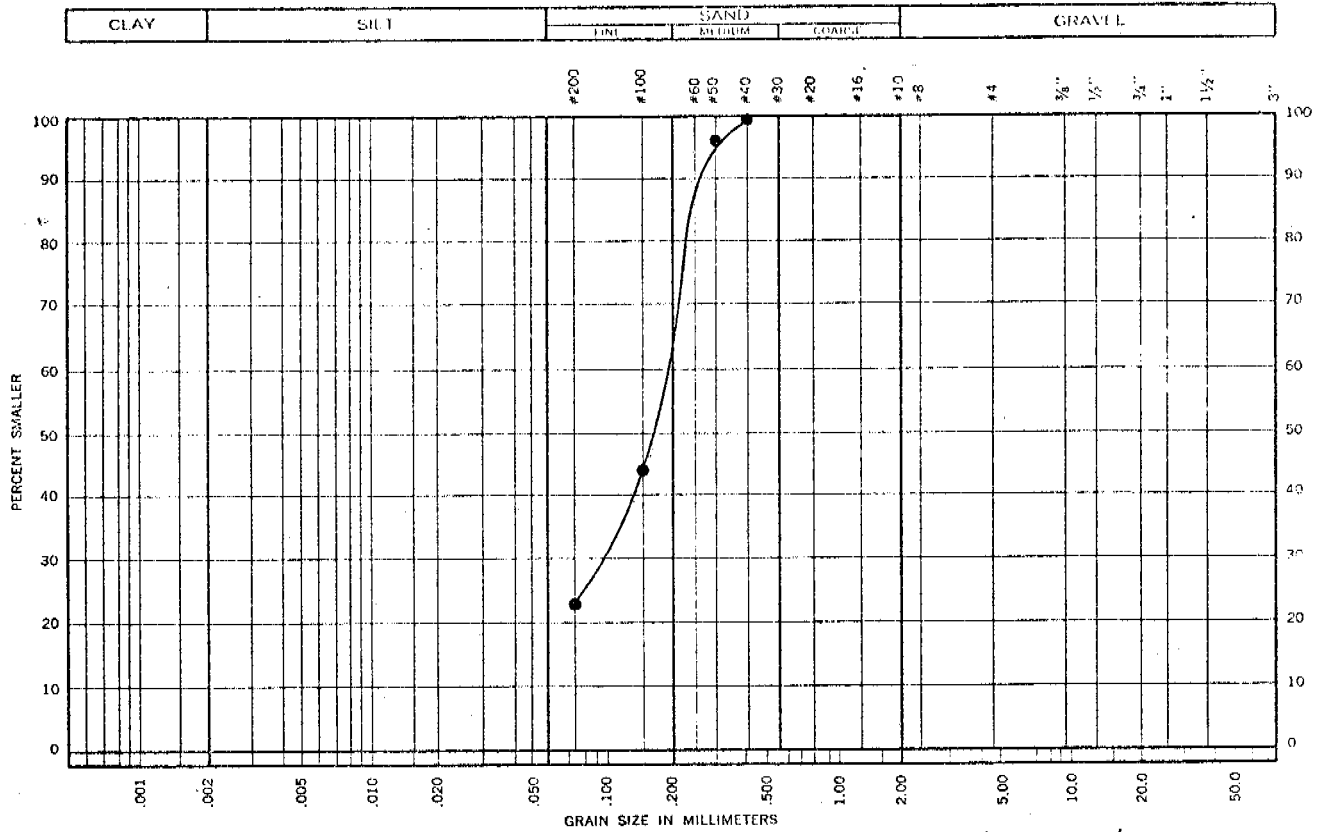
PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 658-C-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION





GRAIN SIZE DISTRIBUTION



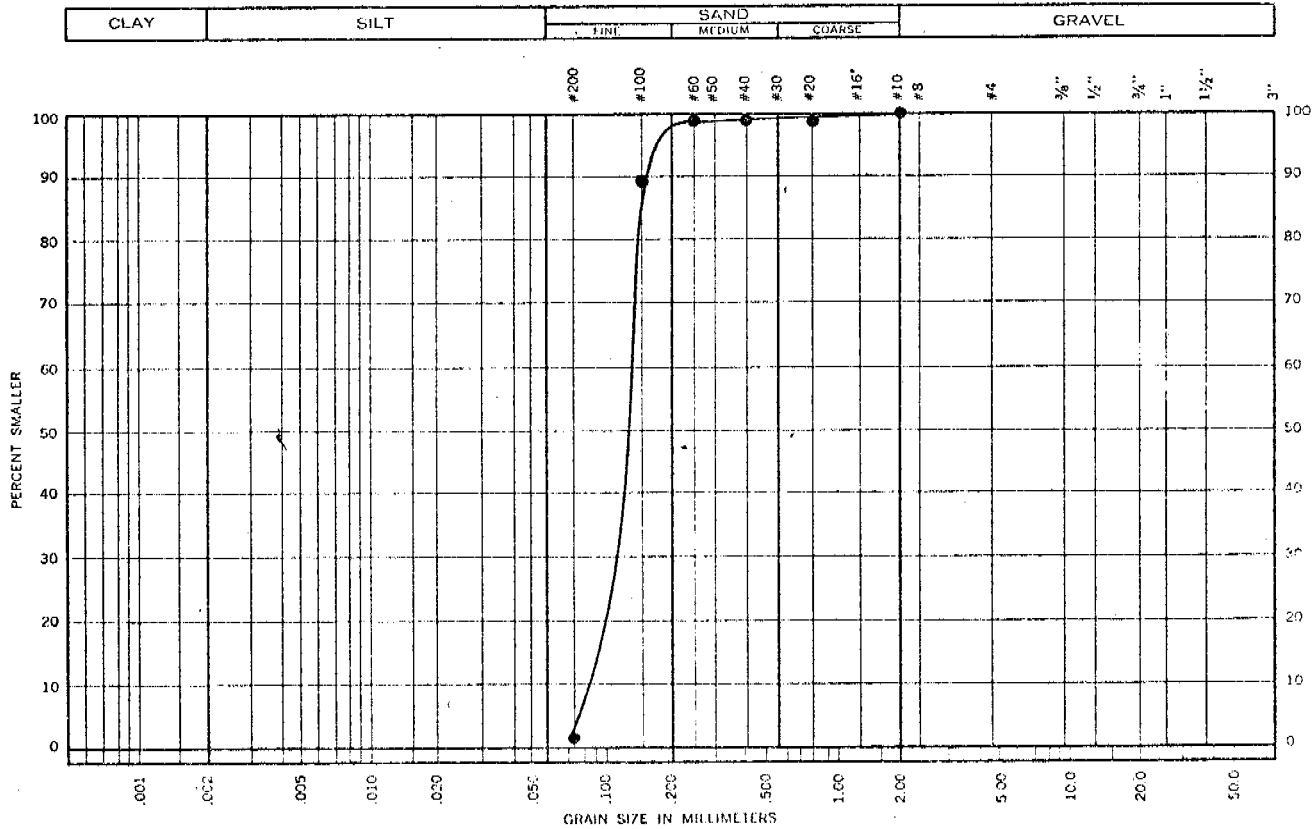
FIGURE



SAMPLE DESCRIPTION SAND - SOME SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 656-C-3
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



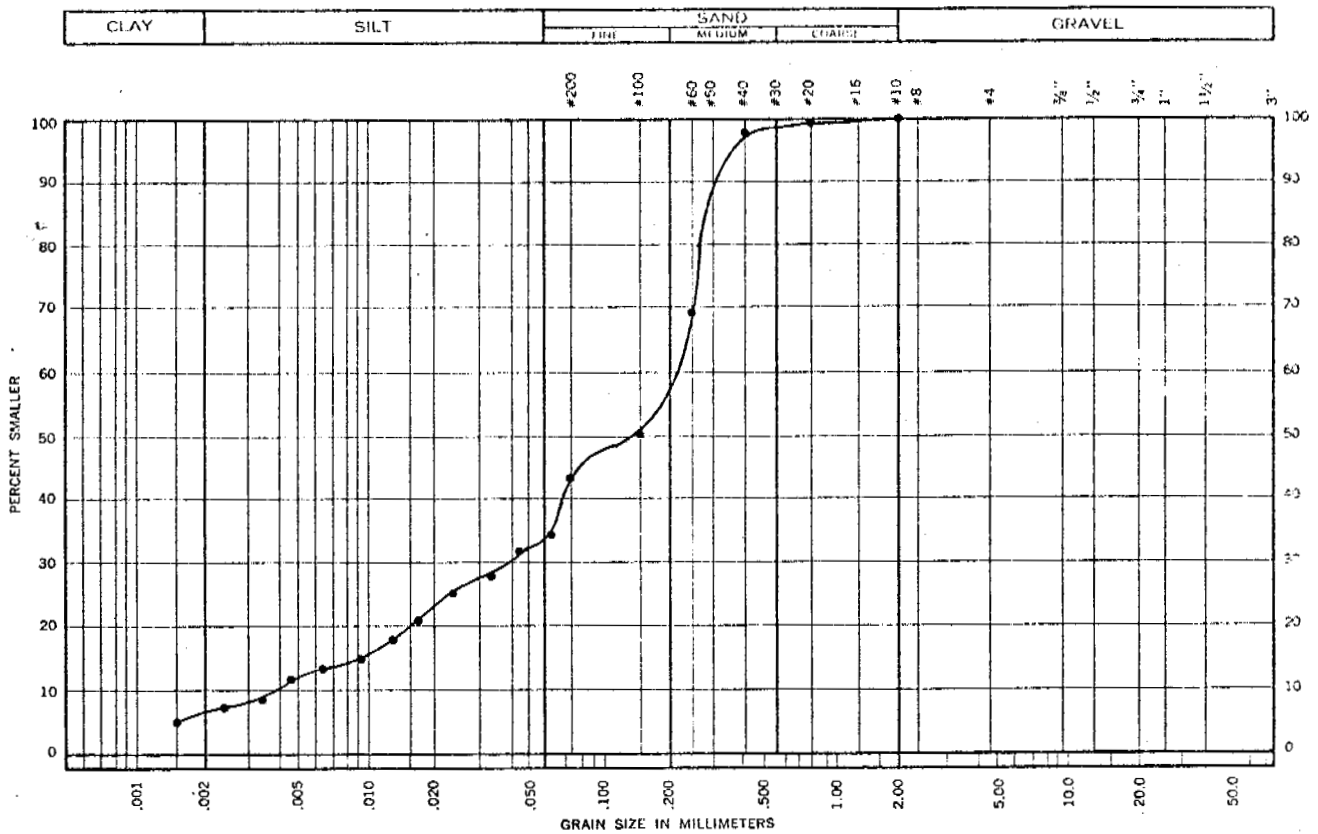
FIGURE



SAMPLE DESCRIPTION SAND (FINE)
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 656-C-6
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



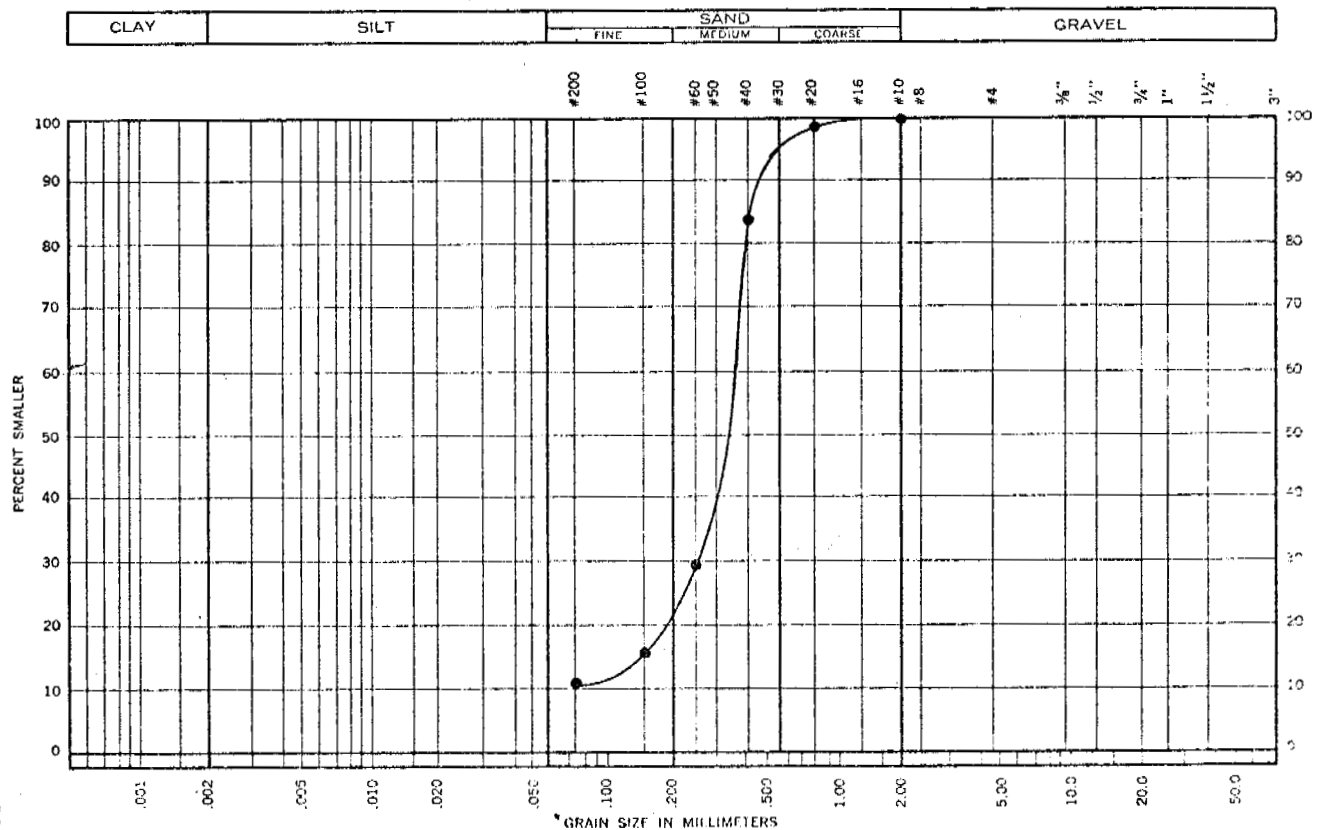
FIGURE



SAMPLE DESCRIPTION SILTY SAND,
TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 7/73
SAMPLE No. 656-C-8
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



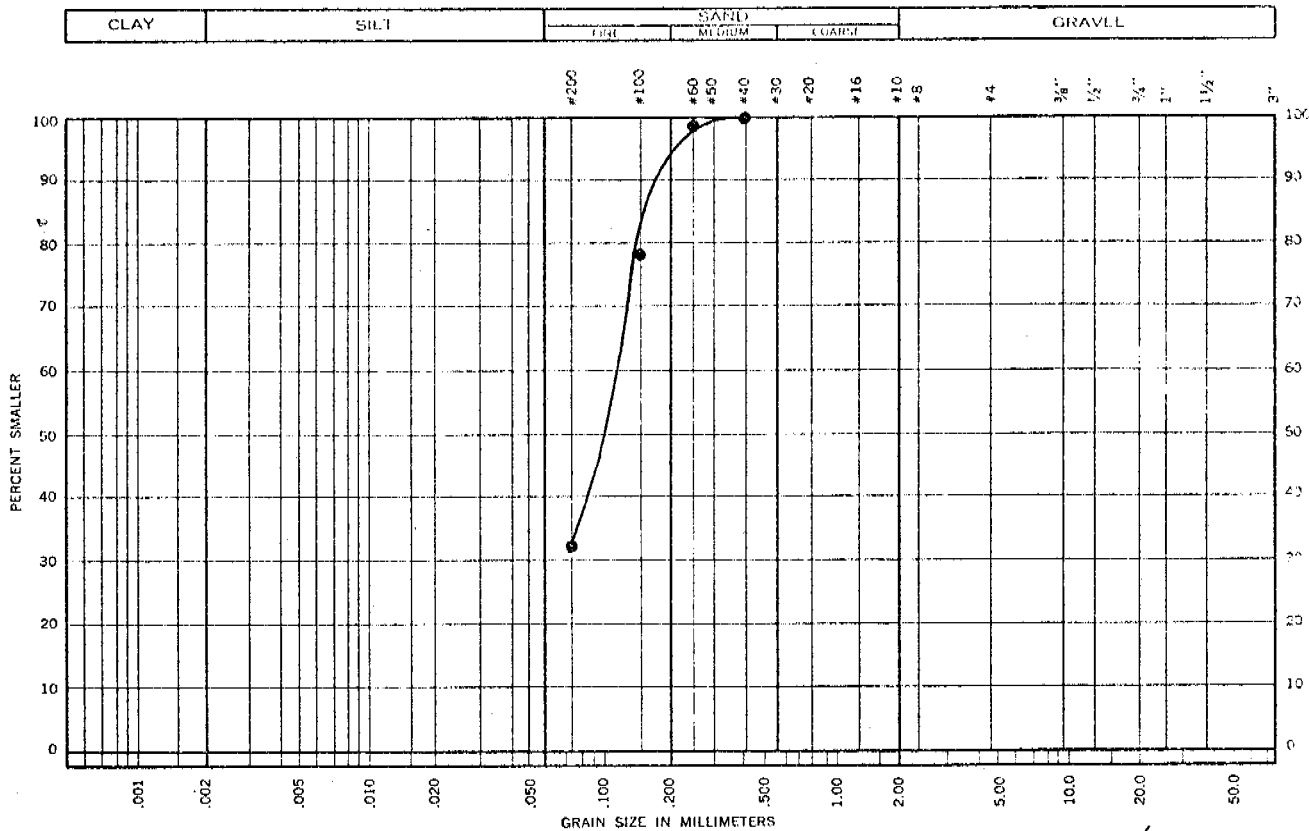
FIGURE



SAMPLE DESCRIPTION SAND, TRACE OF
SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 12/73
SAMPLE No. 656-C-8
DEPTH 5

GRAIN SIZE DISTRIBUTION



FIGURE

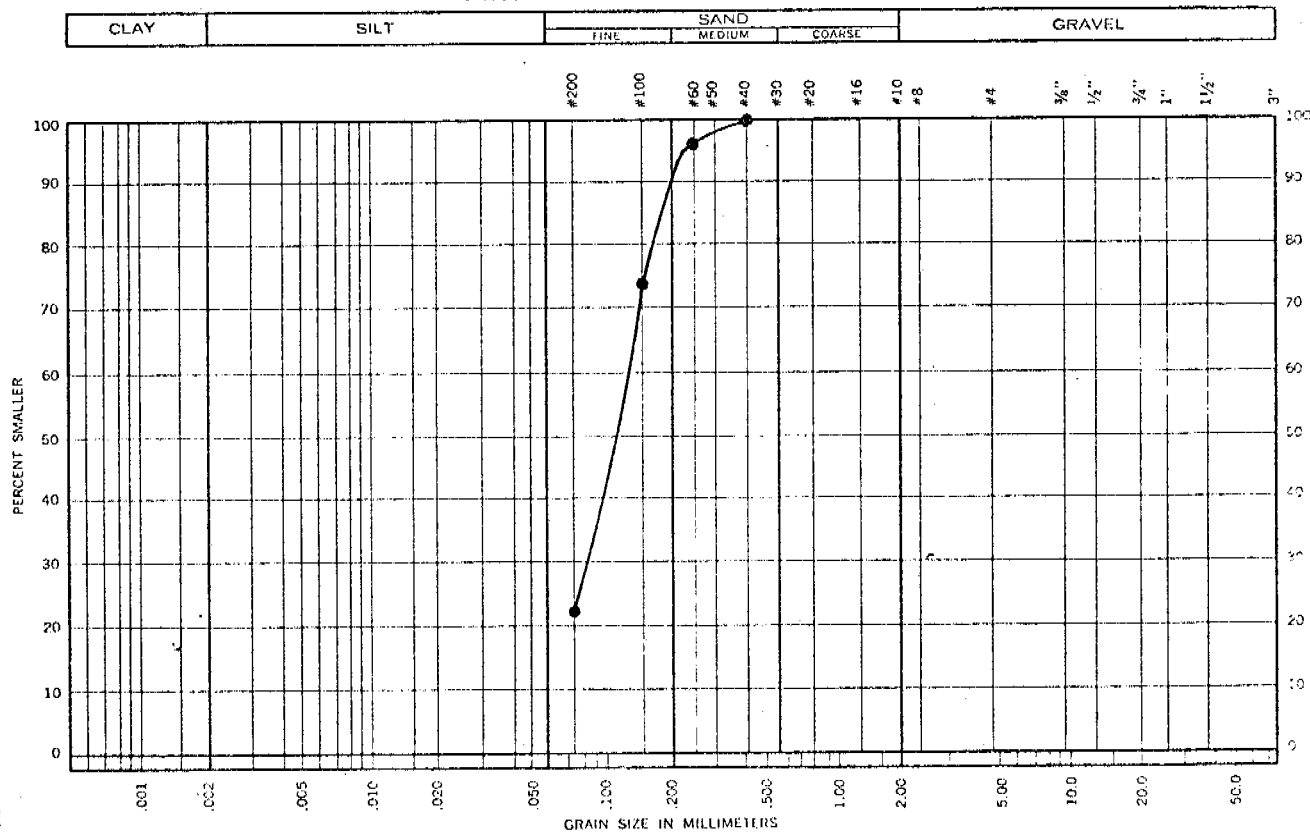


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 12/73
 SAMPLE No. 655-C-2
 DEPTH 5

GRAIN SIZE DISTRIBUTION



FIGURE

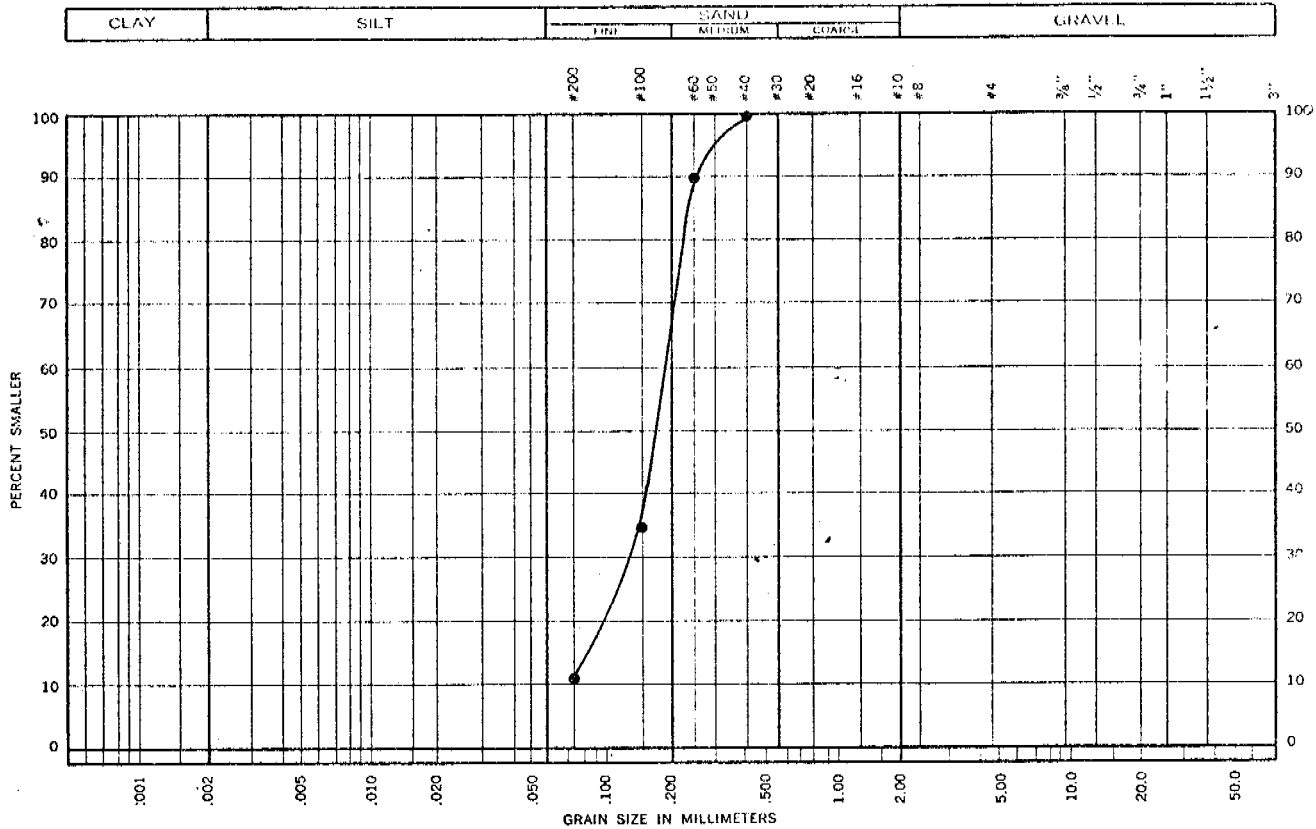


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 12/73
 SAMPLE No. 655-C-4
 DEPTH 2 1/2

GRAIN SIZE DISTRIBUTION



FIGURE

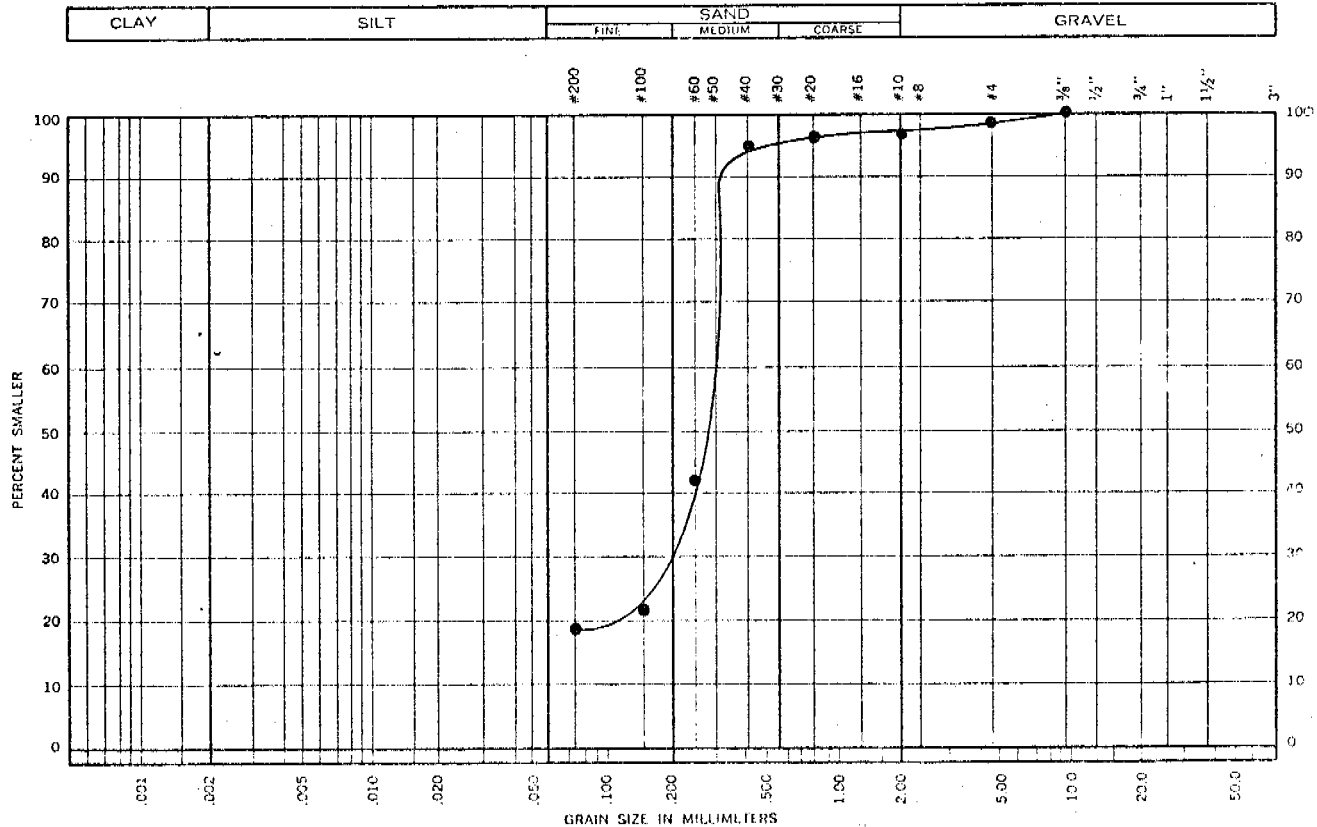


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 12, 1973
 SAMPLE No. 654-C-1
 DEPTH 2 1/2

GRAIN SIZE DISTRIBUTION



FIGURE

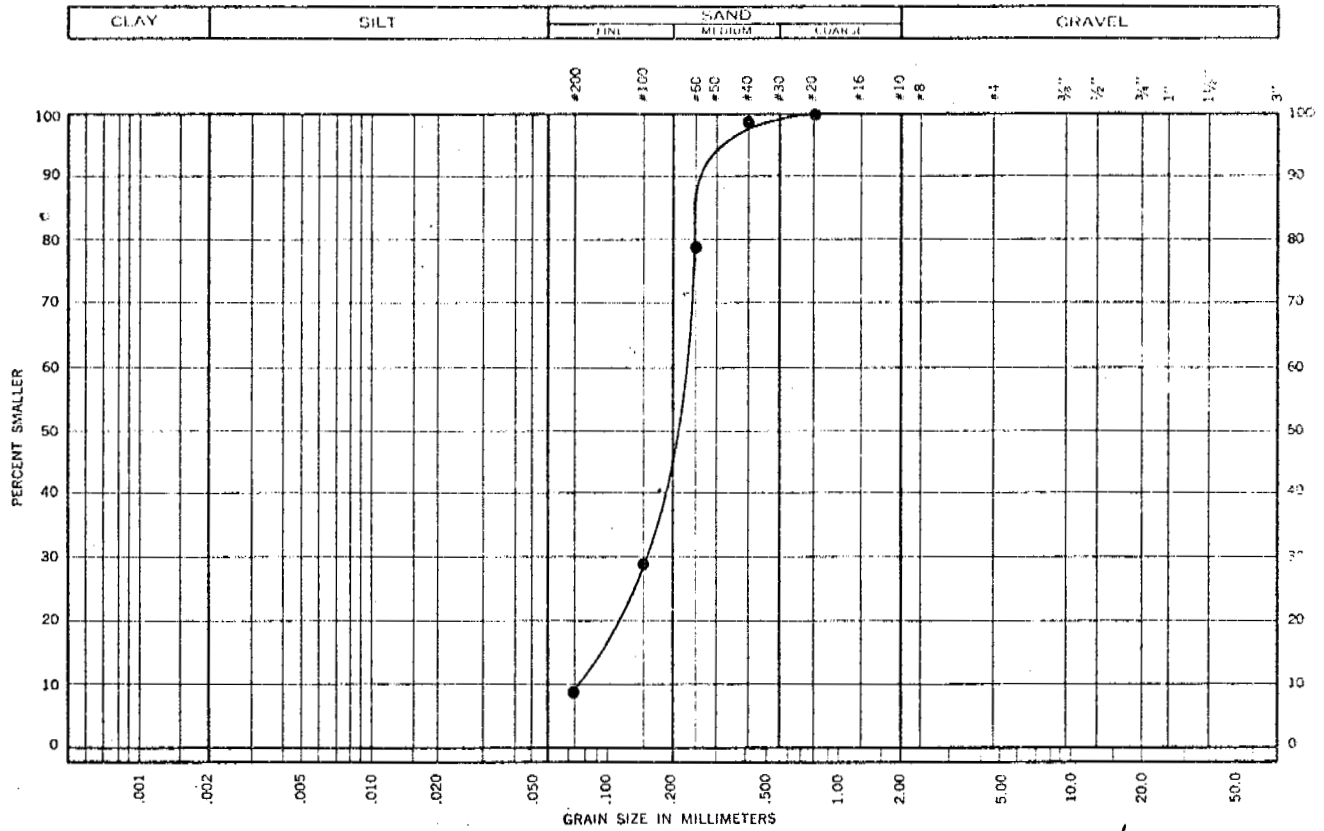


BROOKER & ASSOCIATES

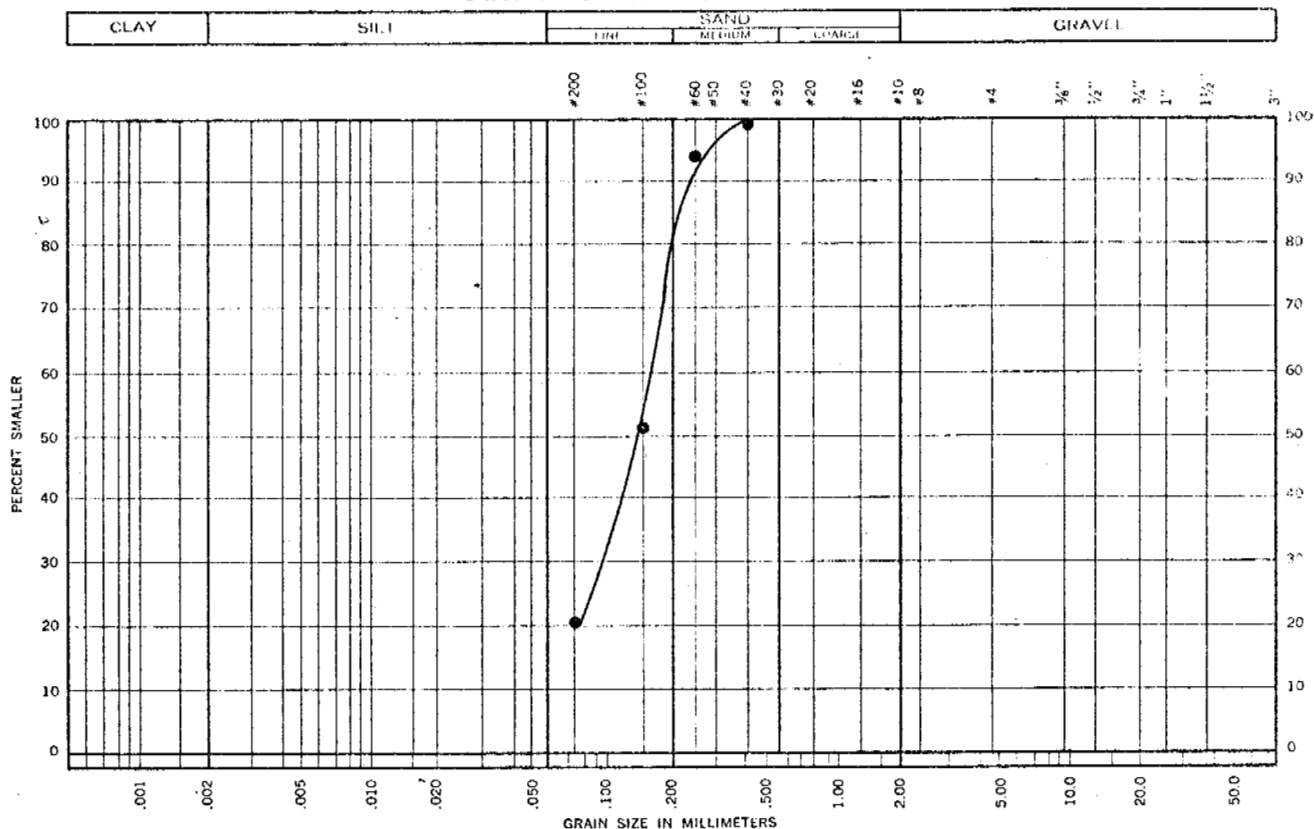
SAMPLE DESCRIPTION SAND, SOME SILT, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 12, 1973
 SAMPLE No. 654-C-3
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



FIGURE

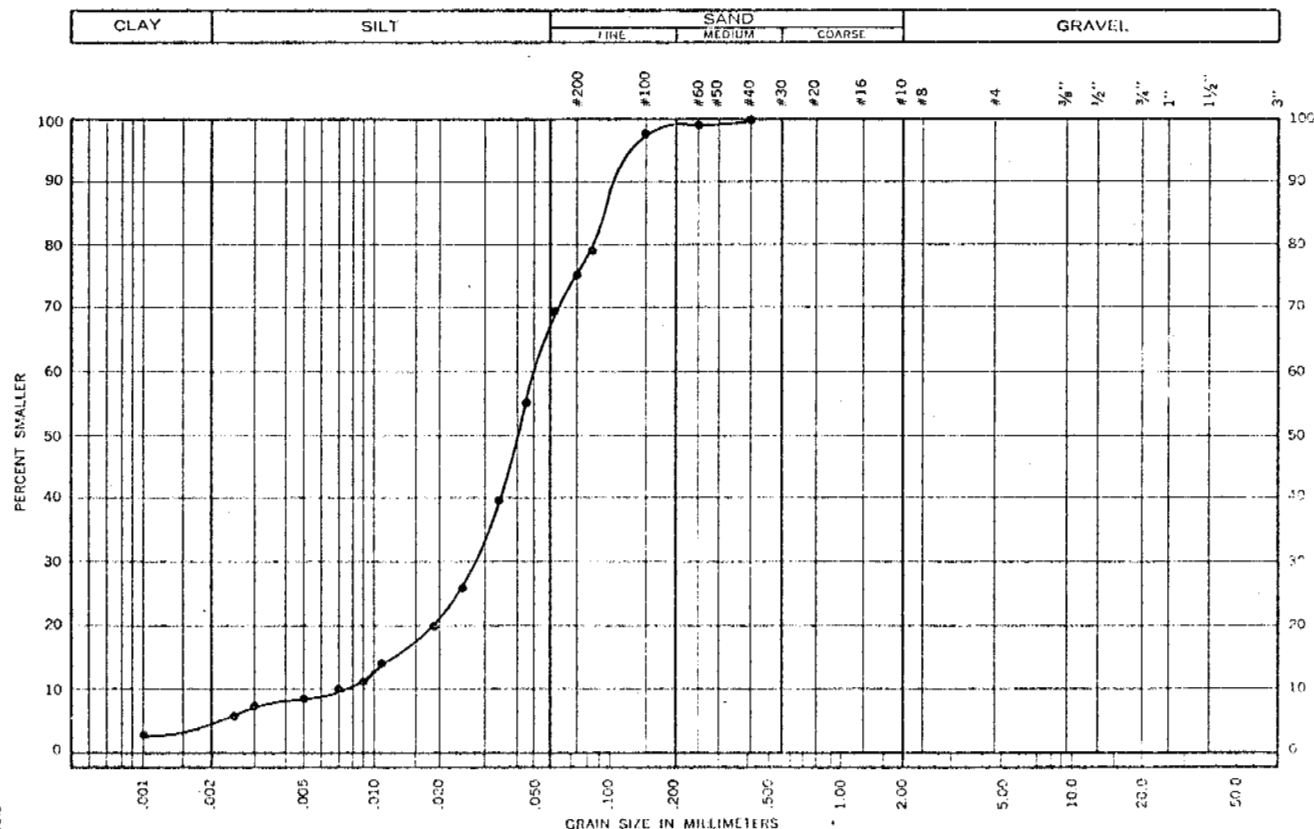


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 653-C-4
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

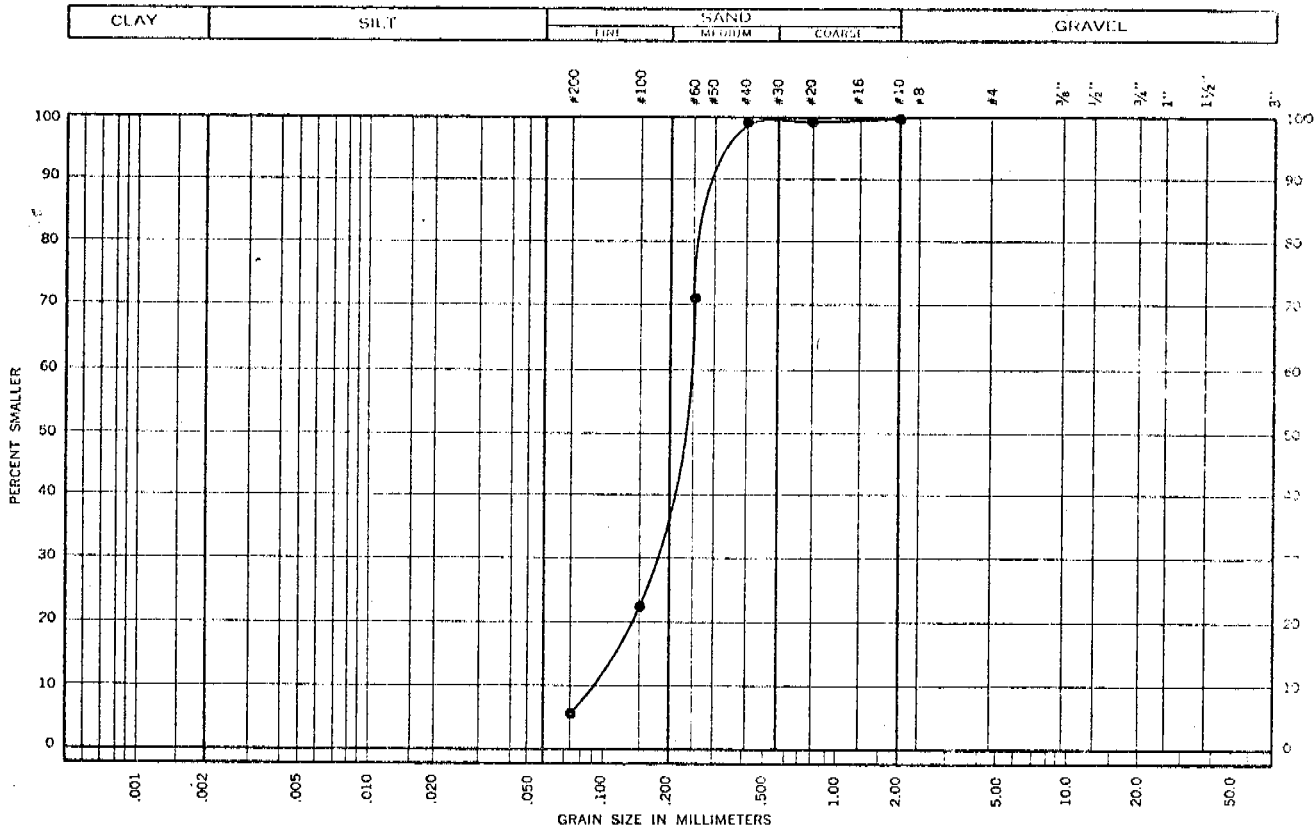


BROOKER & ASSOCIATES

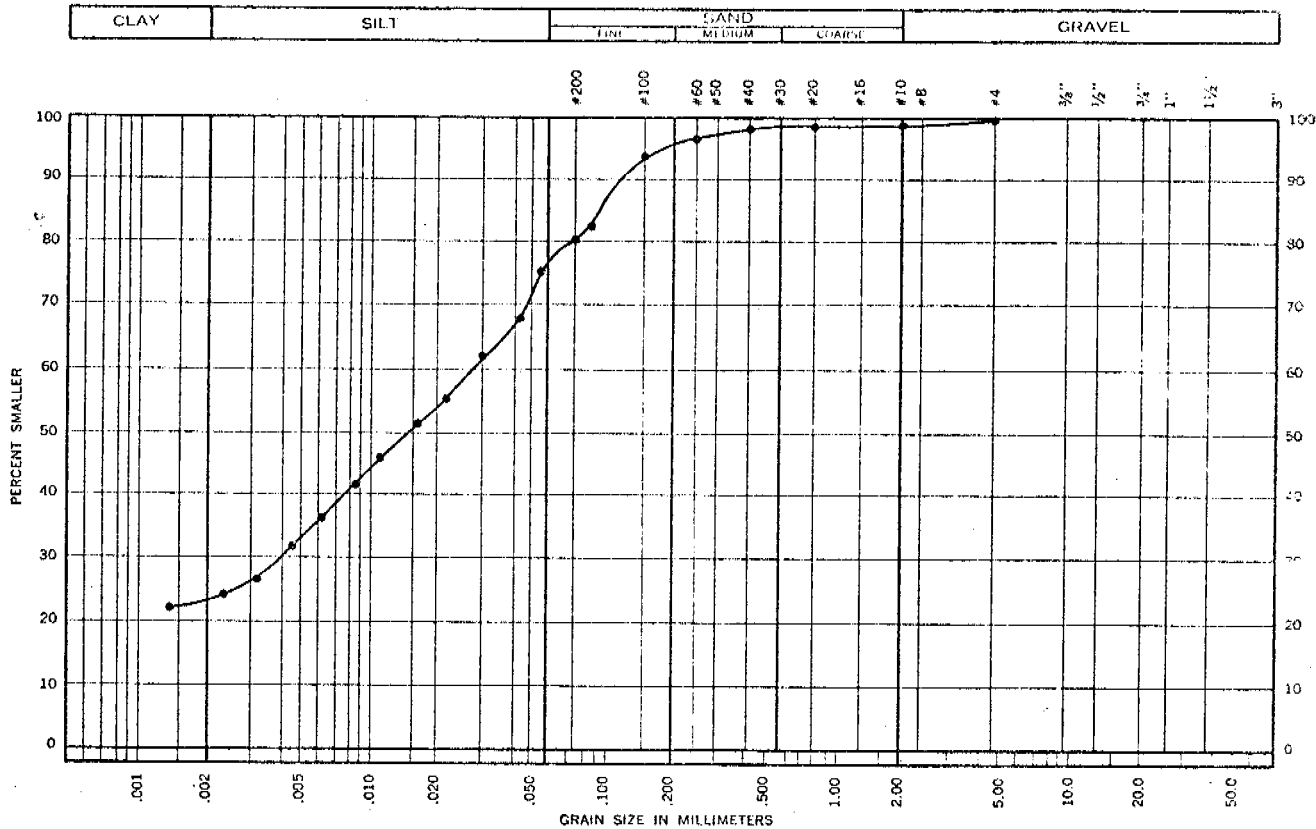
SAMPLE DESCRIPTION SANDY SILT,
TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 25/73
 SAMPLE No. 653-C-6
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



FIGURE

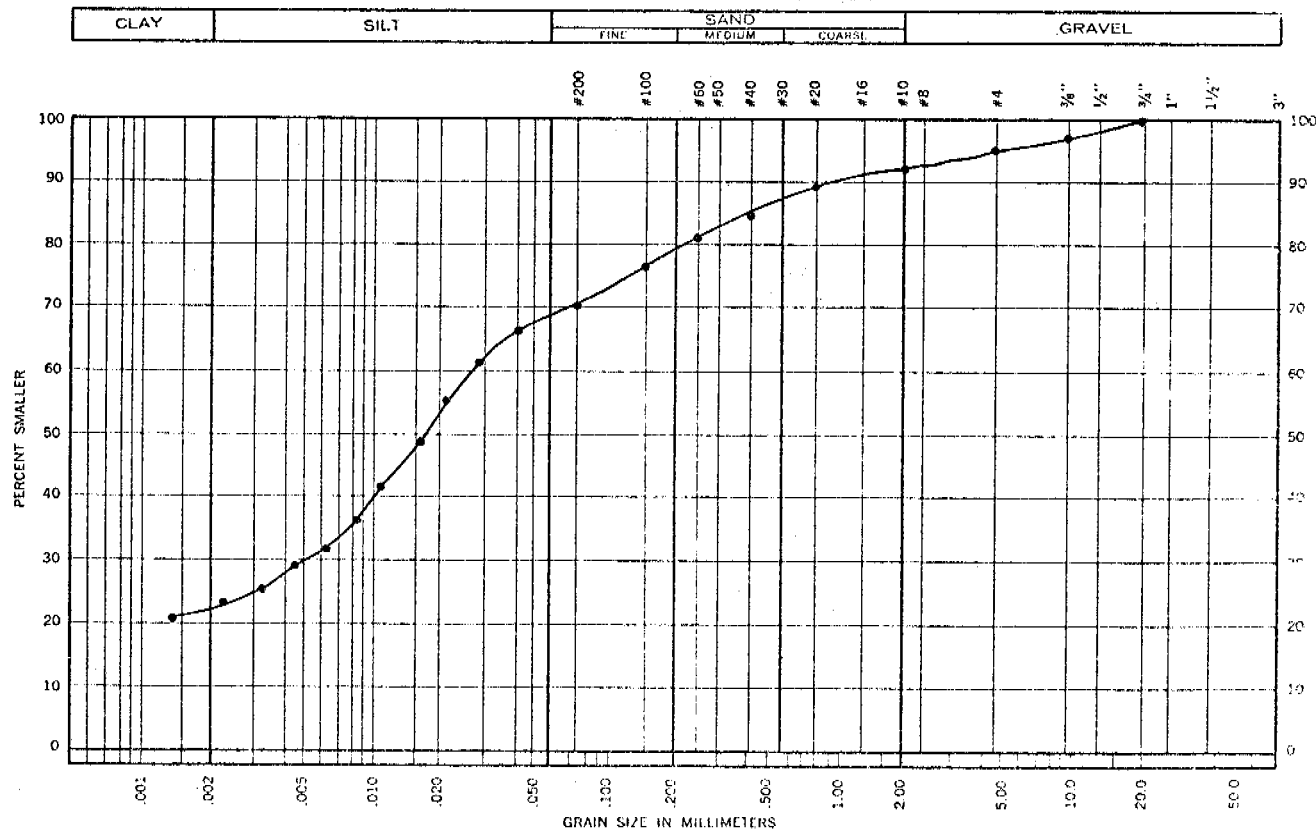


BROOKLER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SANDY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE MARCH 29/73
 SAMPLe No. 652-C-9
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

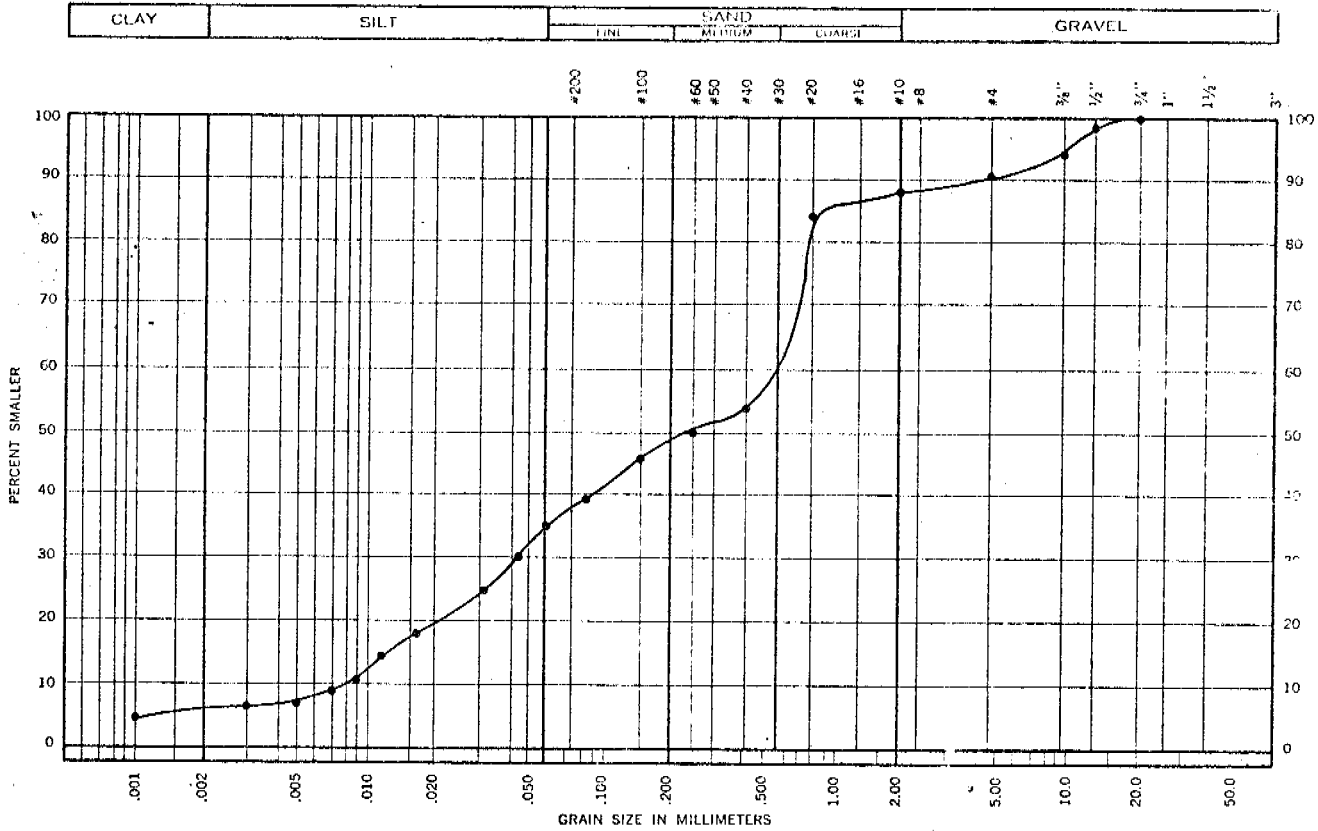


BROOKLER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT (TILL), SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE MARCH 30/73
 SAMPLe No. 651-C-3
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

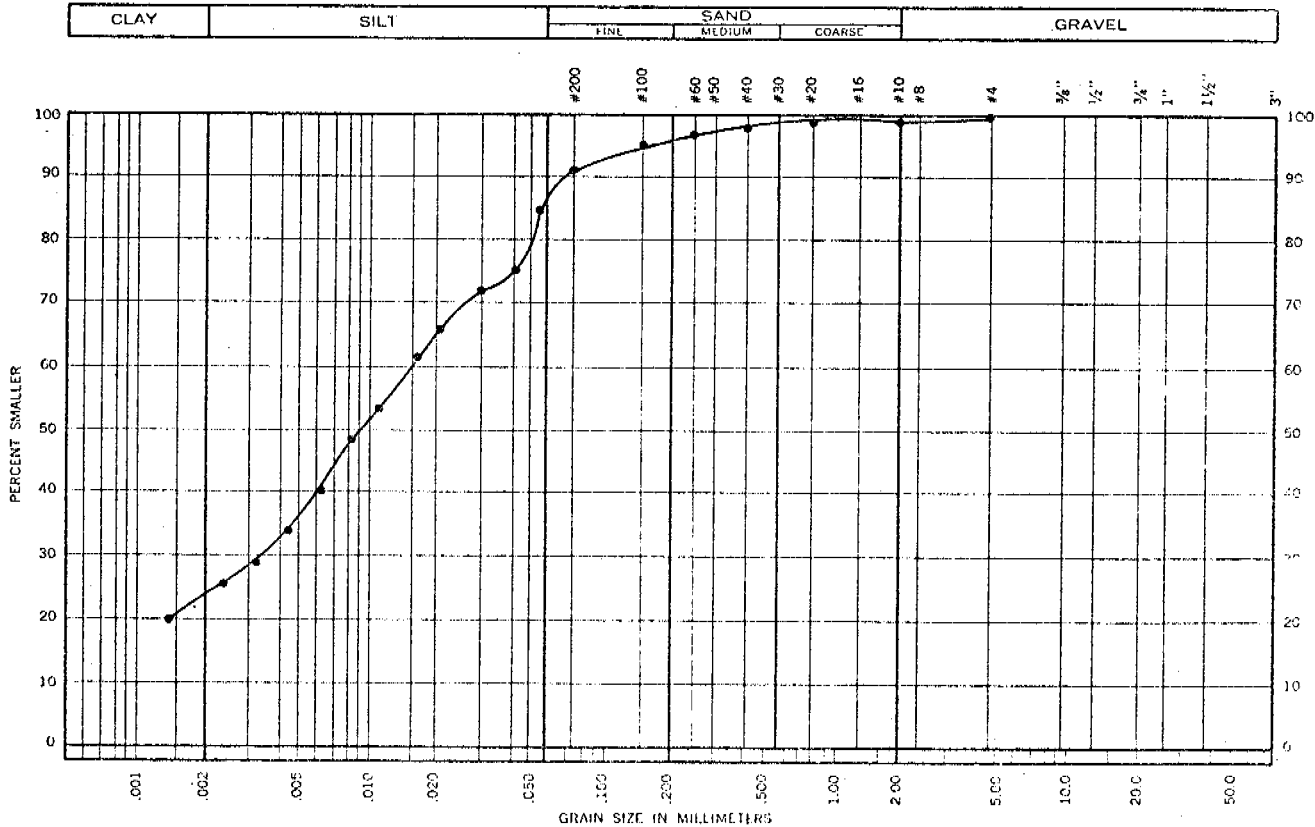


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY SAND, SOME GRAVEL, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 651-C-5
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



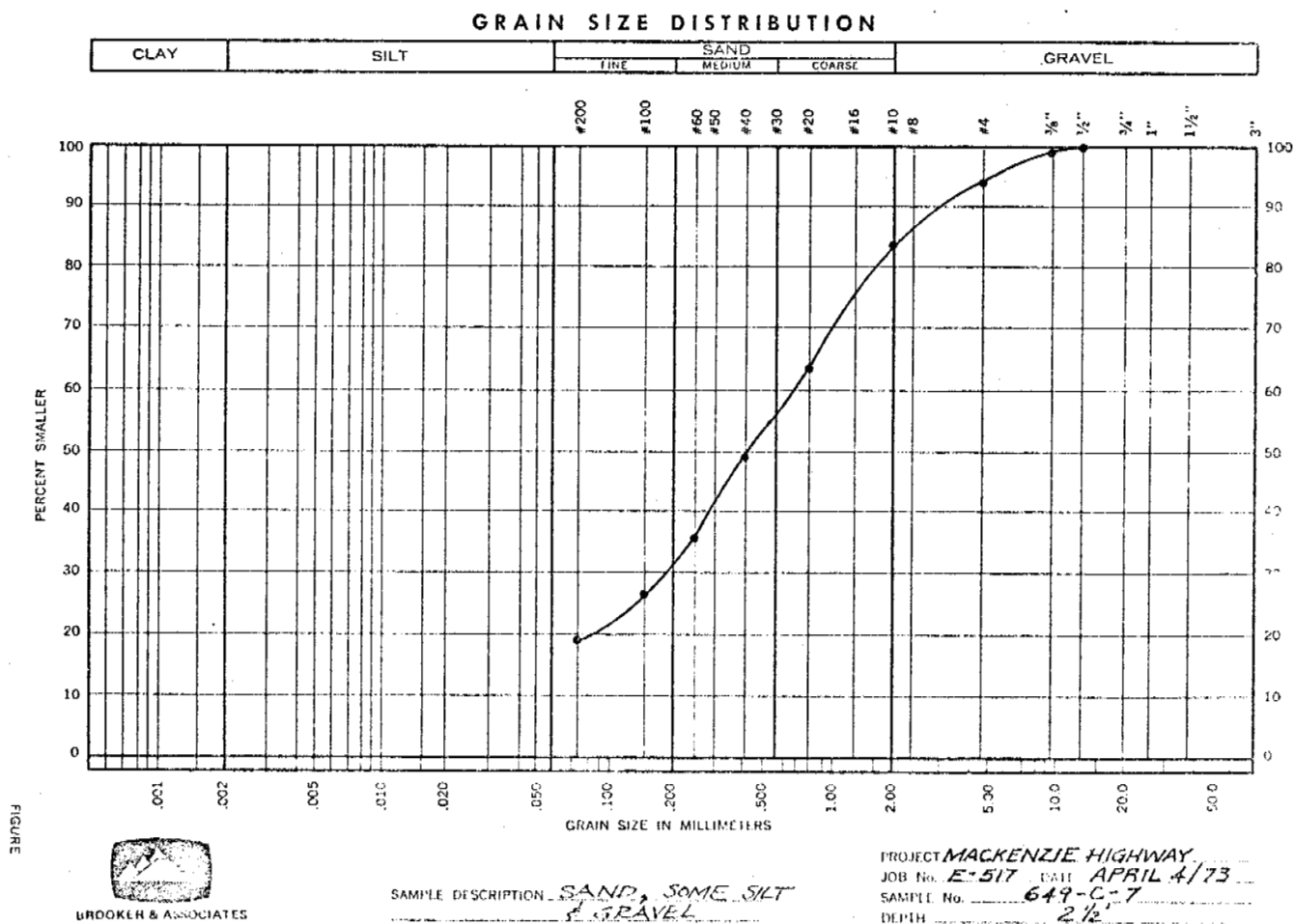
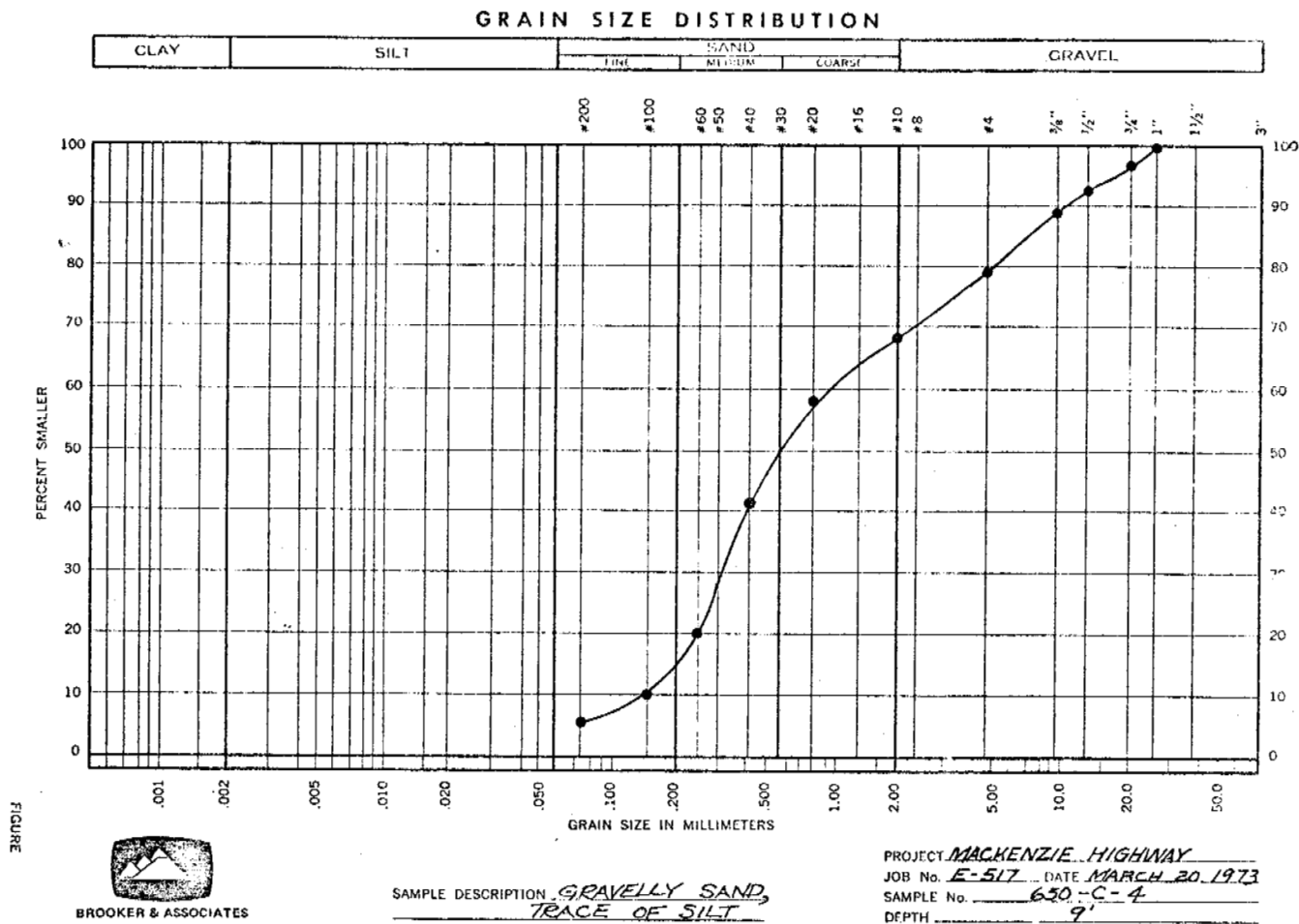
FIGURE



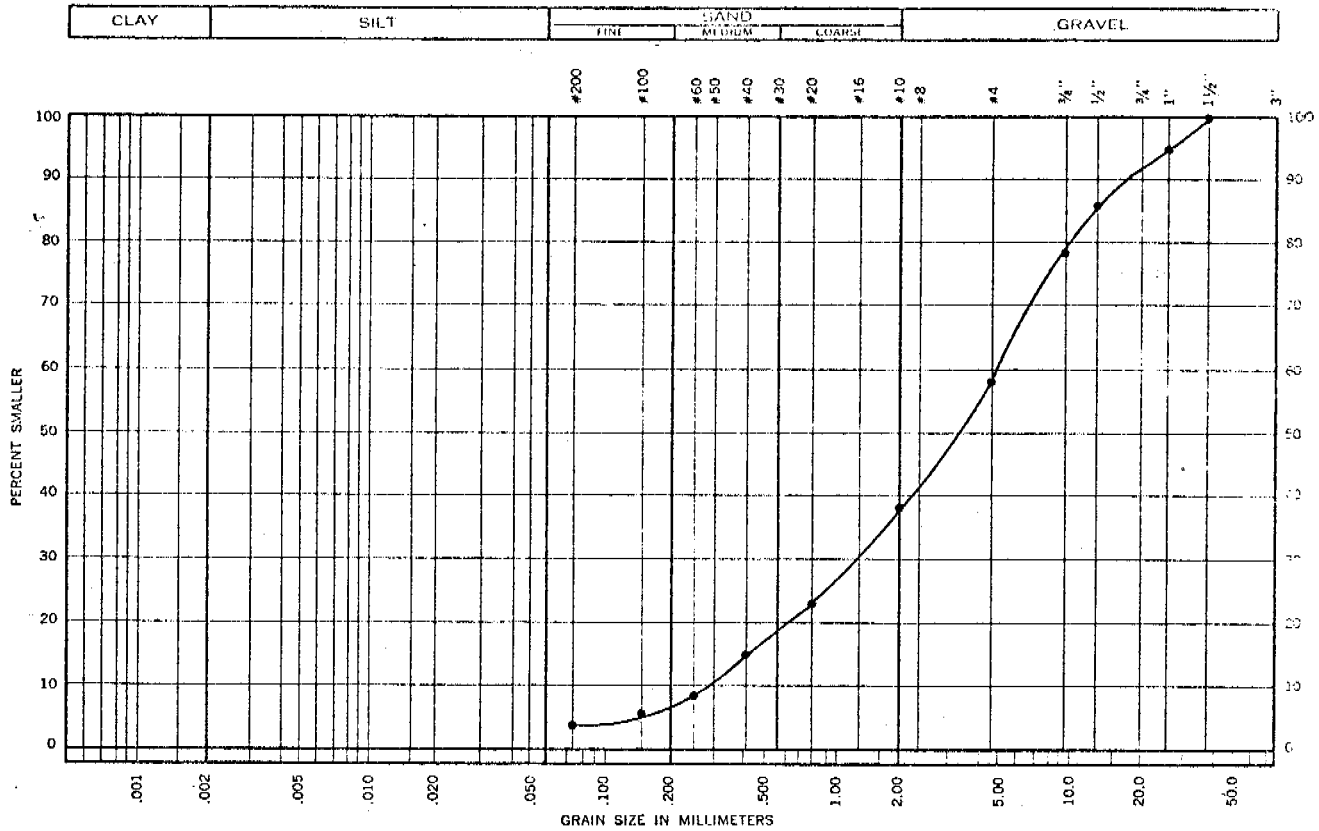
BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SOME SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE MARCH 29/73
 SAMPLE No. 650-C-2
 DEPTH 2 1/2'



GRAIN SIZE DISTRIBUTION



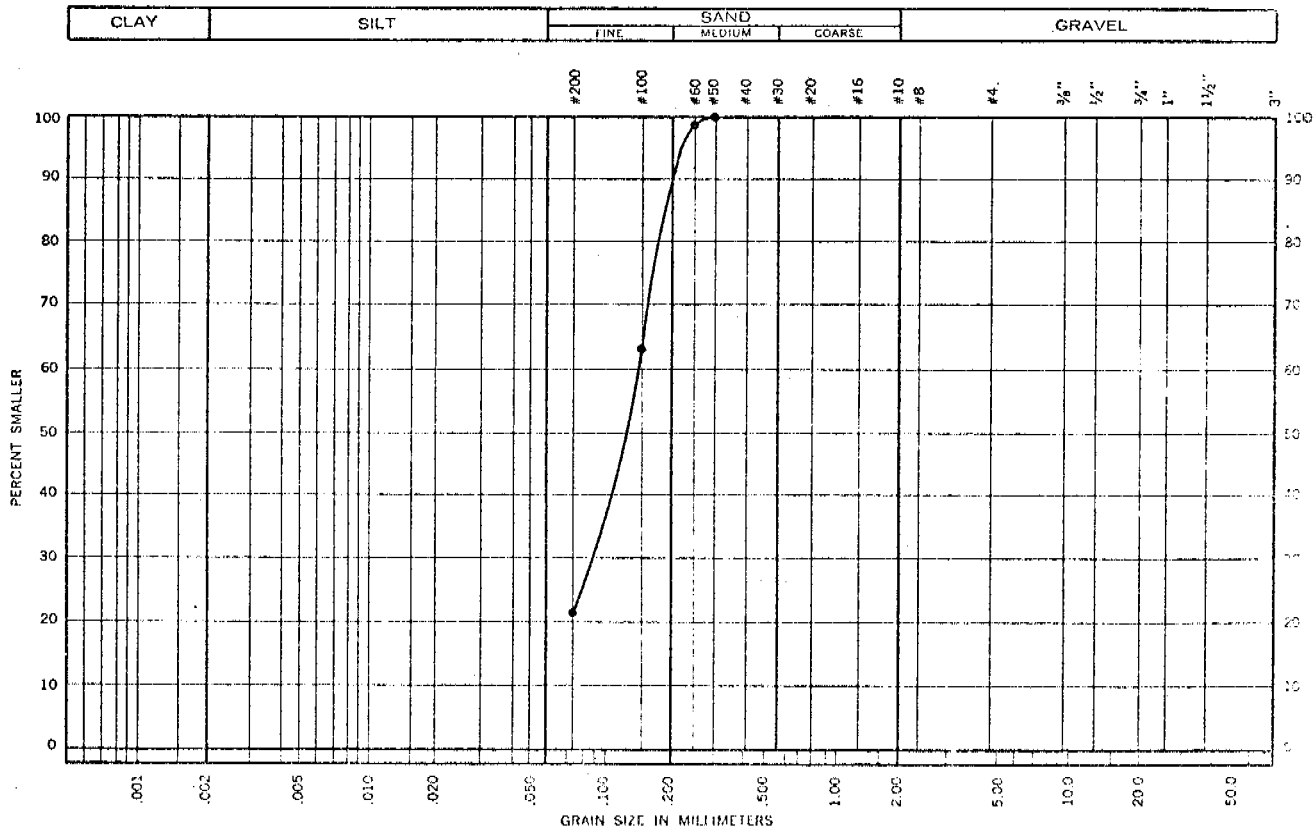
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 648-C-1
DEPTH 5

GRAIN SIZE DISTRIBUTION



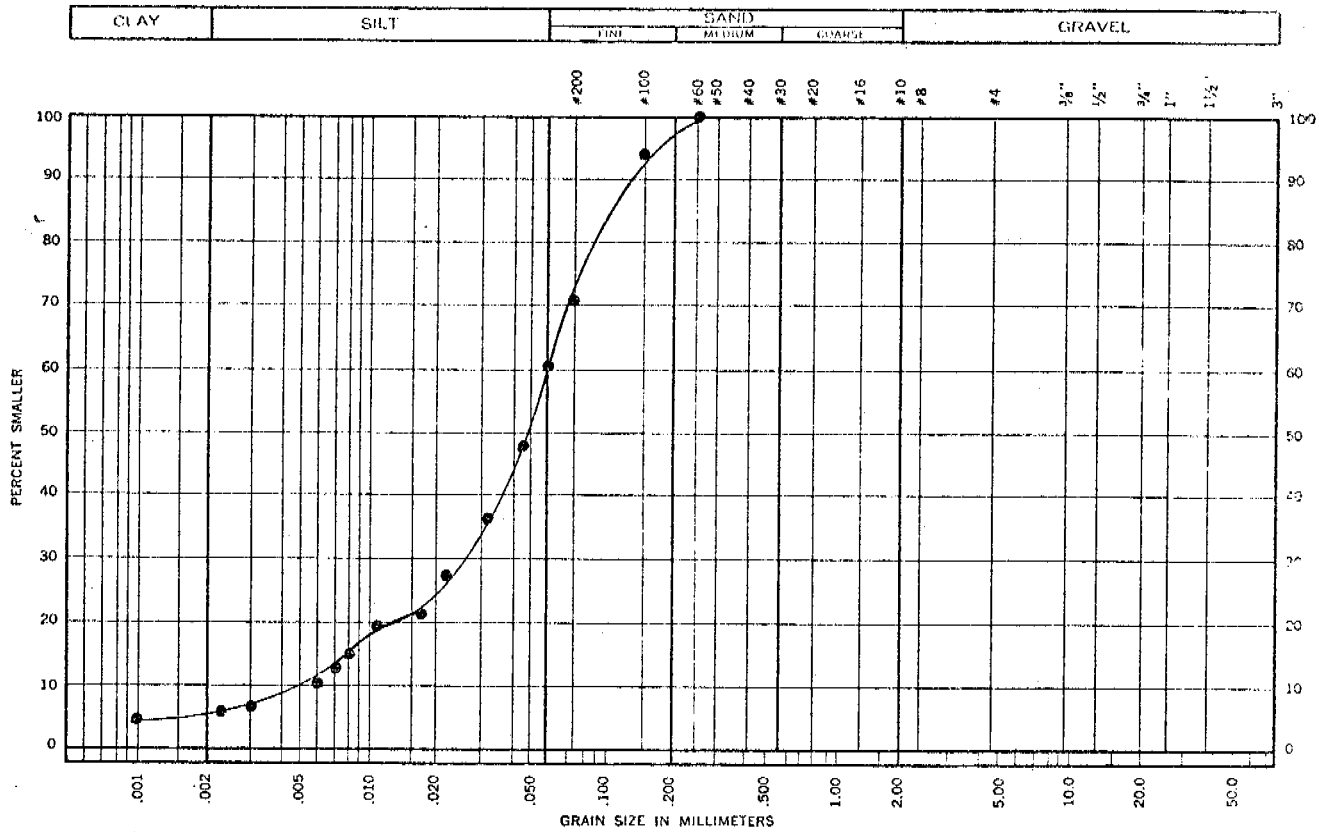
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 648-C-6
DEPTH 5

GRAIN SIZE DISTRIBUTION



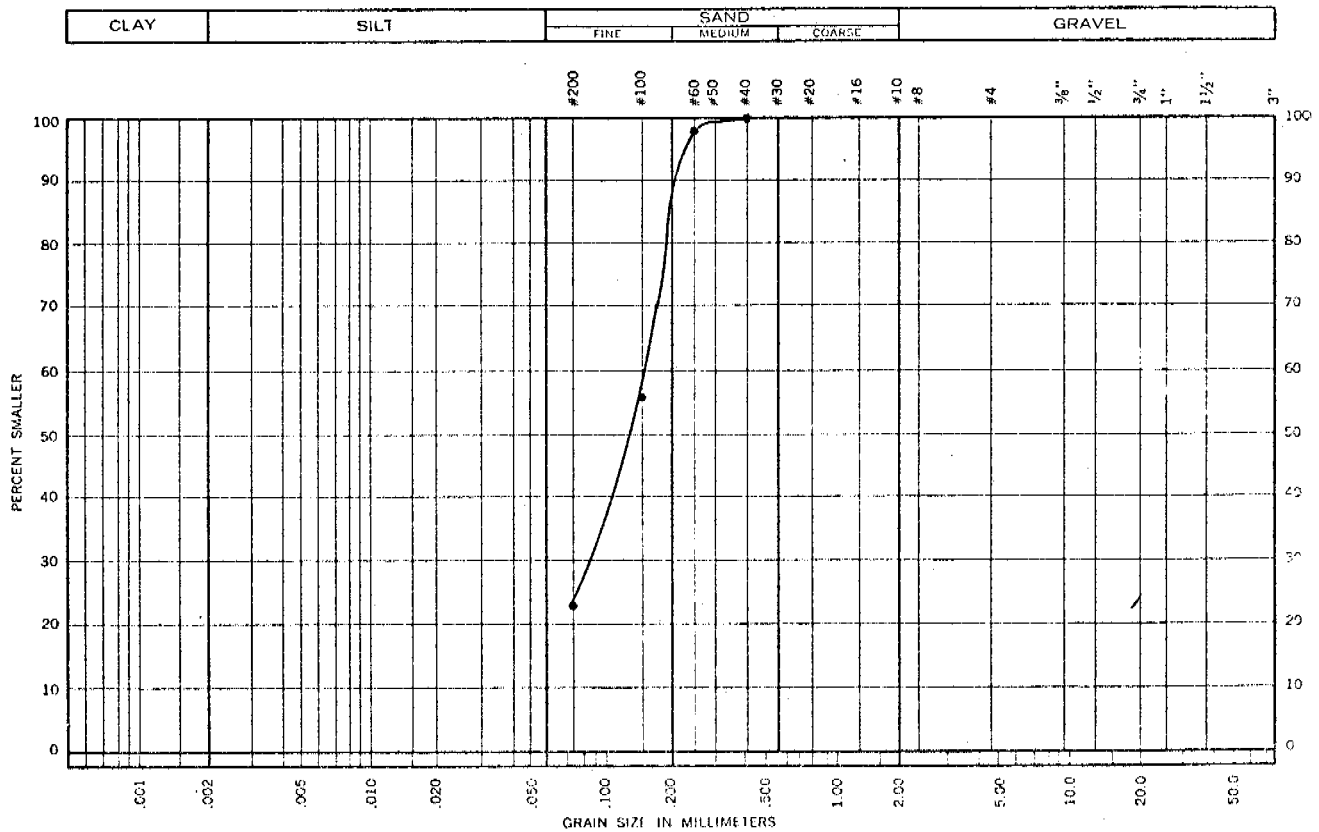
FIGURE



SAMPLE DESCRIPTION SANDY SILT,
TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 647-C-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE



SAMPLE DESCRIPTION SAND, FINE,
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 647-C-6
DEPTH 5'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



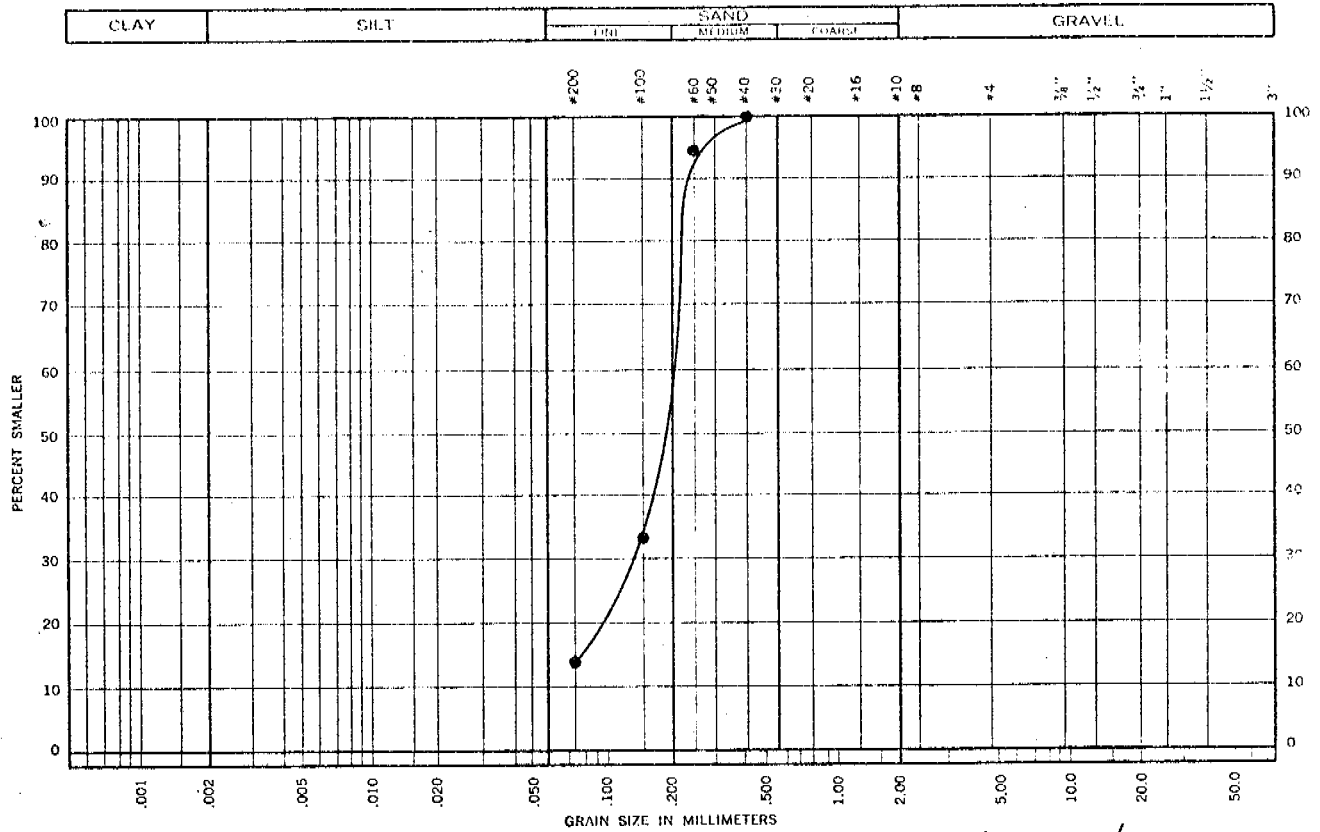
PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 646-C-2
DEPTH 5'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. G46-C-6
DEPTH 9'

GRAIN SIZE DISTRIBUTION



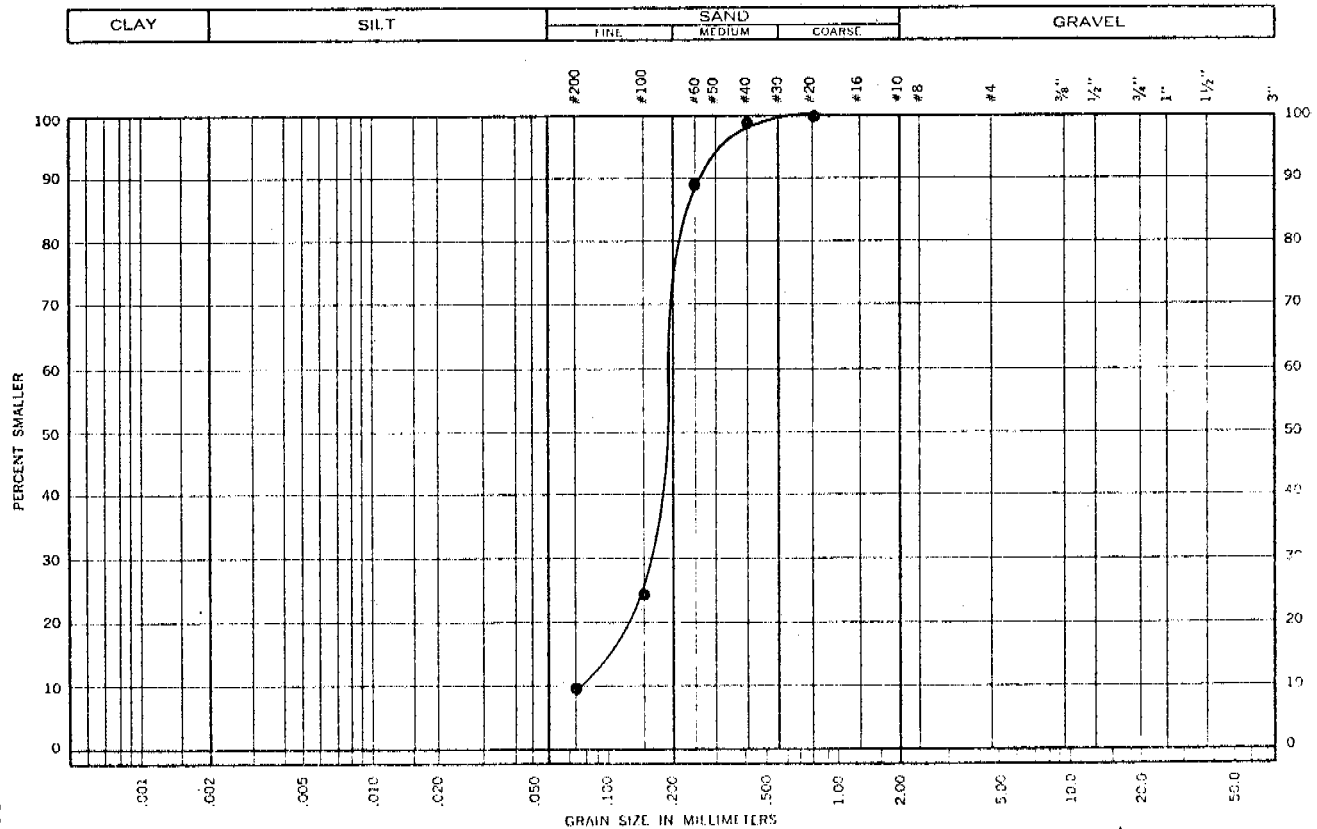
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 645-C-2
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



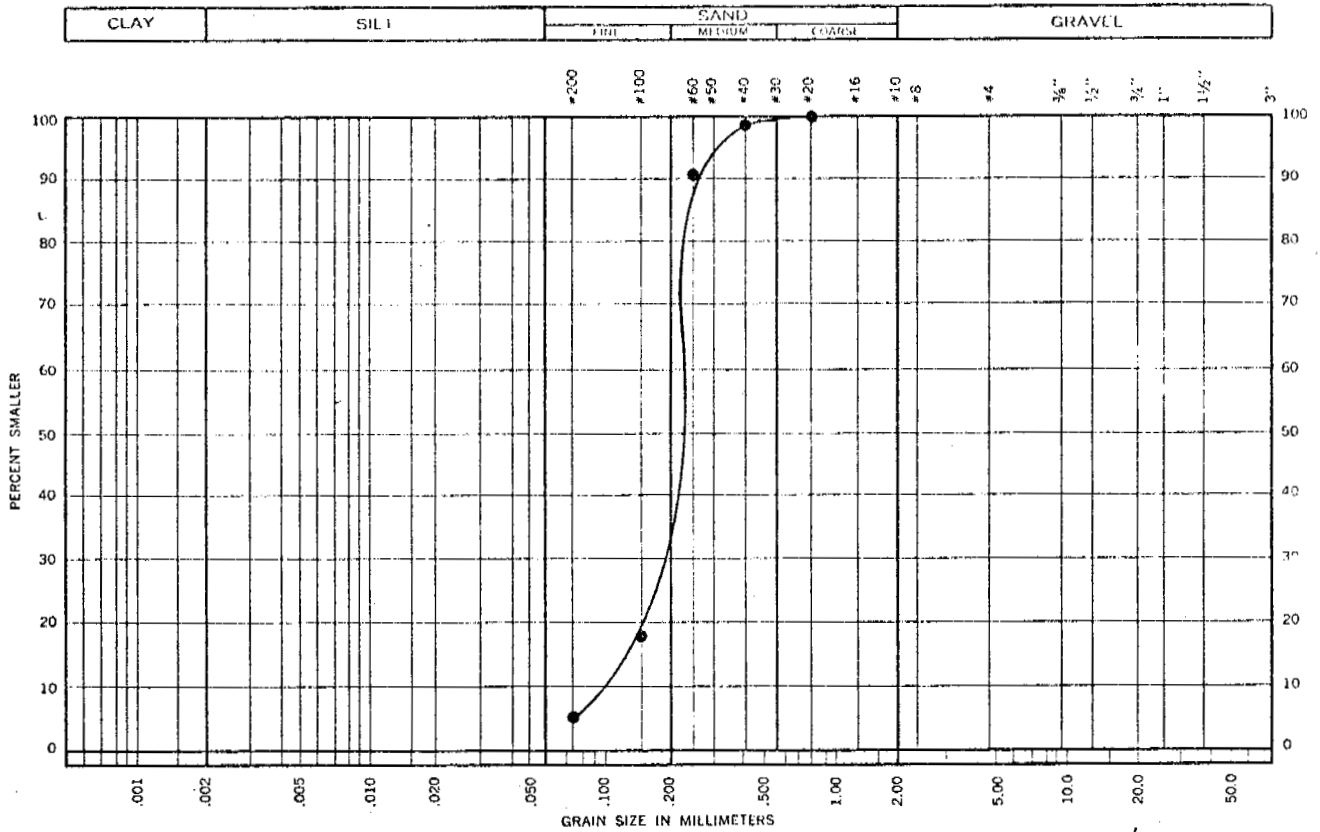
FIGURE



SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 645-C-5
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

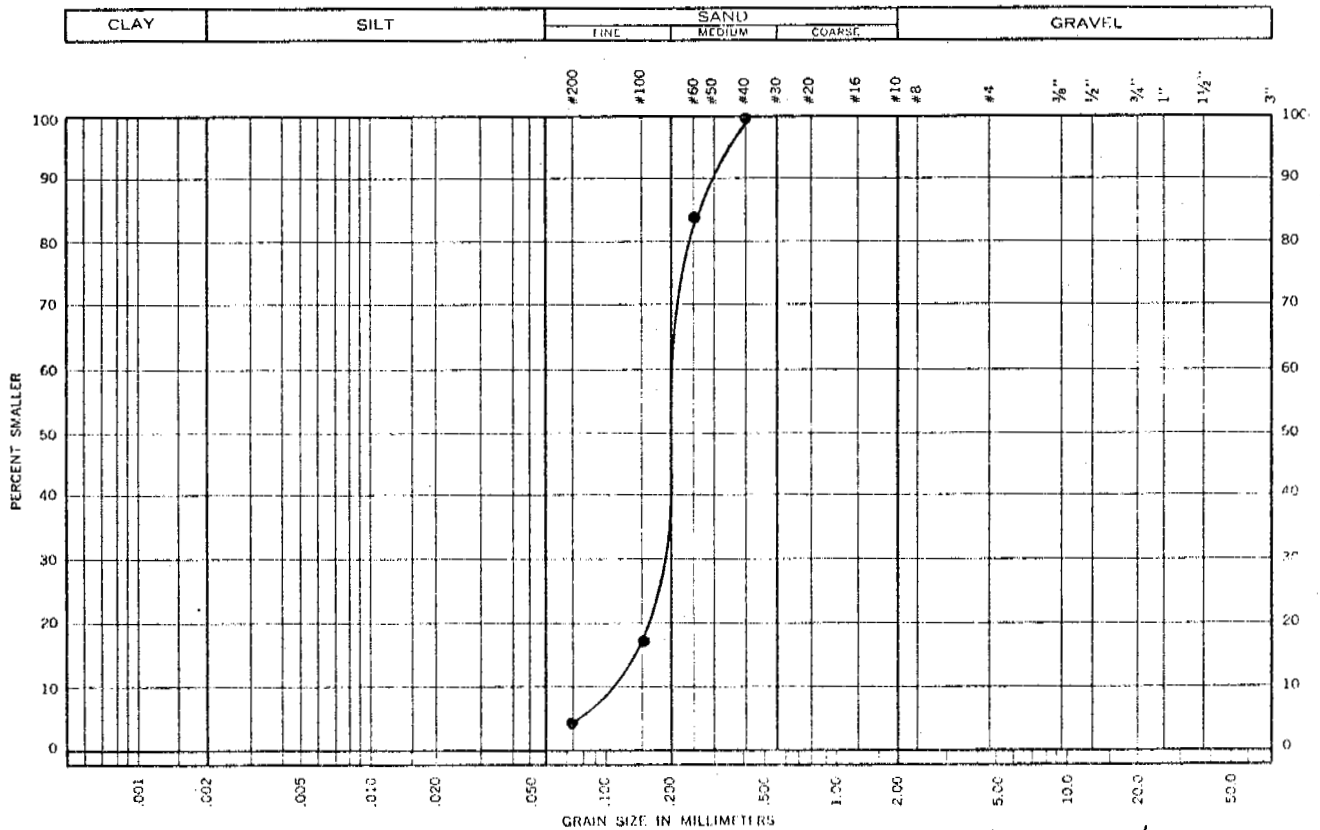


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 644-C-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

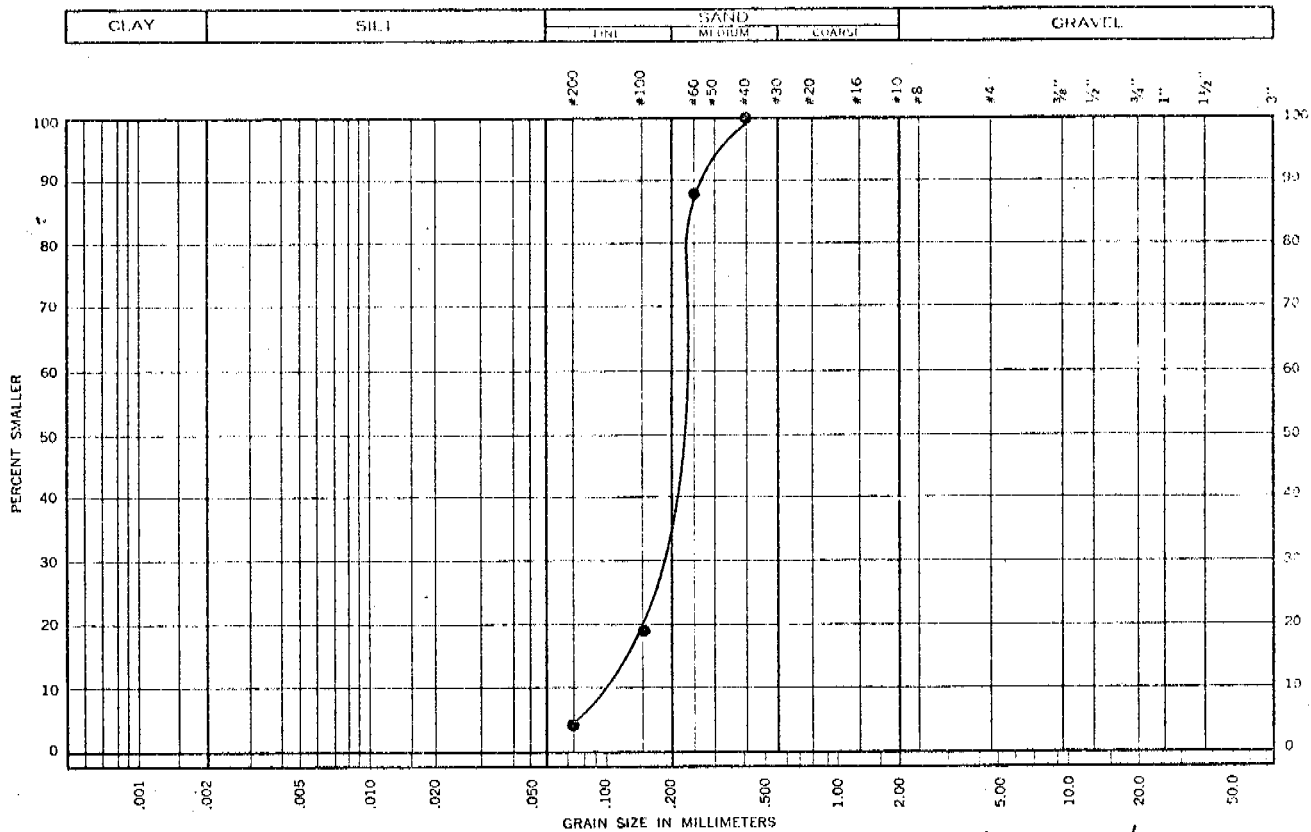


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 644-C-4
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



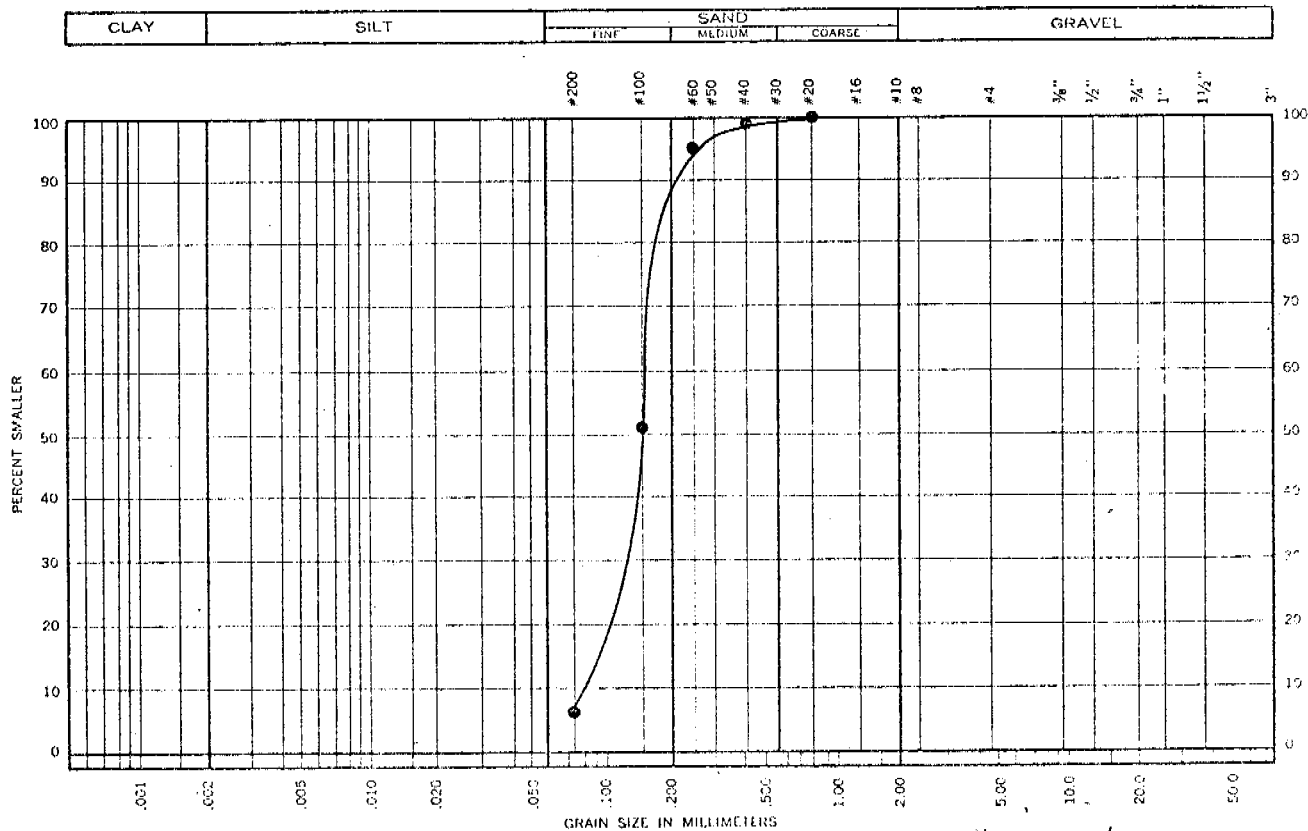
FIGURE



SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 643-C-2
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



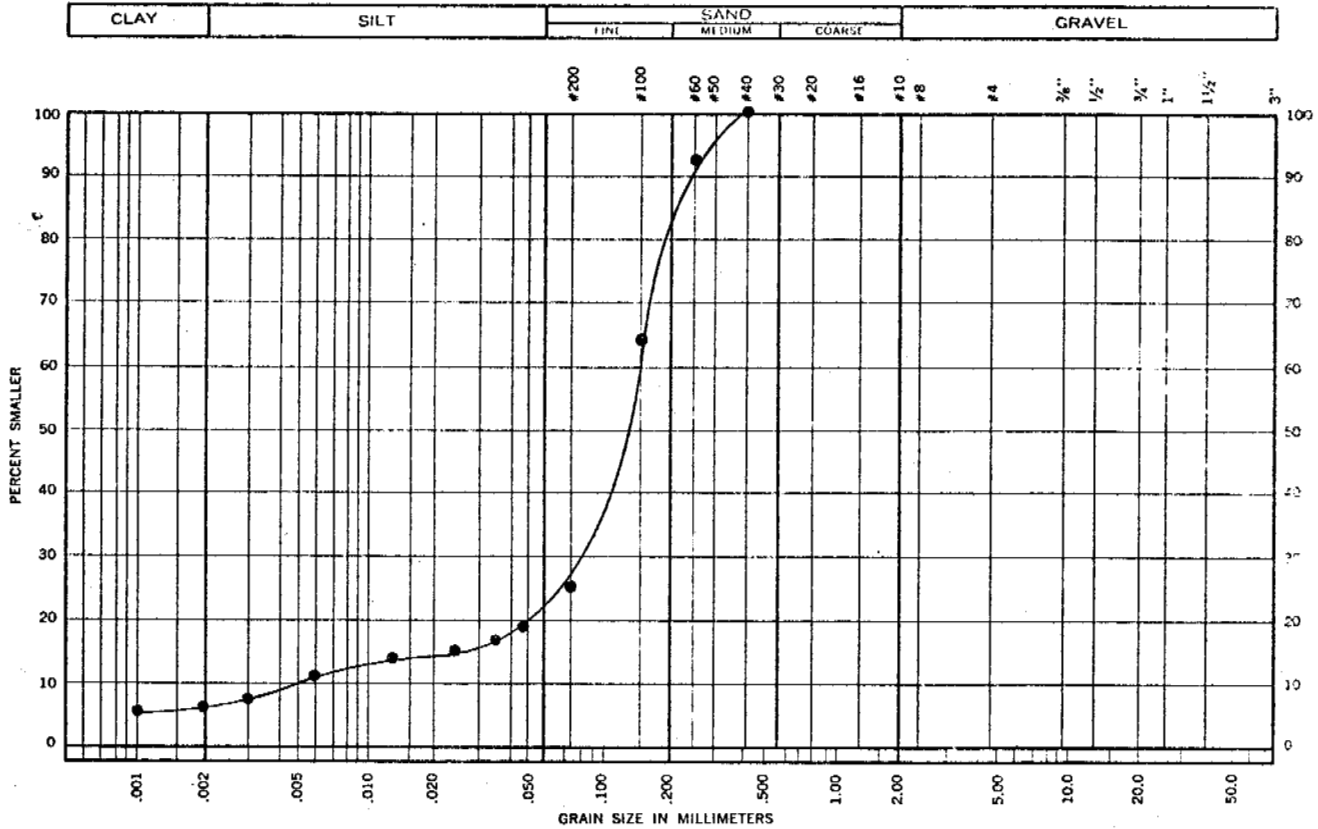
FIGURE



SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 643-C-6
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



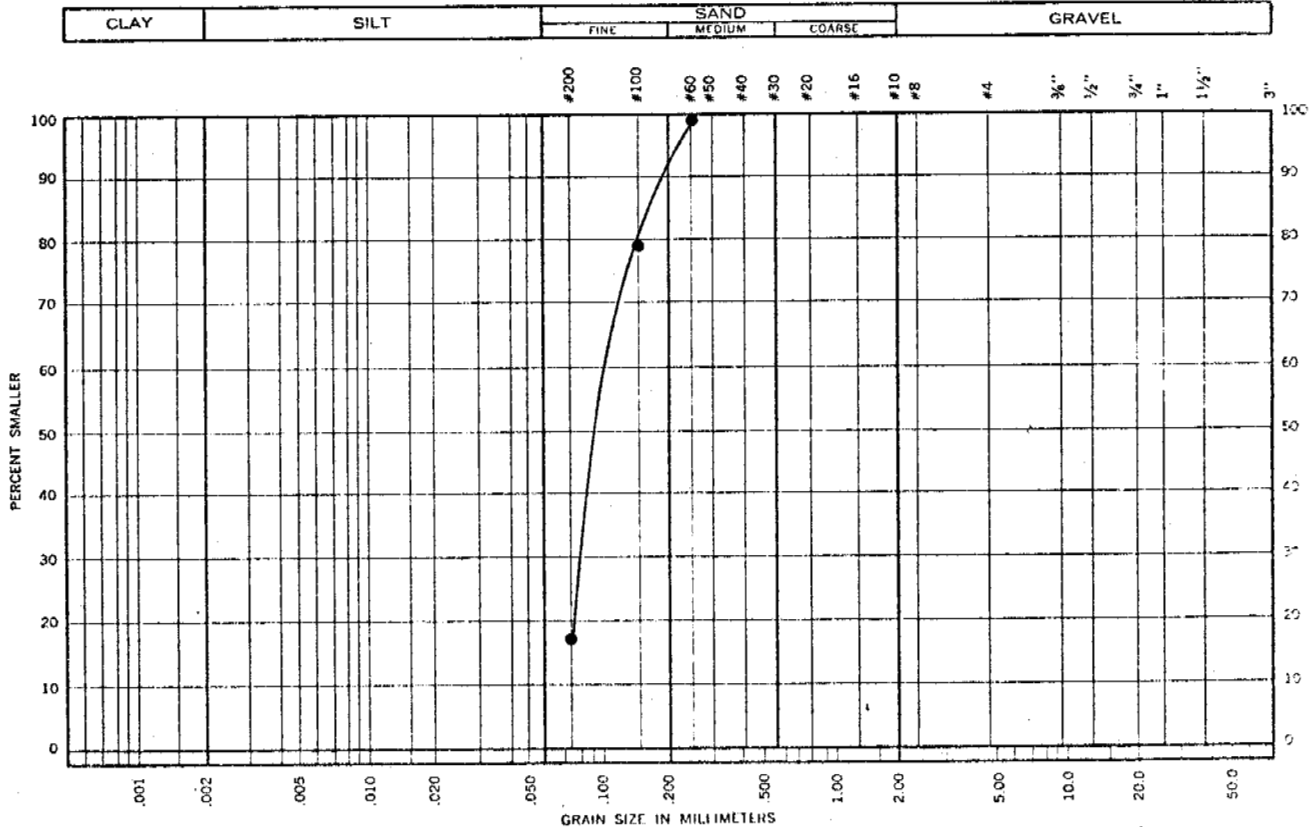
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT,
TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 16/73
SAMPLE No. 642-C-1
DEPTH 2 1/2

GRAIN SIZE DISTRIBUTION



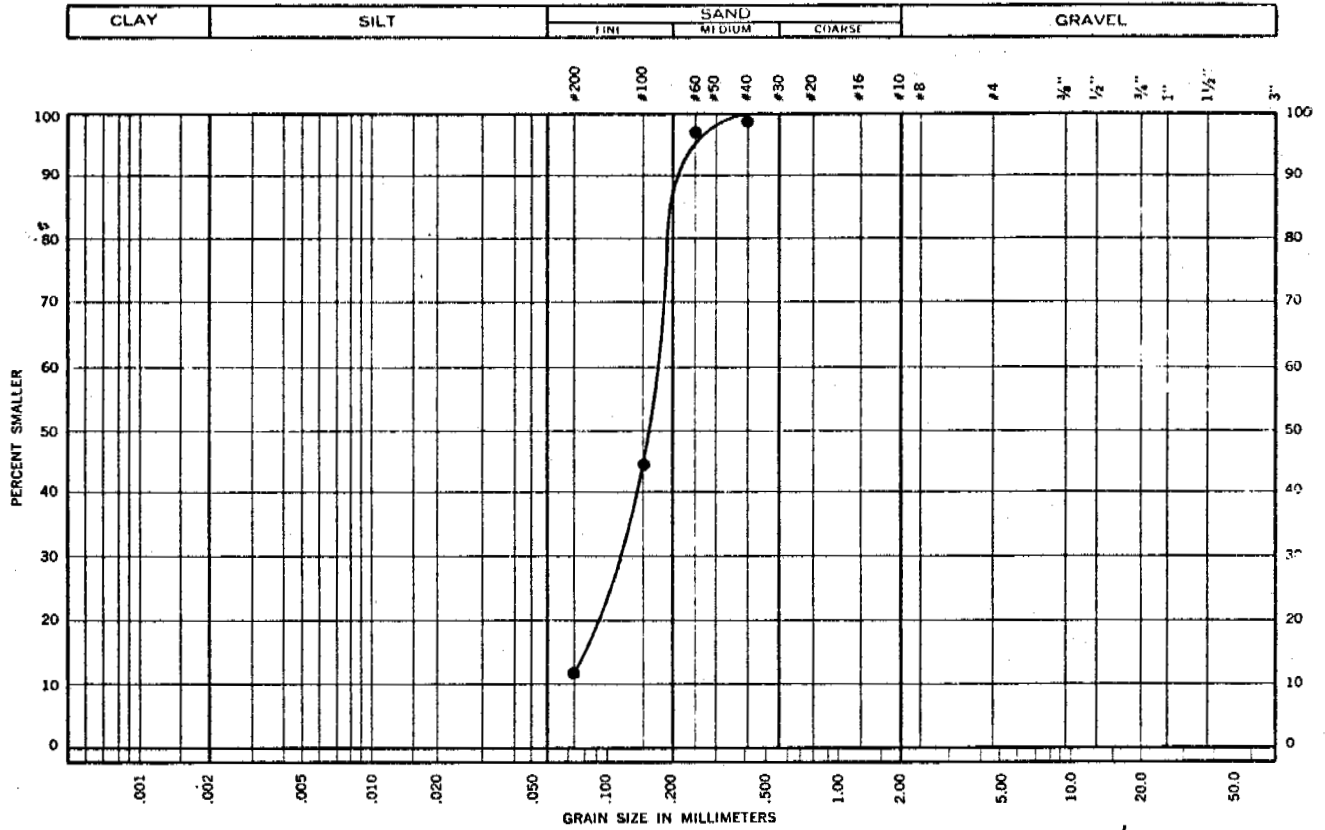
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT,

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 642-C-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

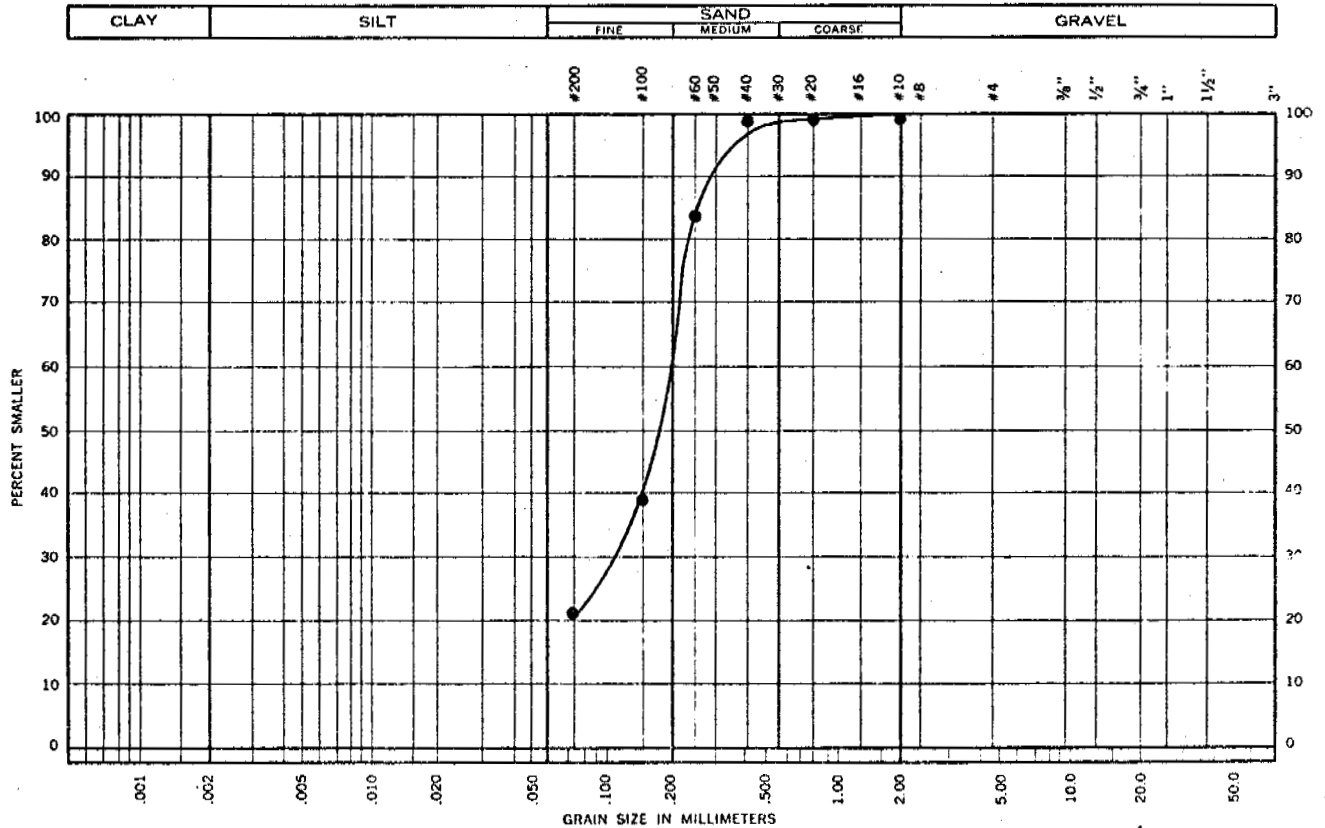


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 641-C-2
 DEPTH 9'

GRAIN SIZE DISTRIBUTION



FIGURE



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 11/73
 SAMPLE No. 641-C-4
 DEPTH 2 1/2'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



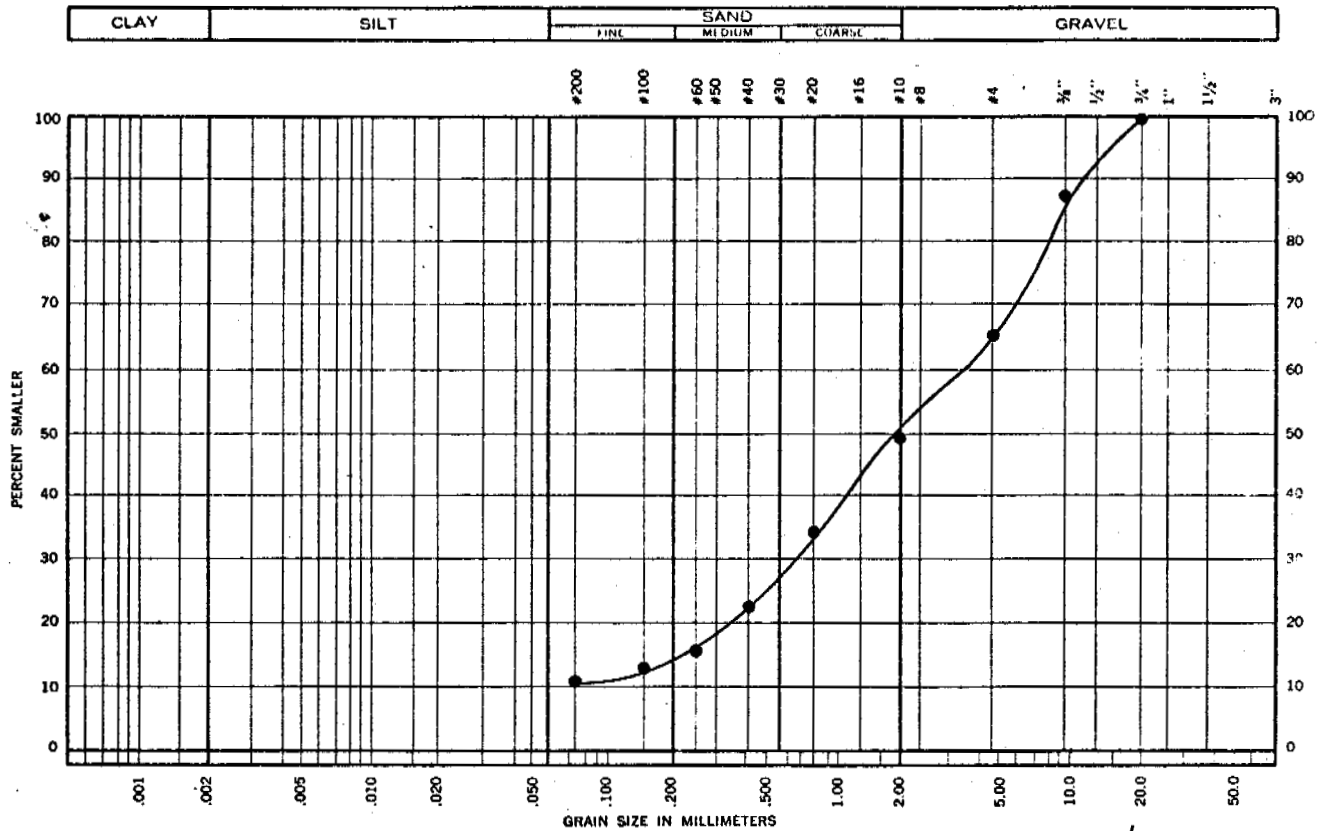
PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 16/73
SAMPLE No. 640-C-5
DEPTH 5

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 639-C-2
DEPTH 2'

GRAIN SIZE DISTRIBUTION



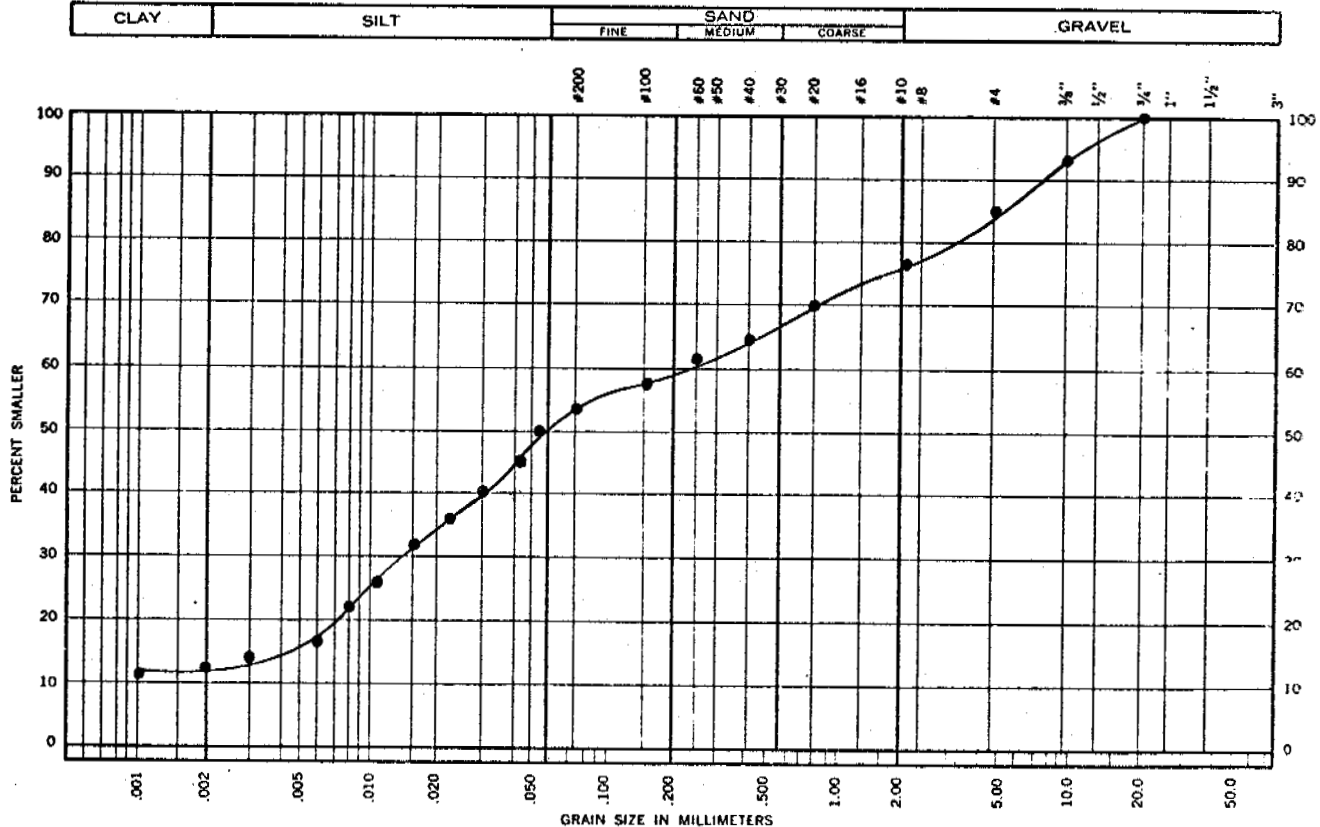
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
SOME SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 639-C-5
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



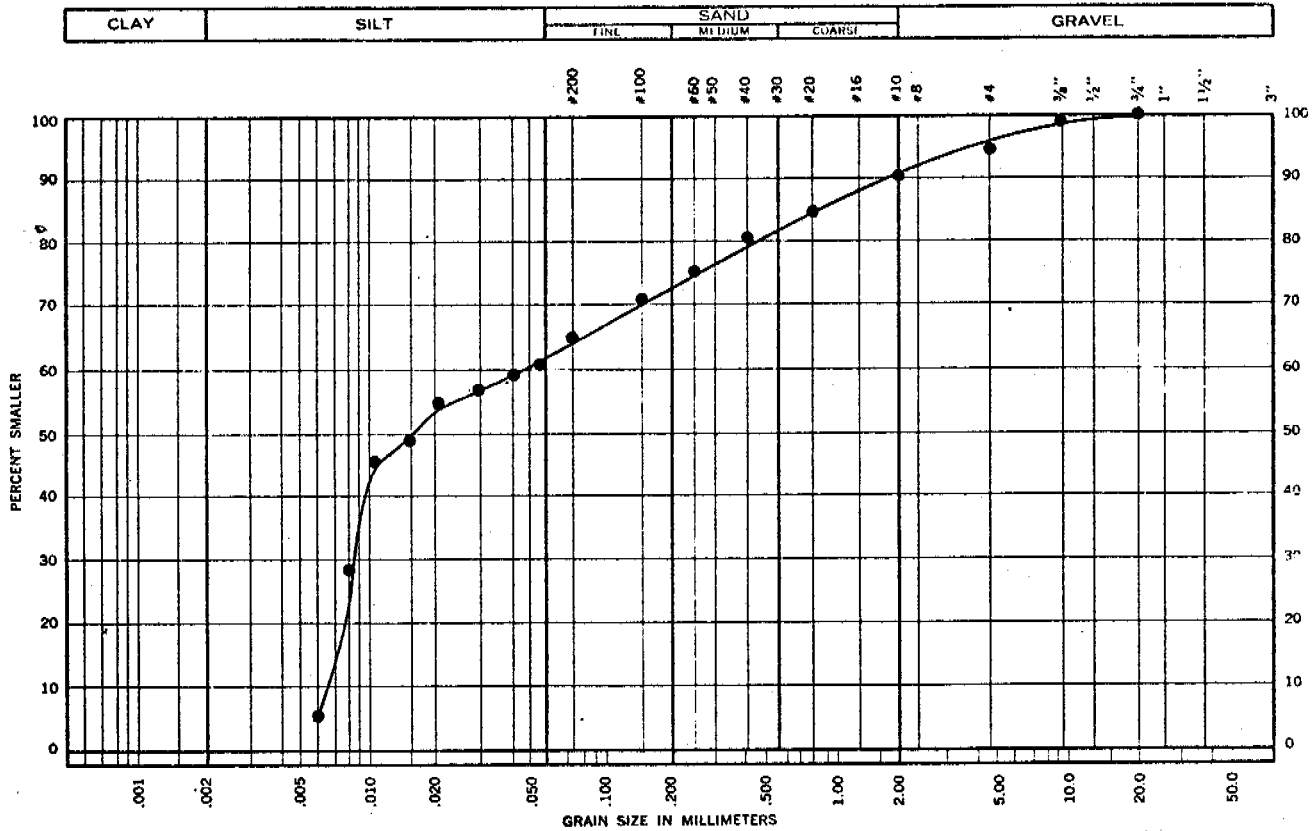
FIGURE



SAMPLE DESCRIPTION SANDY SILT (TILL),
GRAVELLY, SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 638-C-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION

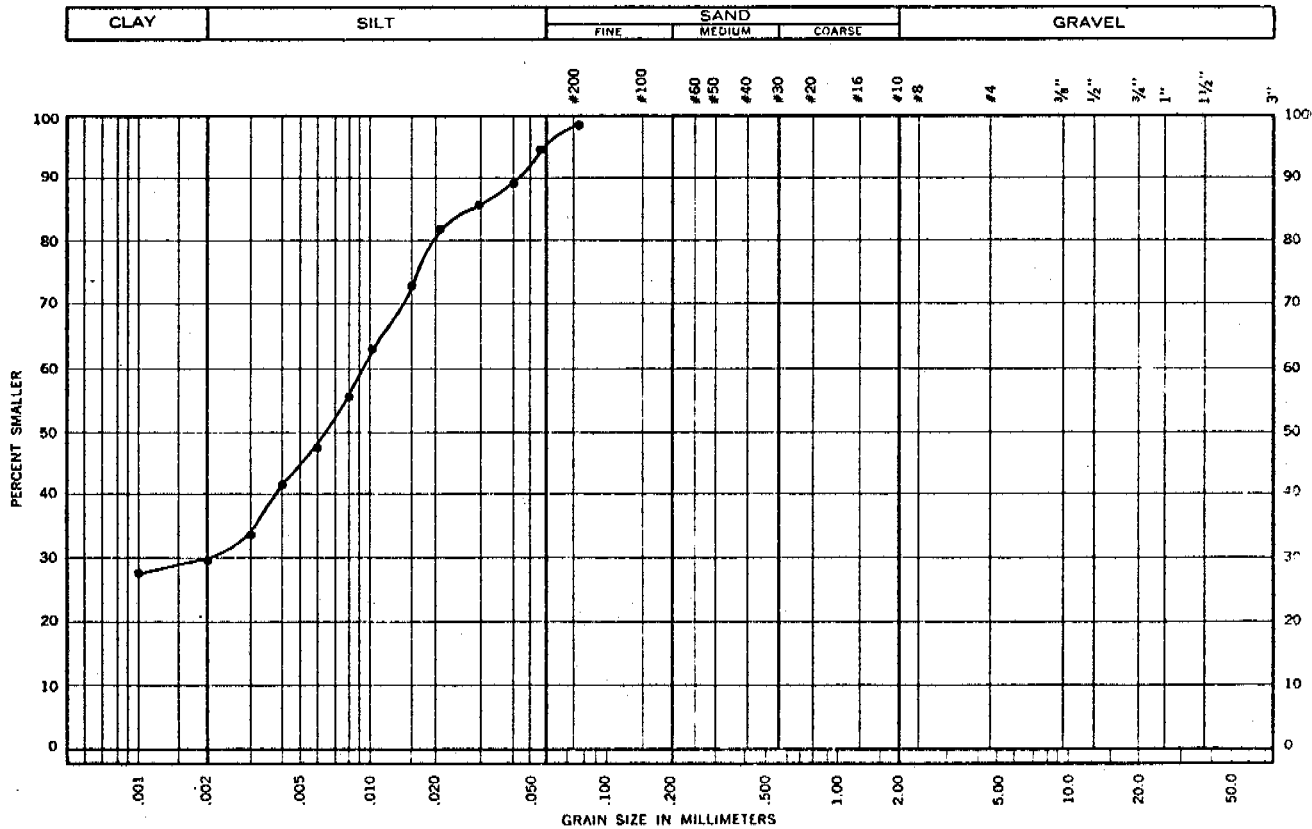


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY SILT (TILL),
SOME GRAVEL, TRACE OF CLAY.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 638-C-5
DEPTH 10'

GRAIN SIZE DISTRIBUTION

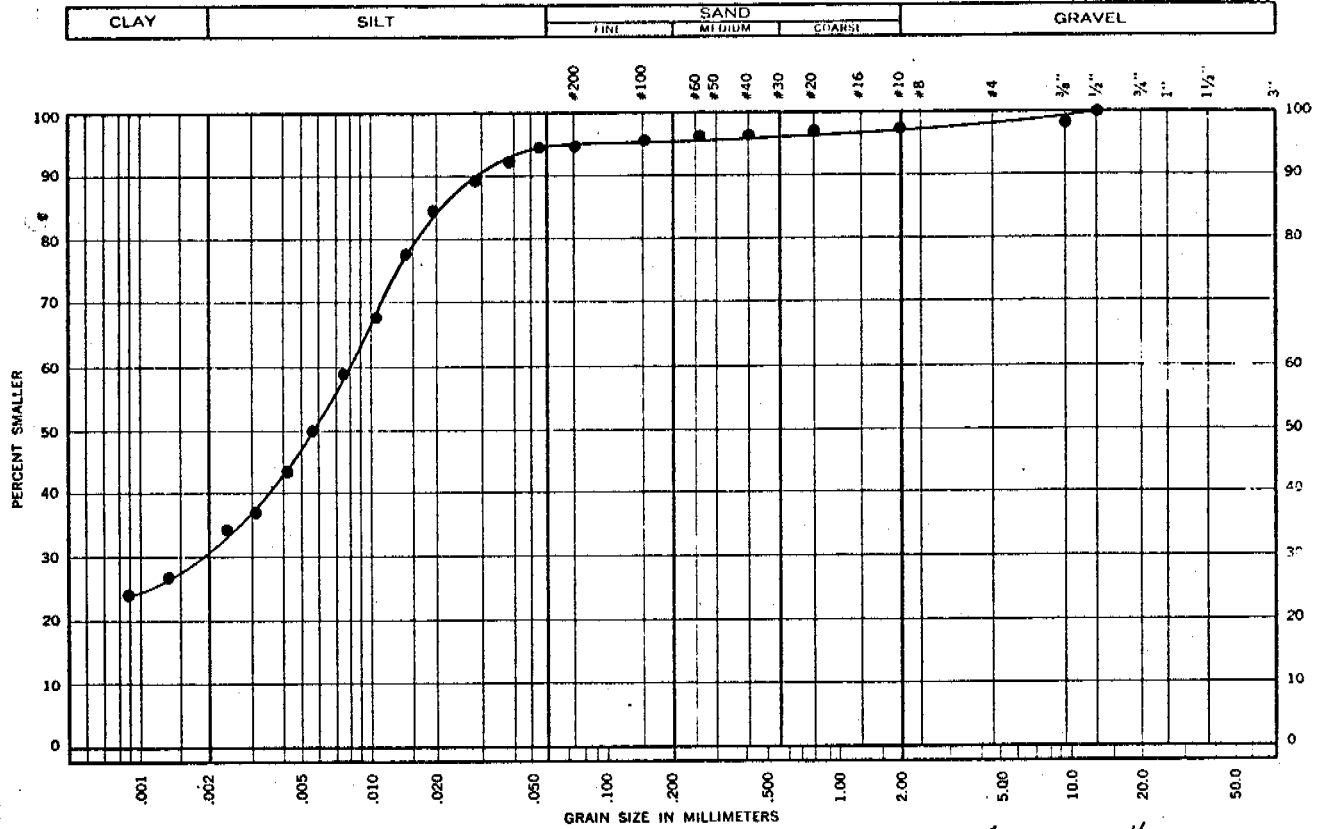


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 25/73
SAMPLE No. 638-C-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



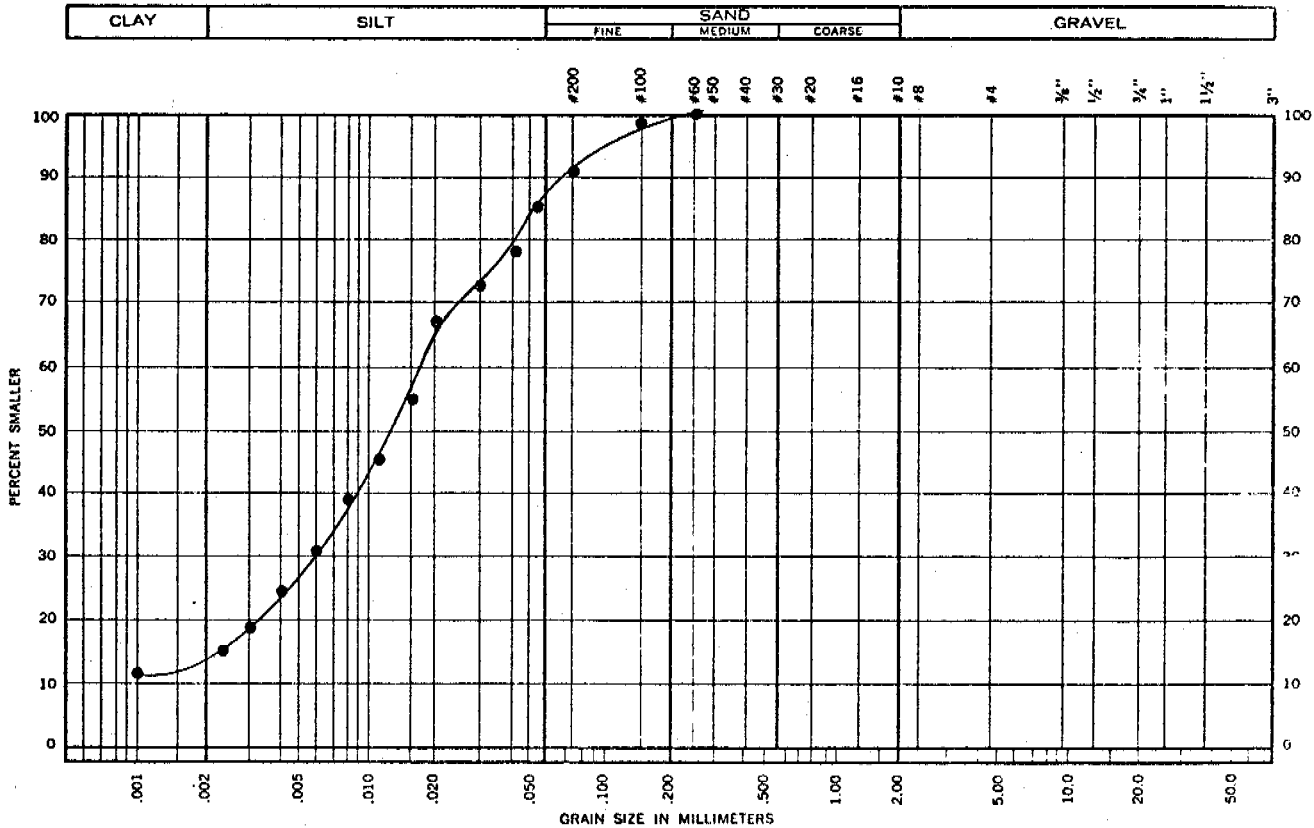
FIGURE



SAMPLE DESCRIPTION SILTY CLAY,
TRACE OF SAND & GRAVEL.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 637-C-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



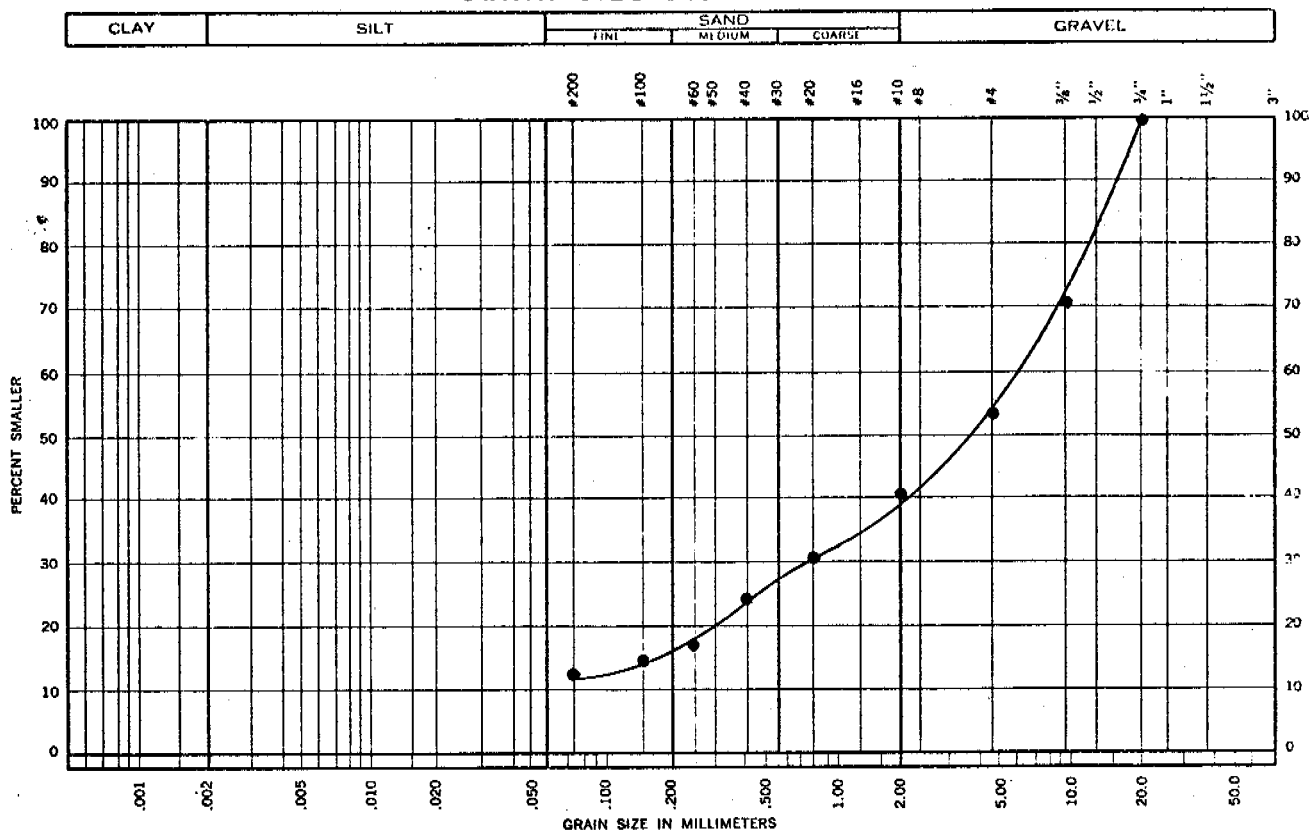
FIGURE



SAMPLE DESCRIPTION SILT, SOME CLAY
& SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 16/73
SAMPLE No. 636-C-3
DEPTH 5'

GRAIN SIZE DISTRIBUTION



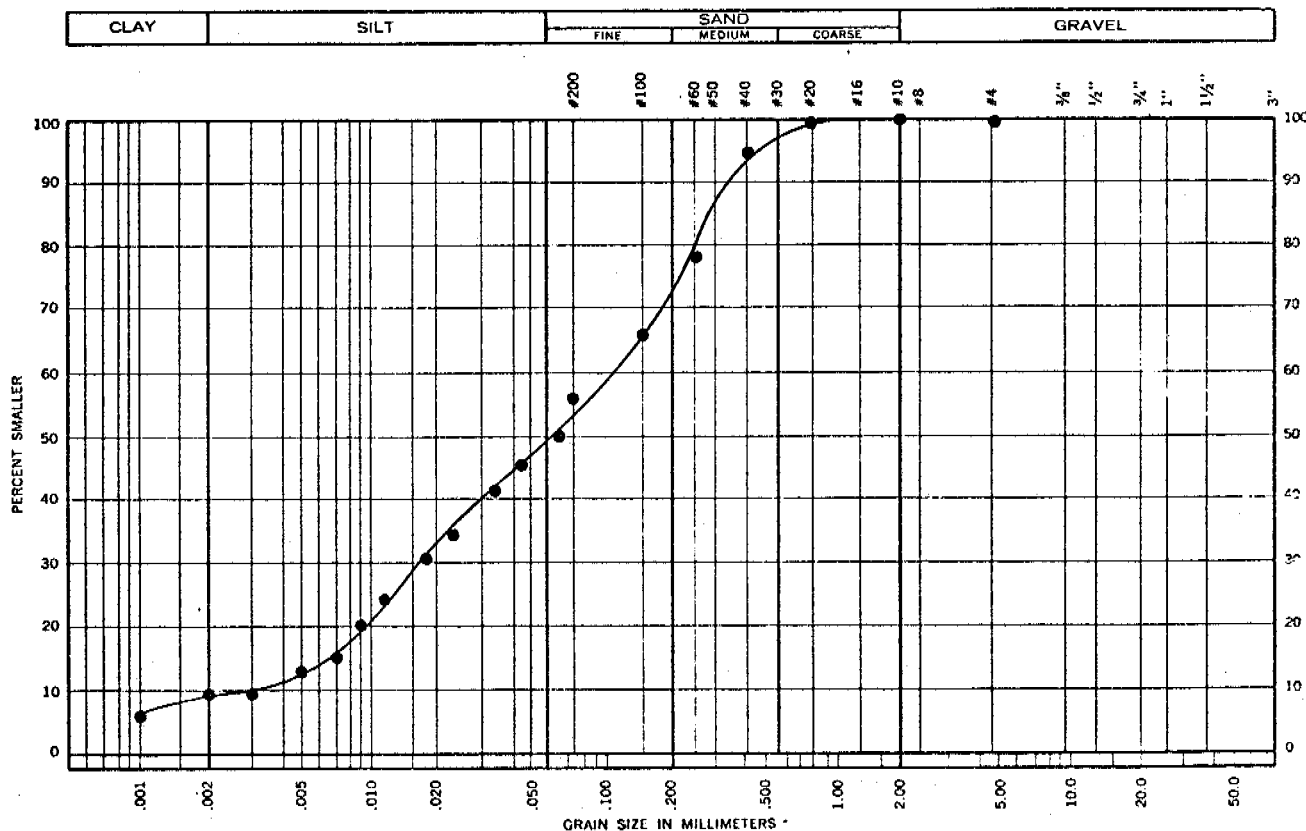
FIGURE



SAMPLE DESCRIPTION GRAVEL (TILL),
SANDY, SOME SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 635-C-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE



SAMPLE DESCRIPTION SILTY SAND (TILL),
SOME CLAY.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 635-C-3
DEPTH 5'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



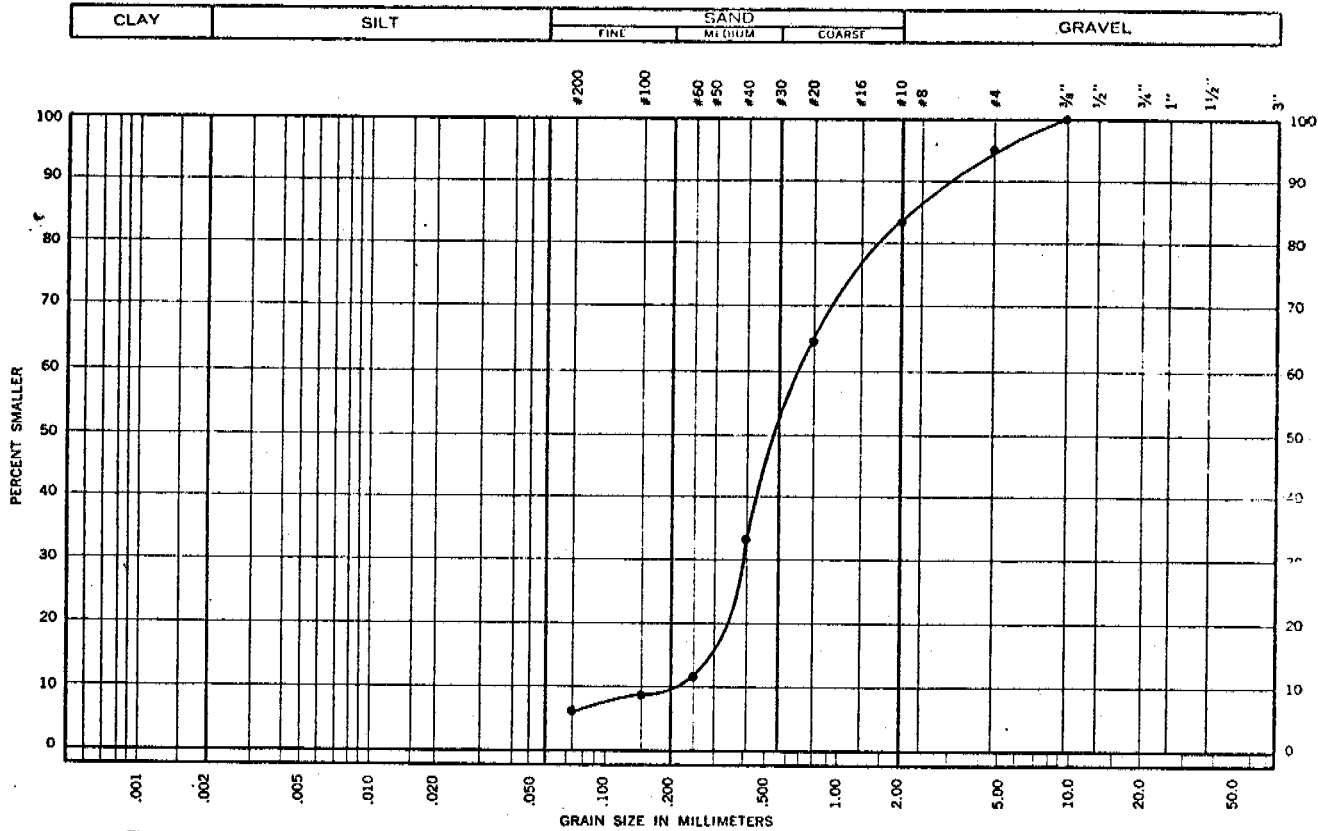
PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 635-C-6
DEPTH 5

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 634 - C - 4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



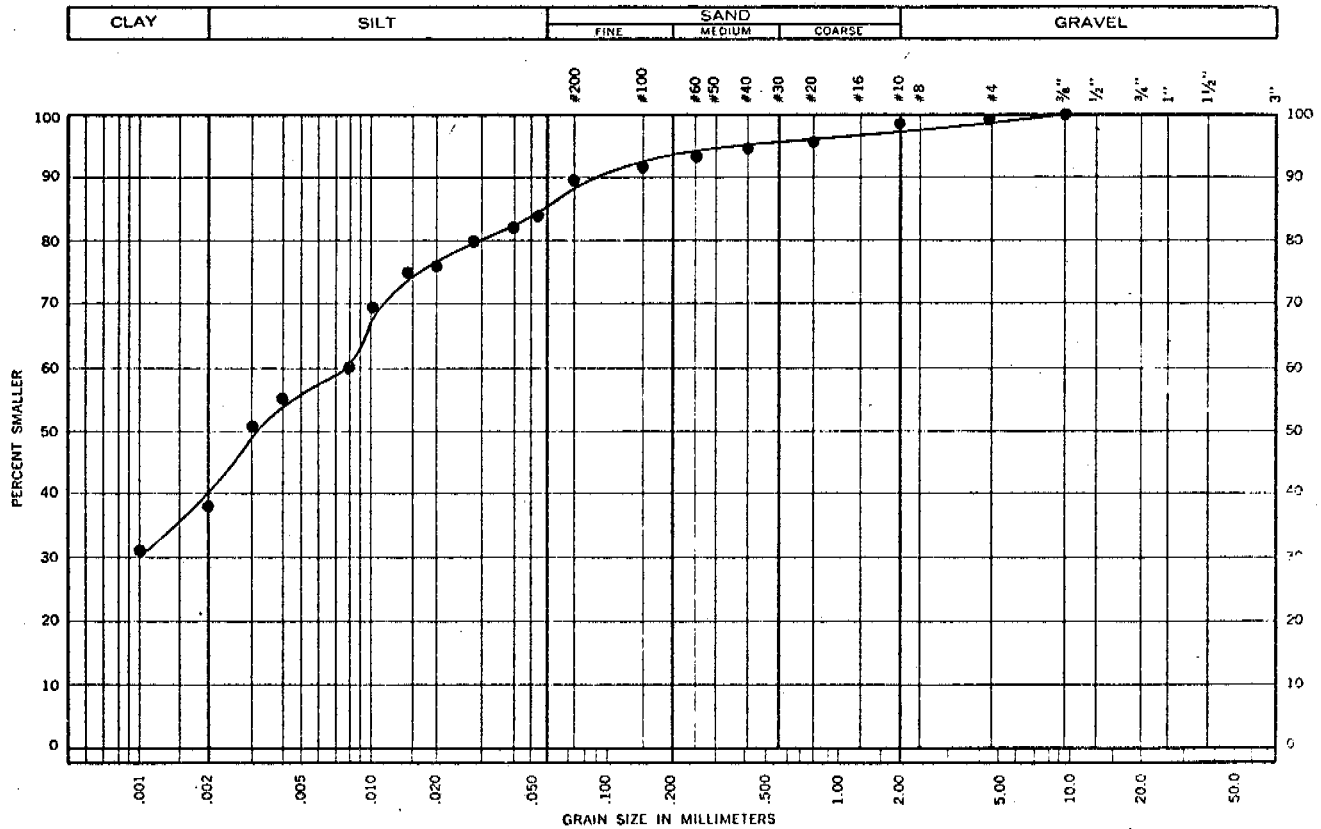
FIGURE



SAMPLE DESCRIPTION SAND, SOME GRAVEL,
TRACE OF SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 634-C-6
DEPTH 5

GRAIN SIZE DISTRIBUTION



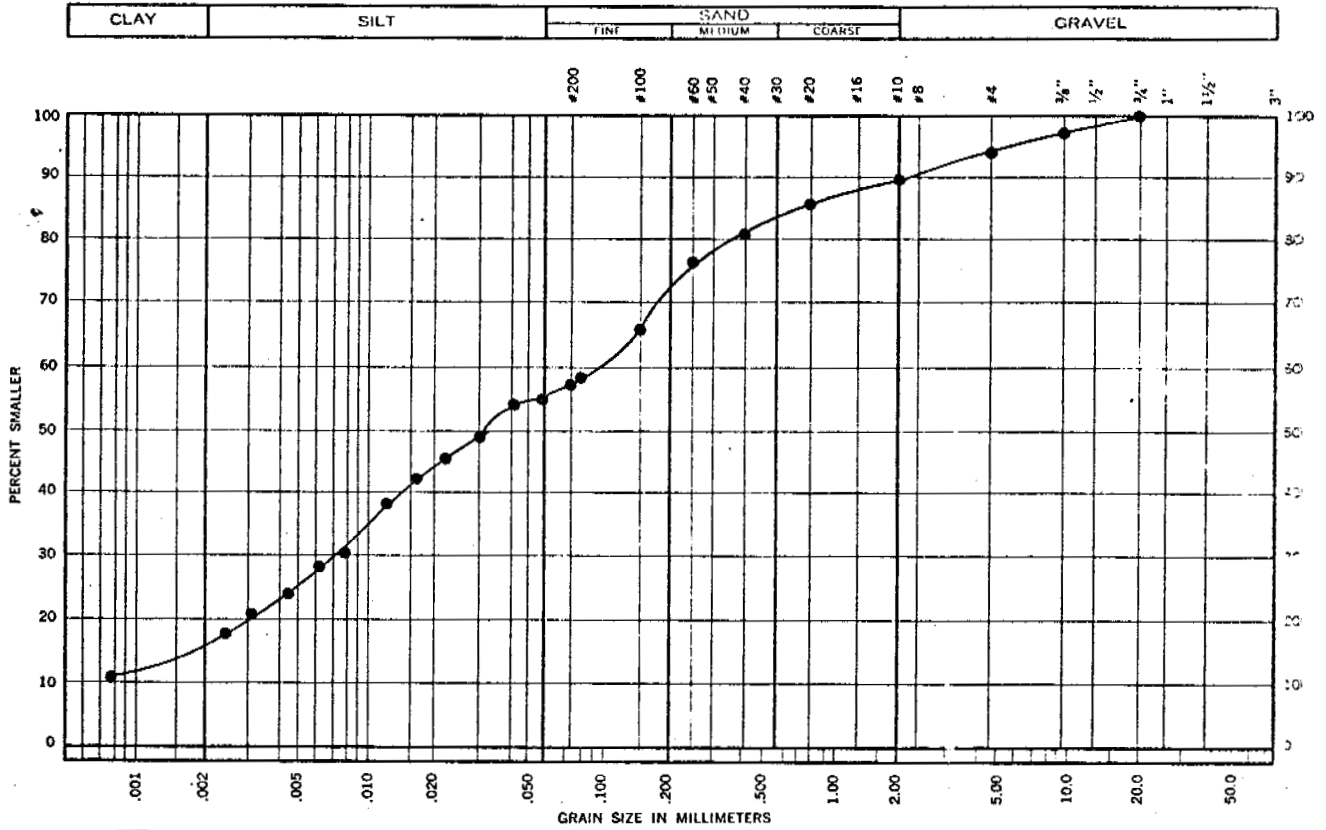
FIGURE



SAMPLE DESCRIPTION SILTY CLAY (TILL),
SOME SAND, TRACE OF GRAVEL.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 633-C-1
DEPTH 5

GRAIN SIZE DISTRIBUTION



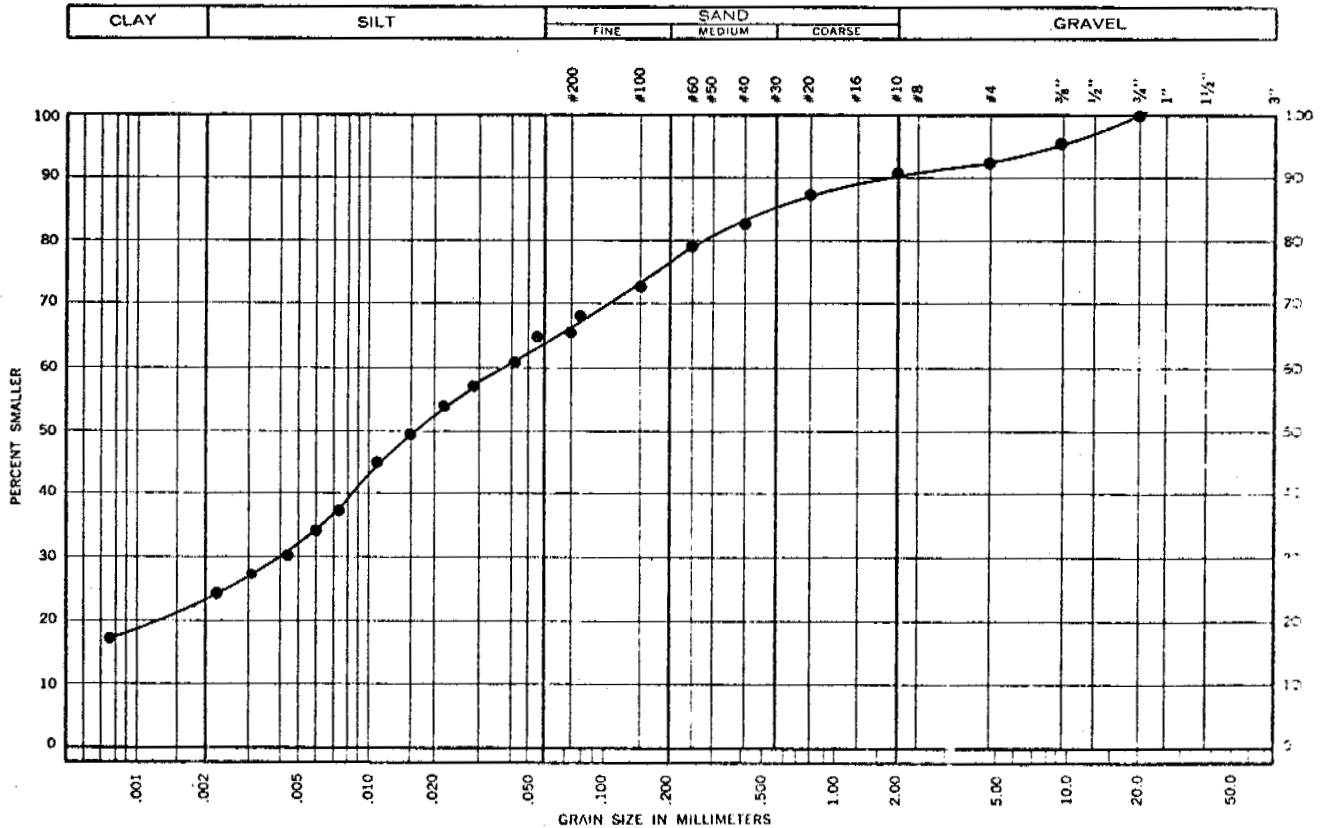
FIGURE



SAMPLE DESCRIPTION SANDY SILT (TILL)
SOME CLAY AND GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB. 9/73
SAMPLE No. 718-5-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



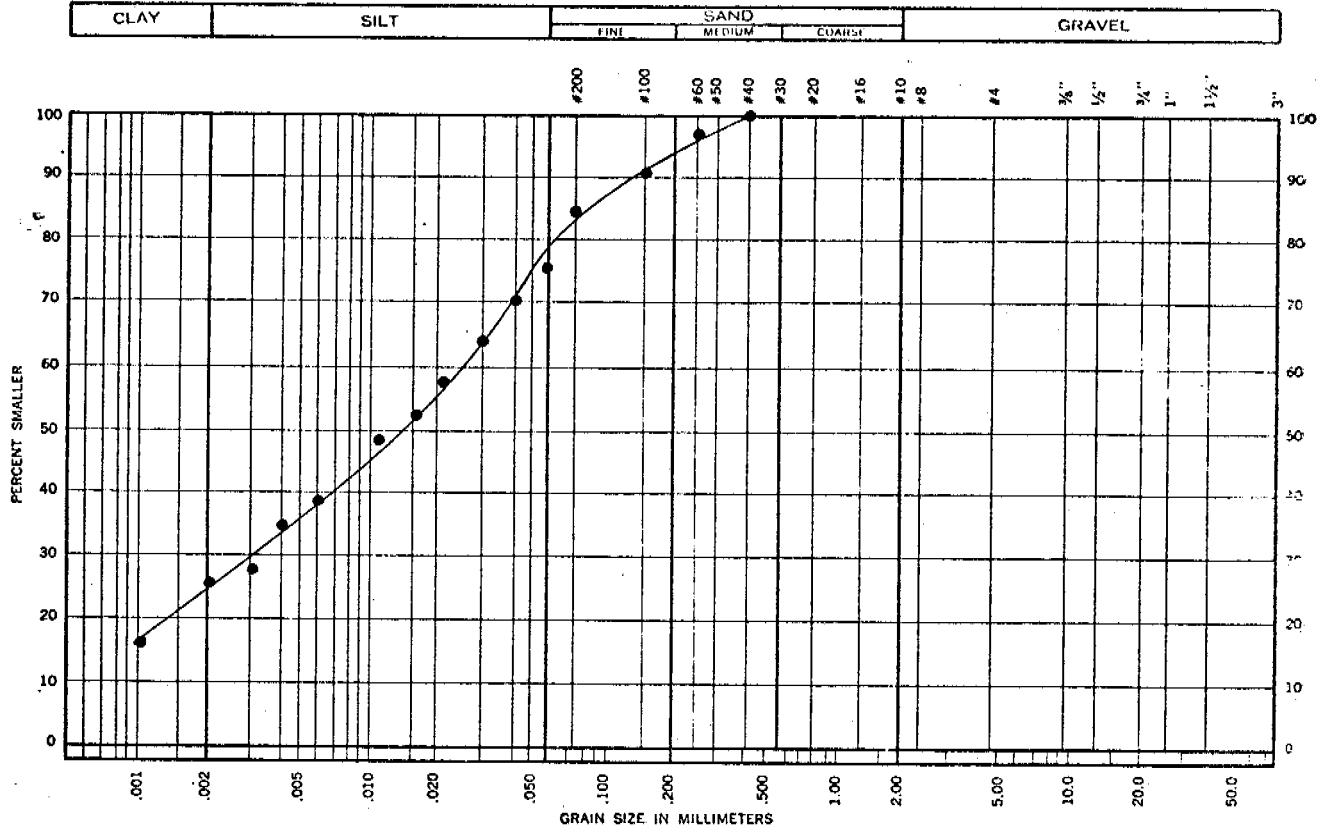
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL)
SANDY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 714-5-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

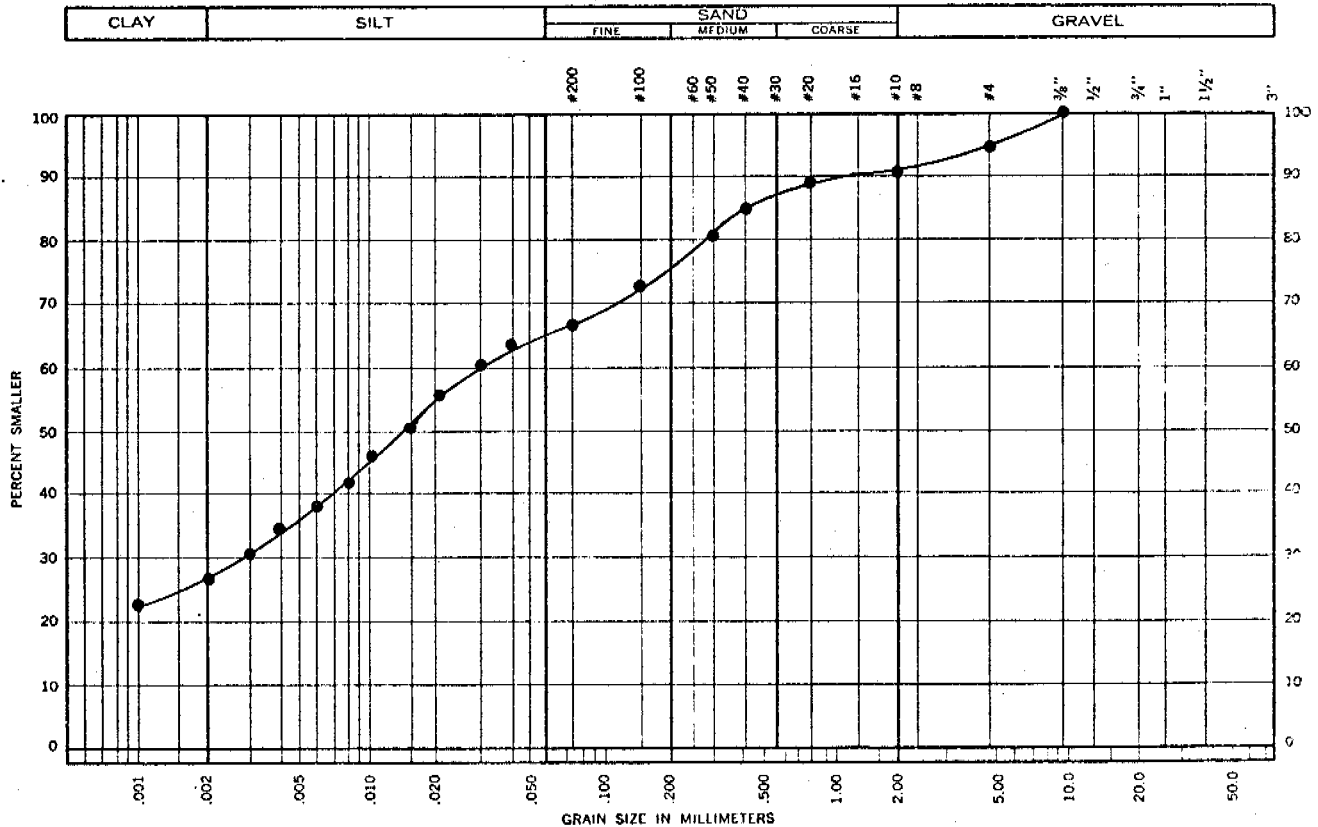


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SANDY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 12/73
 SAMPLE No. MVPL - 1 713-S-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

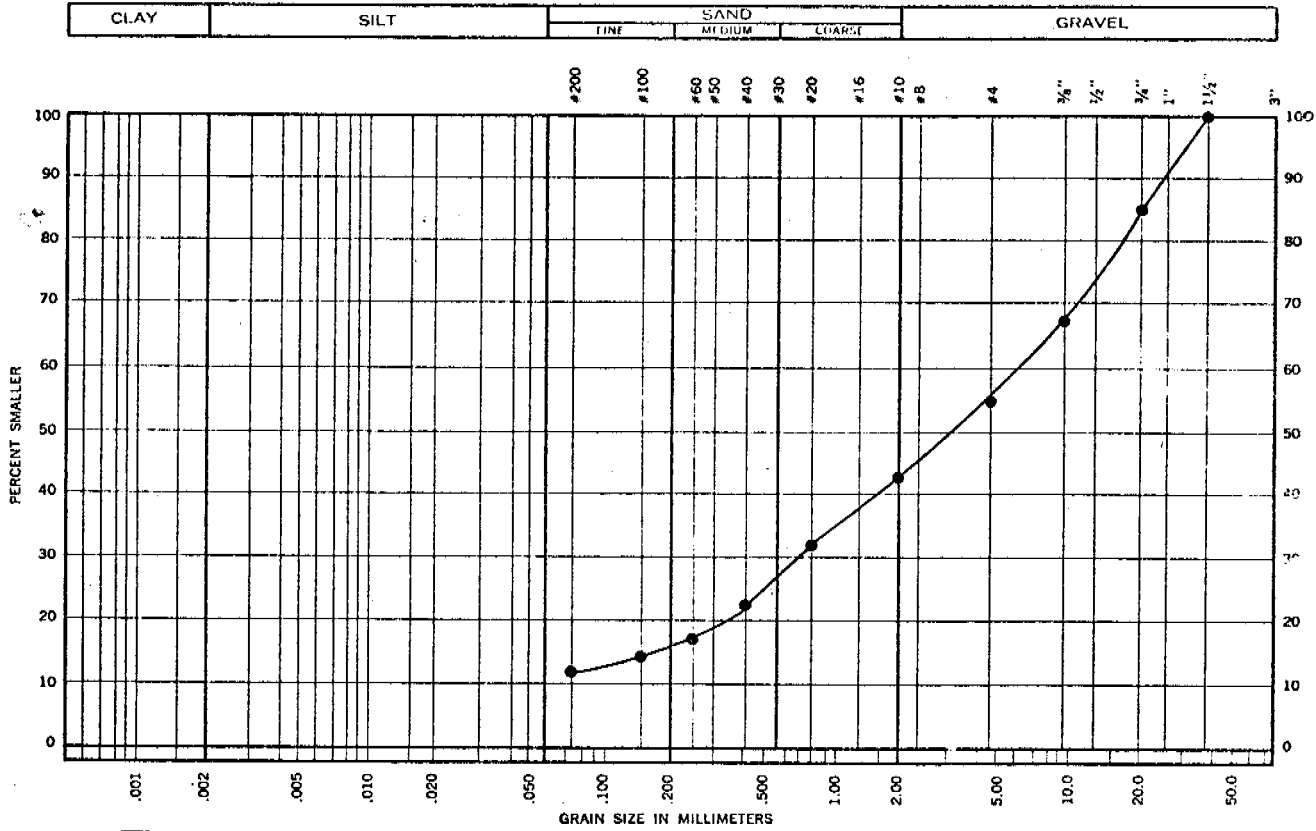


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SANDY,
TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 12/73
 SAMPLE No. 712-S-2
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

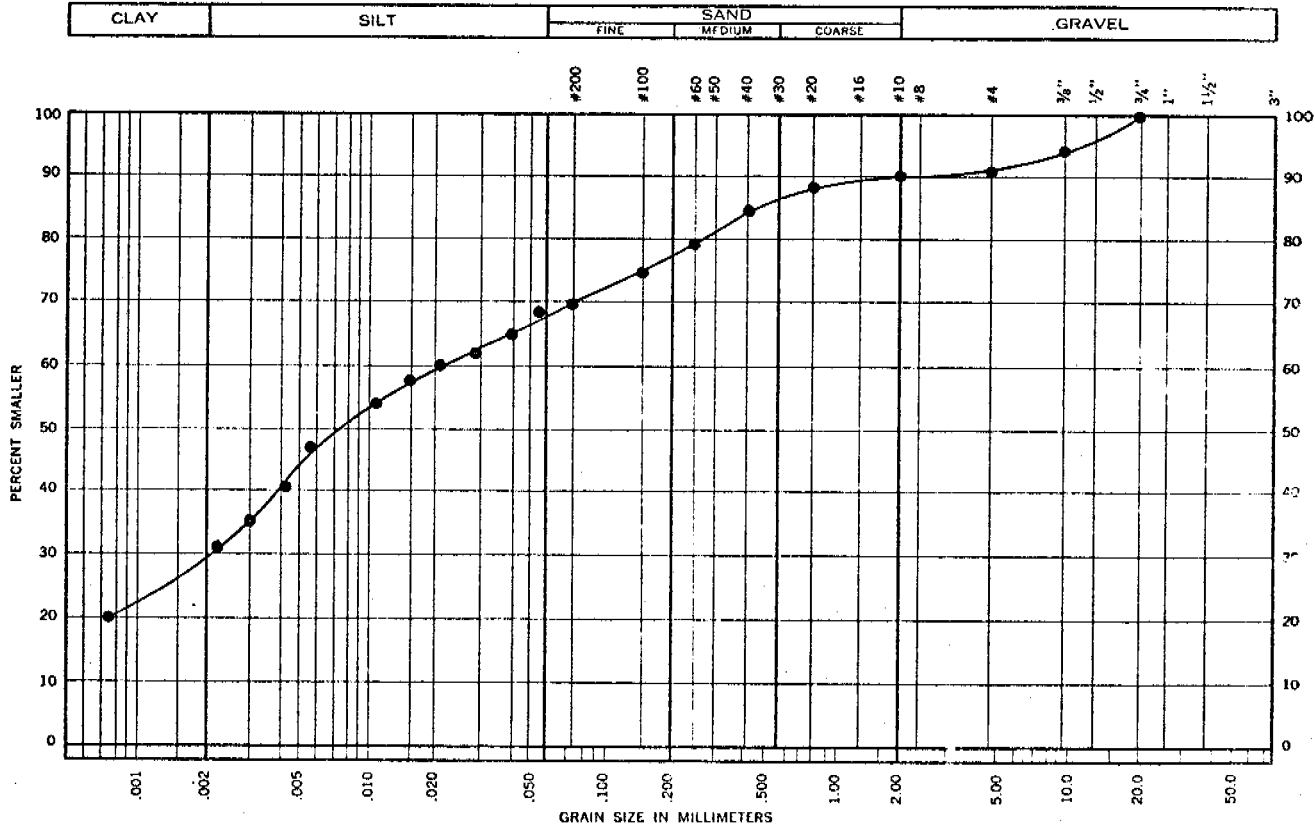


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION GRAVEL, SANDY,
SOME SILT / CLAY, WELL GRADED

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 711-S-2
DEPTH 2 ft

GRAIN SIZE DISTRIBUTION



FIGURE

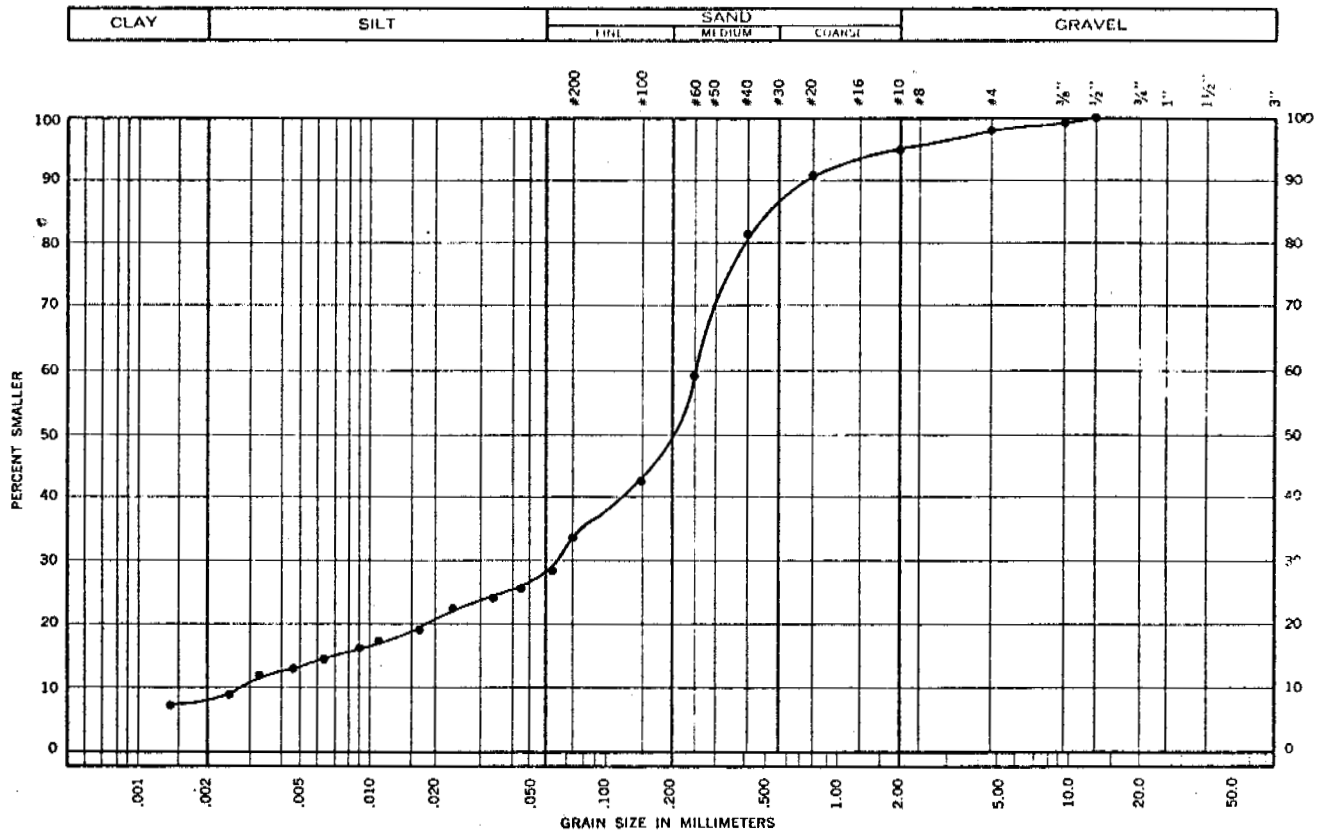


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY (TILL), SILTY,
SANDY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 710-S-1
DEPTH 2 ft

GRAIN SIZE DISTRIBUTION



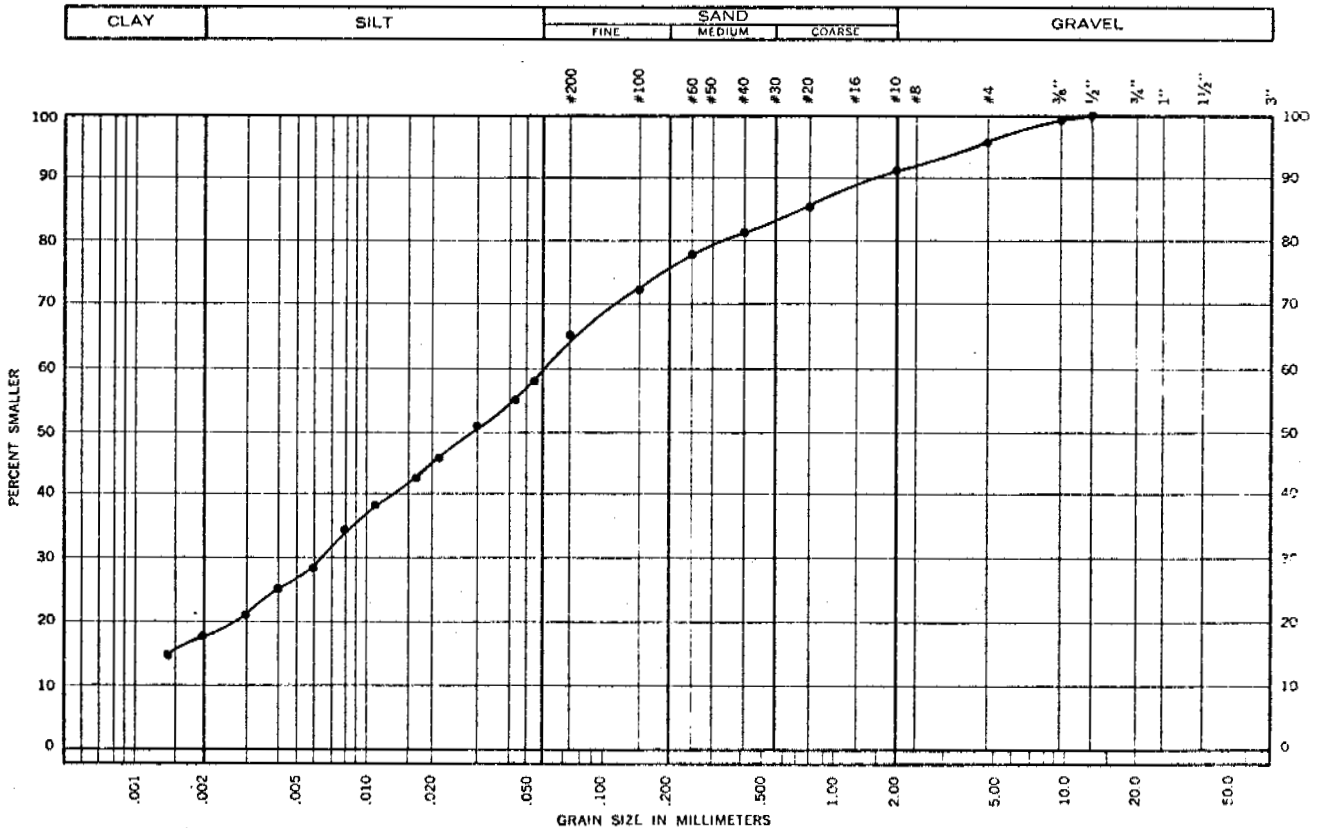
FIGURE



SAMPLE DESCRIPTION SILTY SAND, TRACE
OF CLAY / GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 706-S-2
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



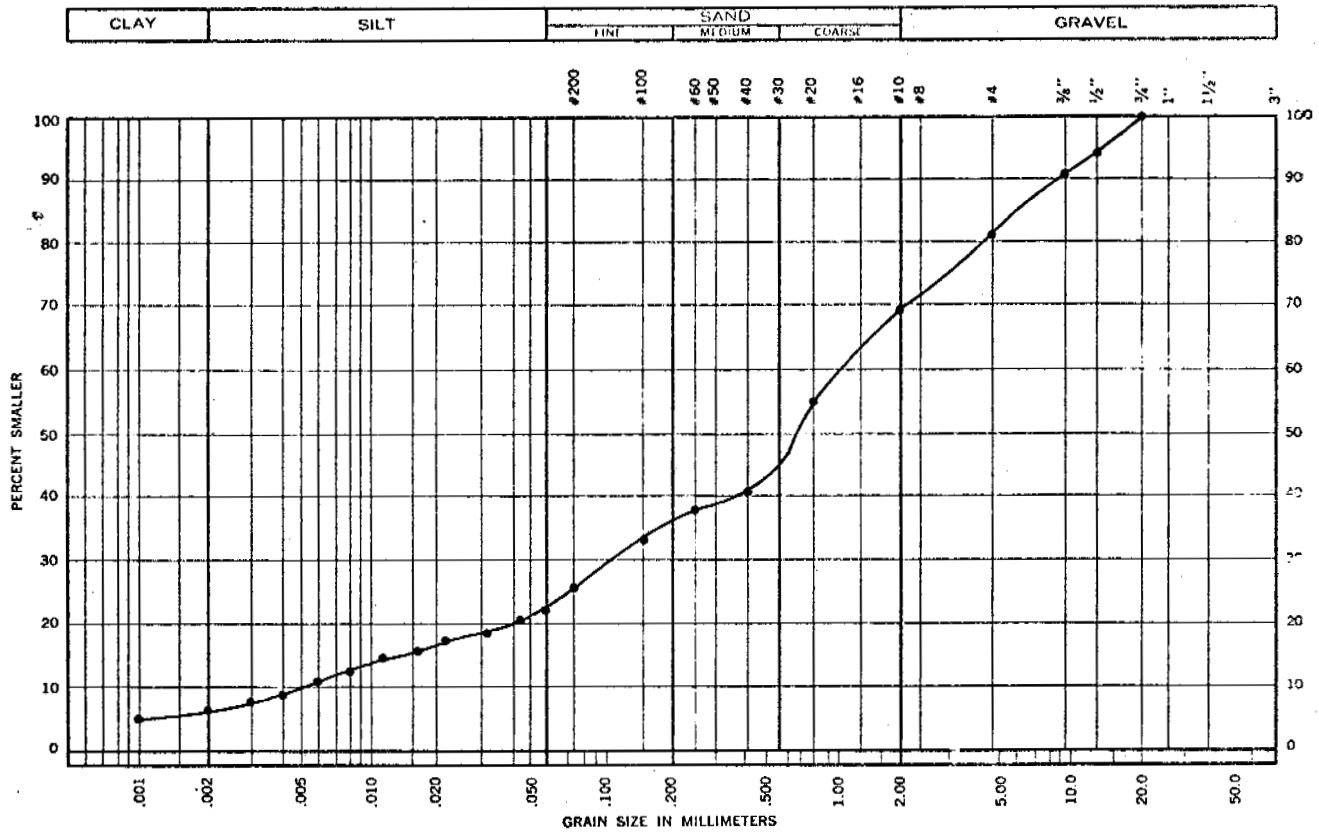
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 706-S-3
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



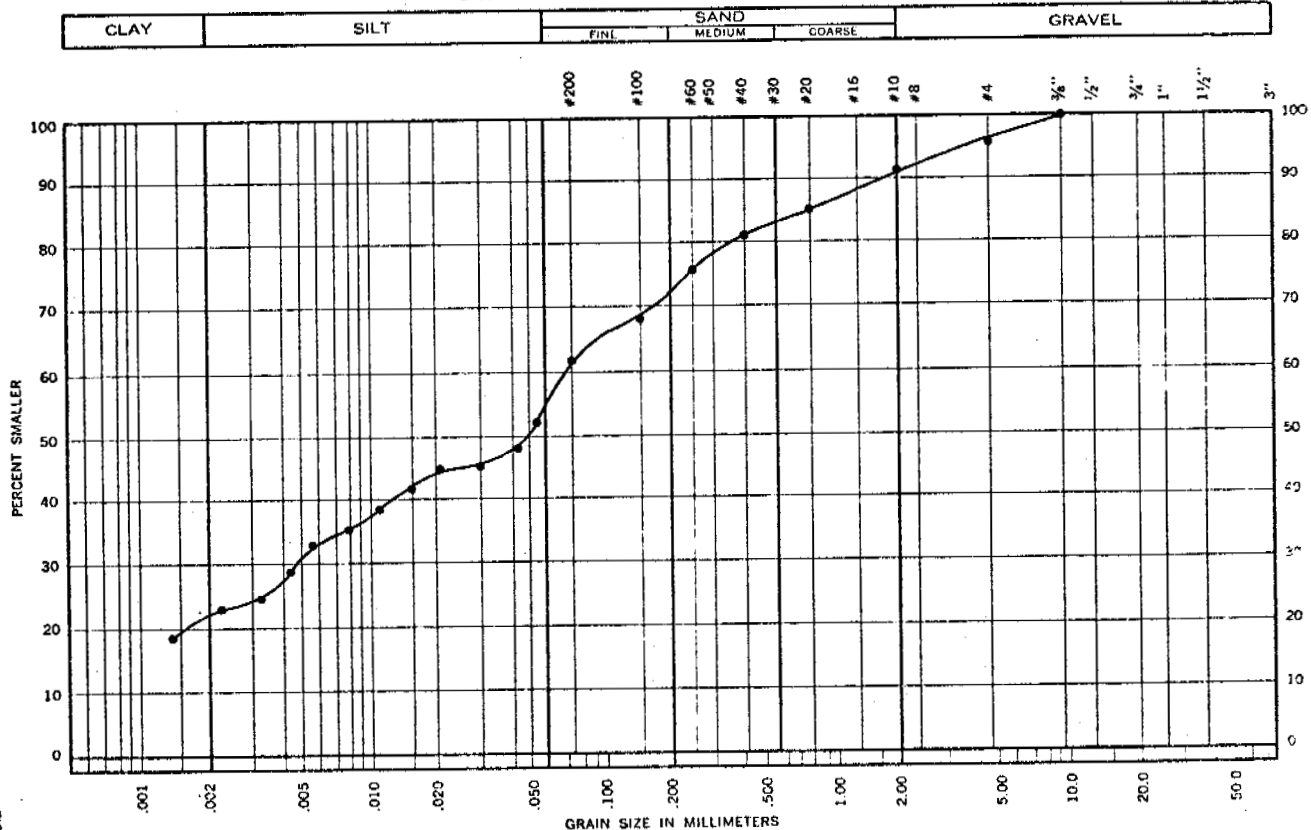
FIGURE



SAMPLE DESCRIPTION GRAVELLY SAND, SOME
SILT, TRACE OF CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 5/73
SAMPLE No. 705-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



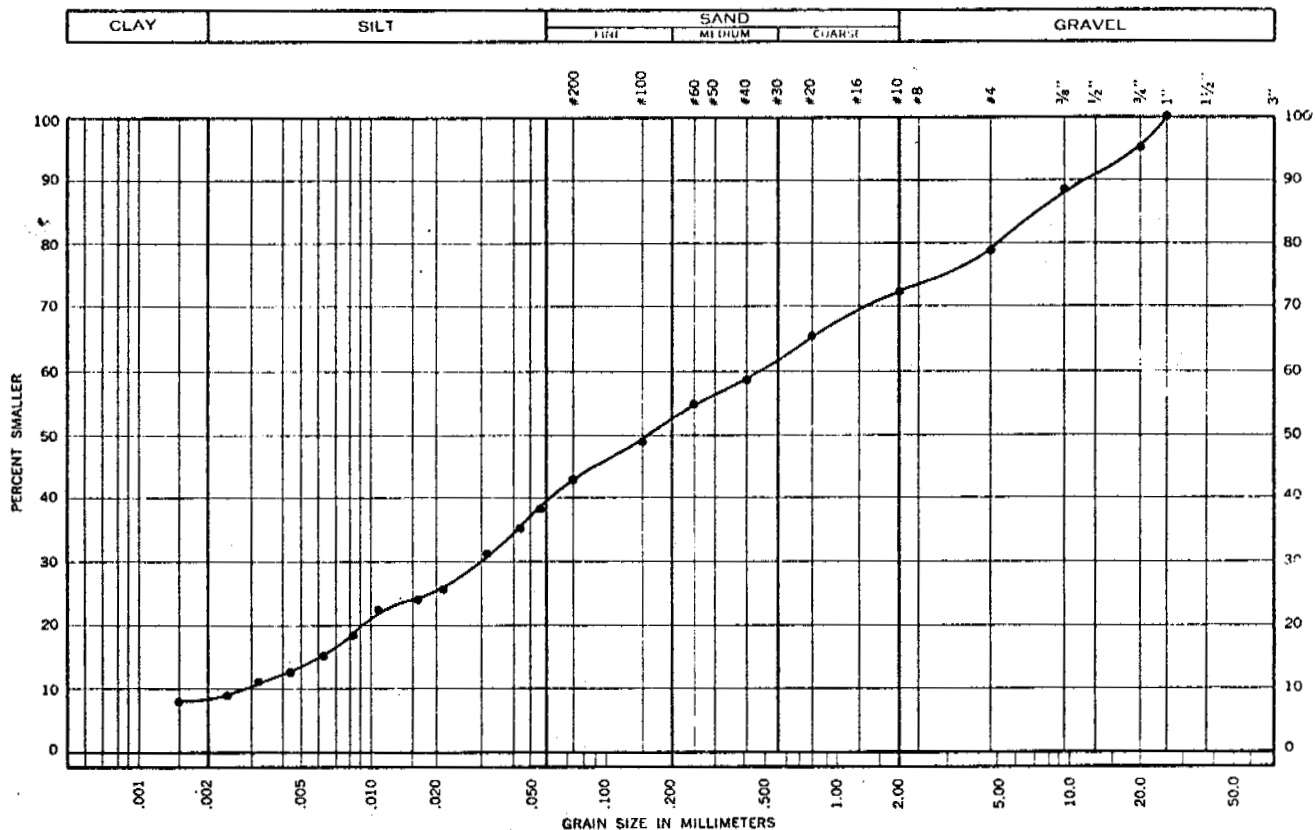
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL), SANDY,
TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 7/73
SAMPLE No. 704-S-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

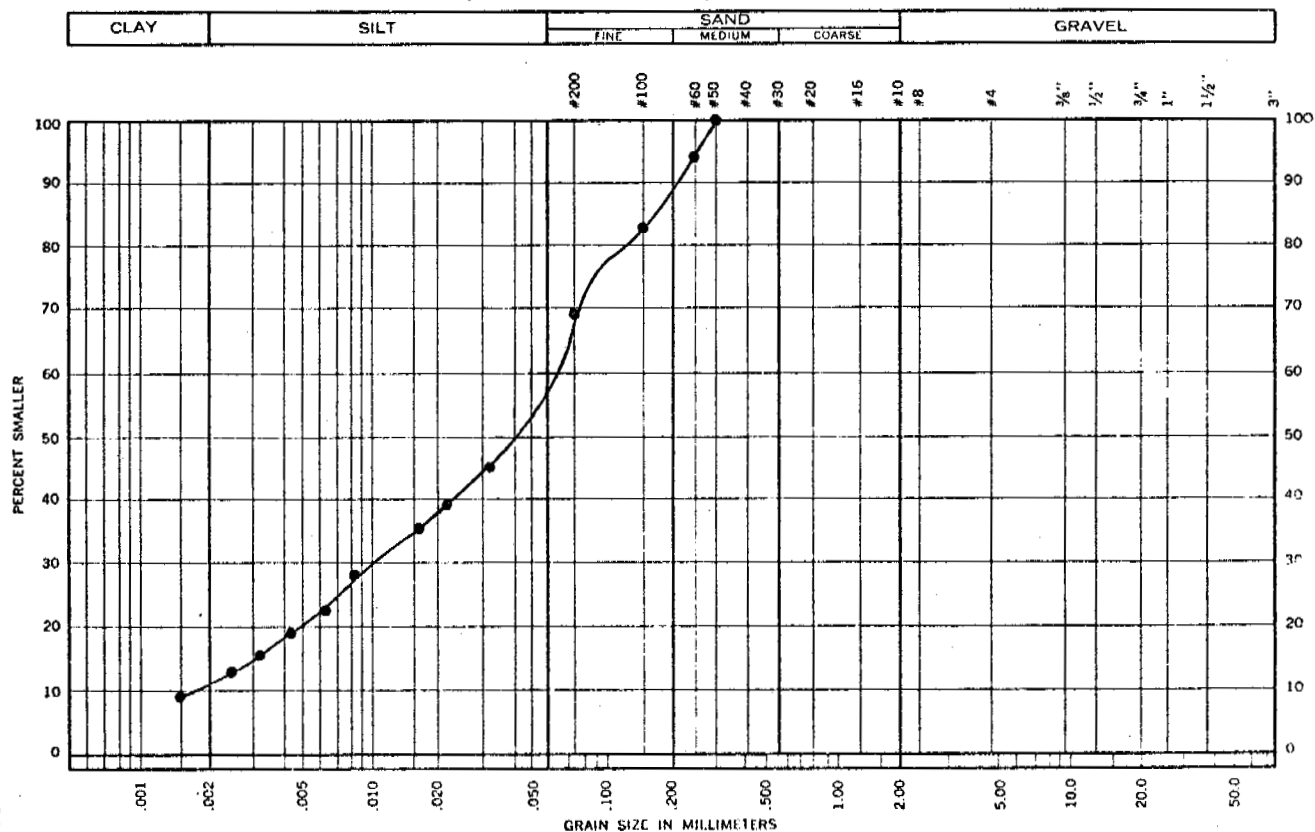


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND (TILL), SILTY,
GRAVELLY, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 703-S-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

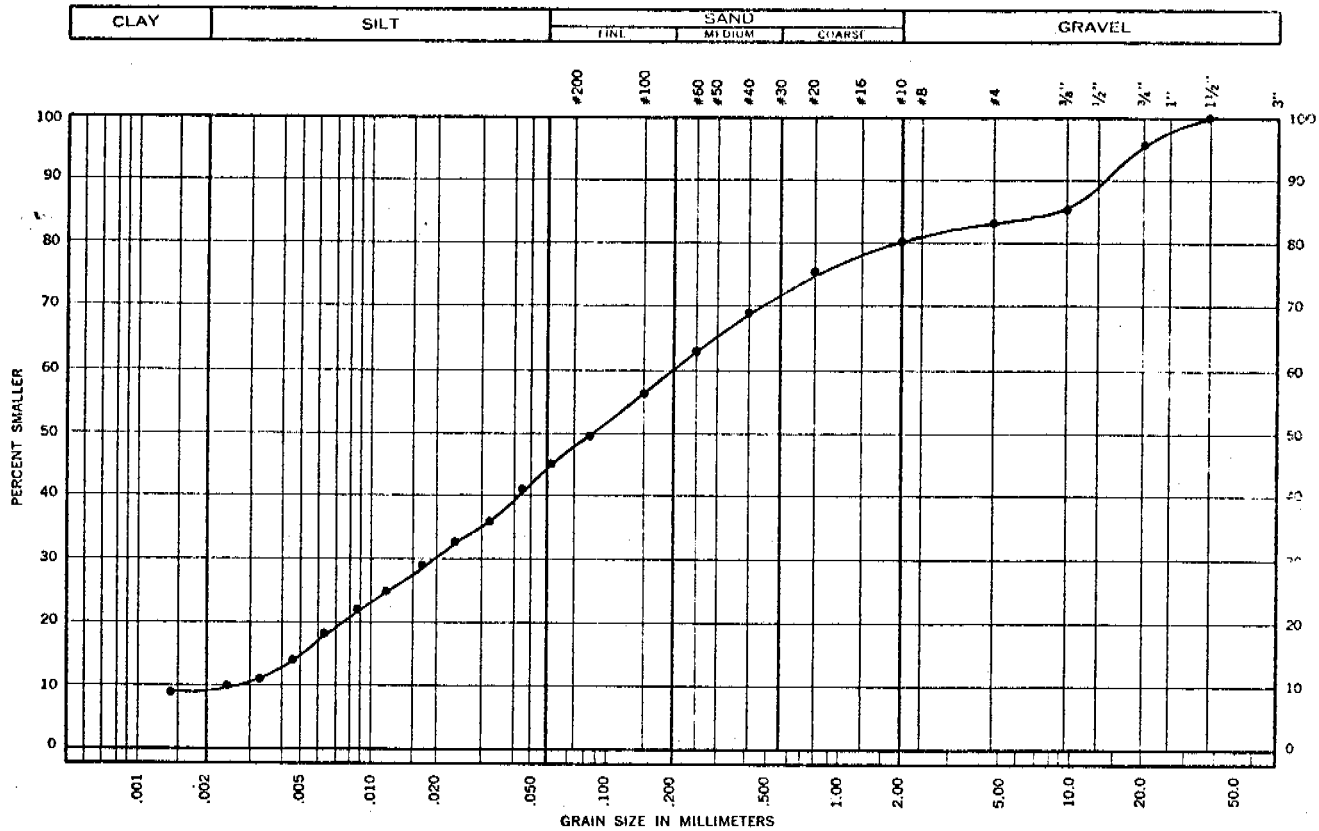


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 702-S-1
DEPTH 21'

GRAIN SIZE DISTRIBUTION



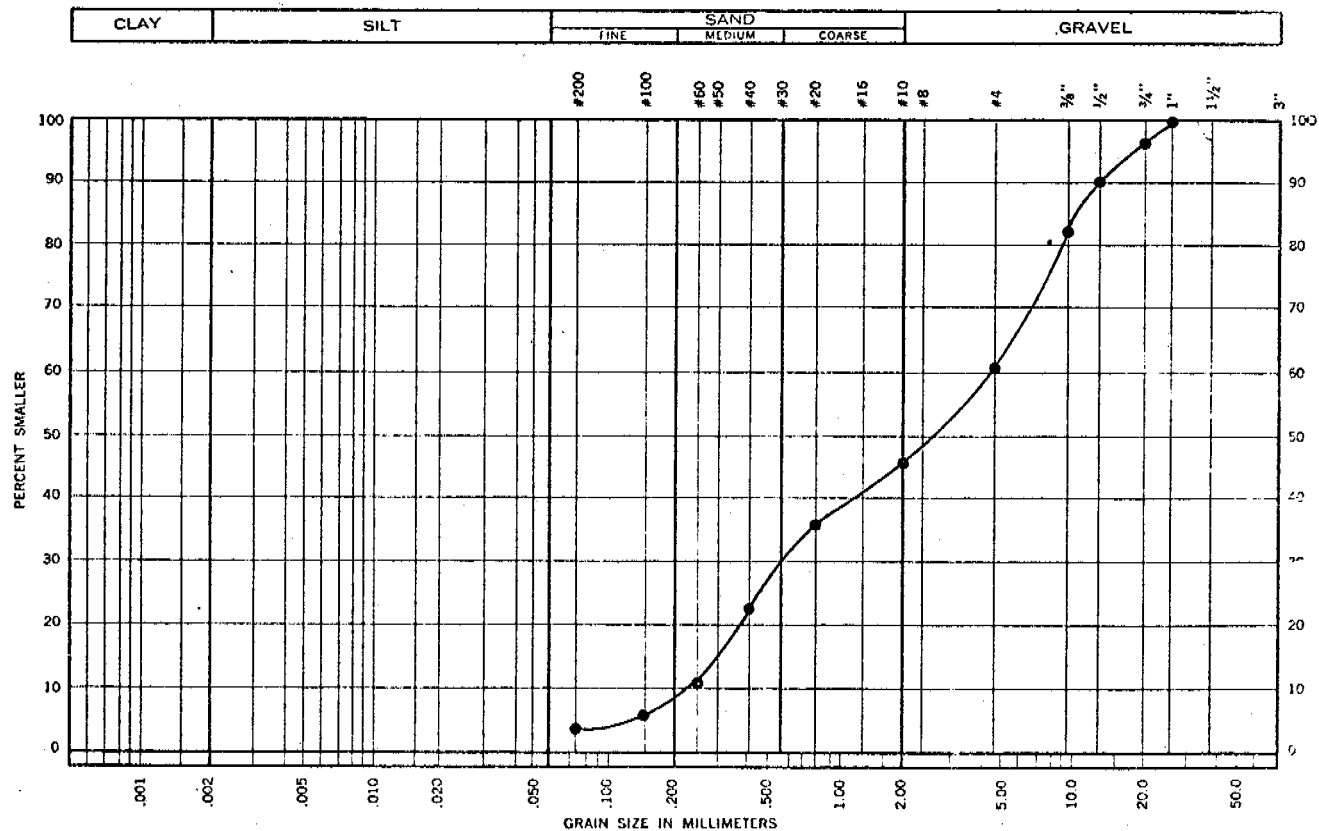
FIGURE



SAMPLE DESCRIPTION SAND, SILTY GRAVELLY,
TRACE OF CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 694-S-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



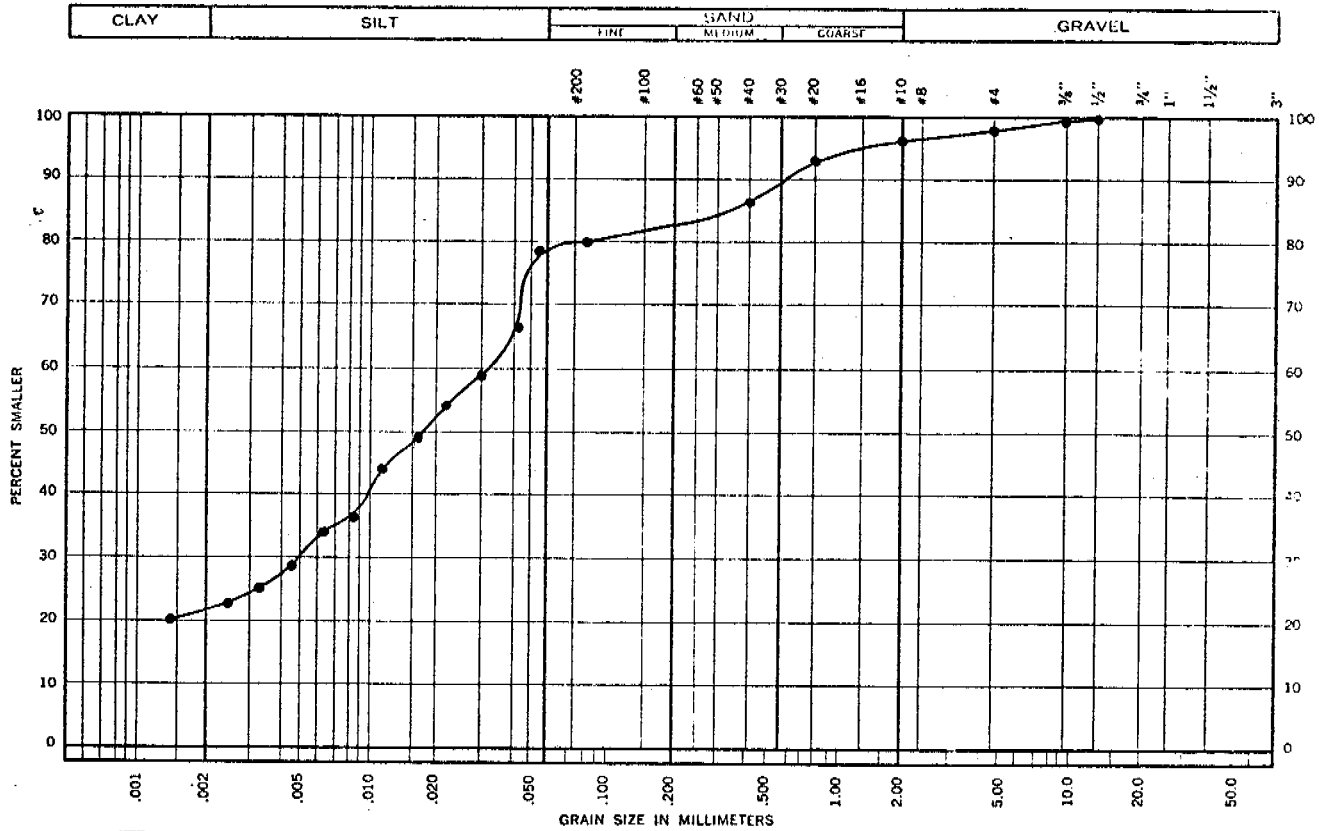
FIGURE



SAMPLE DESCRIPTION SANDY GRAVEL,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29 1973
SAMPLE No. 693-S-1
DEPTH 2.5'

GRAIN SIZE DISTRIBUTION



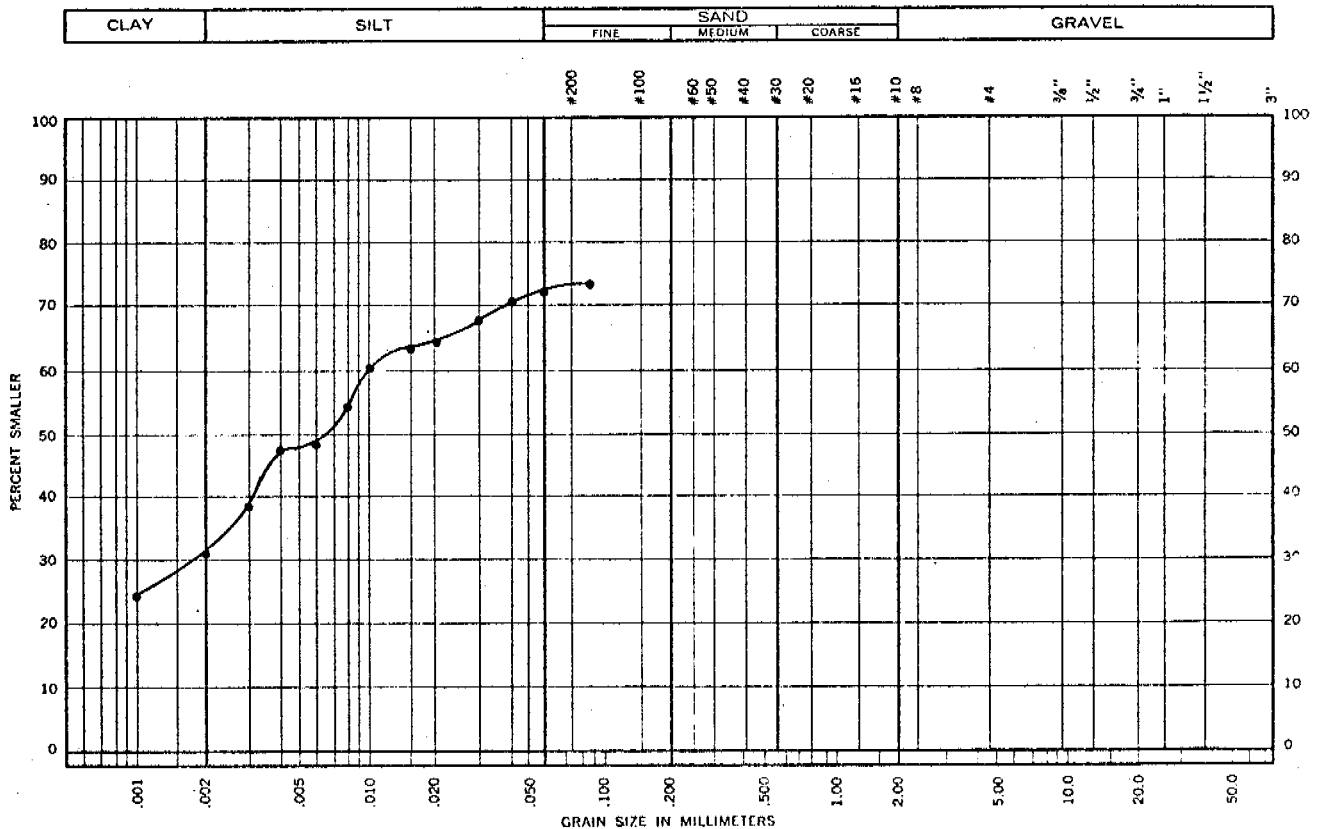
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL)
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 23/73
SAMPLE No. 689-S-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



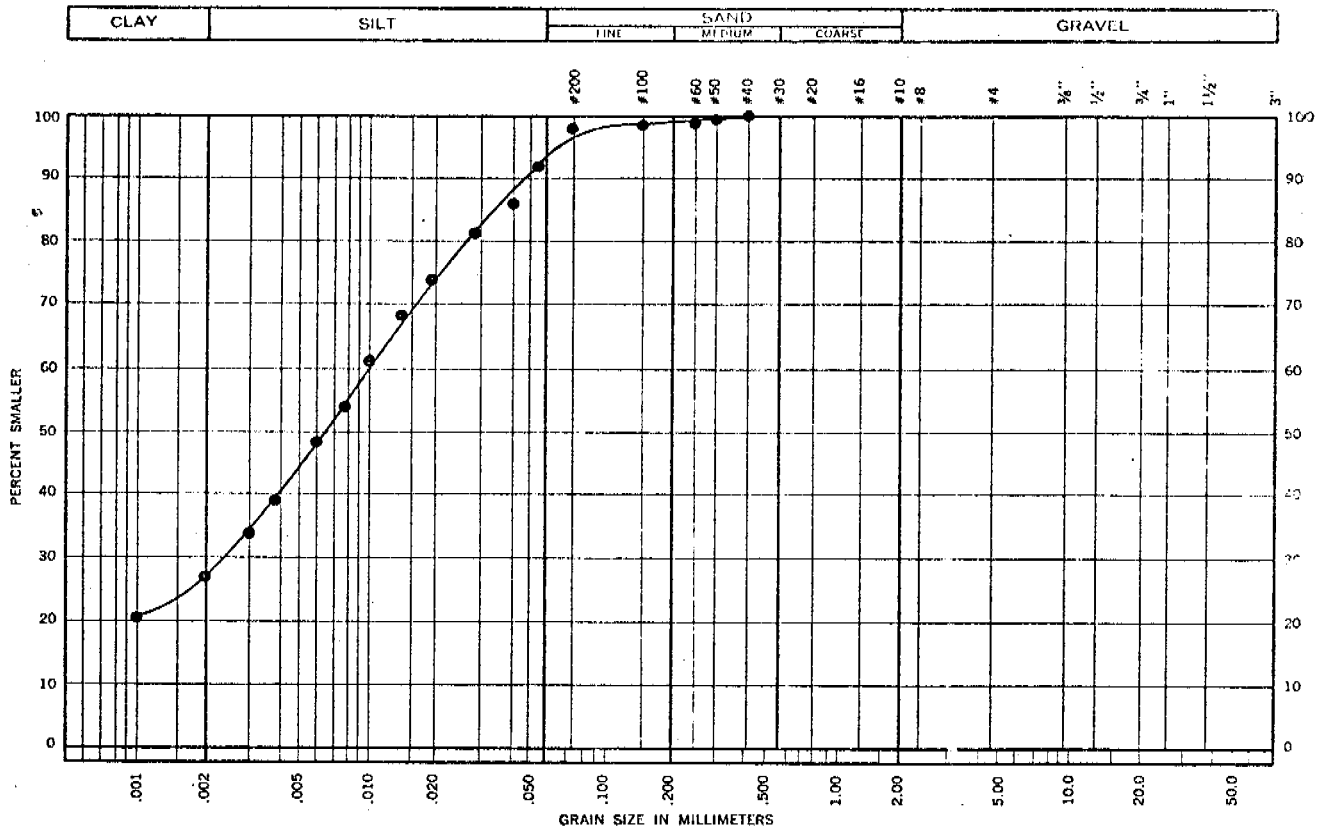
FIGURE



SAMPLE DESCRIPTION SHALE, SILTY CLAY,
SANDY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 5/73
SAMPLE No. 689-S-5
DEPTH 10'

GRAIN SIZE DISTRIBUTION



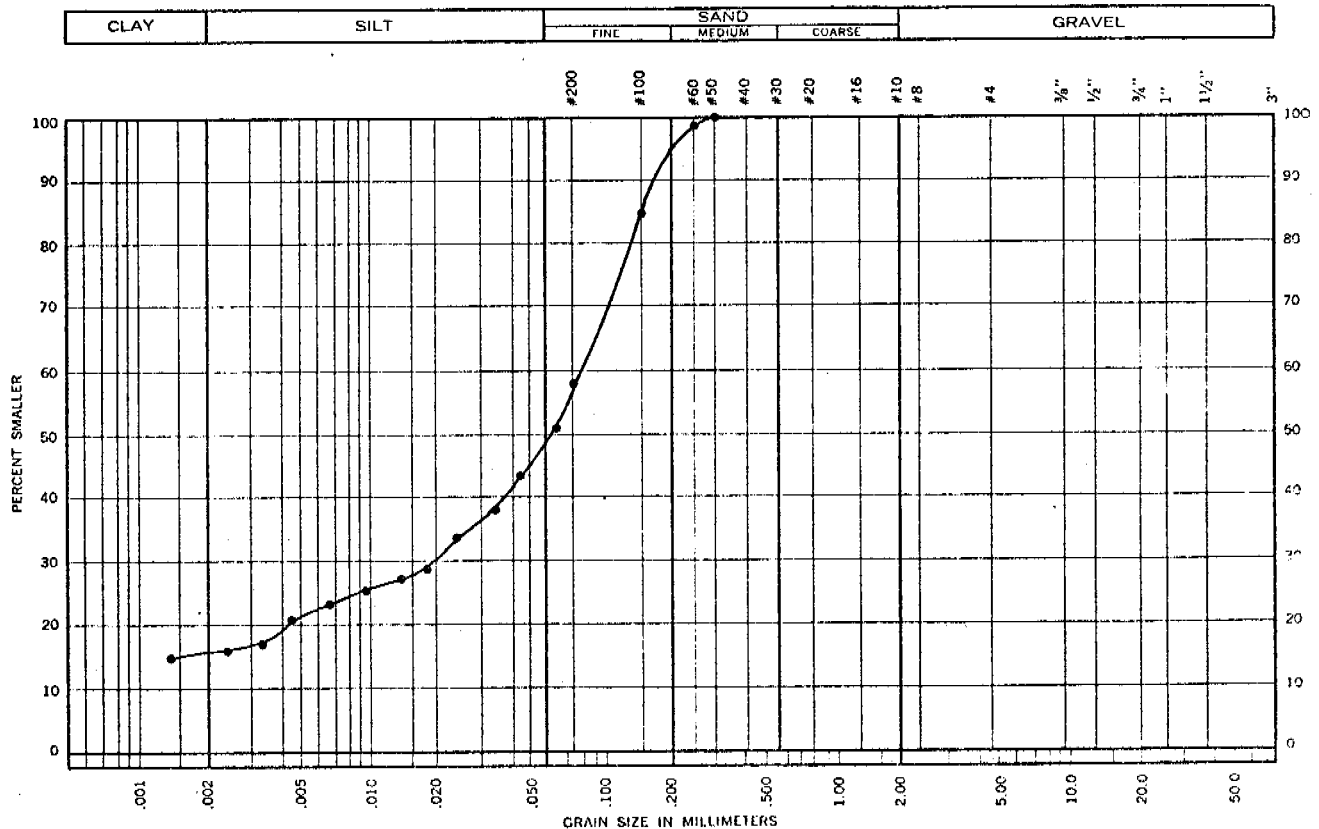
FIGURE



SAMPLE DESCRIPTION (WEATHERED SHALE)
CLAY-SILT, TRACE OF SAND.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 689-S-6
DEPTH 18-20 AVERAGE OF ALL SAMPLES TAKEN

GRAIN SIZE DISTRIBUTION



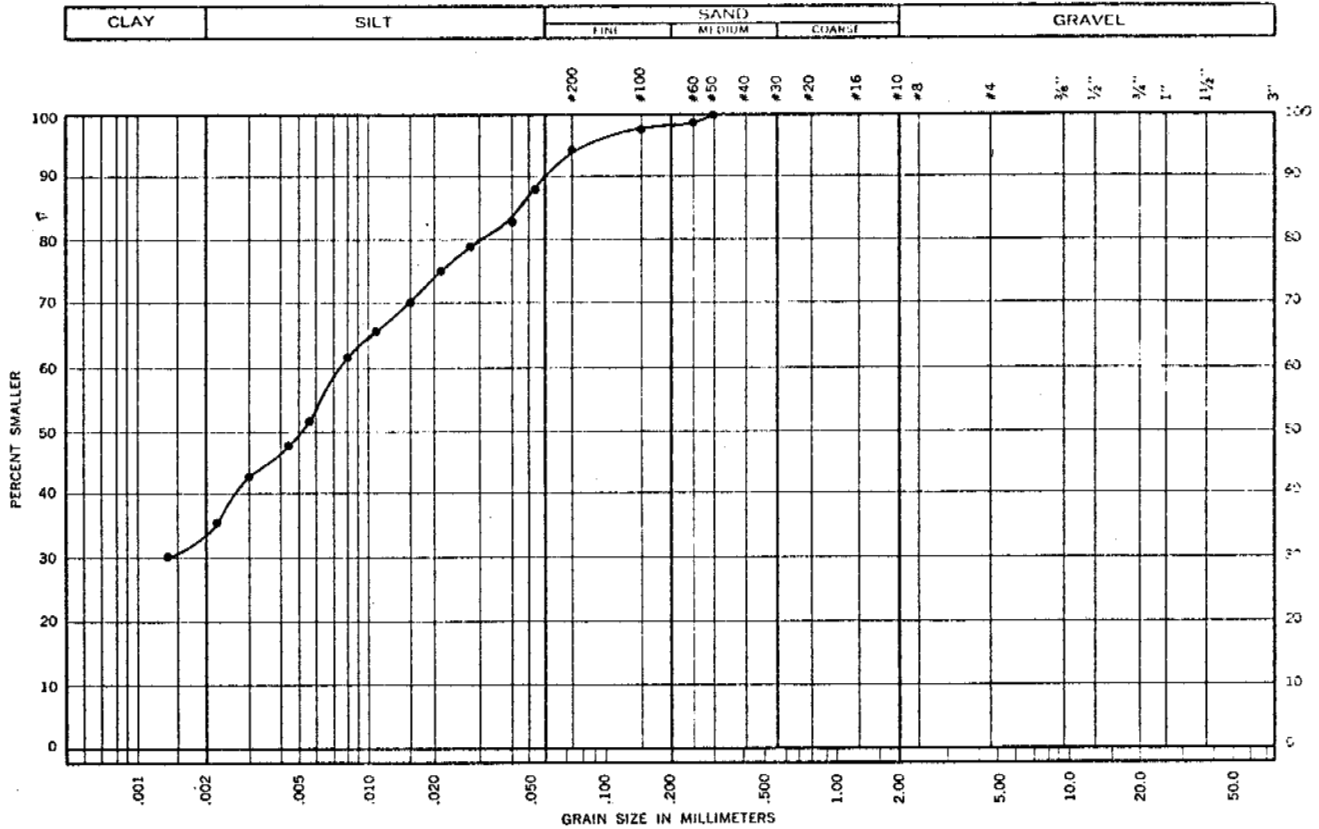
FIGURE



SAMPLE DESCRIPTION SILTY SAND, SOME
CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 689-S-12
DEPTH 5'

GRAIN SIZE DISTRIBUTION



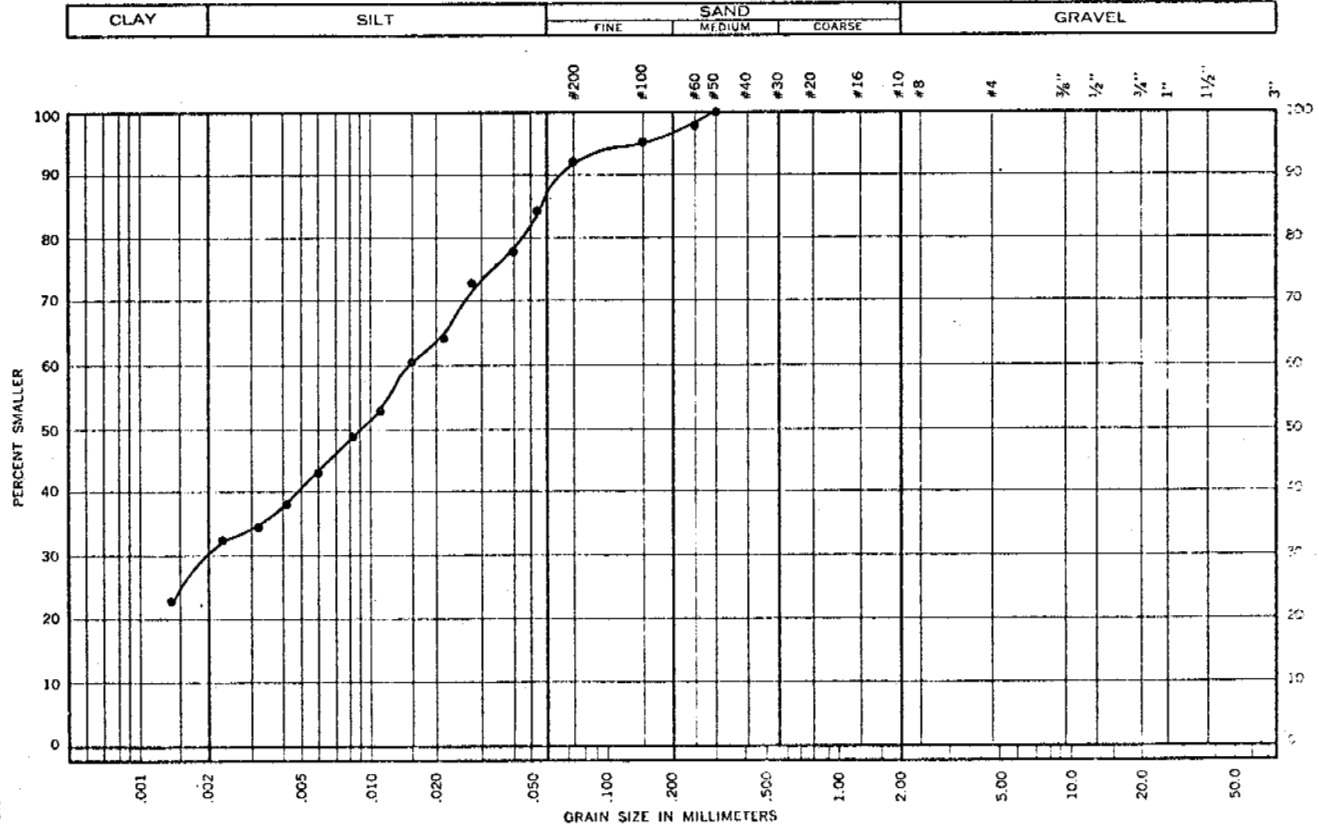
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. F - 517 DATE April 9/73
SAMPLE No. 689-S-13
DEPTH 10'

GRAIN SIZE DISTRIBUTION



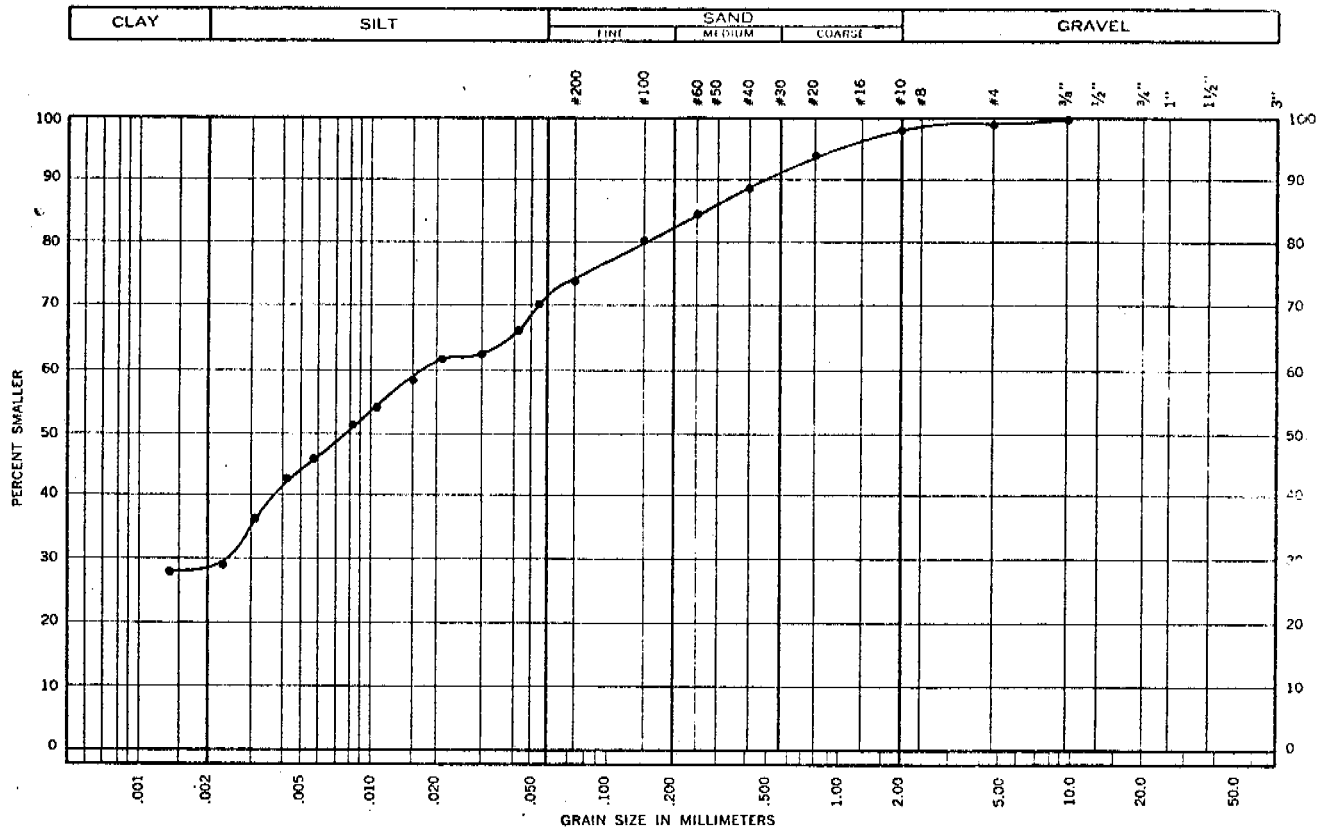
FIGURE



SAMPLE DESCRIPTION CLAY - SILT (SHALE)
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 689-S-14
DEPTH 20'

GRAIN SIZE DISTRIBUTION



FIGURE

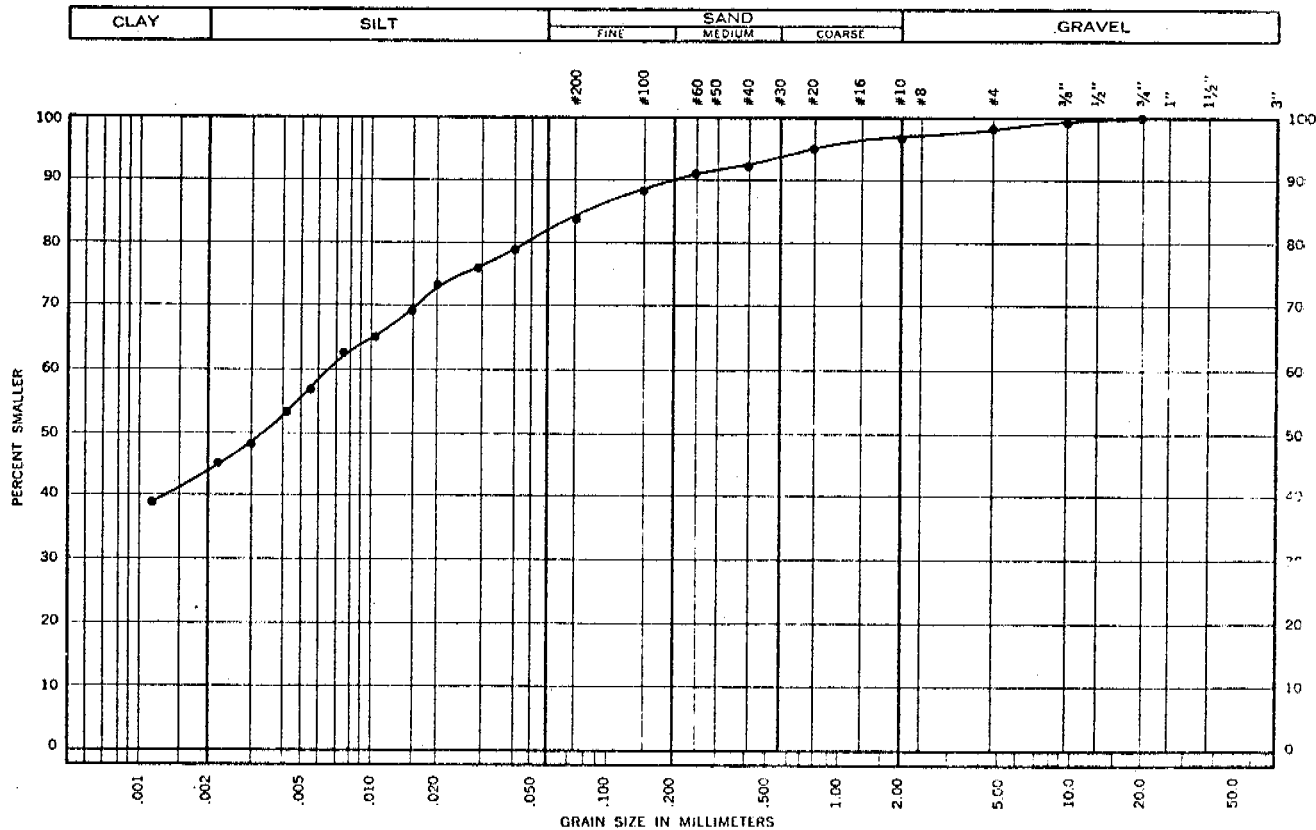


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT (TILL),
SANDY, TRACE OF GRAVEL.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 685-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

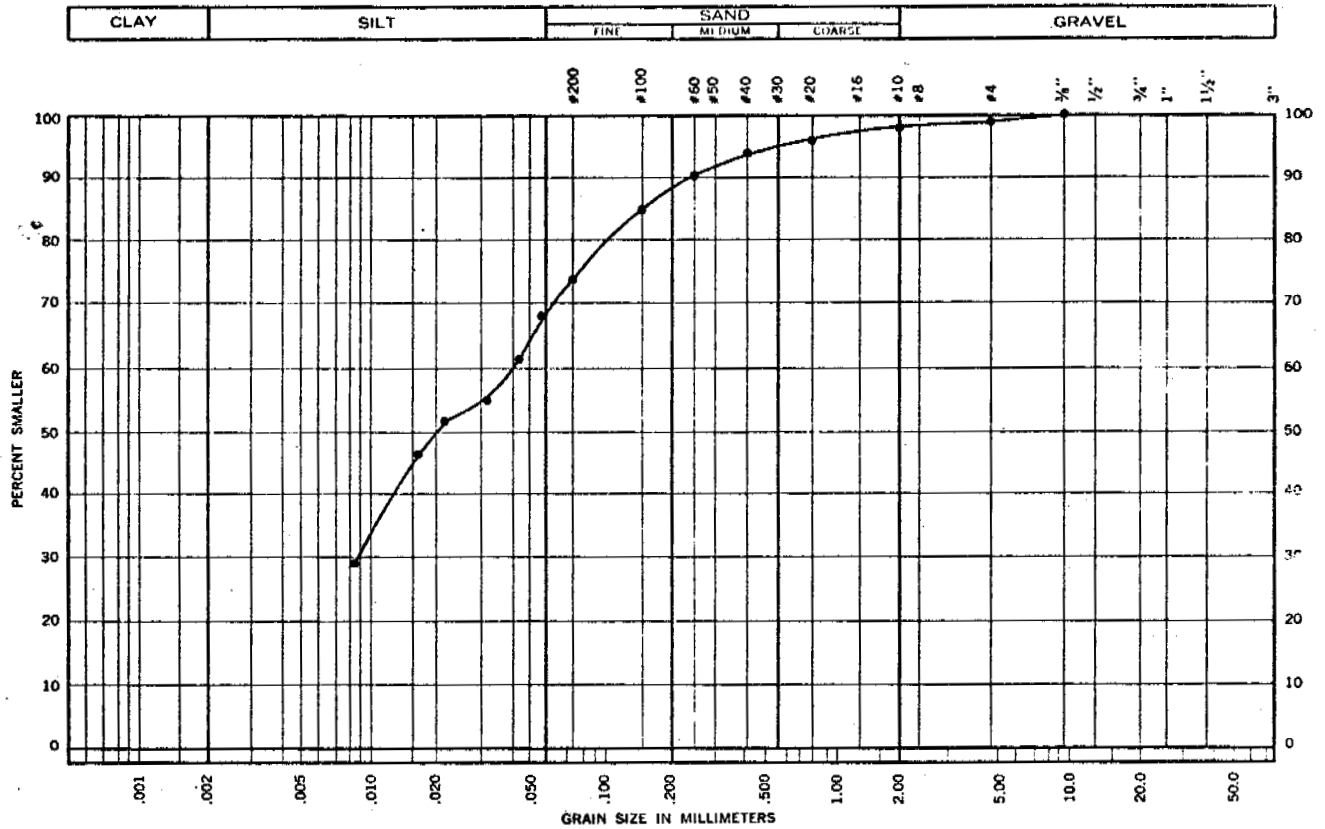


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY, (TILL)
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 2/73
SAMPLE No. 682-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

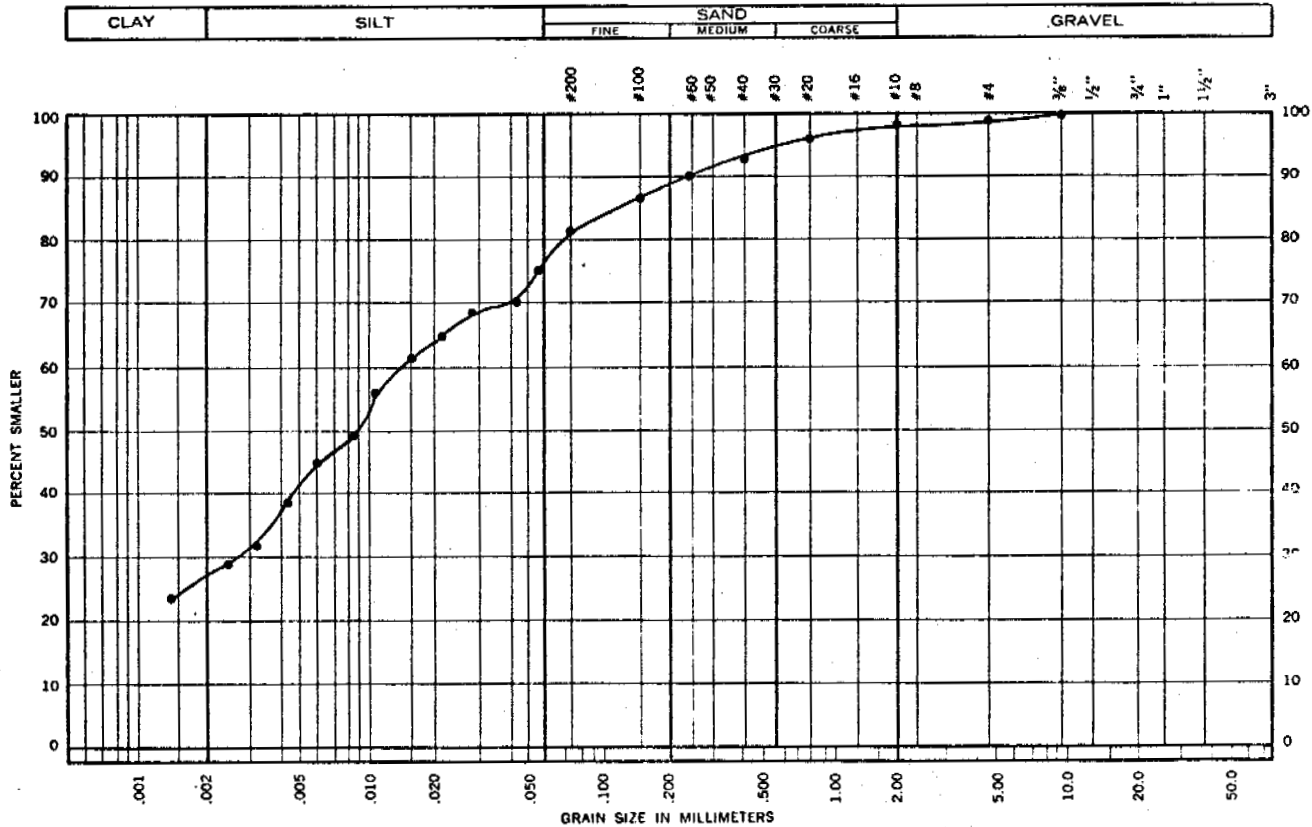


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILT (TILL)
SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 680-S-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

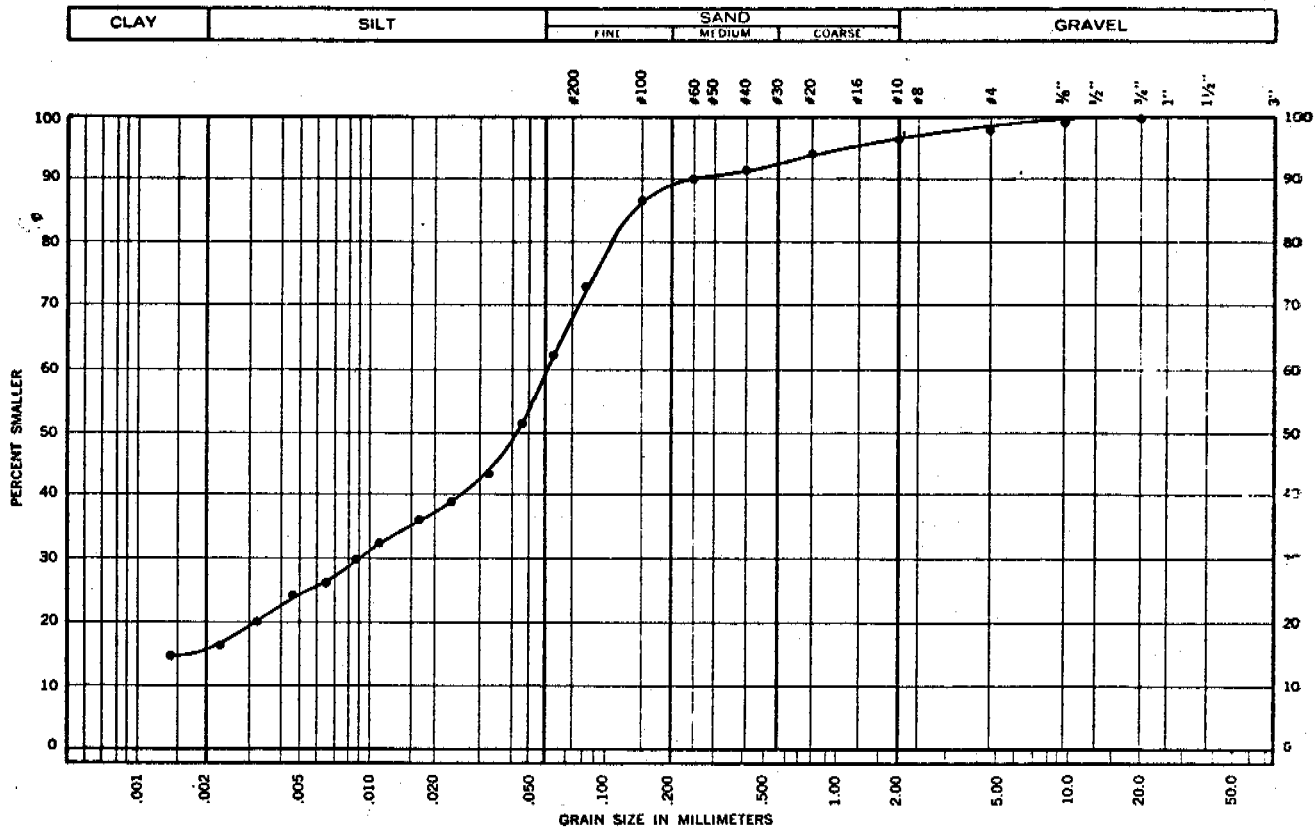


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SOME
SAND, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 2/73
SAMPLE No. 678-S-1
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



FIGURE

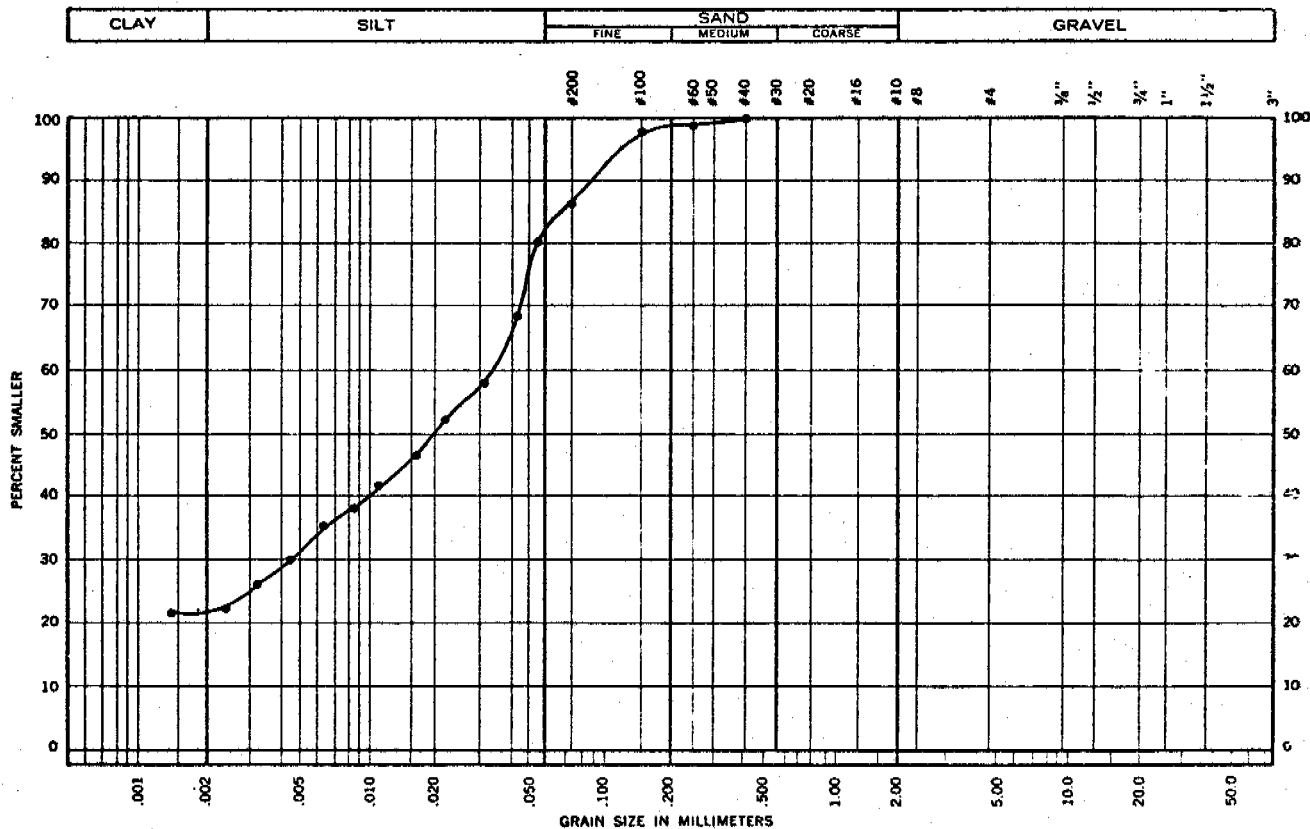


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY SILT, SOME
CLAY, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 674-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

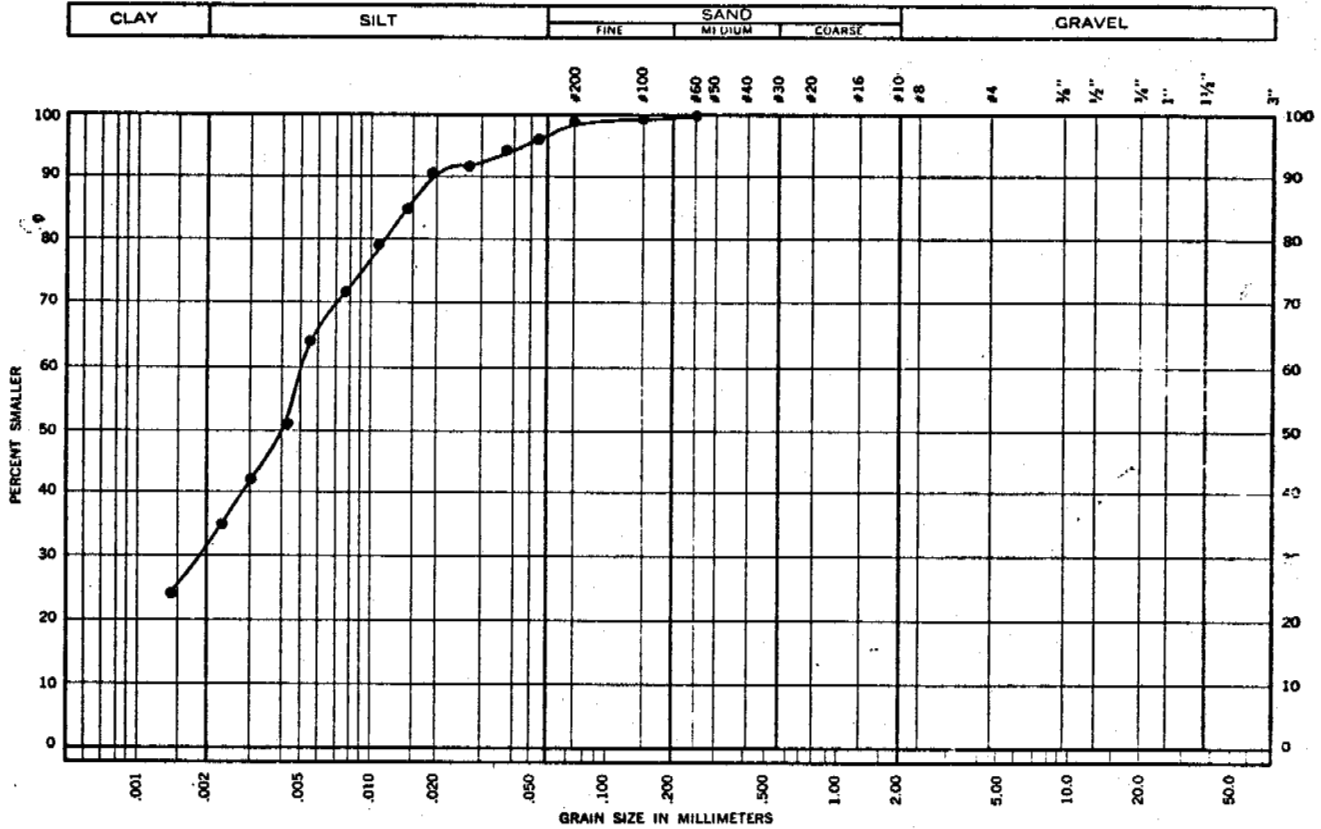


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY-SILT, SOME
SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 673-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

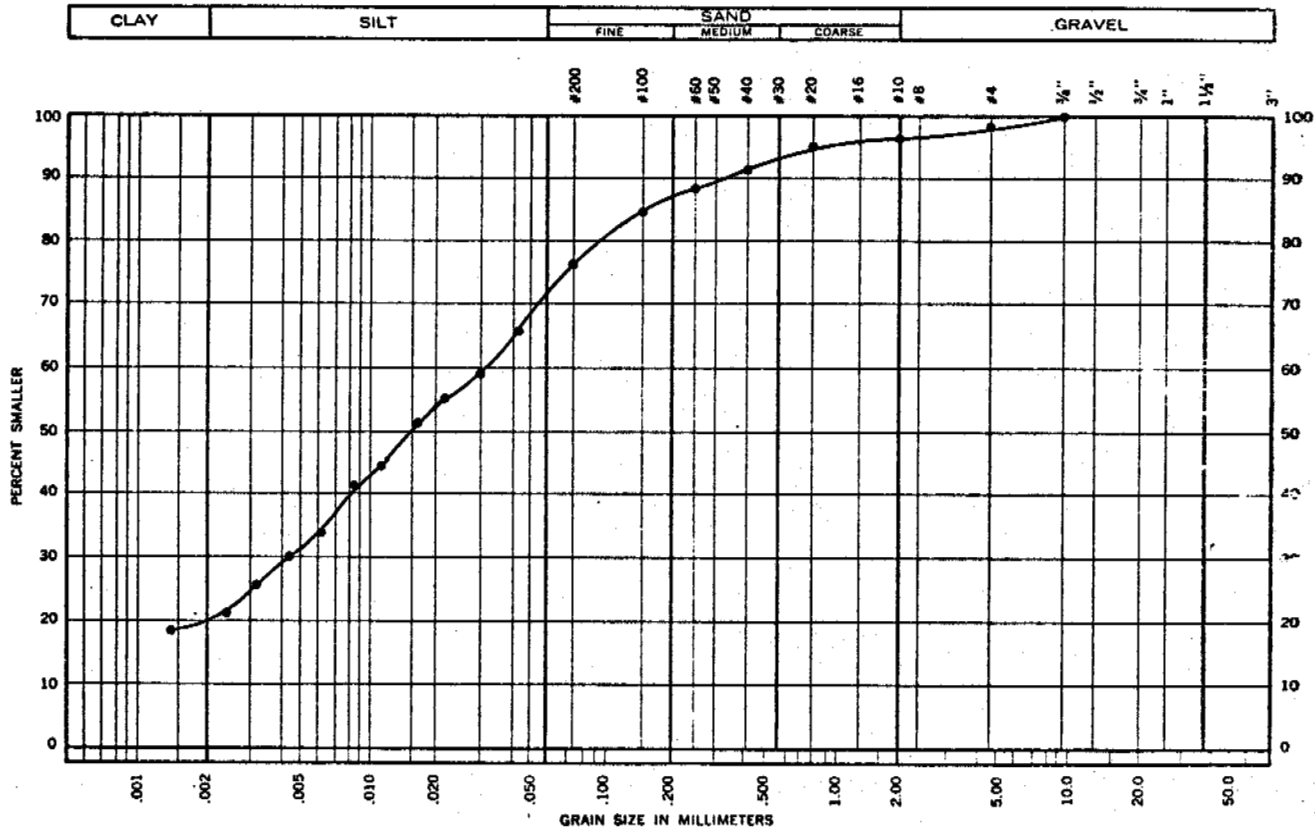


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 26/73
SAMPLE No. 672-S-3
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY CLAY-SILT
TRACE OF GRAVEL (TILL-LIKE)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 2/73
SAMPLE No. 669-S-1
DEPTH 10'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 669-S-4
DEPTH 15'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11, 73
SAMPLE No. 669-S-5
DEPTH 10'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



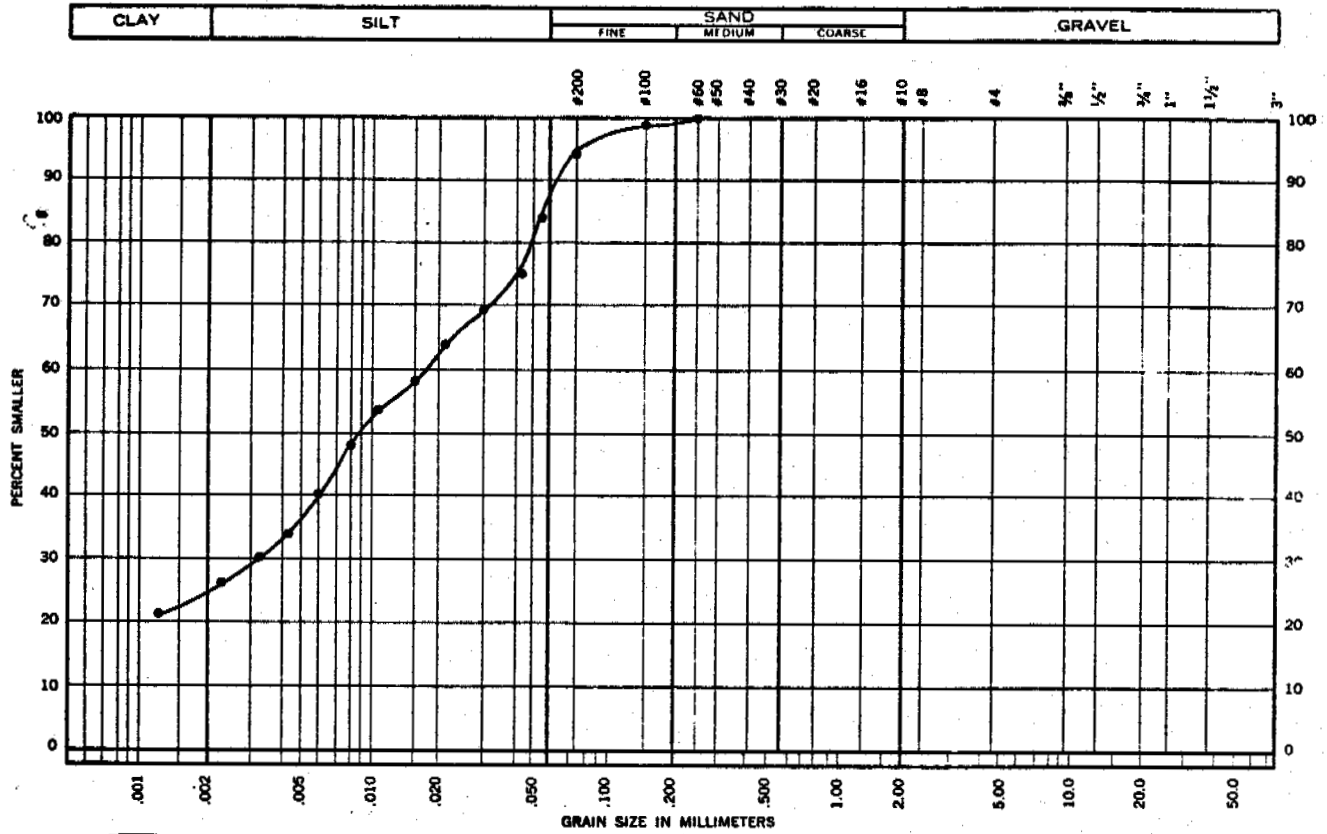
PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAY 15/73
SAMPLE No. 669-S-9
DEPTH AVERAGE (18'-20')

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	

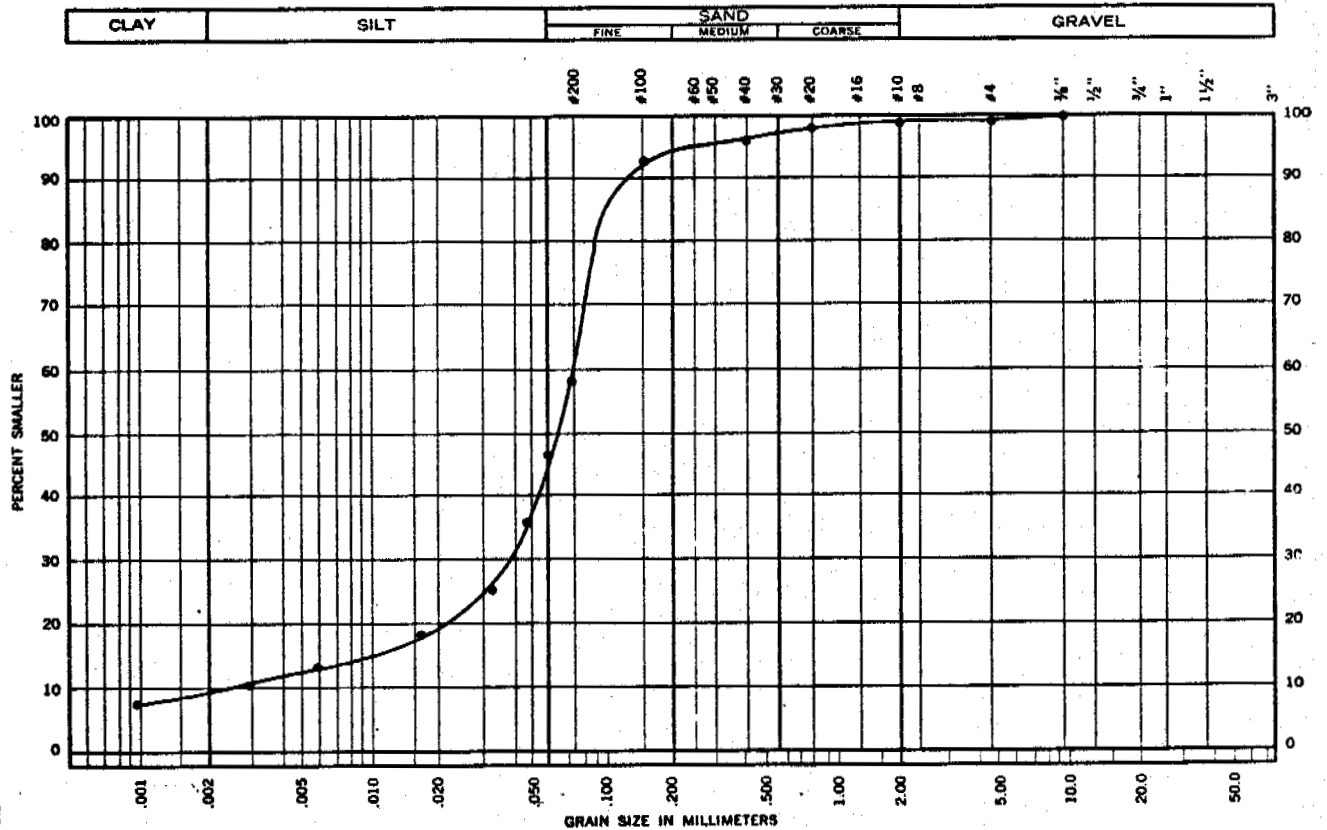


PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MAY 15/73
SAMPLE No. 669-S-9
DEPTH AVERAGE (28'-30')

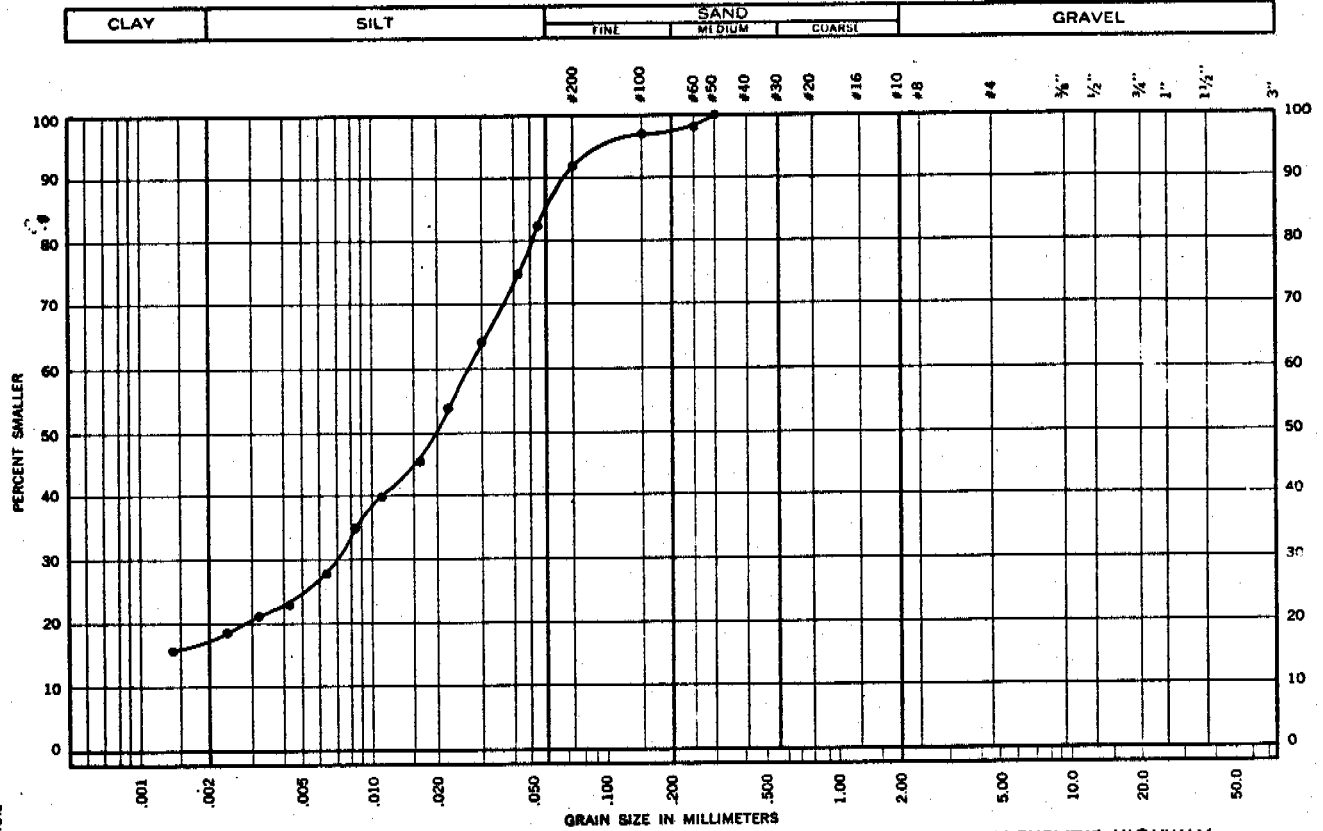
GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



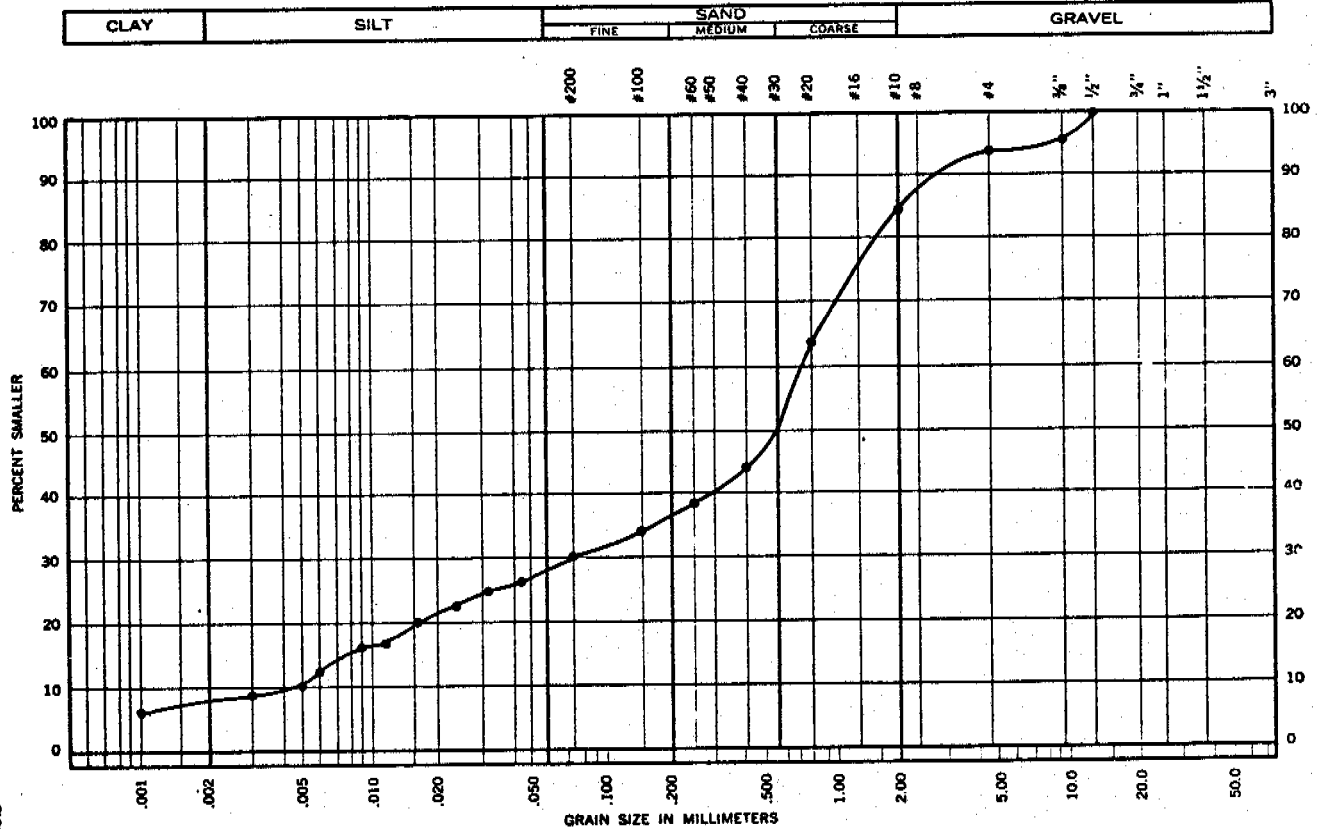
FIGURE



SAMPLE DESCRIPTION SILT, SOME CLAY,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 660-S-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



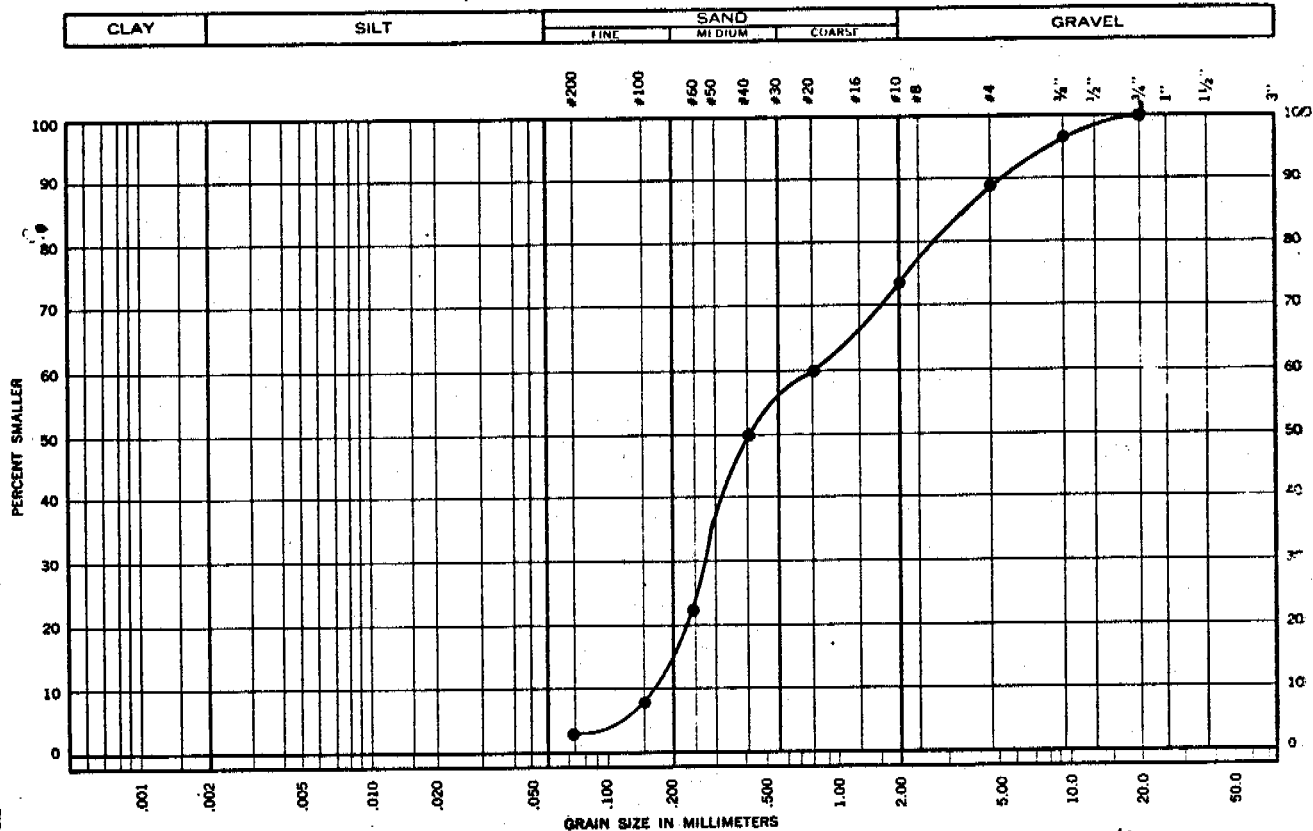
FIGURE



SAMPLE DESCRIPTION SAND, SILTY, SOME
GRAVEL, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 659-S-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



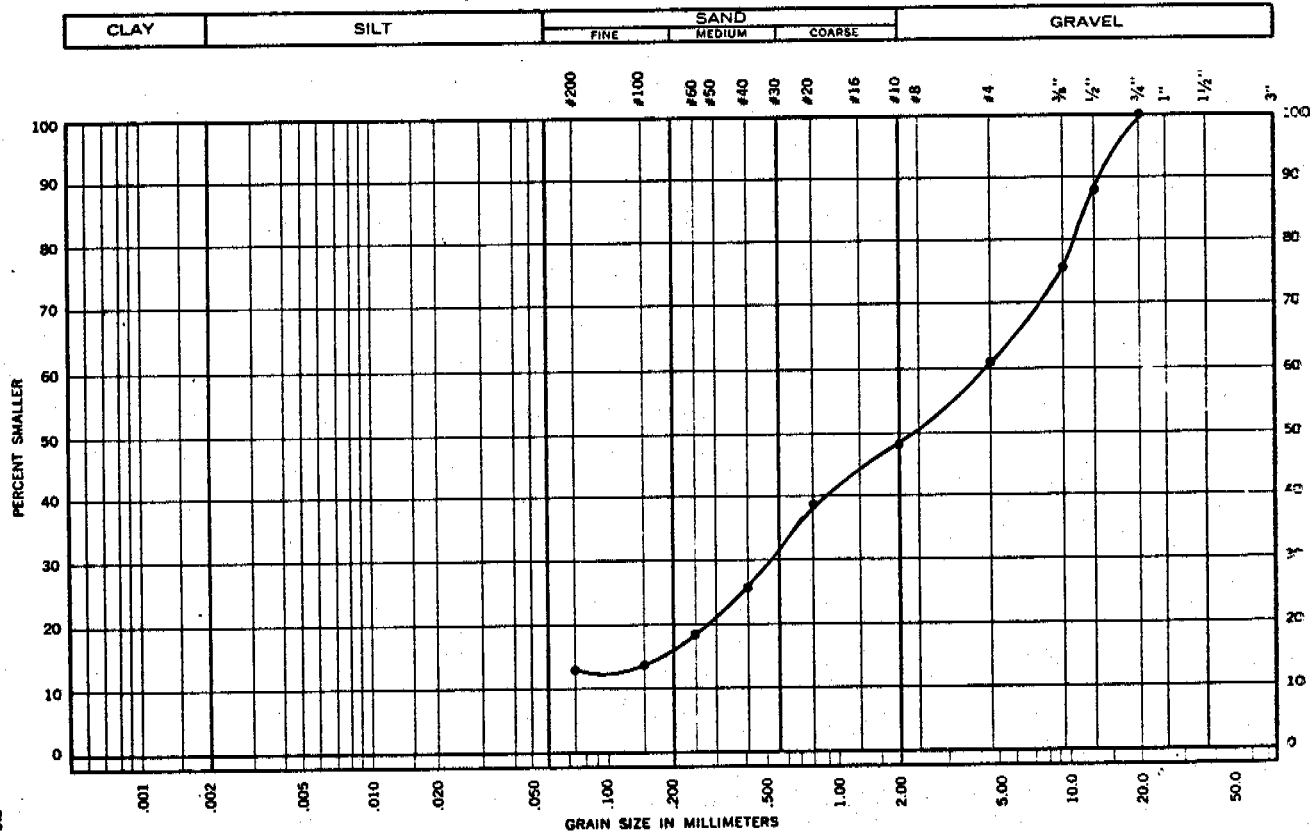
FIGURE



SAMPLE DESCRIPTION SAND, GRAVELLY,
TRACE OF SILT

PROJECT Mackenzie Highway
JOB No. E-517 DATE April 12/73
SAMPLE No. 659-S-3 MUPL
DEPTH 5'

GRAIN SIZE DISTRIBUTION



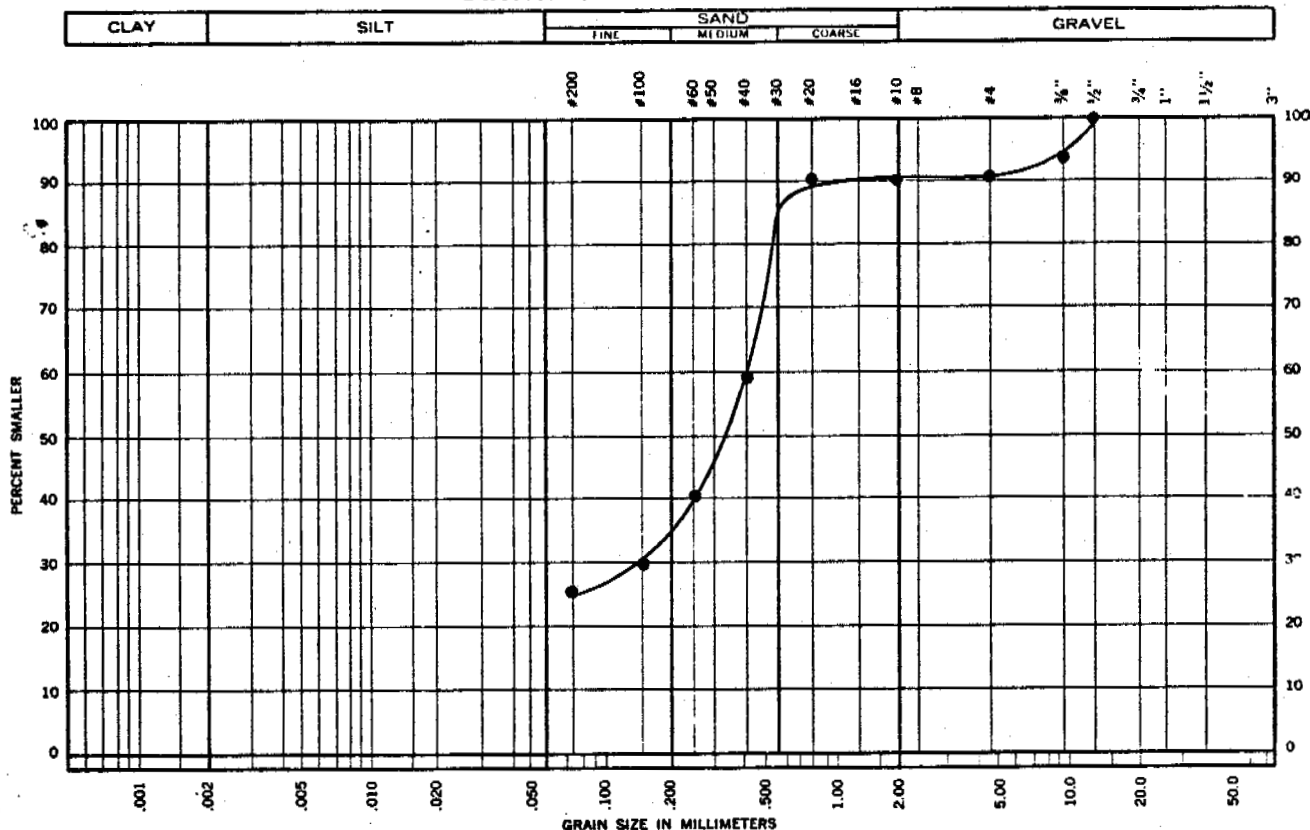
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 659-S-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



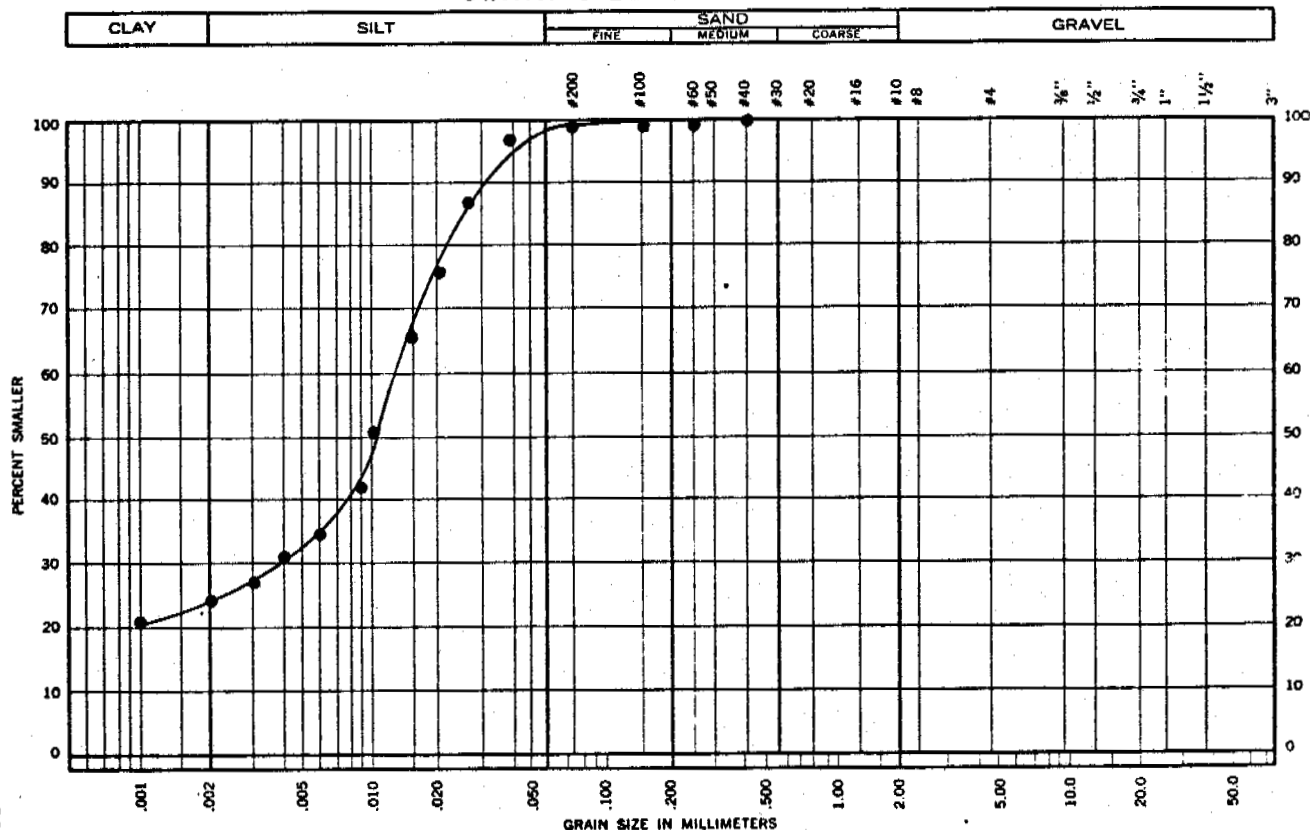
FIGURE



SAMPLE DESCRIPTION SILTY SAND,
TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 659-S-6
DEPTH 10'

GRAIN SIZE DISTRIBUTION



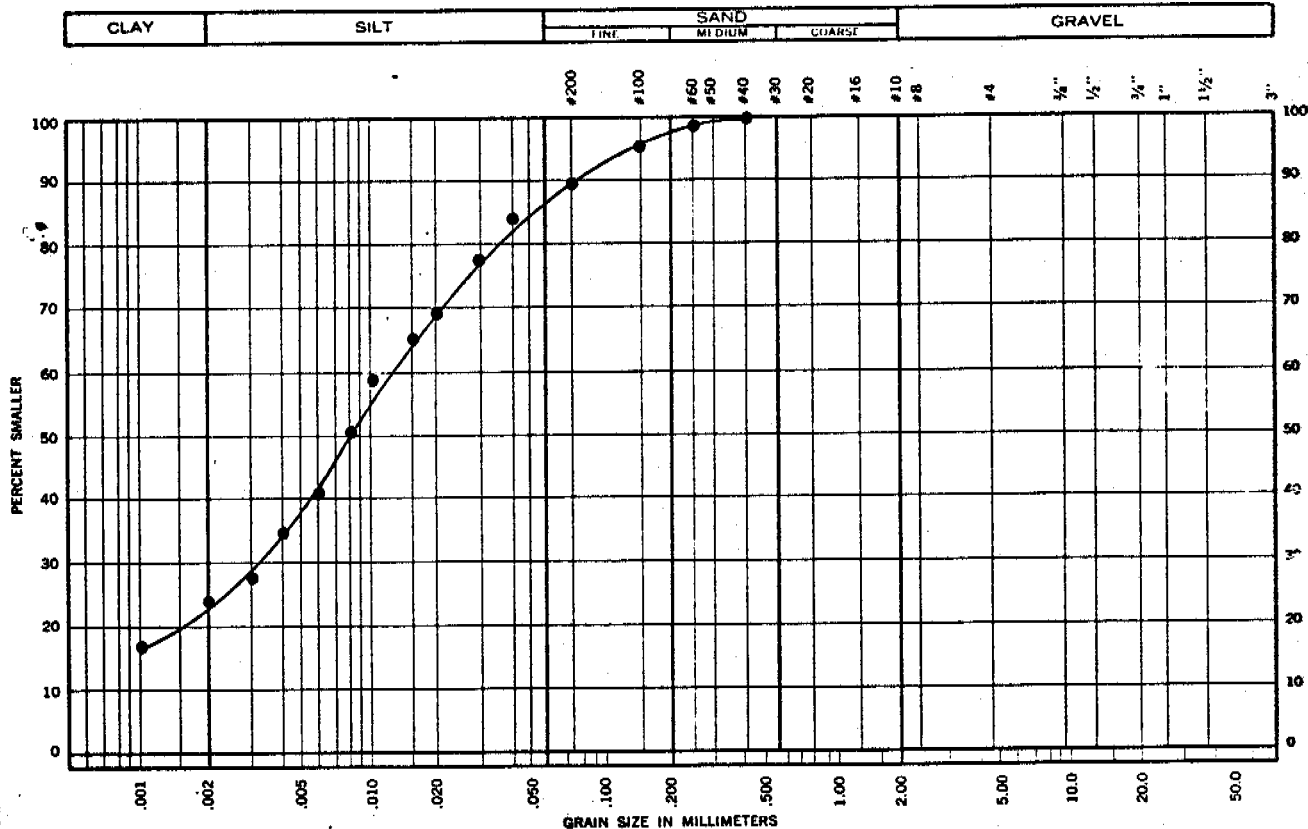
FIGURE



SAMPLE DESCRIPTION SILT, CLAYEY,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 658-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

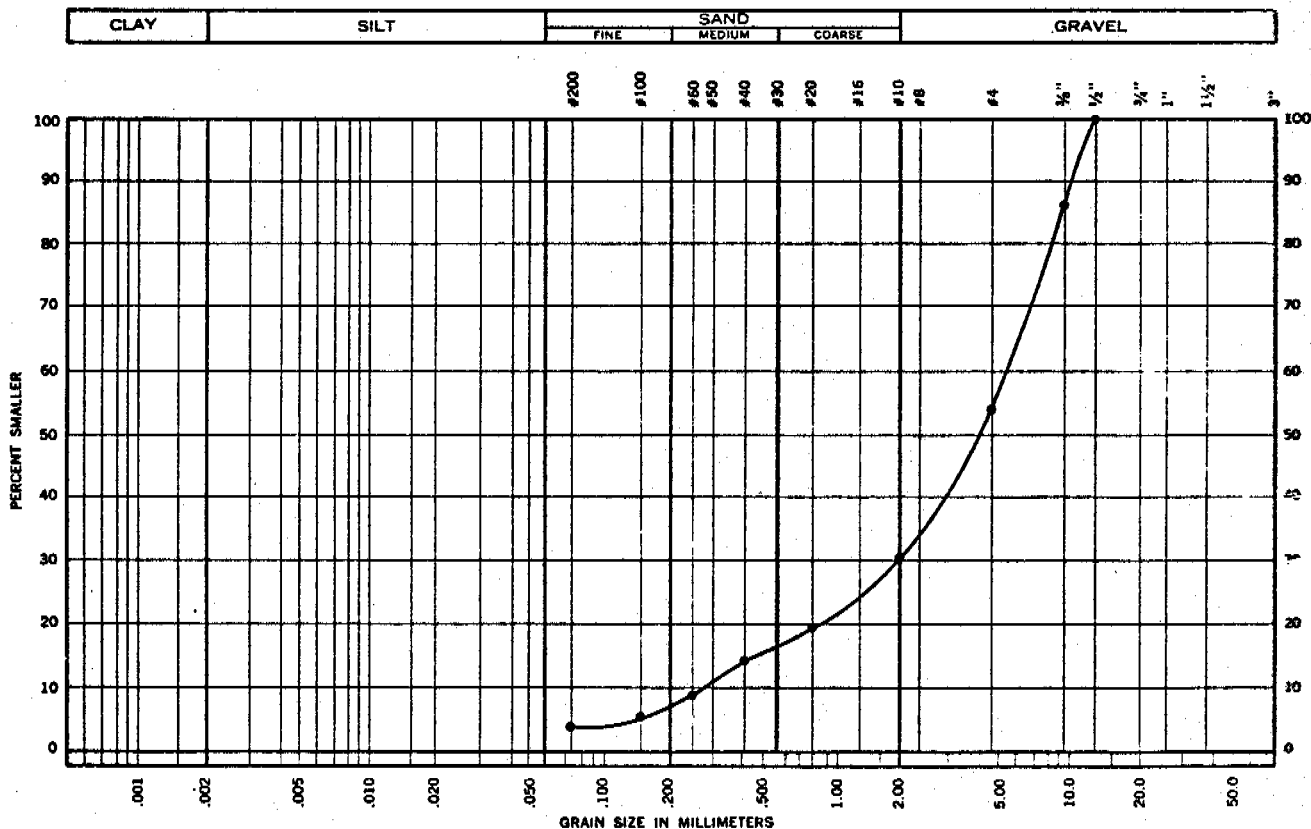


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILT, CLAYEY,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 657-S-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

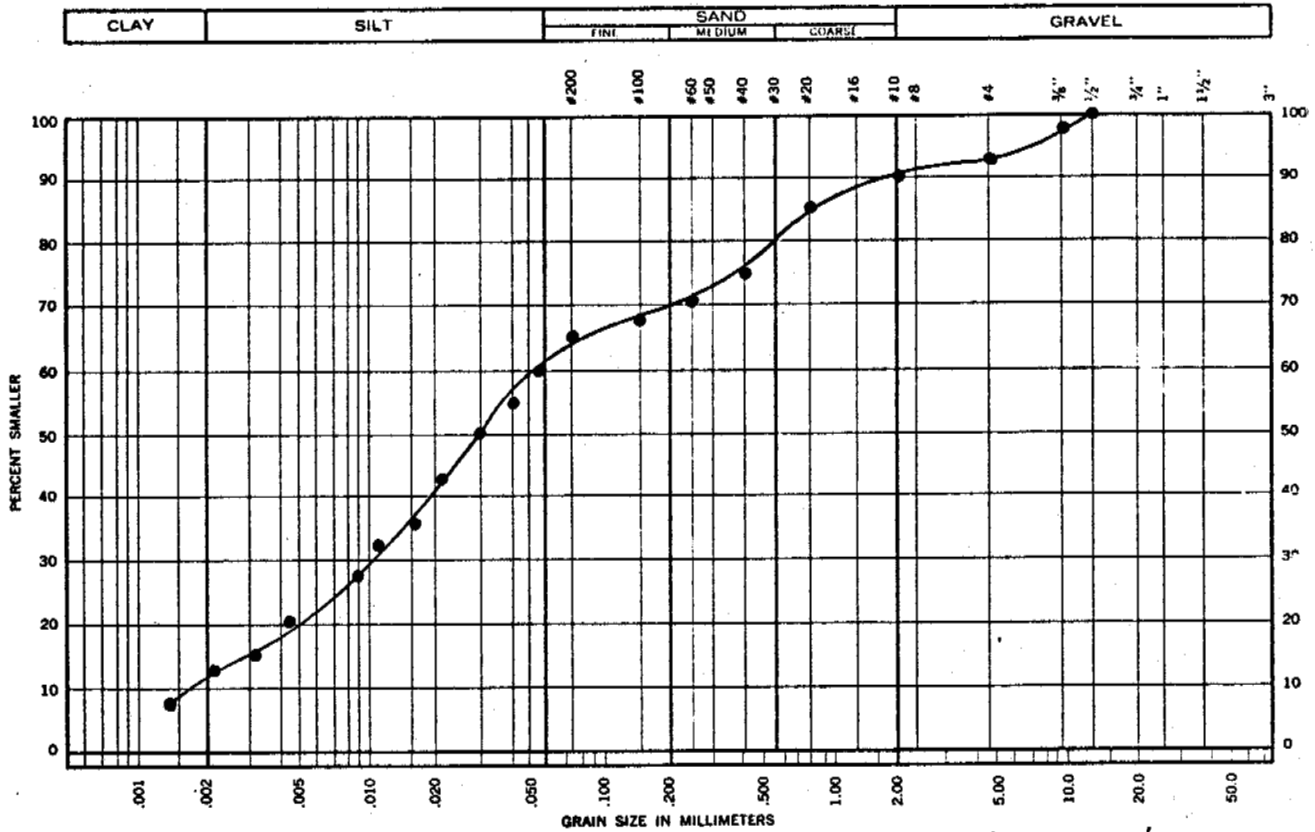


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 650-S-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



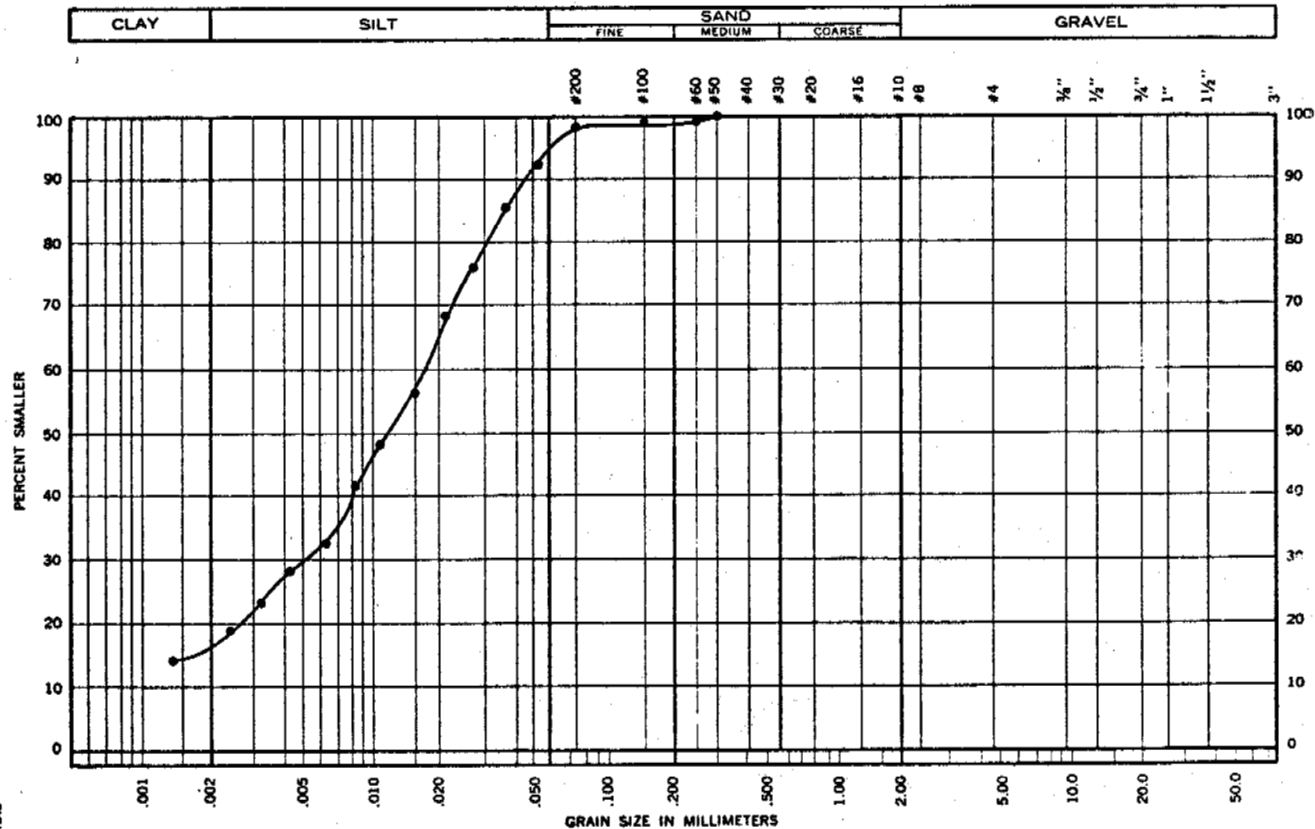
FIGURE



SAMPLE DESCRIPTION SILT, SANDY, SOME
CLAY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 650-S-3
DEPTH 15

GRAIN SIZE DISTRIBUTION



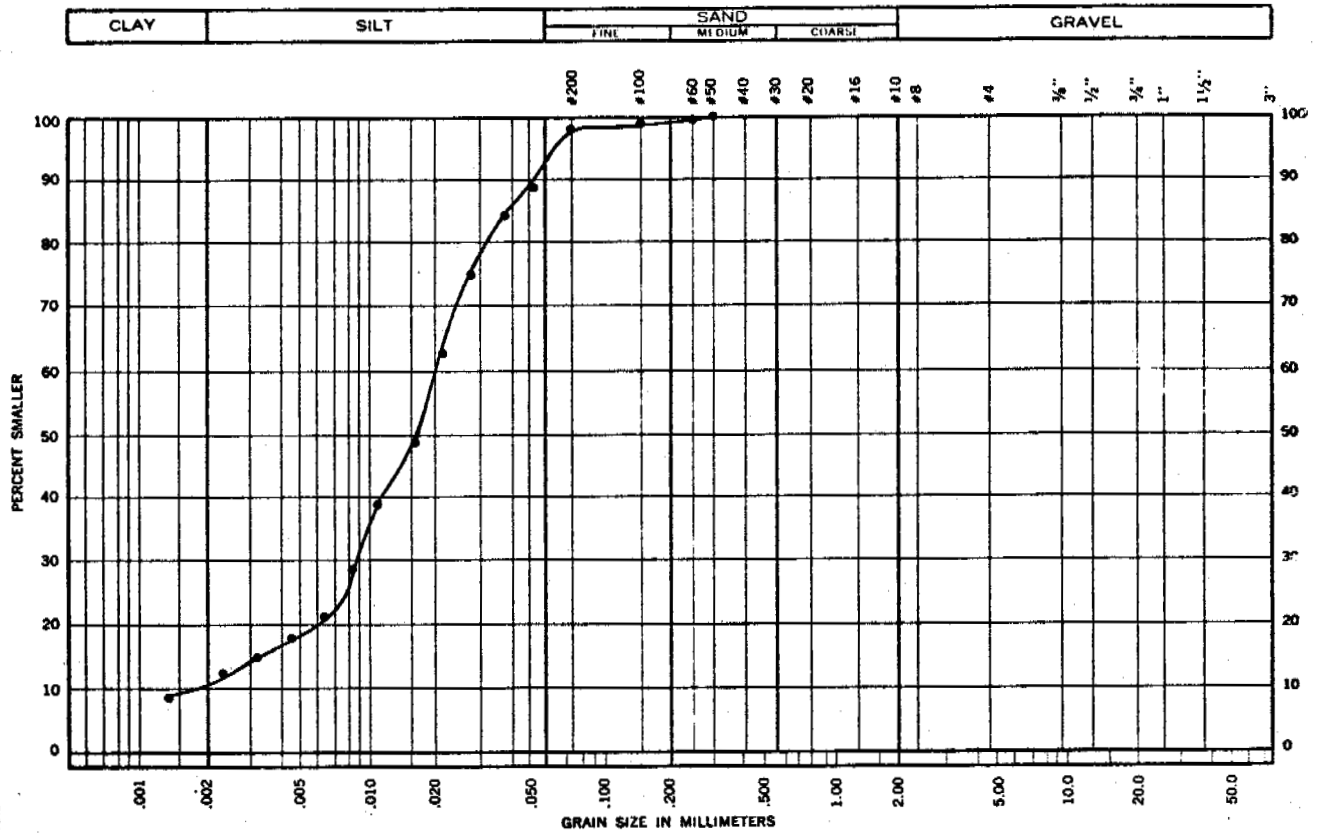
FIGURE



SAMPLE DESCRIPTION SILT, SOME CLAY,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 650-S-5
DEPTH 15'

GRAIN SIZE DISTRIBUTION



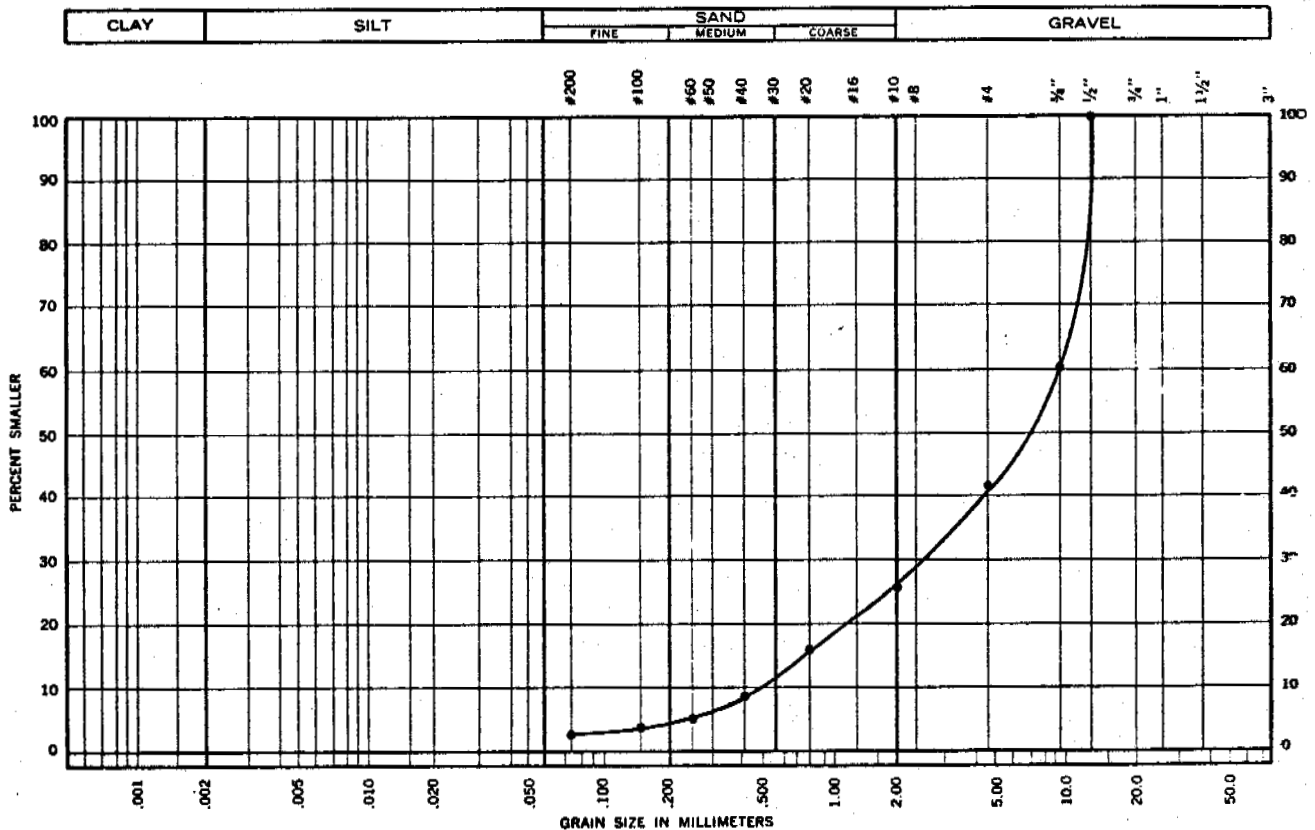
FIGURE



SAMPLE DESCRIPTION SILT, SOME CLAY,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 650-S-7
DEPTH 15'

GRAIN SIZE DISTRIBUTION



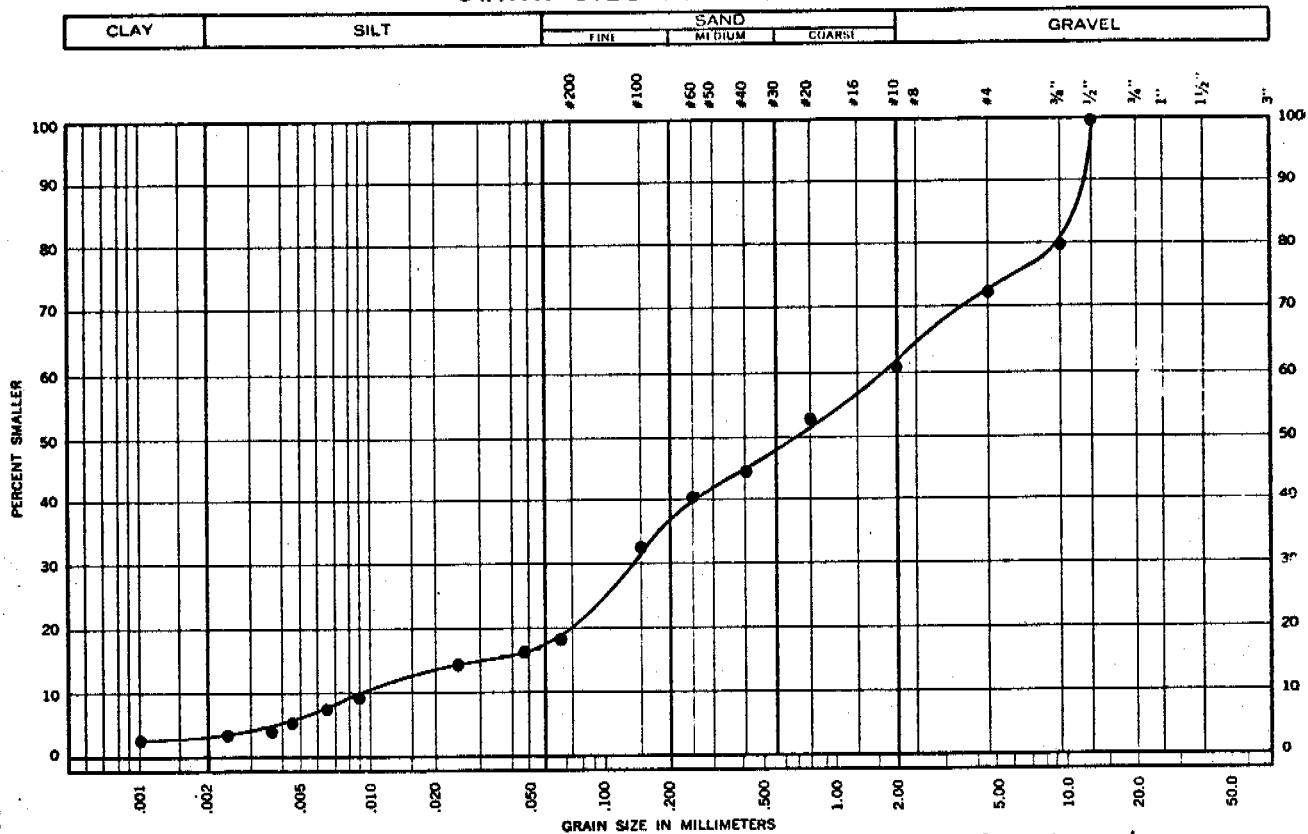
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 650-S-8
DEPTH 5'

GRAIN SIZE DISTRIBUTION



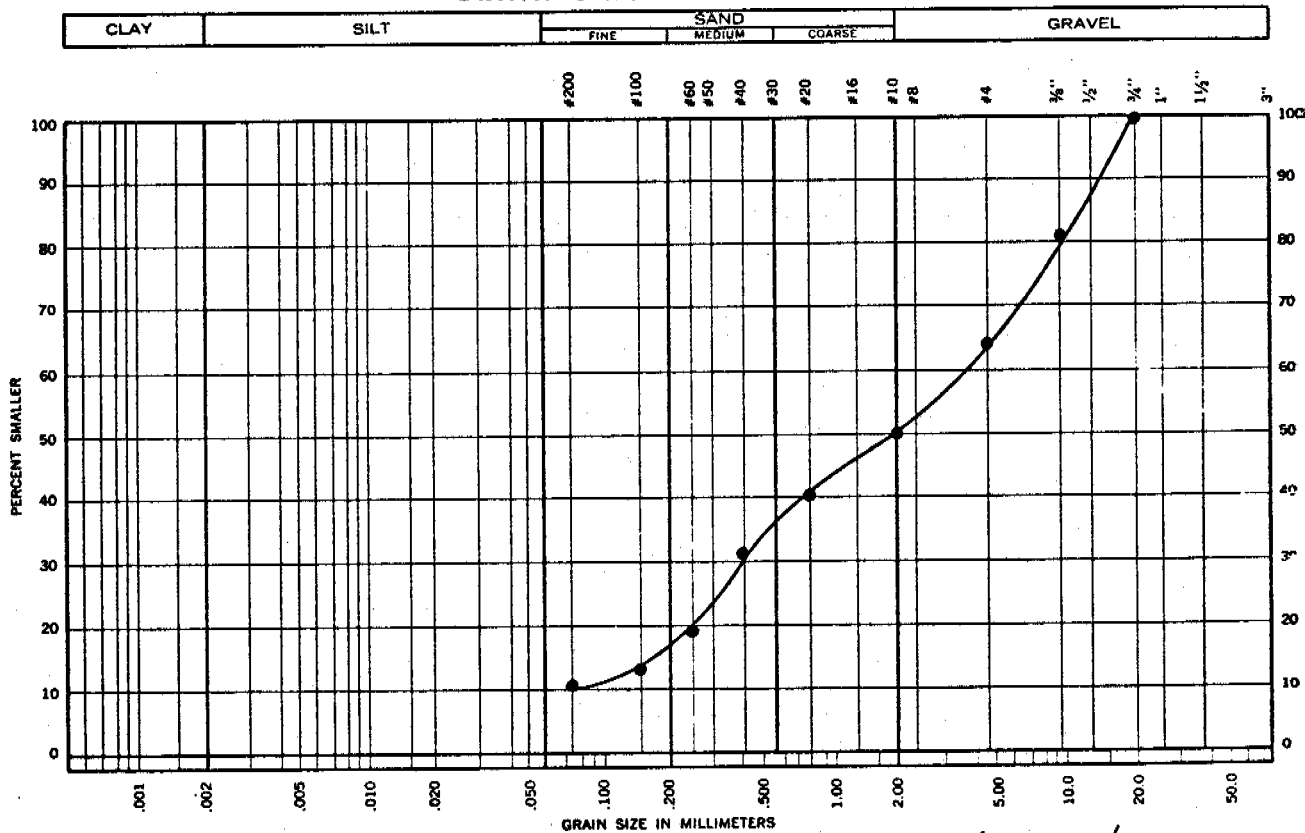
FIGURE



SAMPLE DESCRIPTION GRAVELLY SAND,
SOME SILT, TRACE CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 64B-S-1
DEPTH 3'

GRAIN SIZE DISTRIBUTION



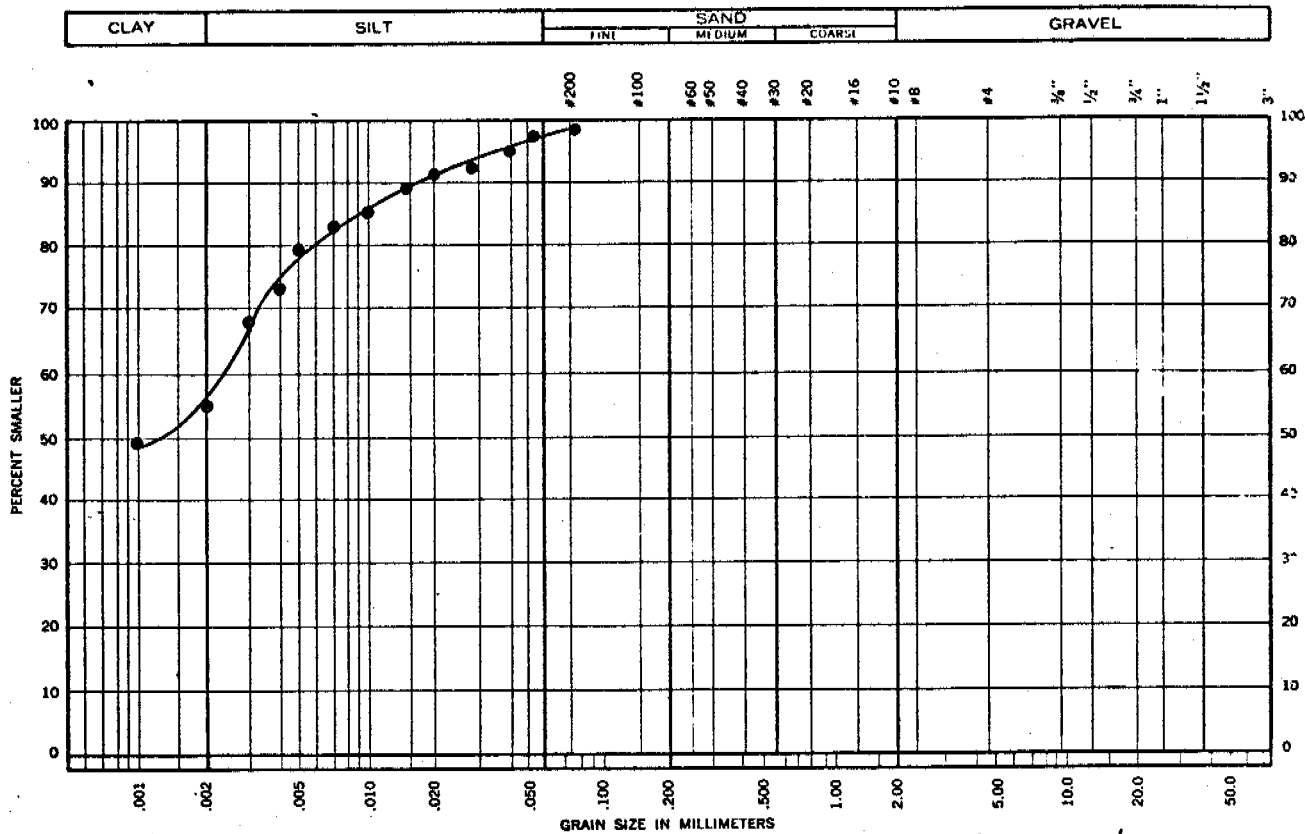
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY, SOME
SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 64B-S-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



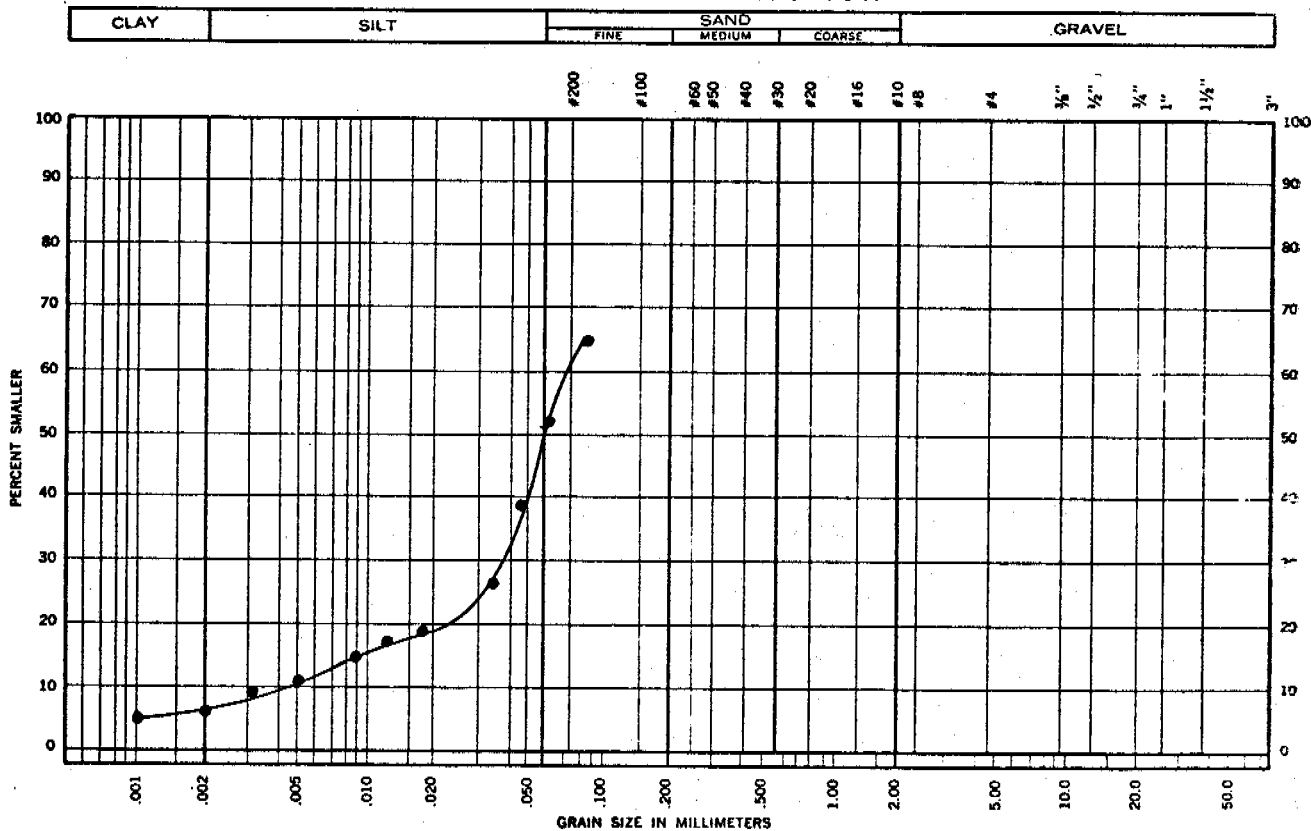
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 647-S-1
DEPTH 15' (MVPL)

GRAIN SIZE DISTRIBUTION



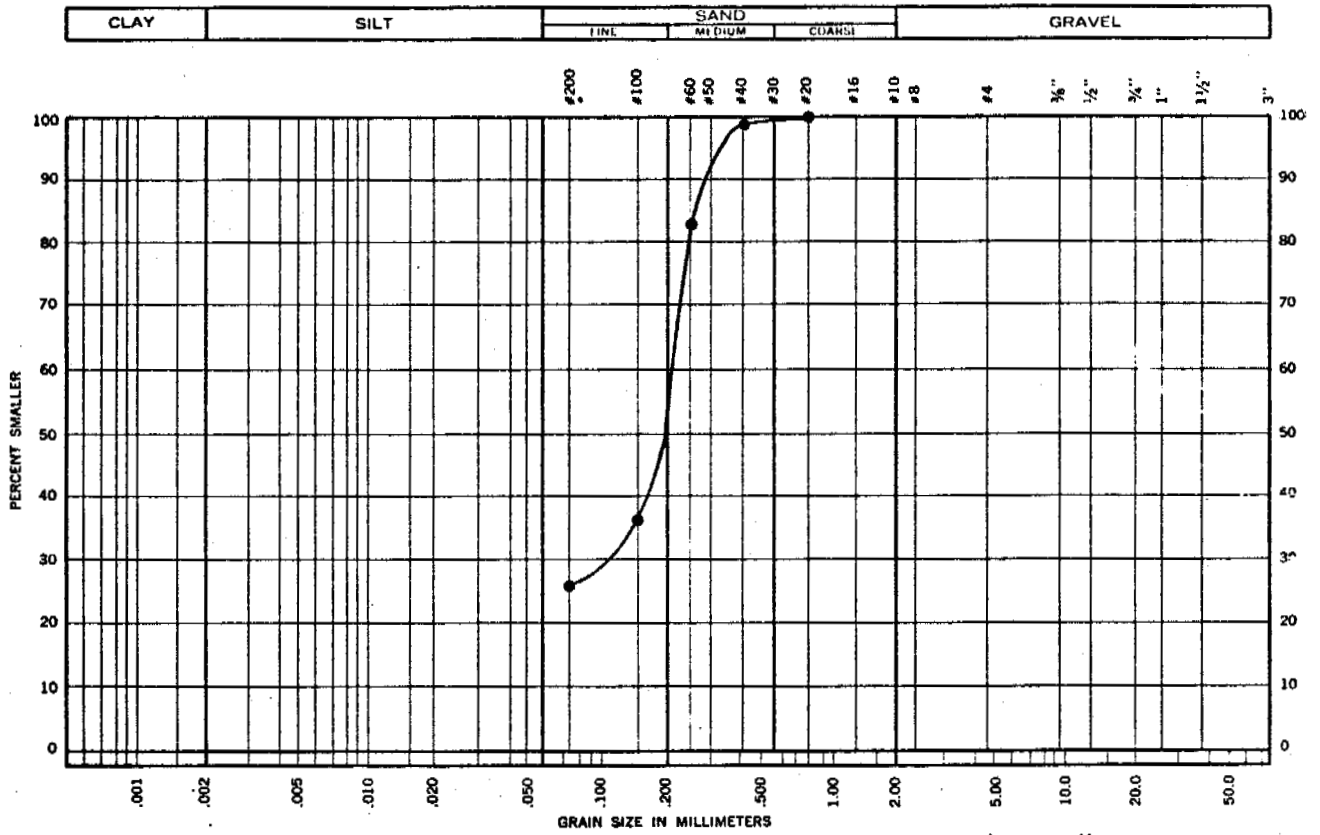
FIGURE



SAMPLE DESCRIPTION SAND & GRAVEL, SILTY,
TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 647-S-2
DEPTH 2 1/4'

GRAIN SIZE DISTRIBUTION



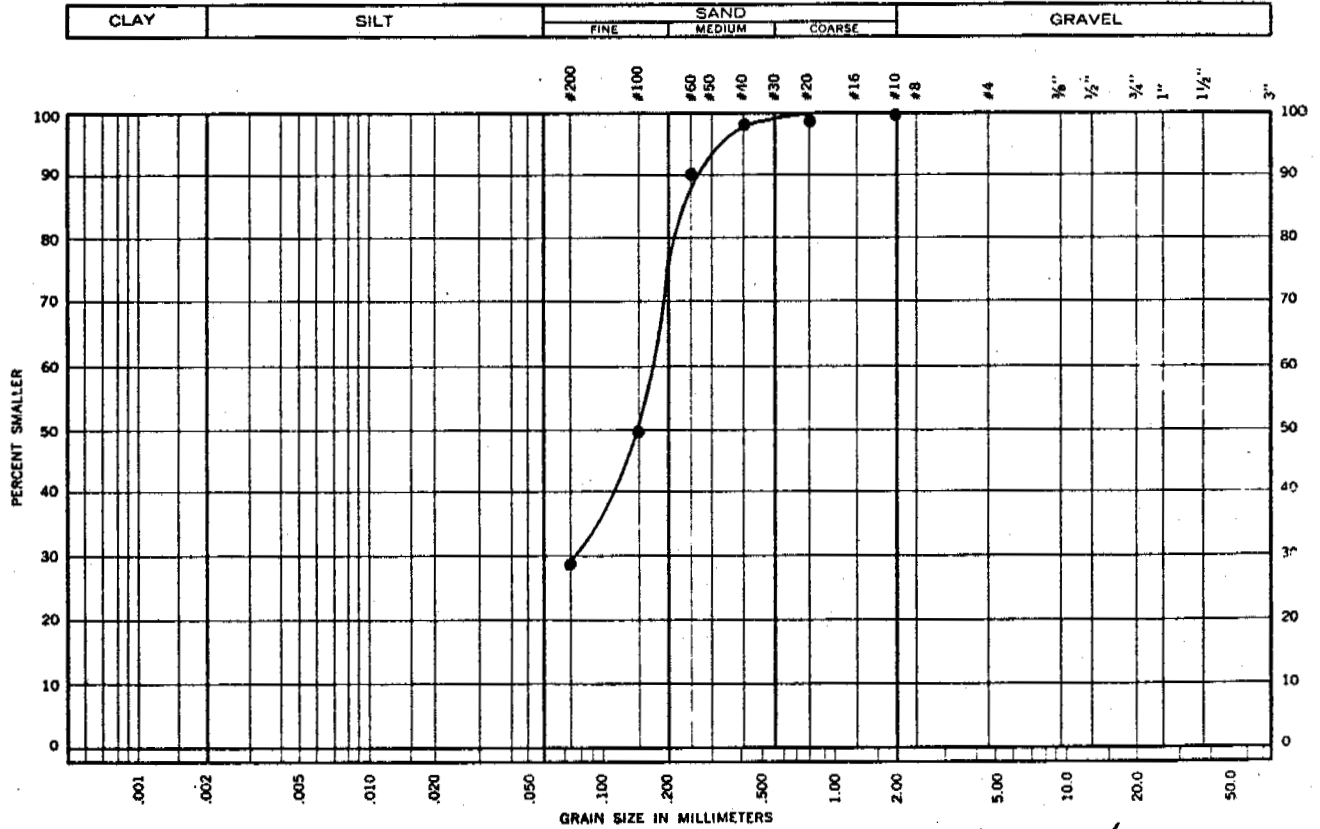
FIGURE



SAMPLE DESCRIPTION SILTY SAND, TRACE OF CLAY

PROJECT Mackenzie Highway
 JOB No. E-517 DATE April 12/73
 SAMPLE No. 645-S-2
 DEPTH 5

GRAIN SIZE DISTRIBUTION



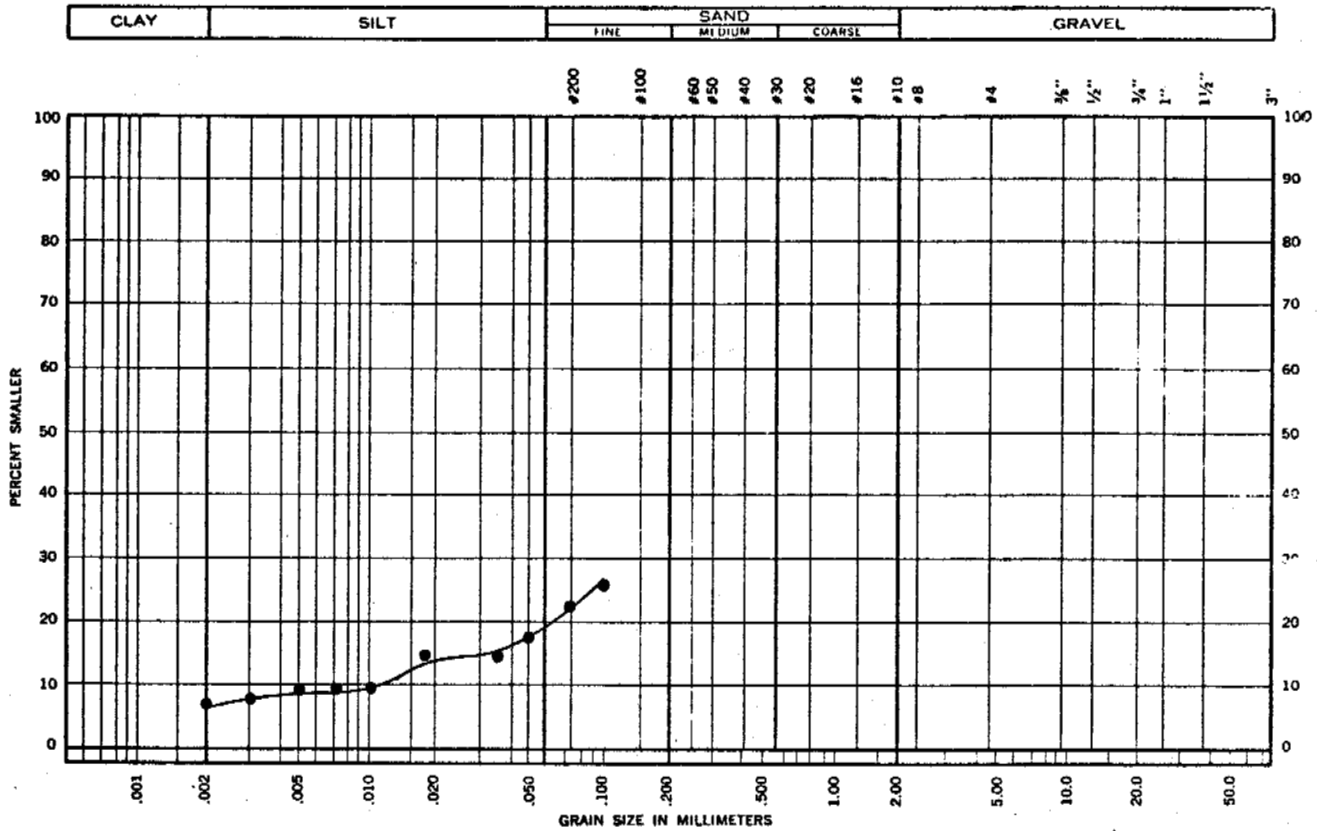
FIGURE



SAMPLE DESCRIPTION SILTY SAND, TRACE OF CLAY

PROJECT Mackenzie Highway
 JOB No. E-517 DATE April 11/73
 SAMPLE No. 644-S-1
 DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



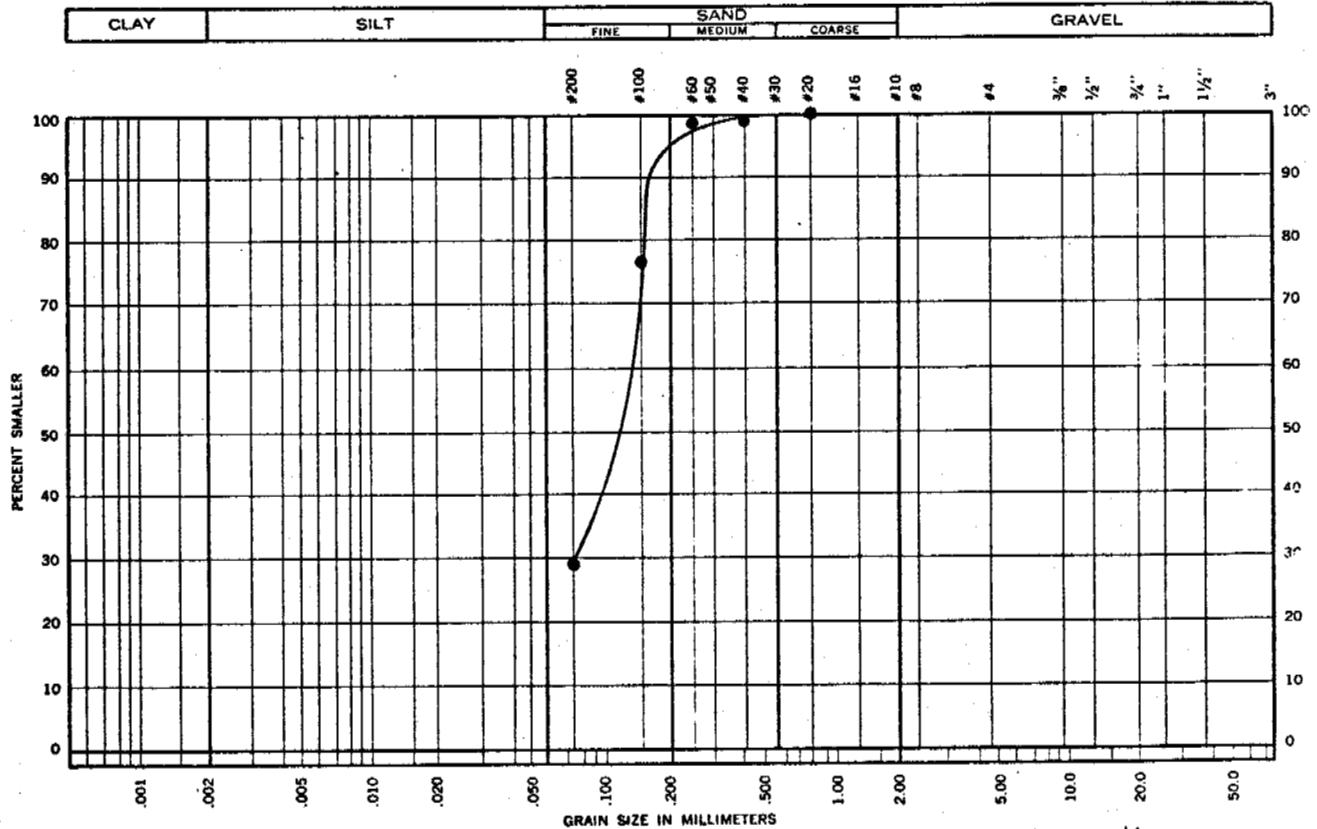
FIGURE



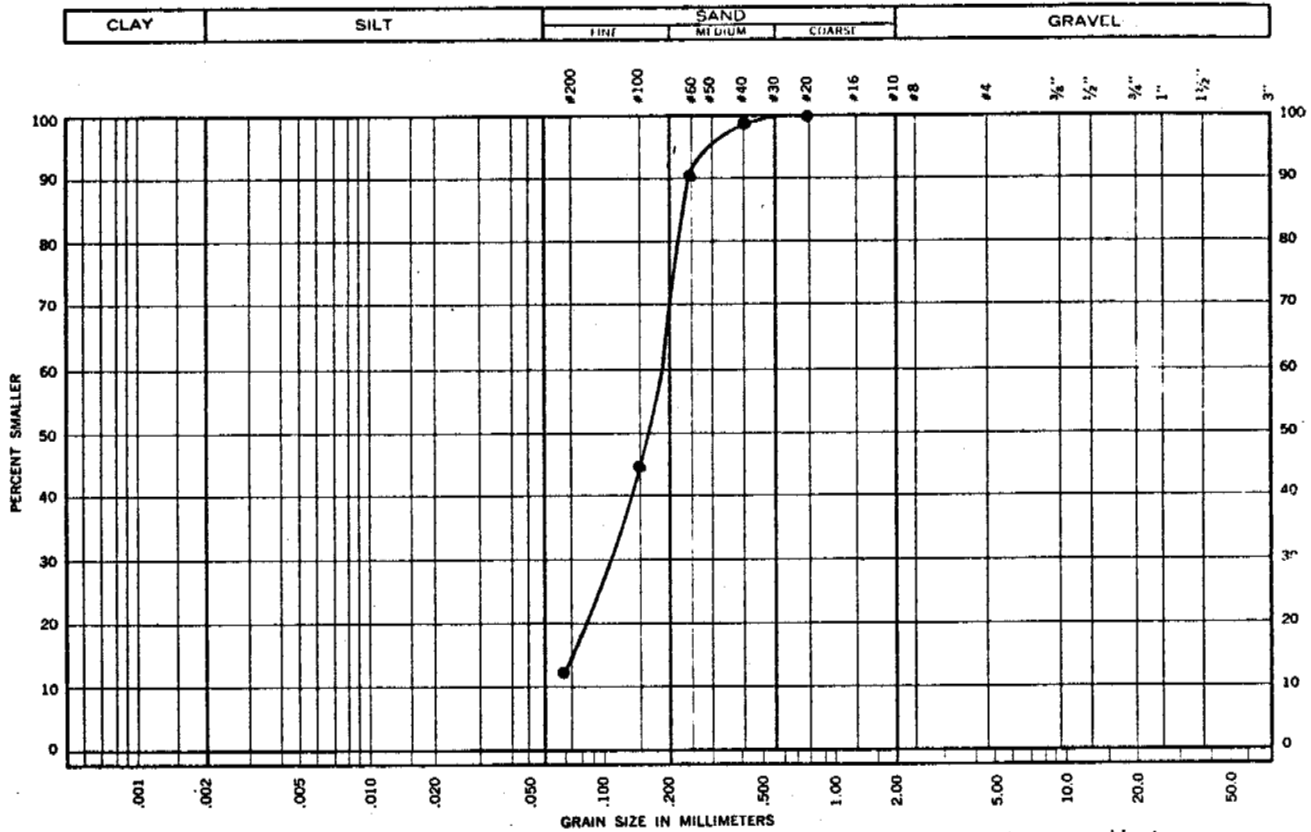
SAMPLE DESCRIPTION SAND, GRAVEL, SOME SILT, TRACE OF CLAY (INCOMPLETE)

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 9/73
 SAMPLE No. 642-5-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



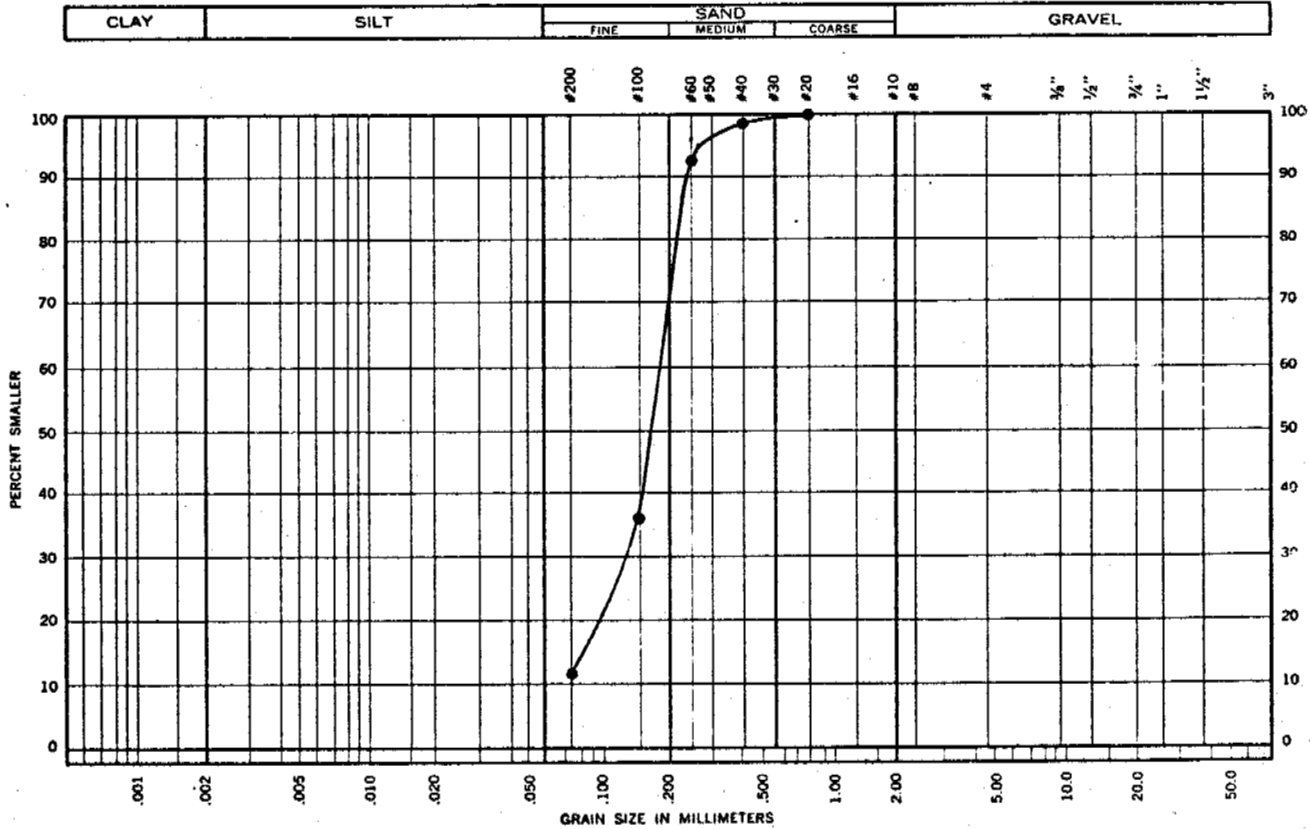
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT Mackenzie Highway
 JOB No. E-507 DATE April 12/73
 SAMPLE No. 641-5-3
 DEPTH 15

GRAIN SIZE DISTRIBUTION



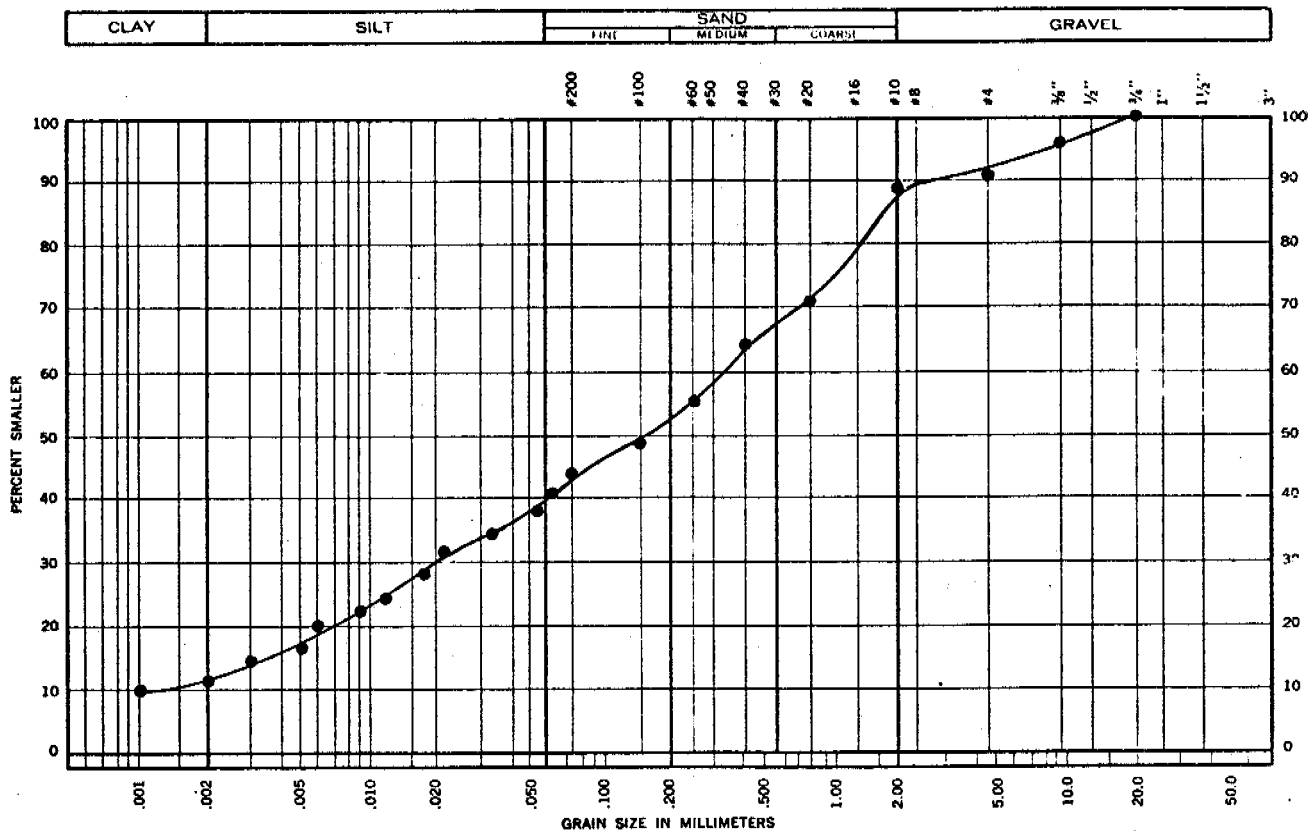
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT

PROJECT Mackenzie Highway
 JOB No. E-517 DATE April 12/73
 SAMPLE No. 641-5-2
 DEPTH 10

GRAIN SIZE DISTRIBUTION



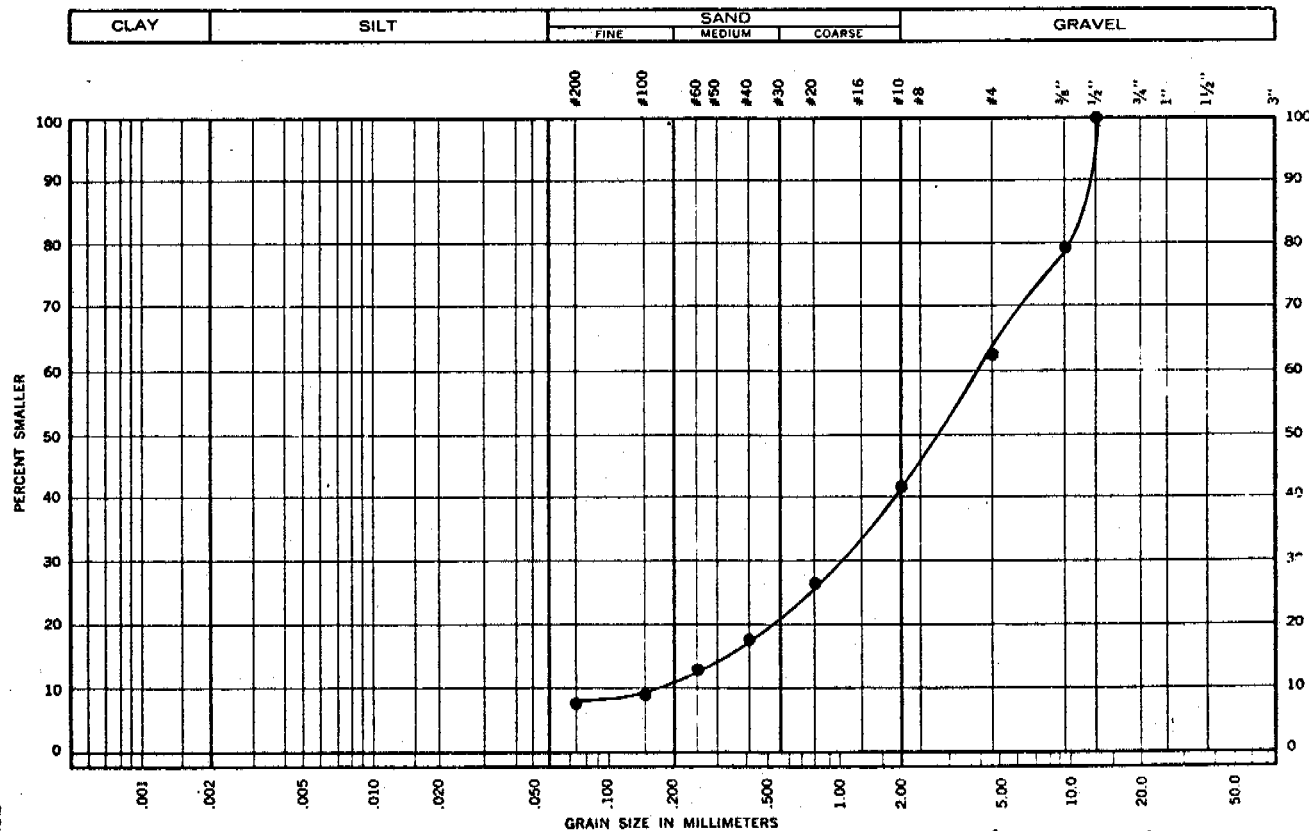
FIGURE



SAMPLE DESCRIPTION SILTY SAND, SOME
CLAY, SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 639-S-3
DEPTH 15'

GRAIN SIZE DISTRIBUTION



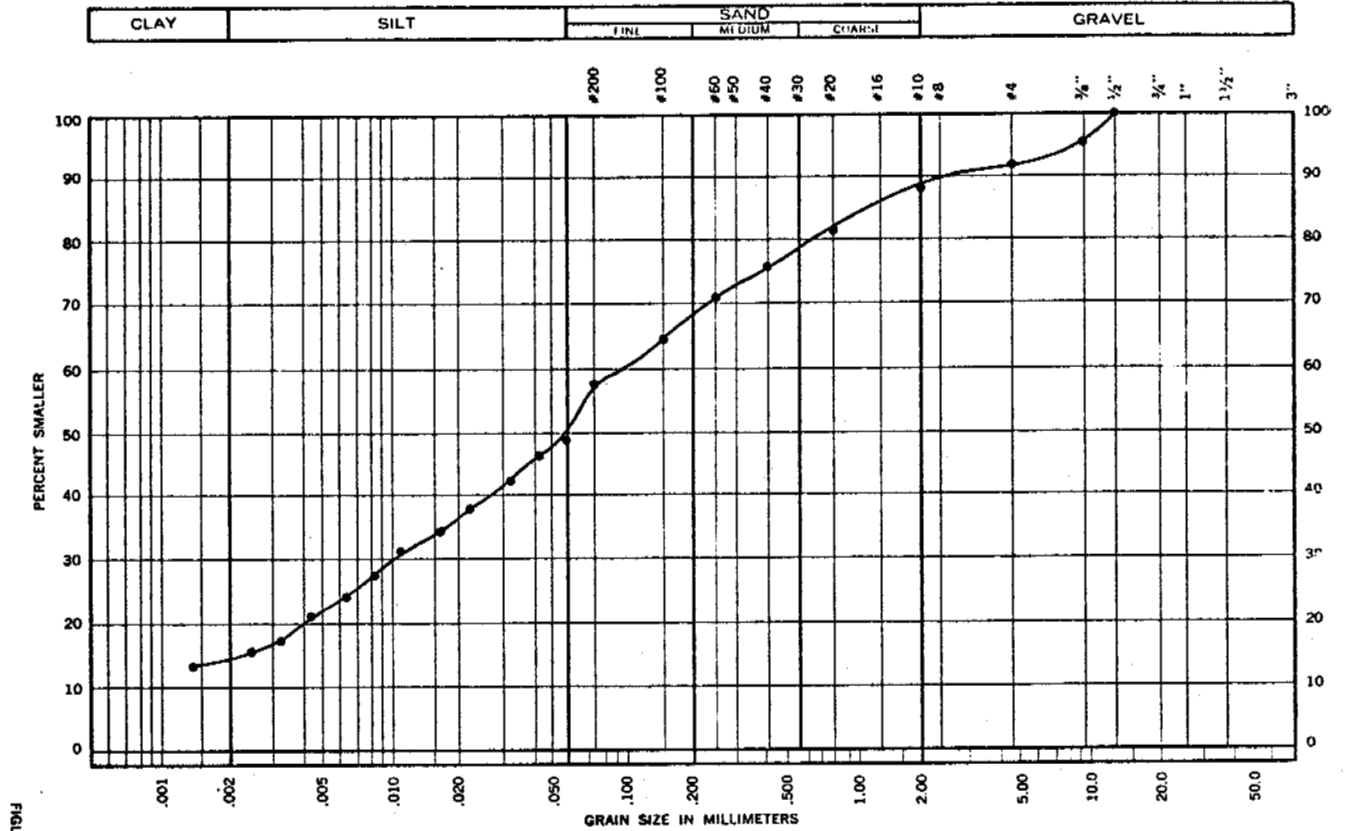
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 637-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



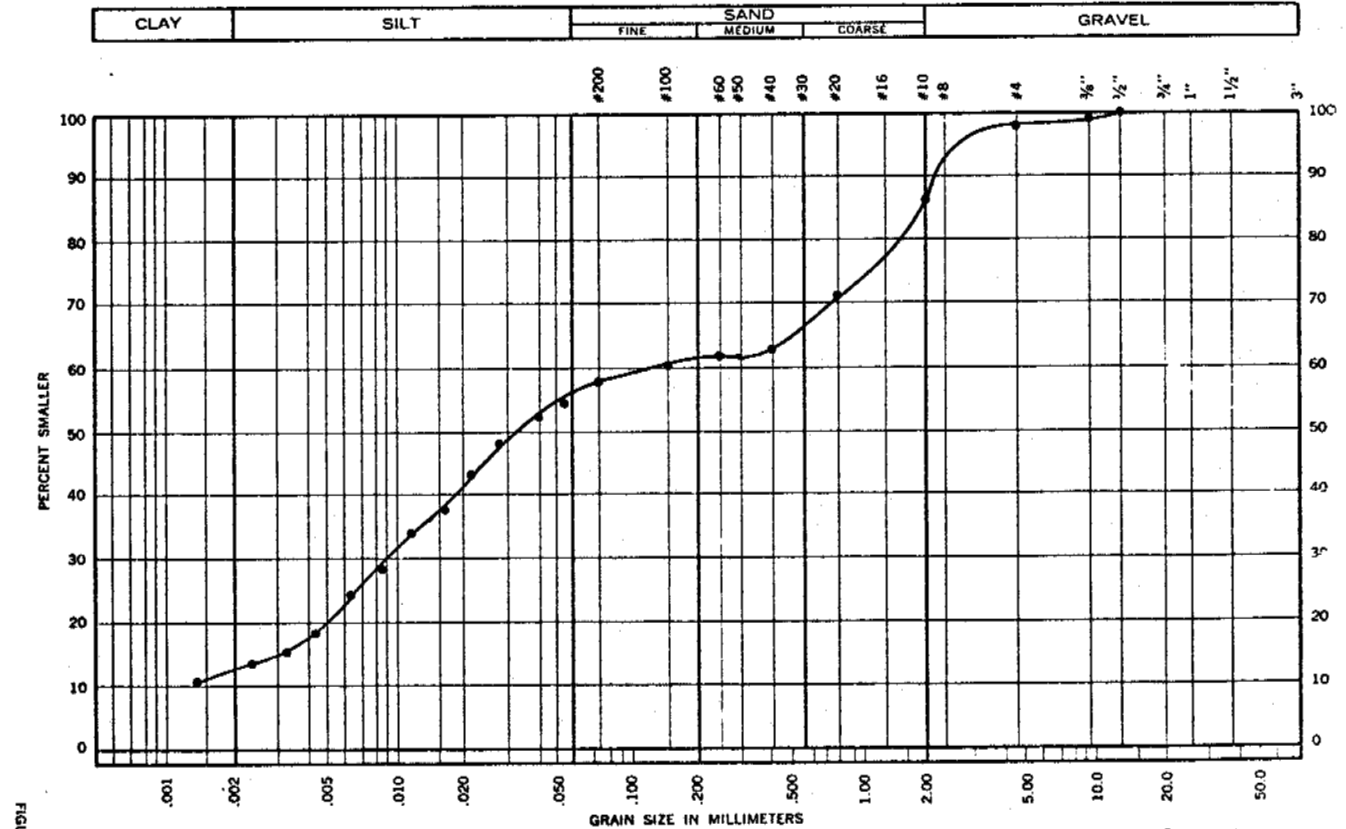
FIGURE



SAMPLE DESCRIPTION SAND, SILTY, SOME
CLAY, SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 7/73
SAMPLE No. 635-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



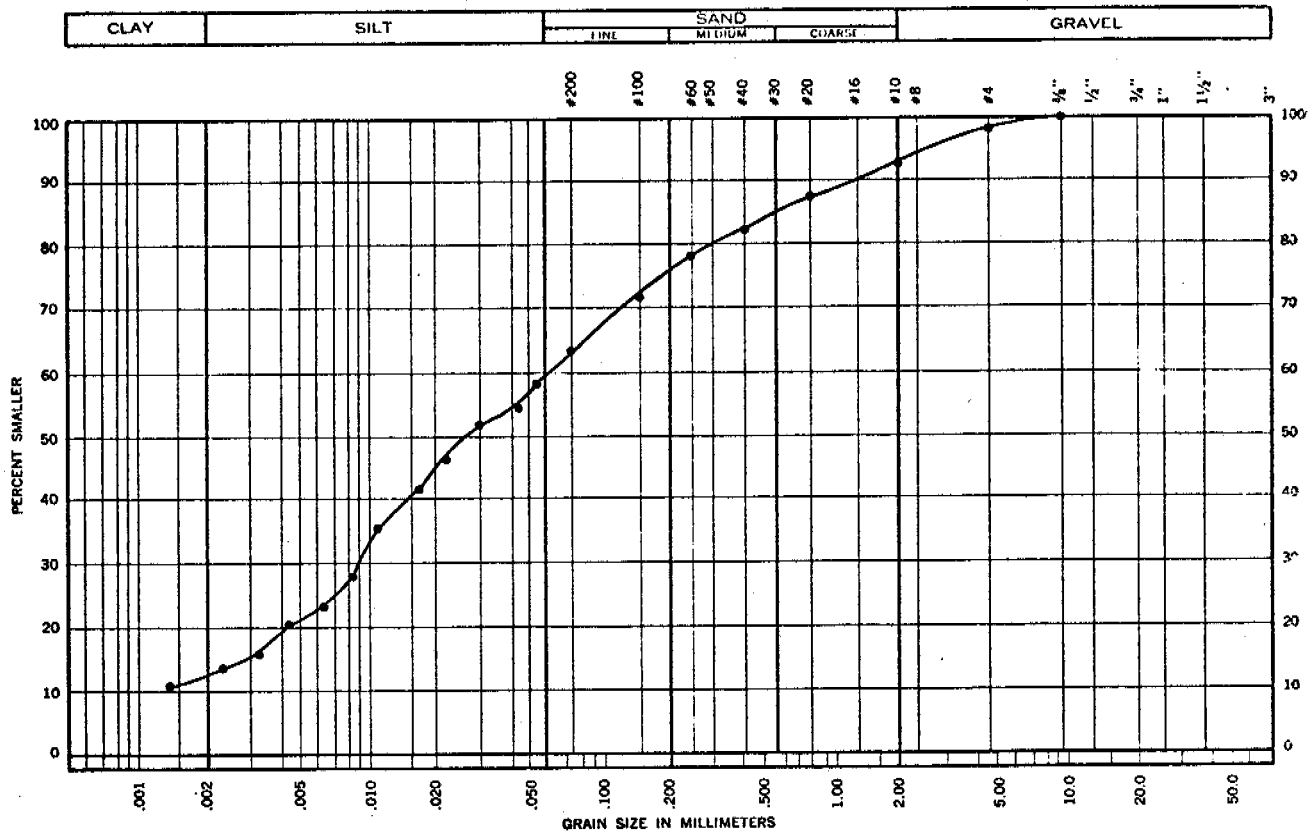
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
GRAVEL, SOME CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 634-S-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



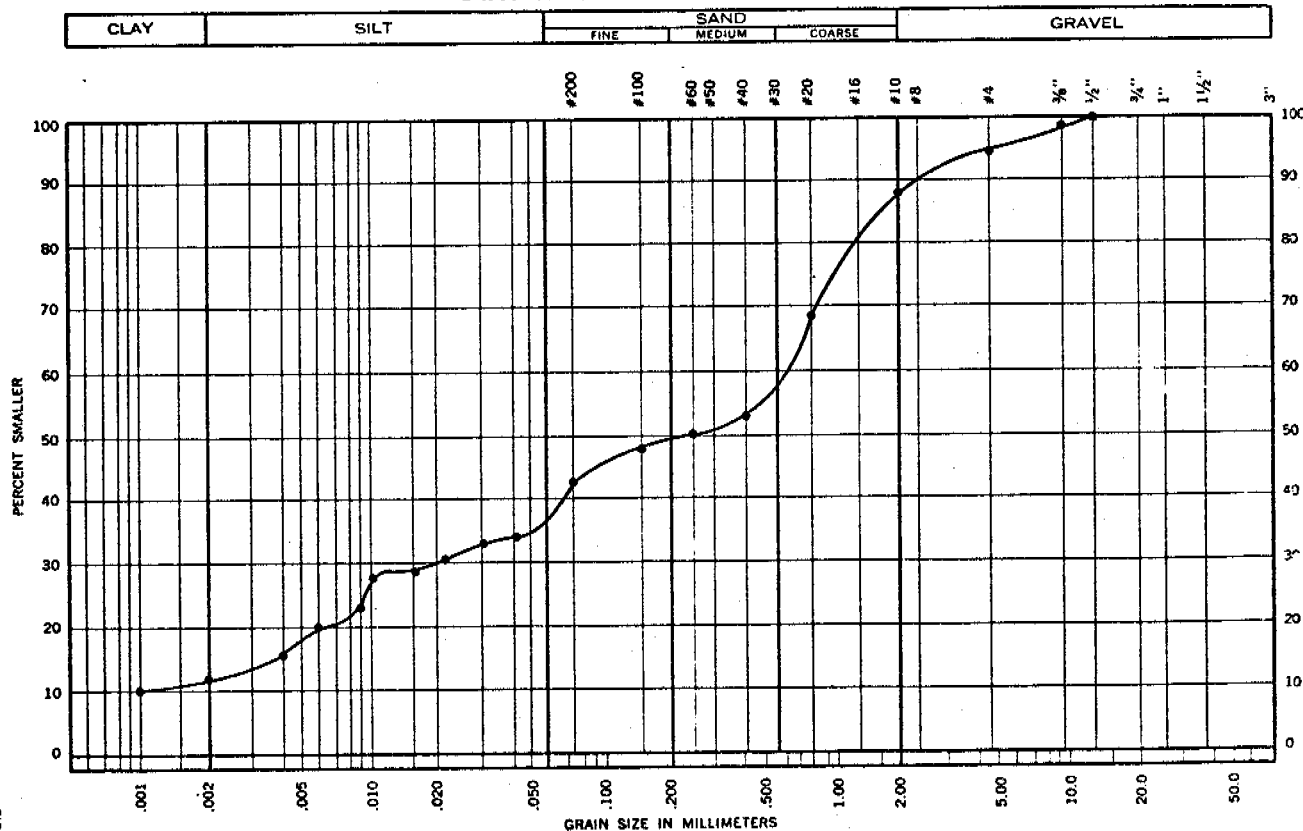
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME CLAY, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
 JOB No. E - 517 DATE April 9/73
 SAMPLE No. 634-S-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



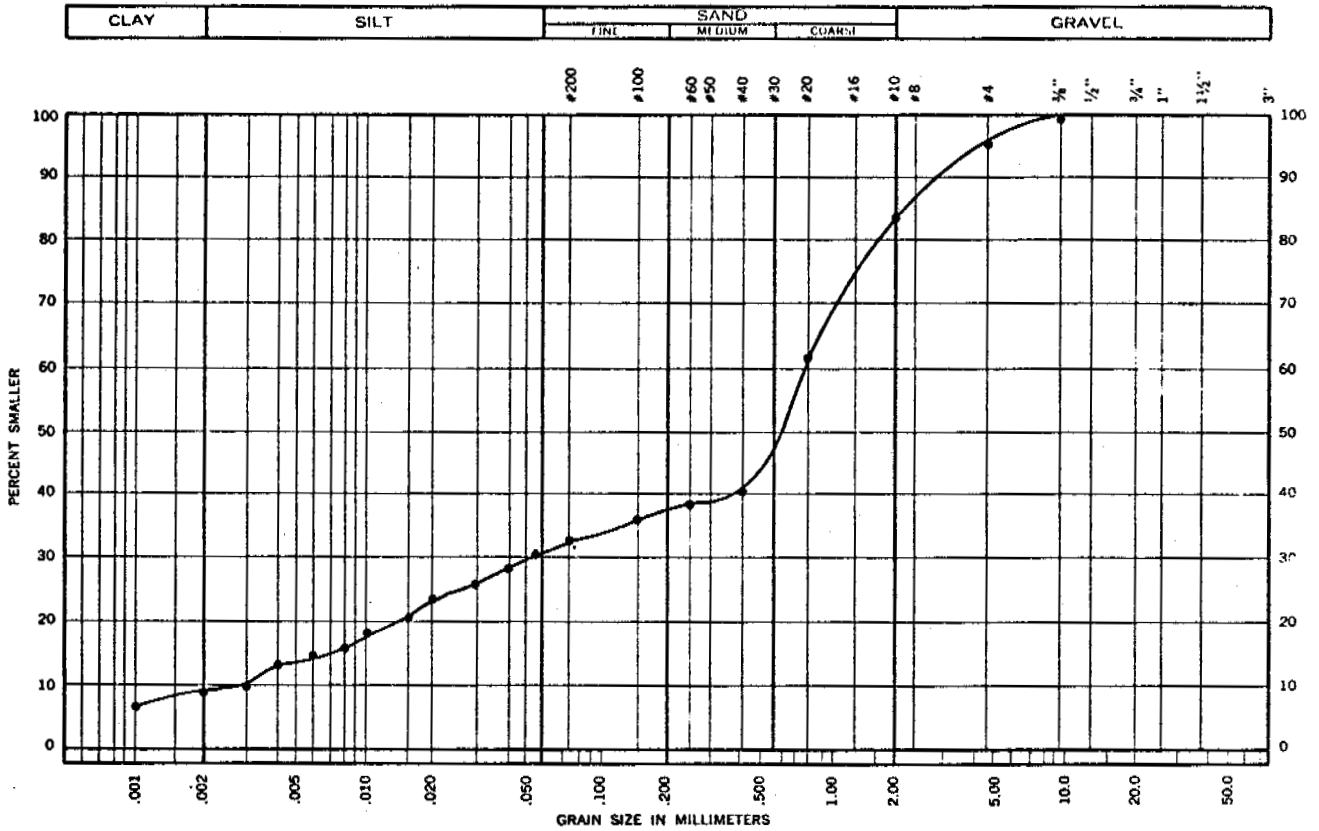
FIGURE



SAMPLE DESCRIPTION SAND, SILTY, SOME CLAY, SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
 JOB No. E - 517 DATE April 5/73
 SAMPLE No. 633-S-1 (MVPL)
 DEPTH 20'

GRAIN SIZE DISTRIBUTION



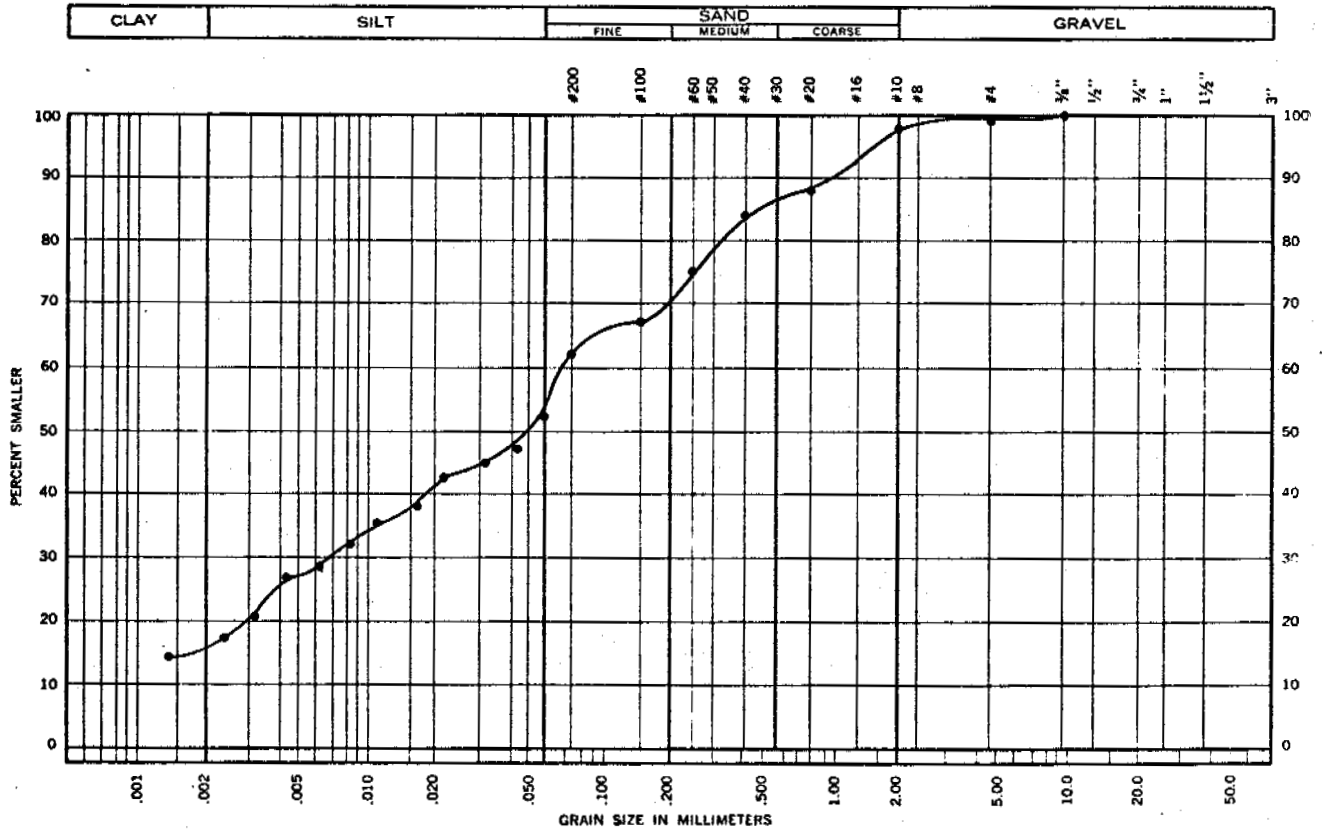
FIGURE



SAMPLE DESCRIPTION SILTY SAND, SOME GRAVEL, TRACE OF CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 633-S-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



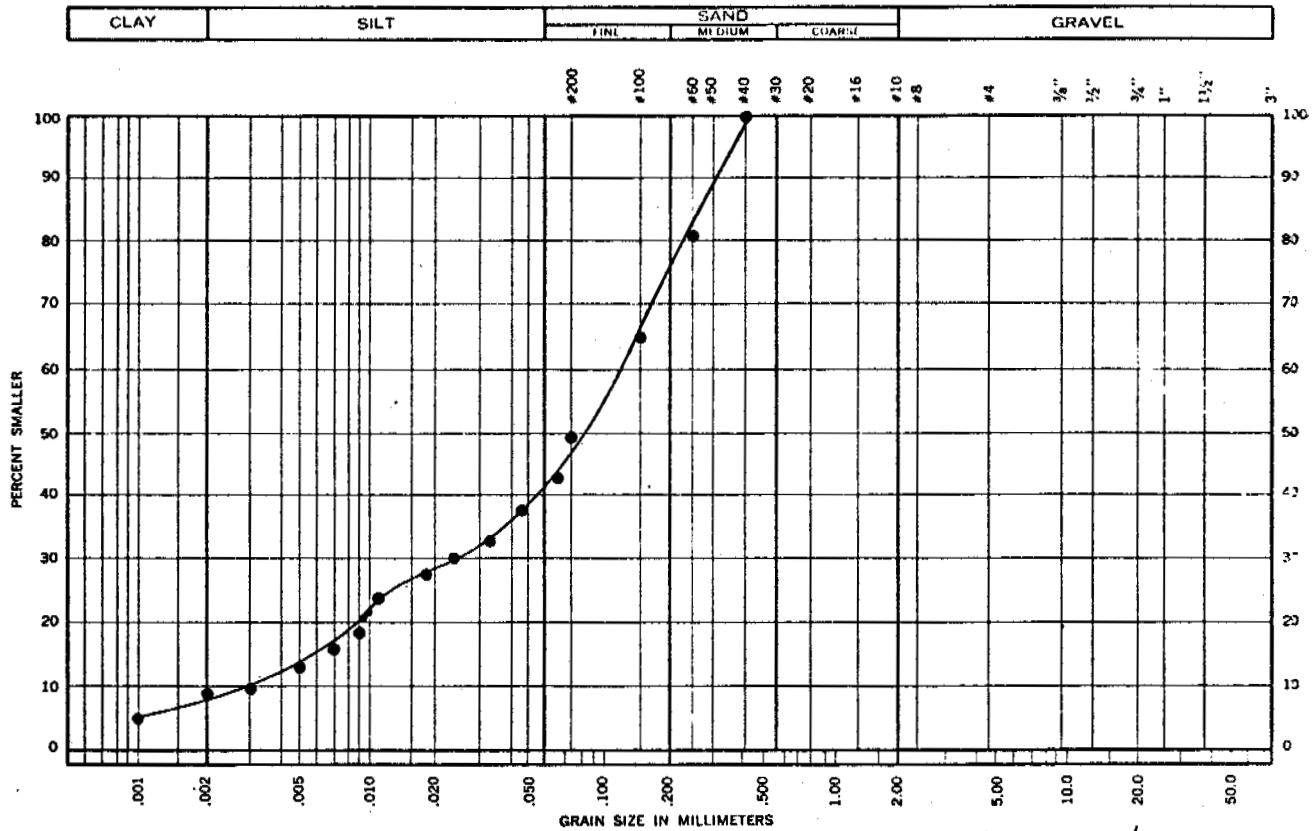
FIGURE



SAMPLE DESCRIPTION SAND, SILTY, SOME CLAY, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 7/73
 SAMPLE No. 633-S-3
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



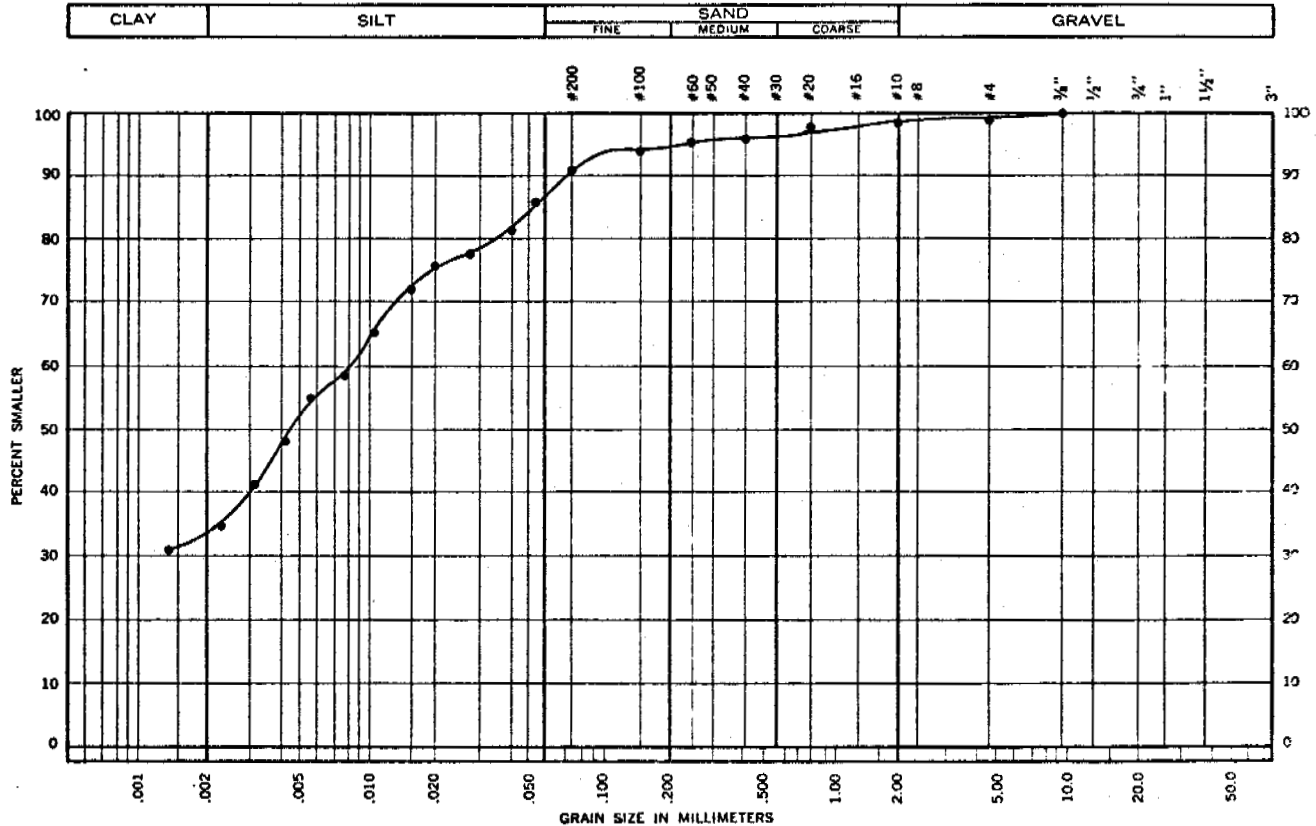
FIGURE



SAMPLE DESCRIPTION SILTY SAND, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 8/73
 SAMPLE No. 633-S-3
 DEPTH 22'

GRAIN SIZE DISTRIBUTION



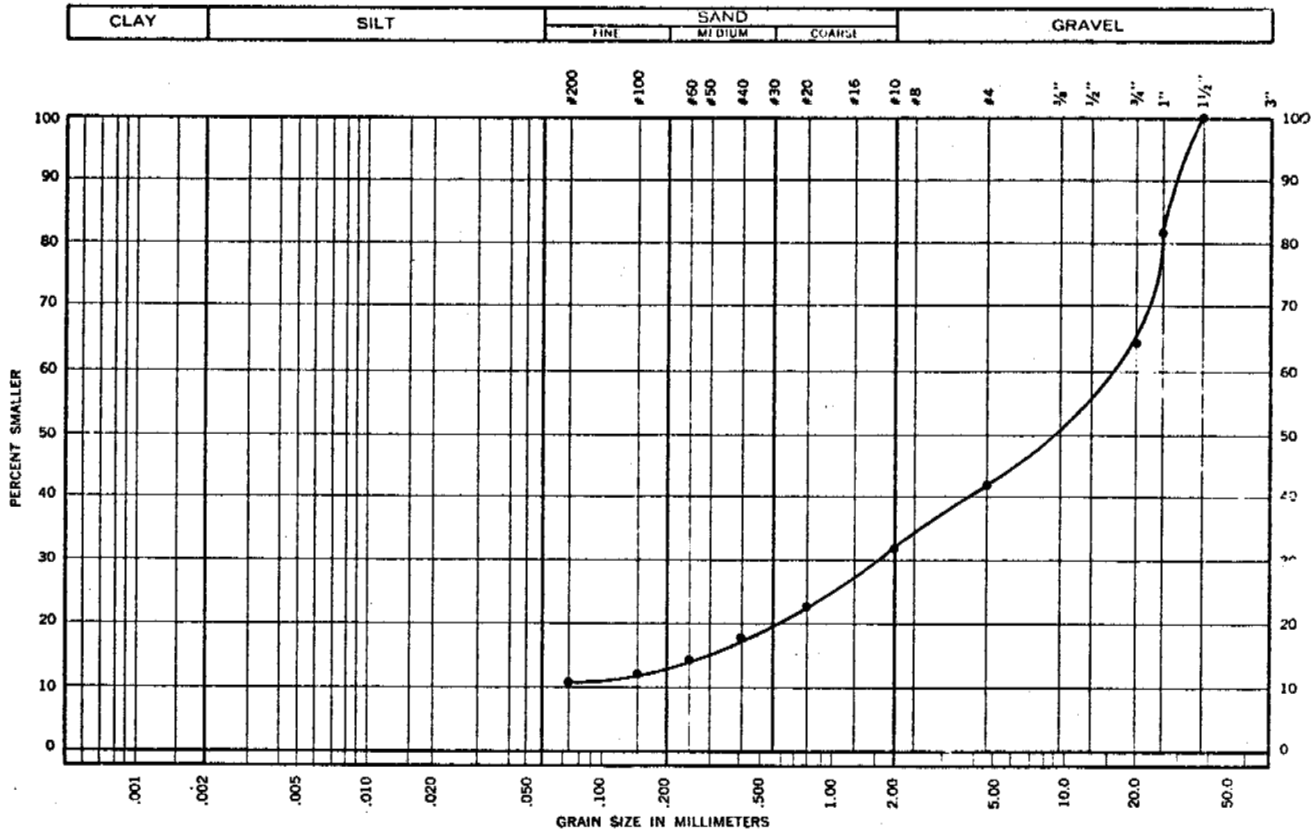
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY, SOME SAND, TRACE GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 7/73
 SAMPLE No. 632-S-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



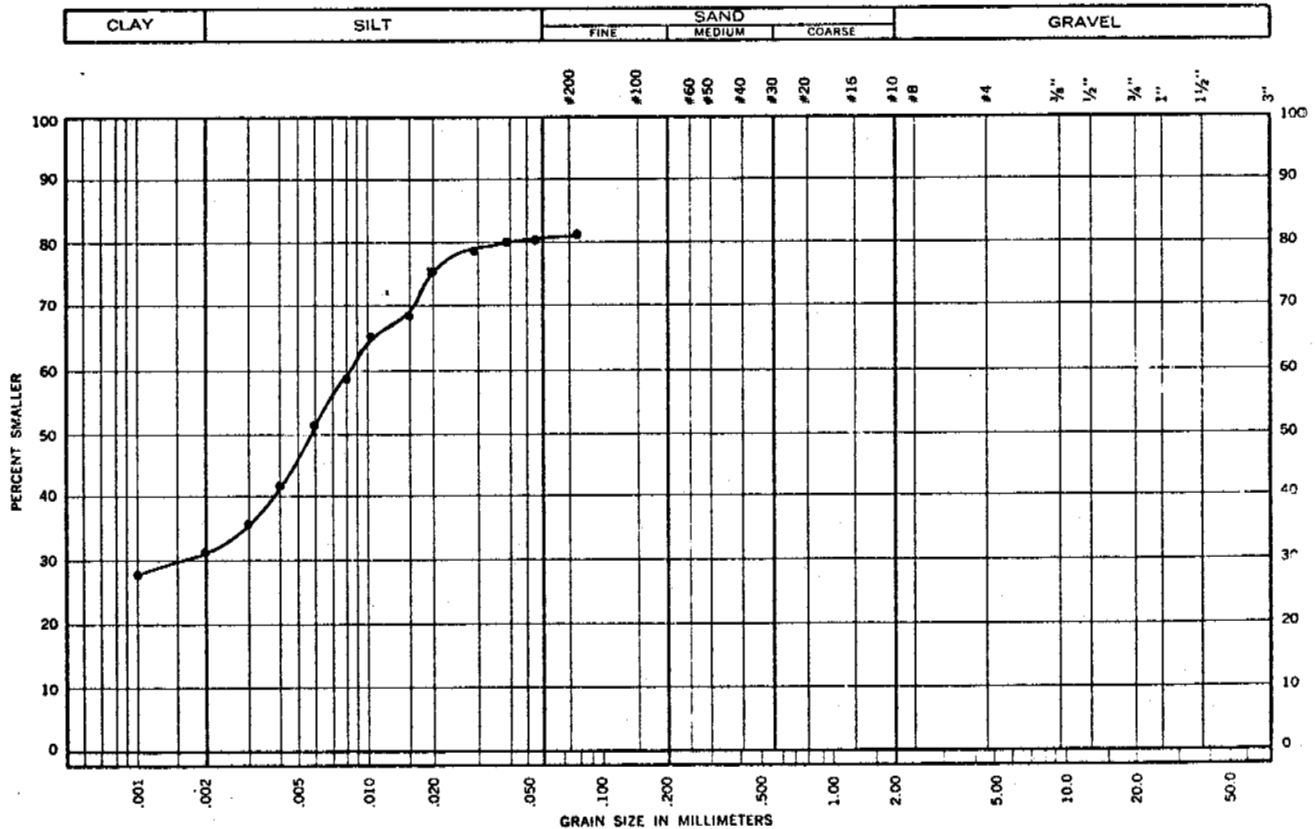
FIGURE



SAMPLE DESCRIPTION SANDY GRAVEL, SOME SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 5/73
 SAMPLE No. 632-S-6
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



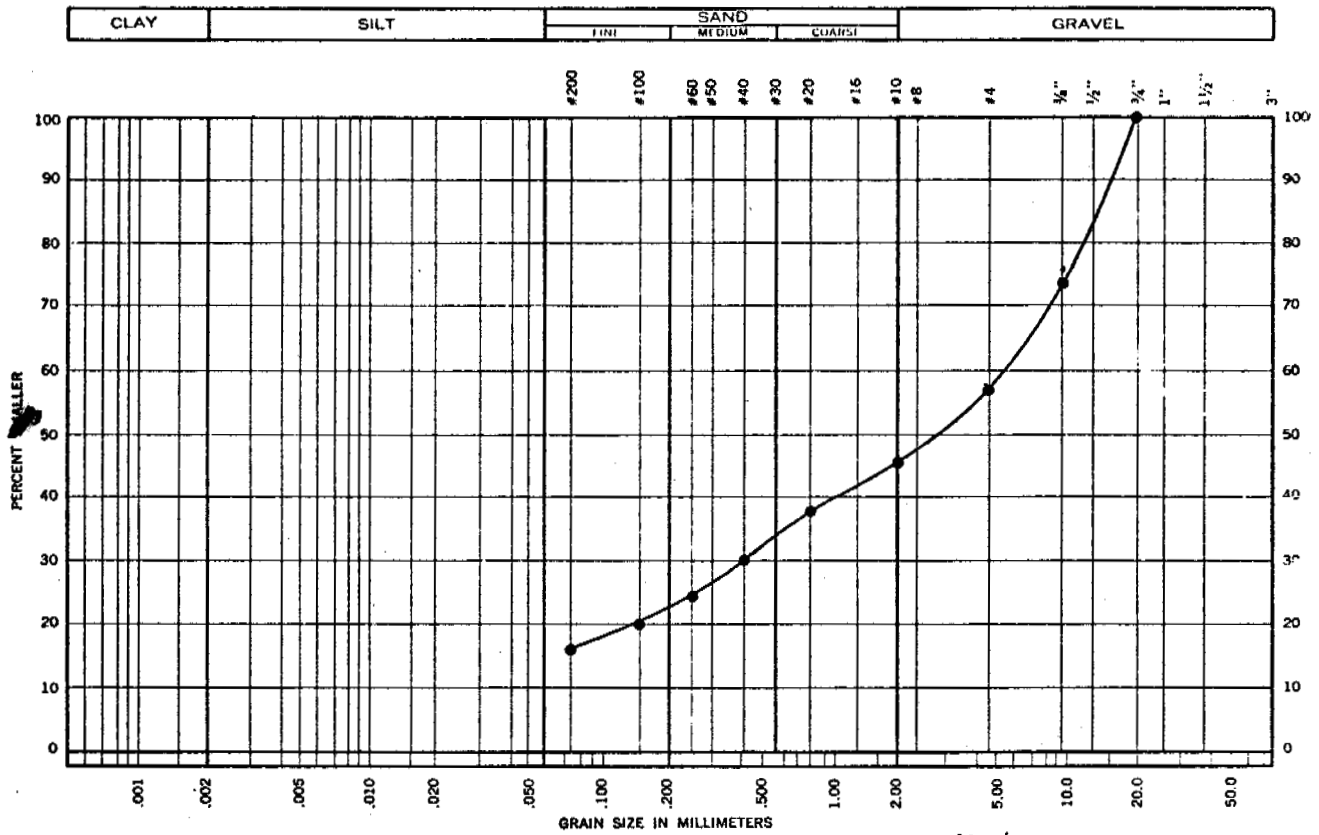
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY, SOME SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 632-S-11
 DEPTH 15'

GRAIN SIZE DISTRIBUTION



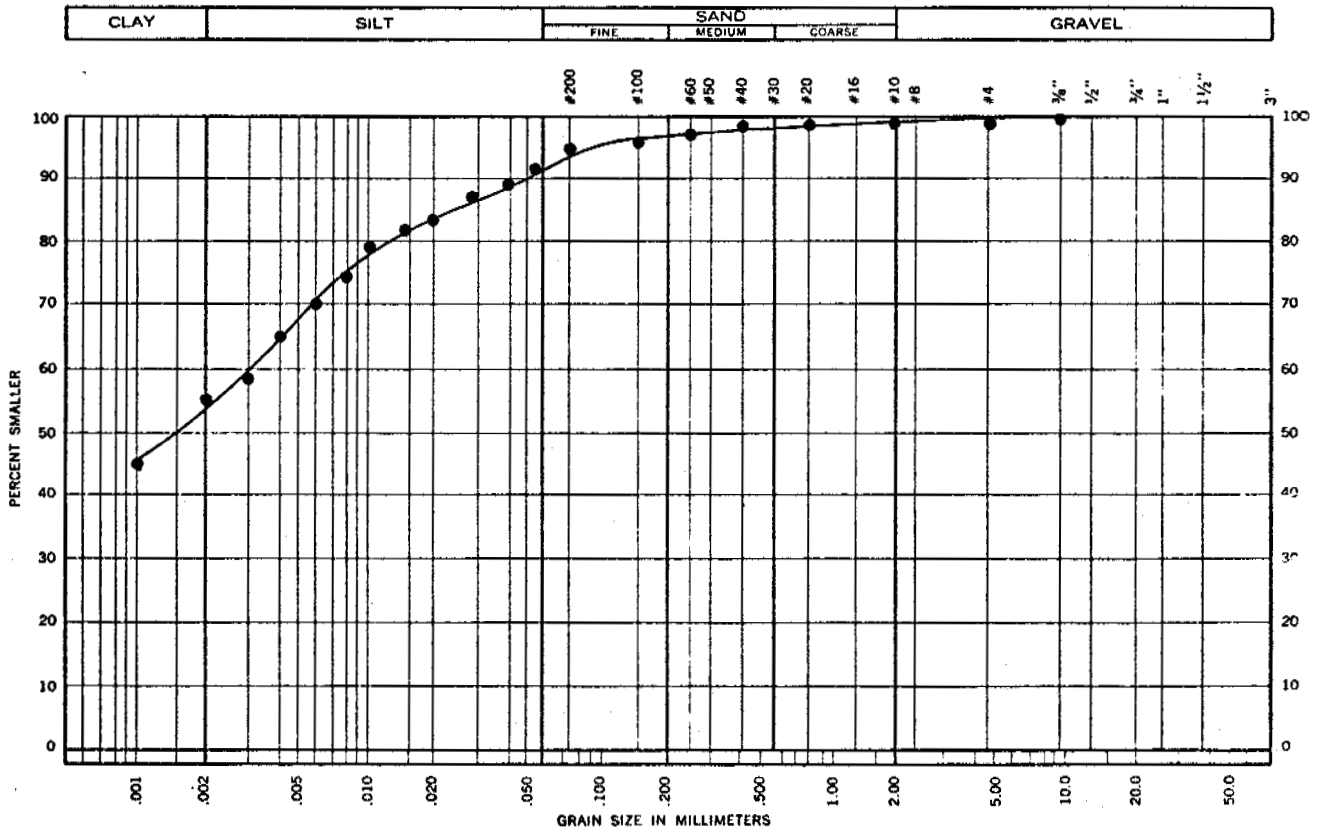
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY, SOME SILT

PROJECT Mackenzie Highway
 JOB No. E-517 DATE April 12/73
 SAMPLE No. 632-S-3
 DEPTH 2 1/2

GRAIN SIZE DISTRIBUTION



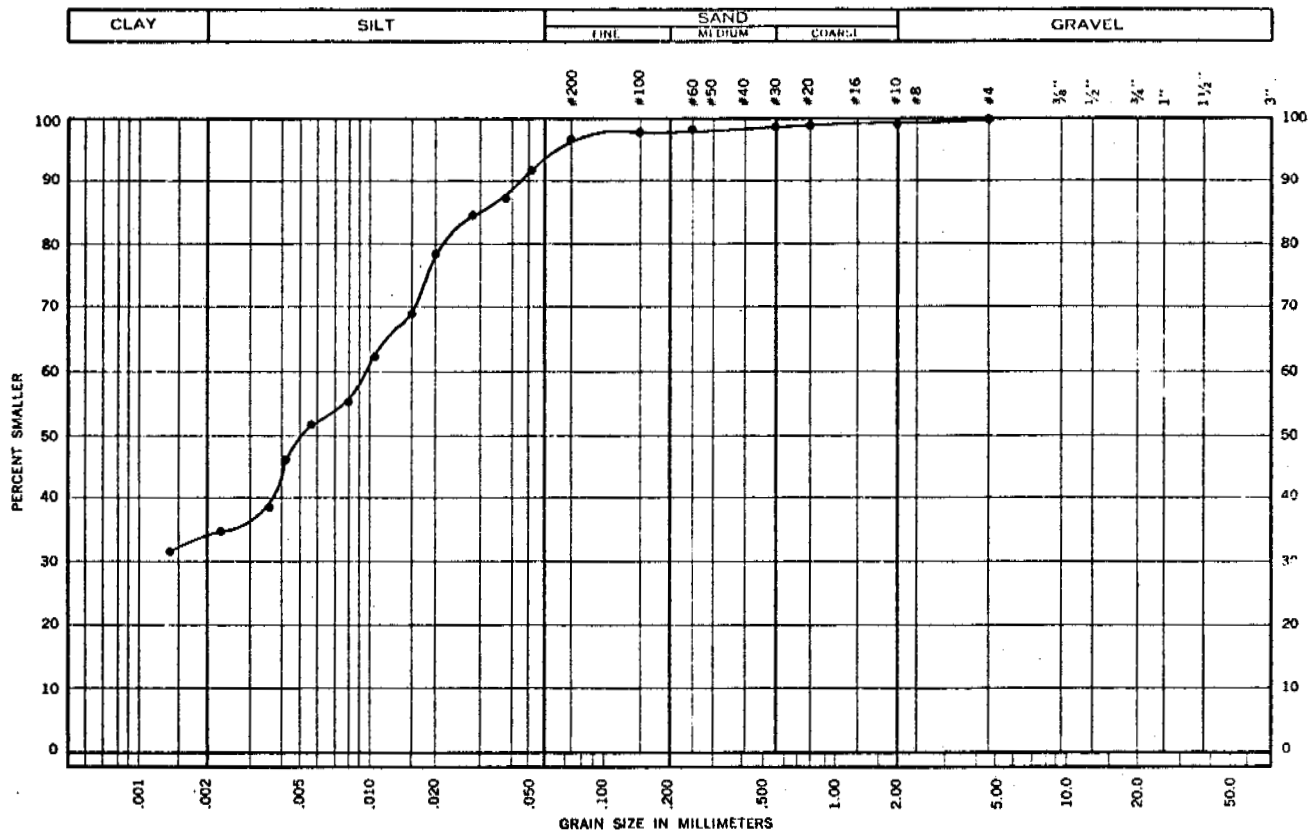
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY, TRACE SAND, TRACE GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 8/73
 SAMPLE No. 632-S-4
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



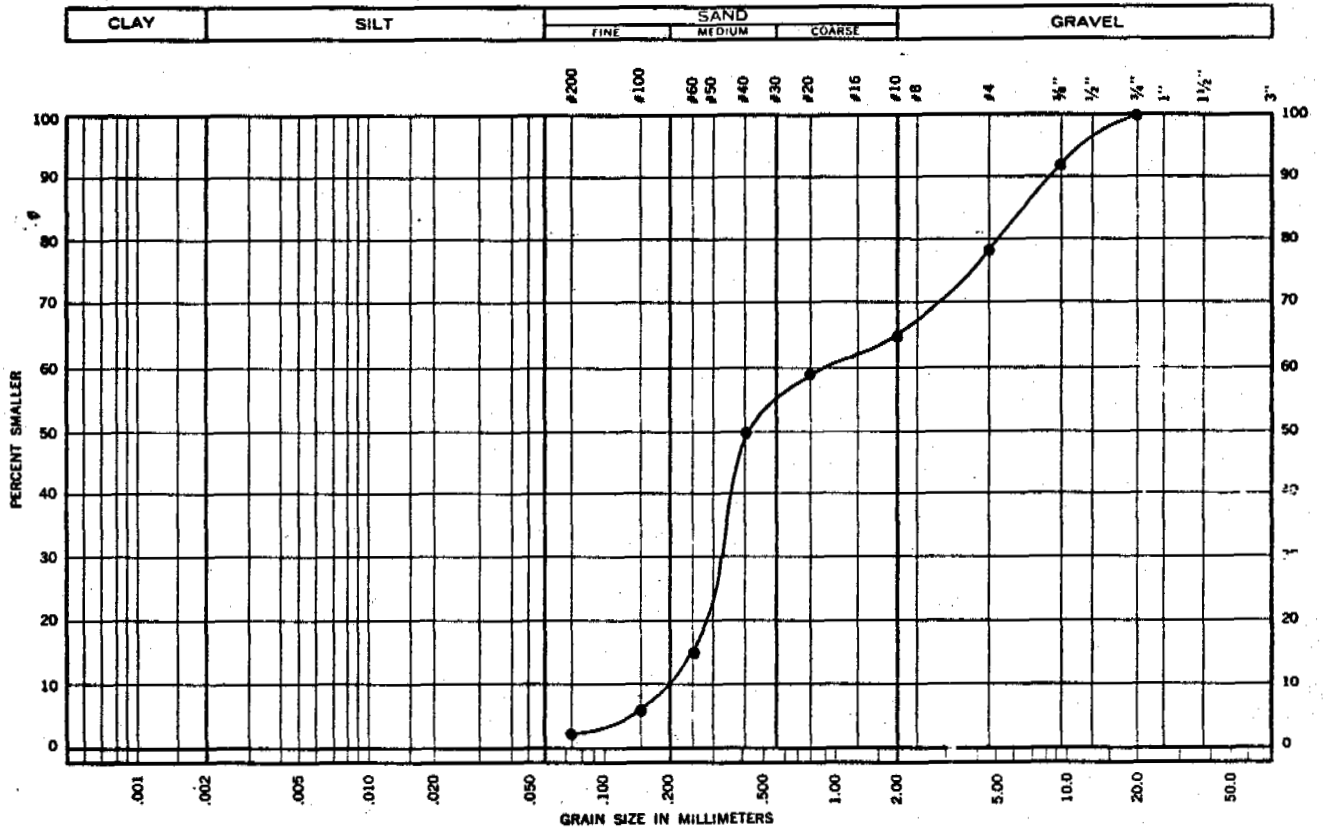
FIGURE



SAMPLE DESCRIPTION CLAY, SILTY, TRACE
SAND, TRACE GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 632-S-12
DEPTH 25'

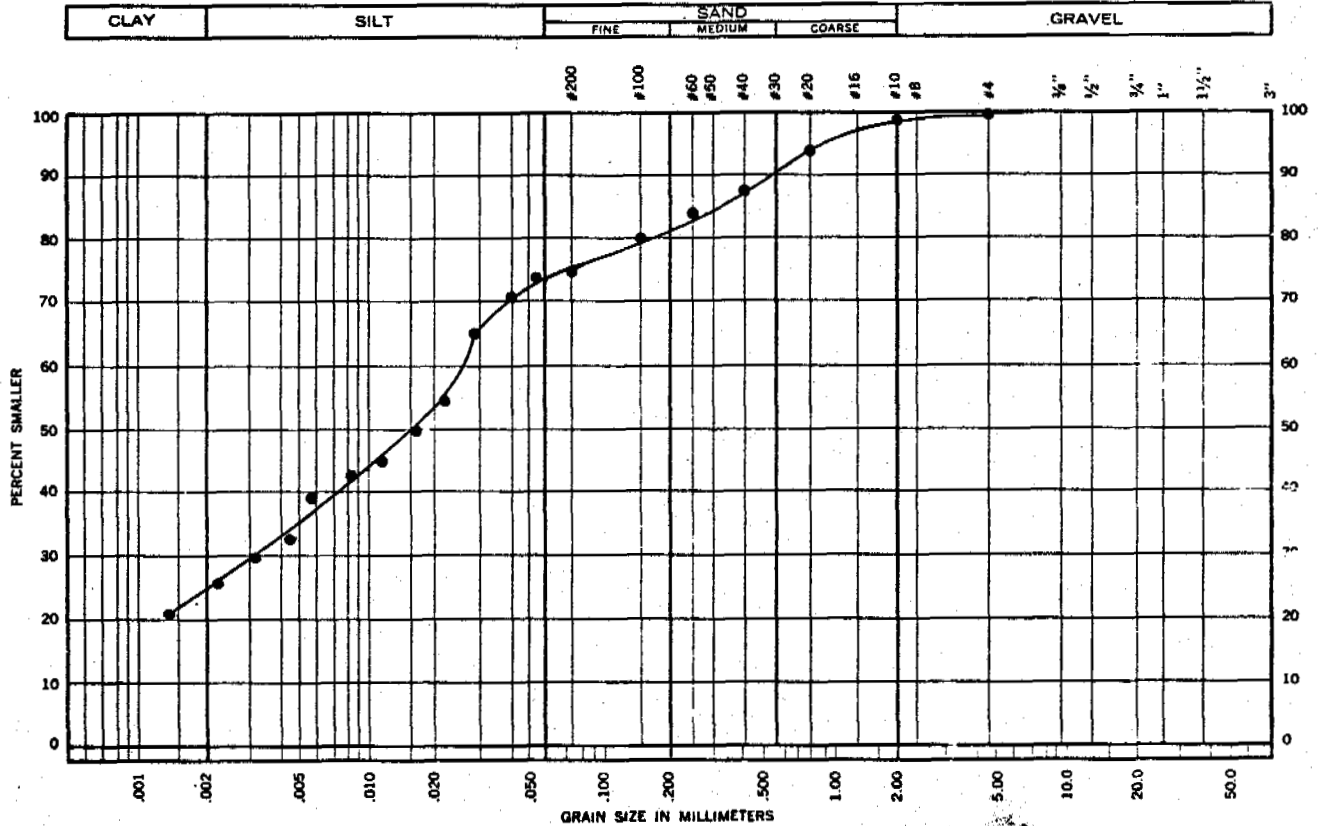
GRAIN SIZE DISTRIBUTION



SAMPLE DESCRIPTION GRAVELLY SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE FEB 9/79
 SAMPLE No. 721-B-4
 DEPTH 5'

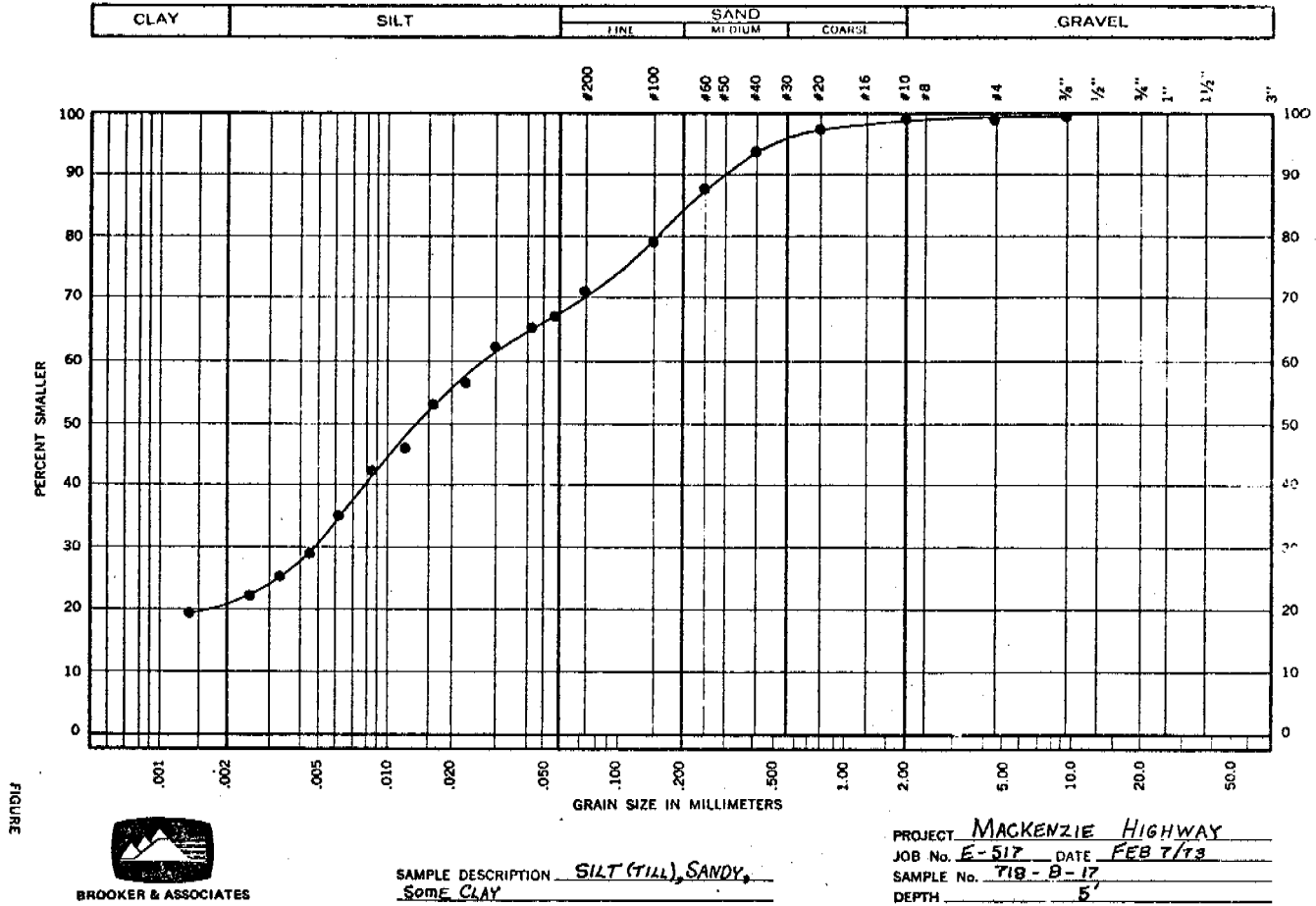
GRAIN SIZE DISTRIBUTION



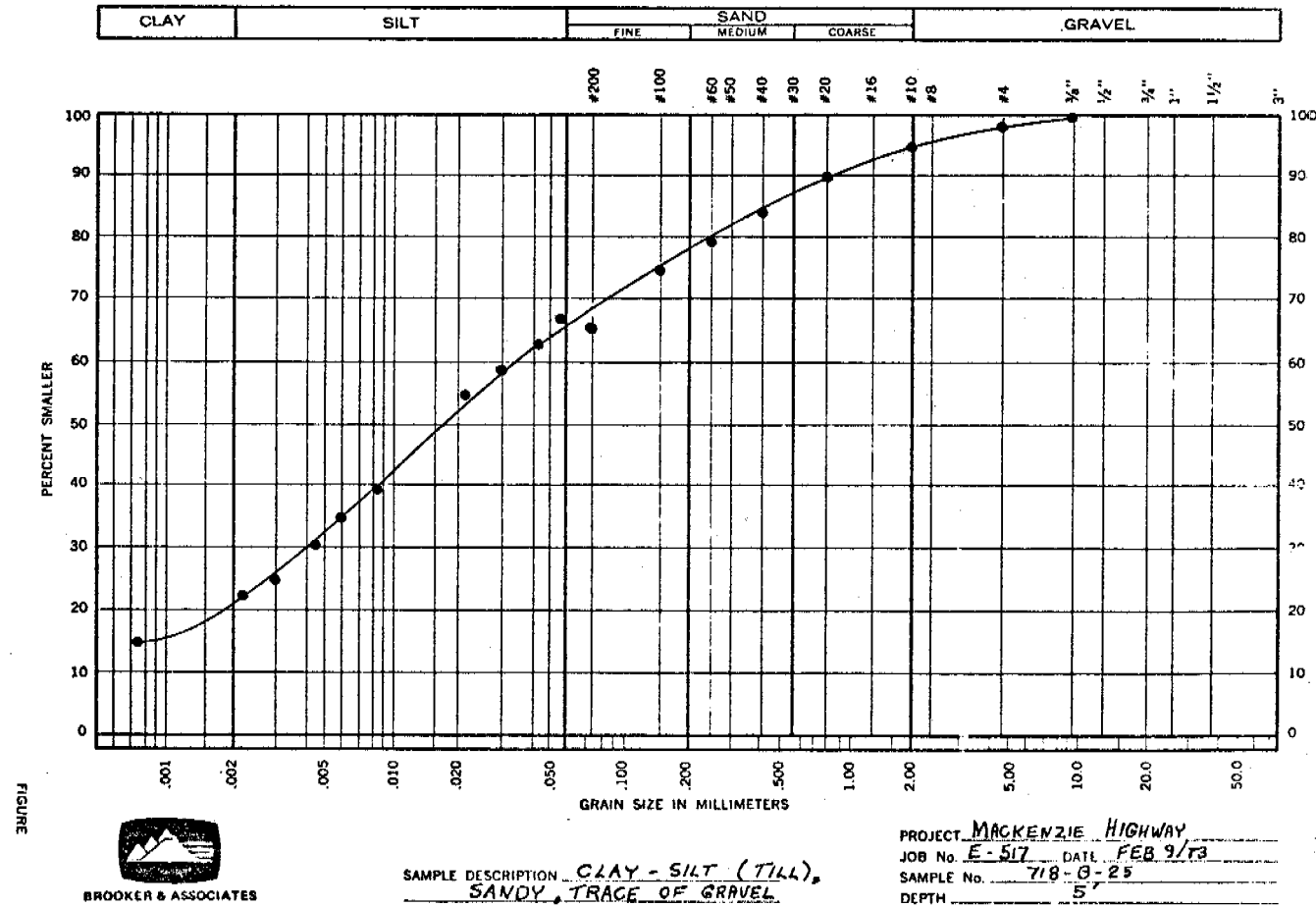
SAMPLE DESCRIPTION CLAY-SILT SANDY (SHALE)

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE FEB 7/79
 SAMPLE No. 718-B-12
 DEPTH 10'

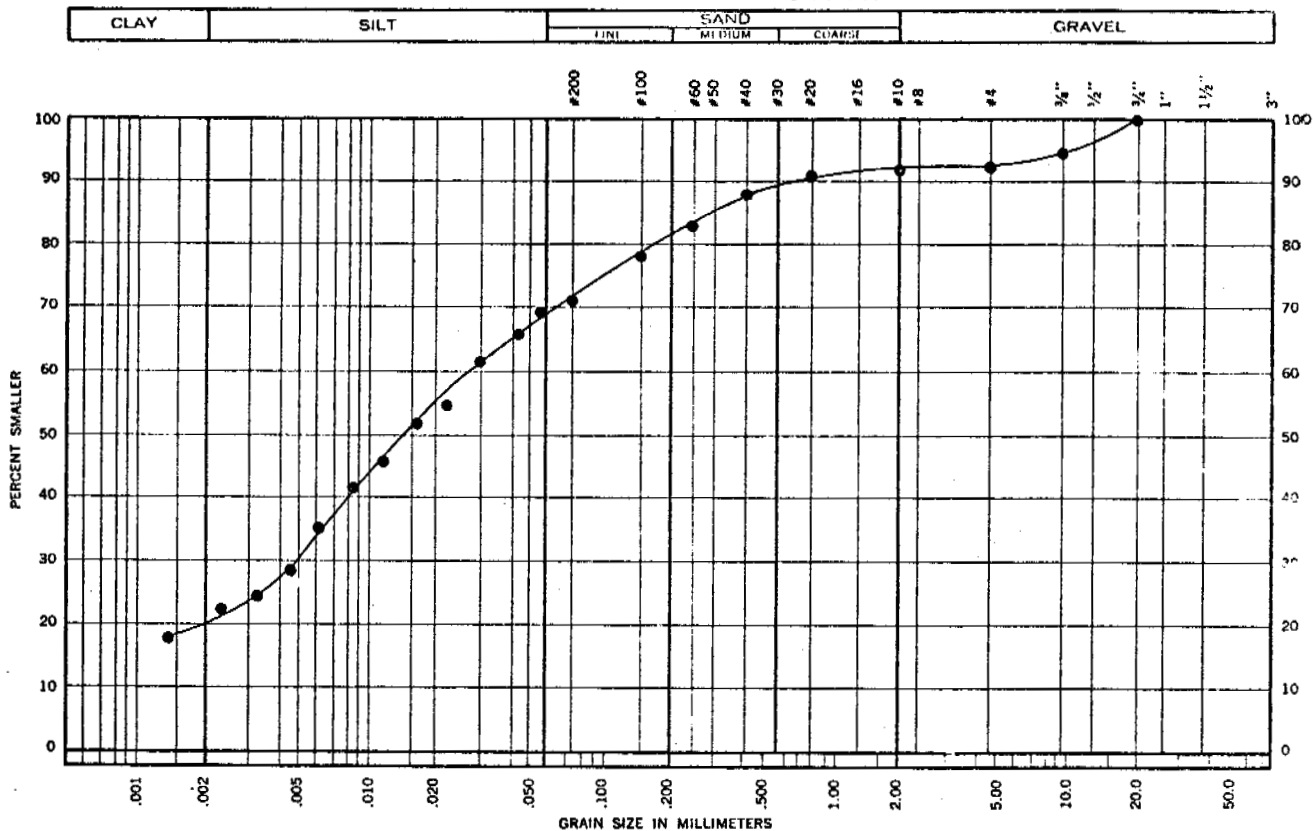
GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



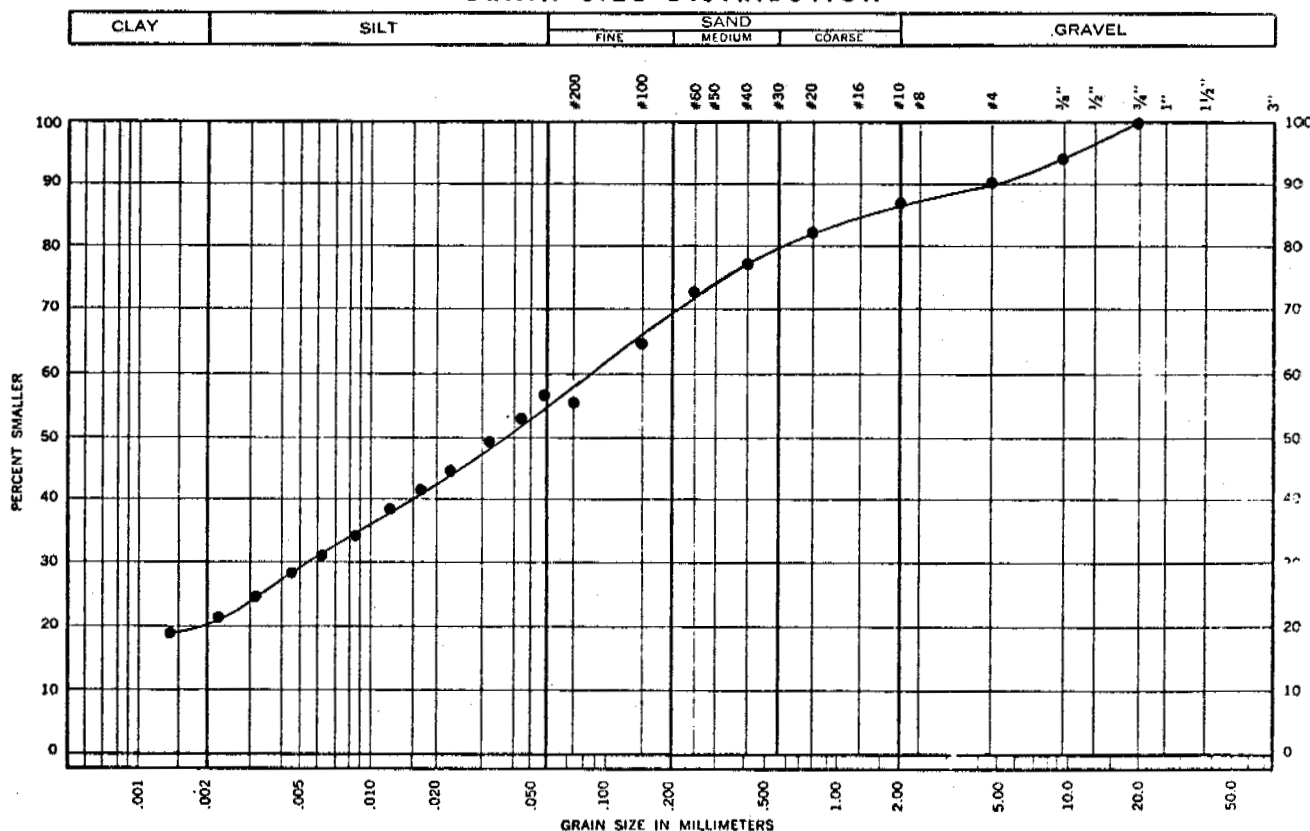
FIGURE



SAMPLE DESCRIPTION SANDY SILT (TILL),
CLAYEY, TRACE OF GRAVEL.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 717-B-3
DEPTH 2'

GRAIN SIZE DISTRIBUTION



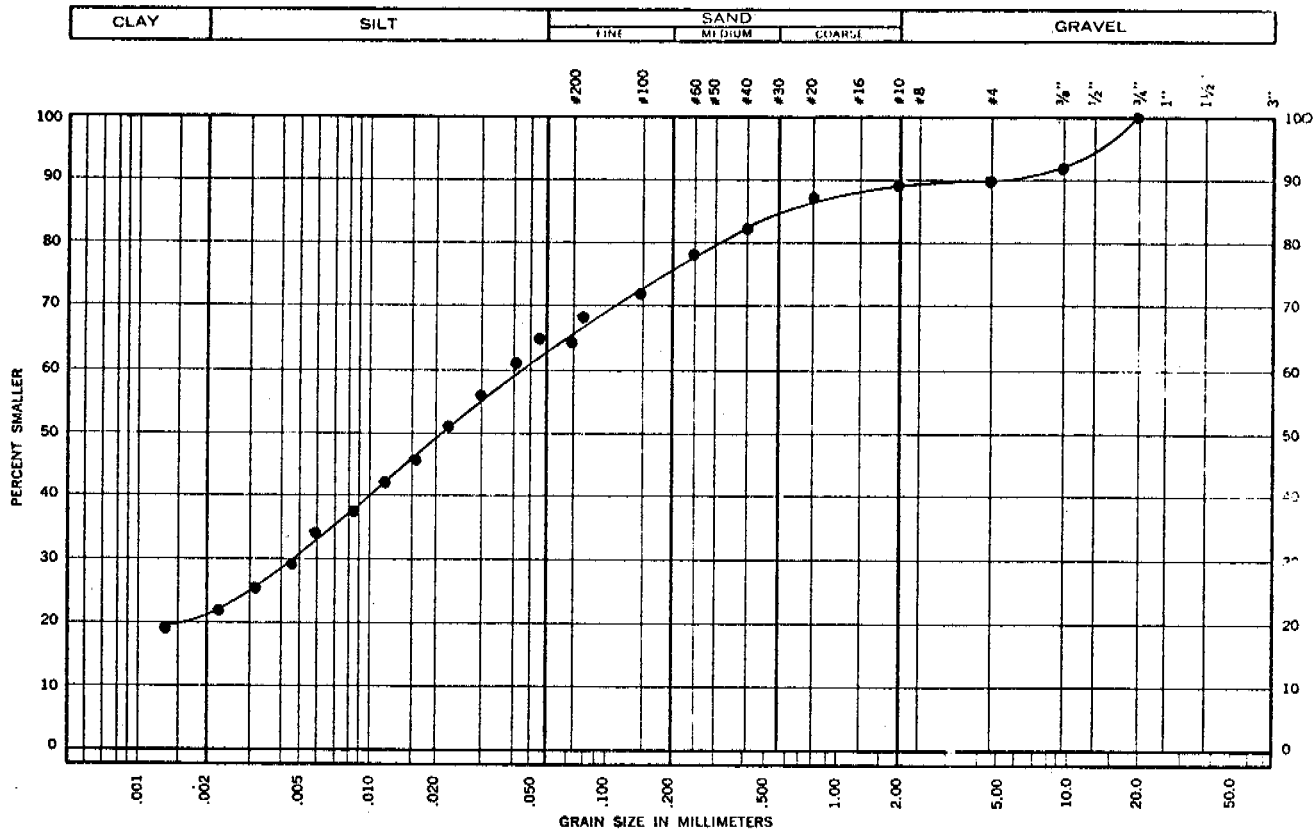
FIGURE



SAMPLE DESCRIPTION SANDY SILT (TILL),
CLAYEY, SOME GRAVEL

PROJECT MACKENZIE Highway
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 717-B-8
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

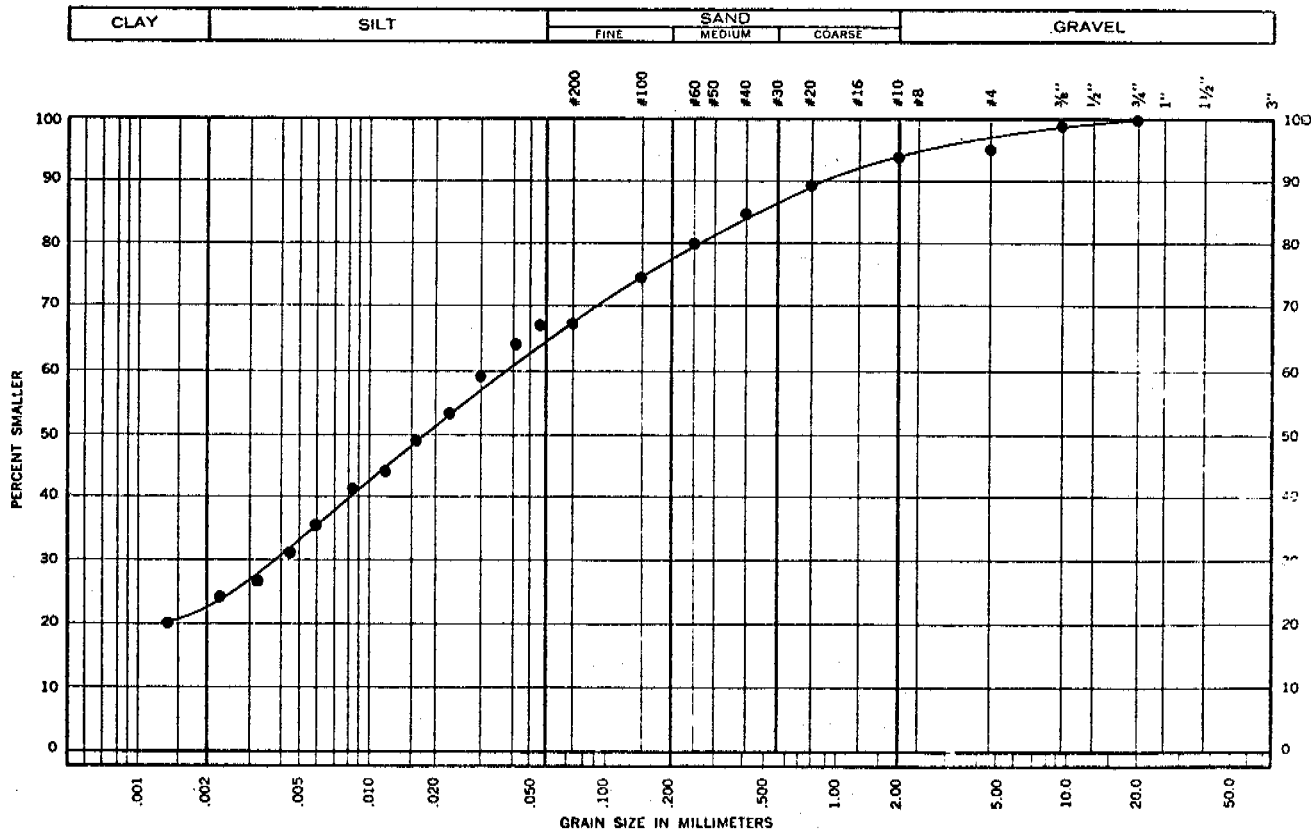


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY - SILT (TILL)
SANDY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 717-B-15
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

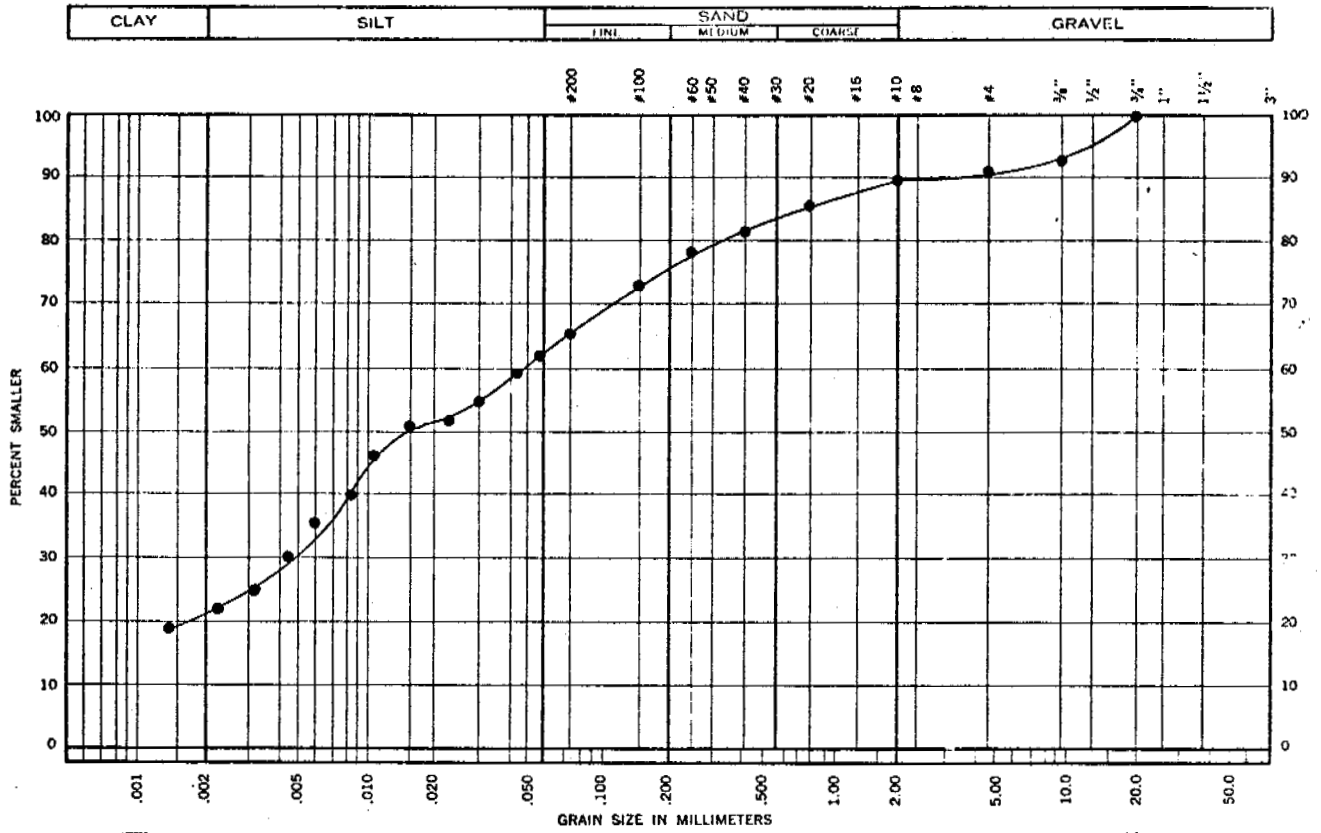


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY - SILT (TILL)
SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. 517 DATE FEB 7/73
SAMPLE 716-B-3
DEPTH 5'

GRAIN SIZE DISTRIBUTION



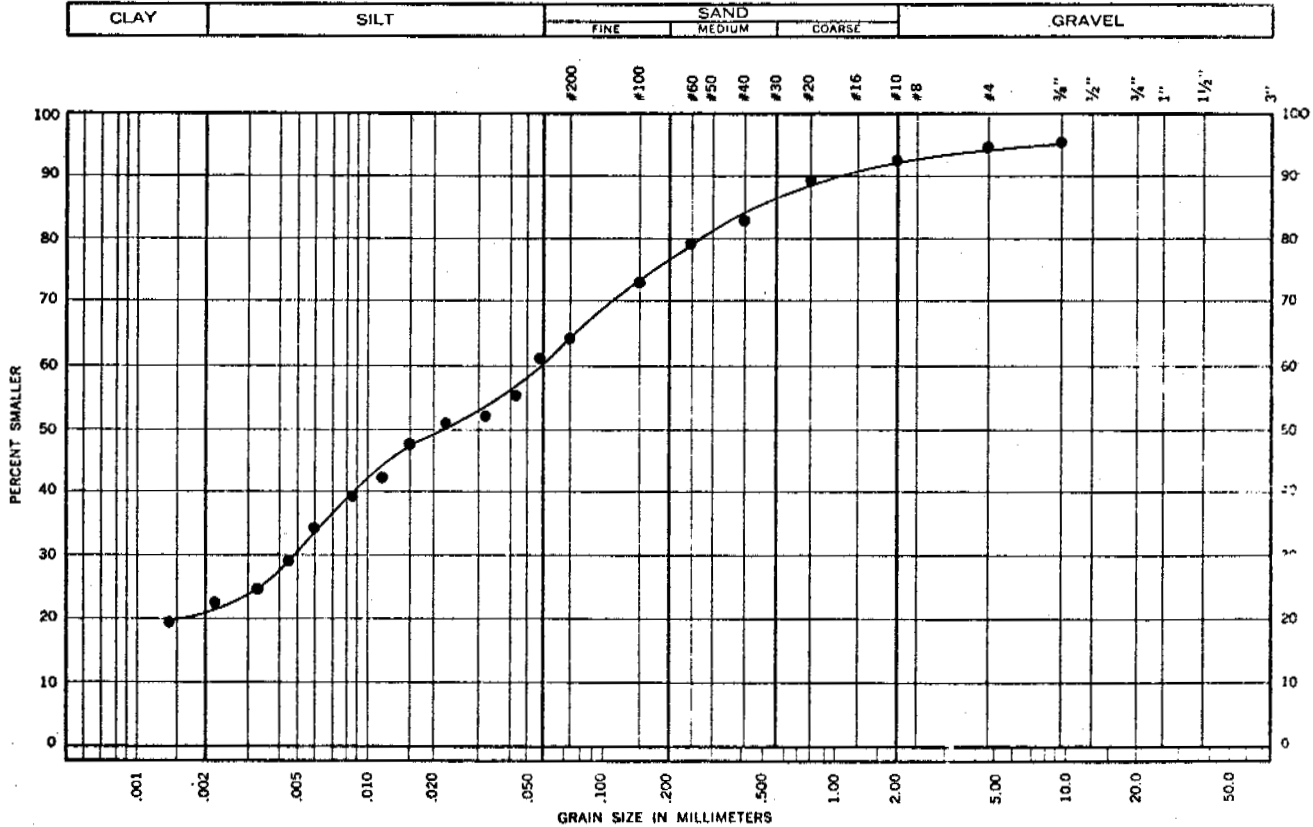
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL)
SANDY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 715-B-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



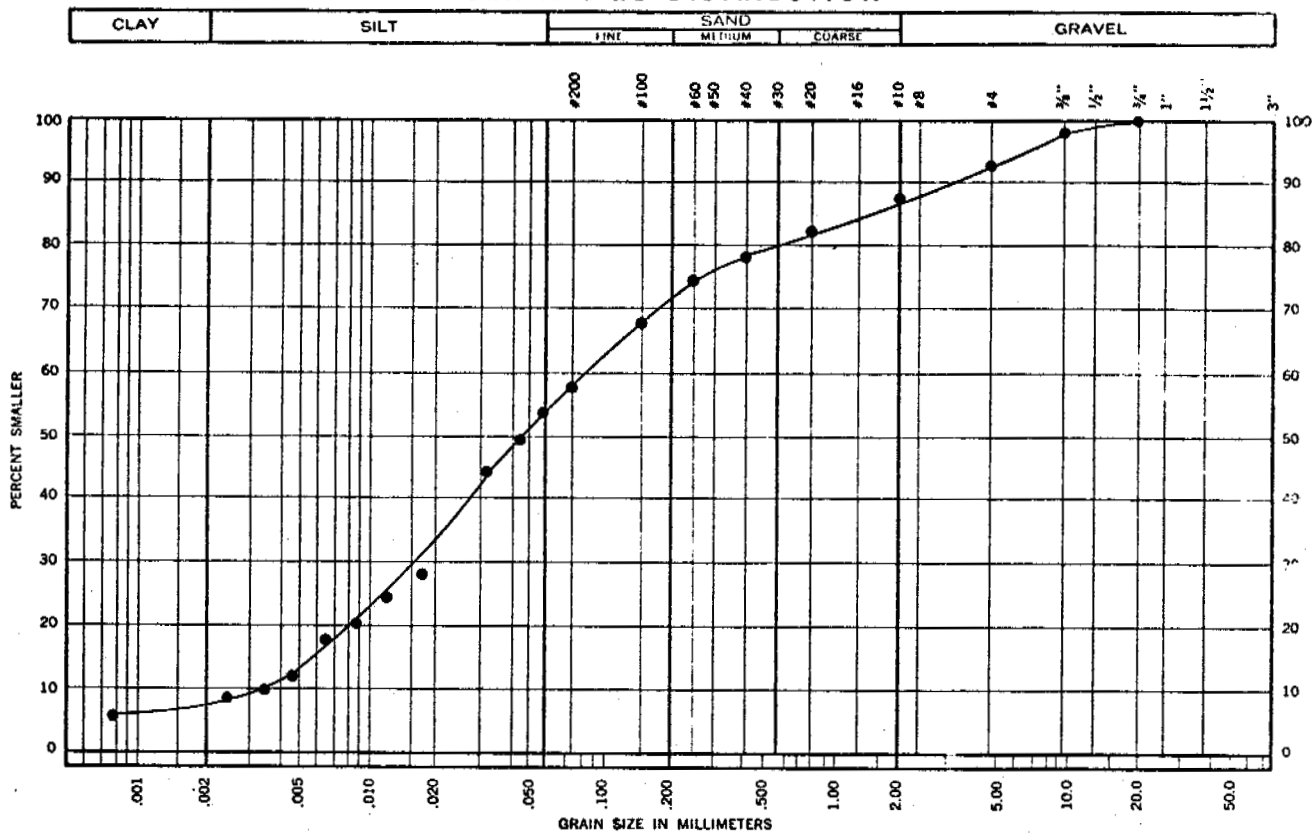
FIGURE



SAMPLE DESCRIPTION CLAY-SILT (TILL)
SANDY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 715-B-9
DEPTH 10'

GRAIN SIZE DISTRIBUTION



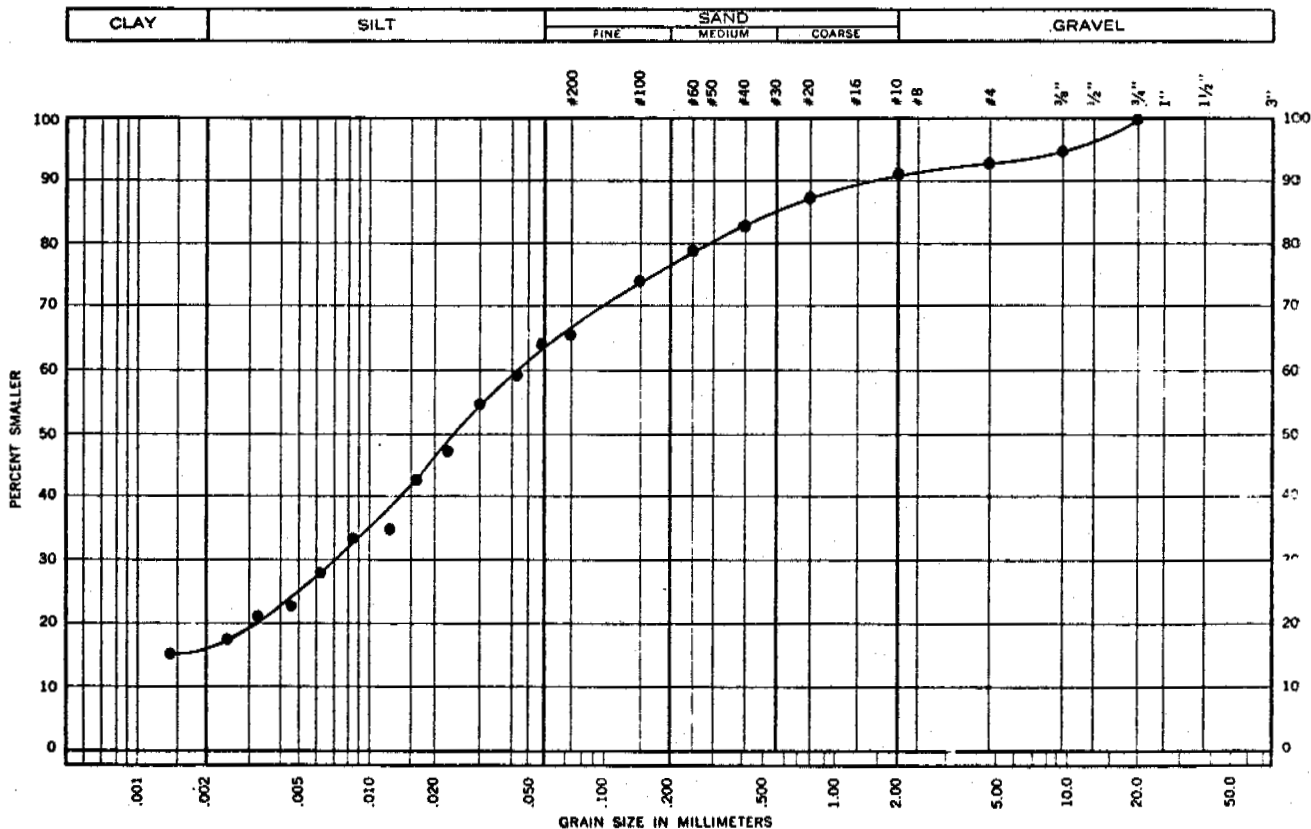
FIGURE



SAMPLE DESCRIPTION SANDY SILT (TILL)
SOME GRAVEL, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 9/73
SAMPLE No. 714-B-3
DEPTH 5'

GRAIN SIZE DISTRIBUTION



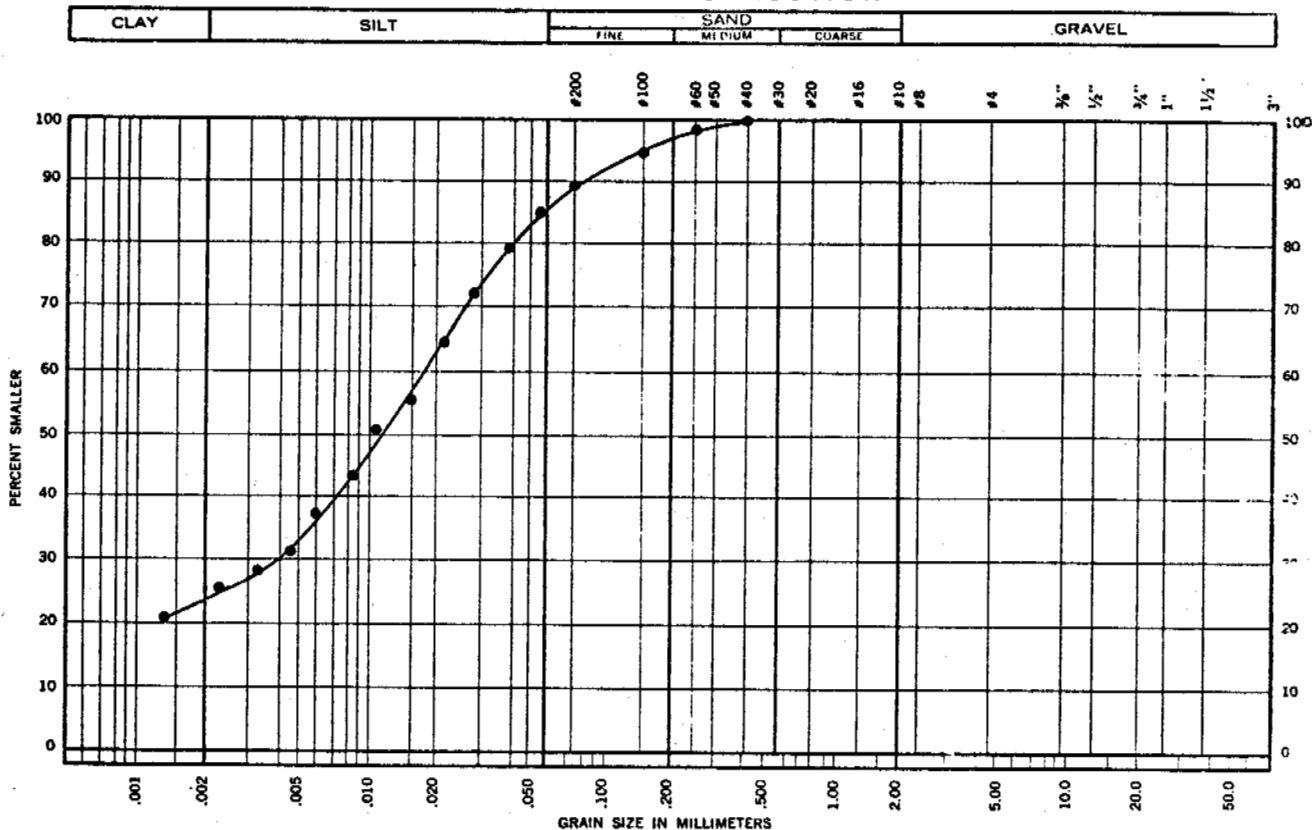
FIGURE



SAMPLE DESCRIPTION SANDY SILT (TILL)
SOME CLAY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE FEB 7/73
SAMPLE No. 714-B-7
DEPTH 10'

GRAIN SIZE DISTRIBUTION



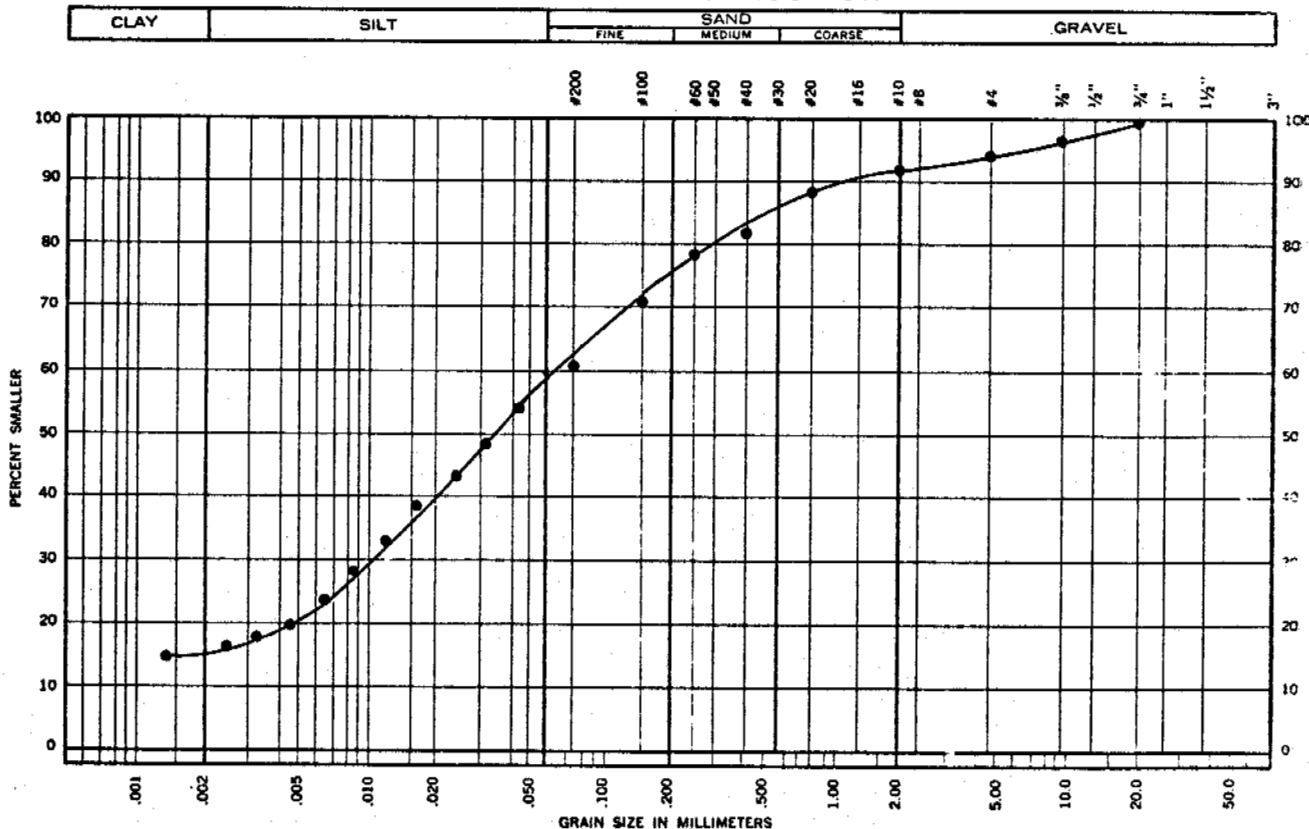
FIGURE



SAMPLE DESCRIPTION CLAY-SILT, SOME SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE FEB. 7/73
 SAMPLE No. 714-B-14
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



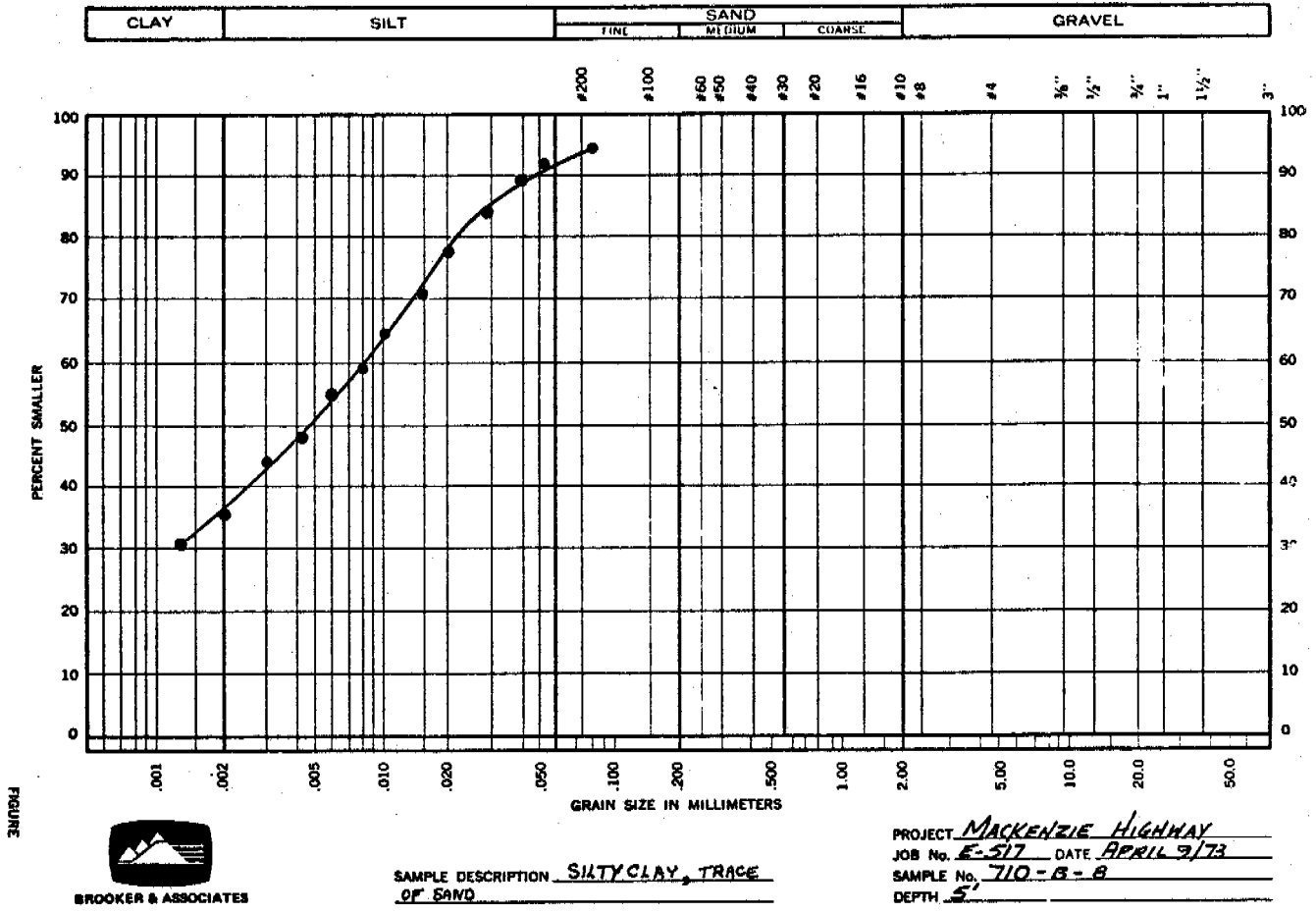
FIGURE



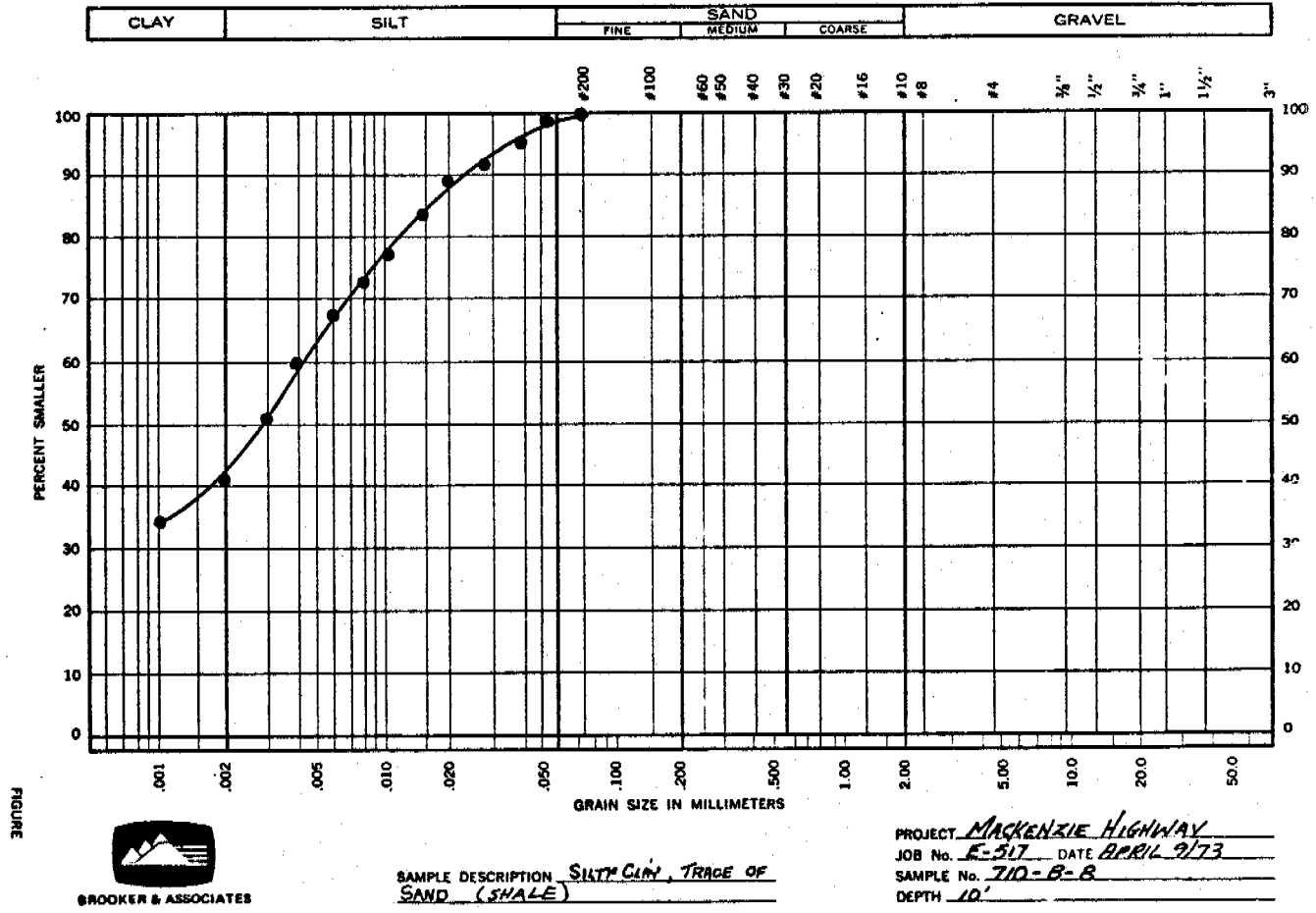
SAMPLE DESCRIPTION SANDY SILT (TILL)
SOME CLAY, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE FEB. 7/73
 SAMPLE No. T12-B-5
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY SILTY, TRACE
OF SAND (SHALE)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 709-B-5
DEPTH 10'

CLAY	SILT	SAND			GRAVEL
		FINE	MEDIUM	COARSE	

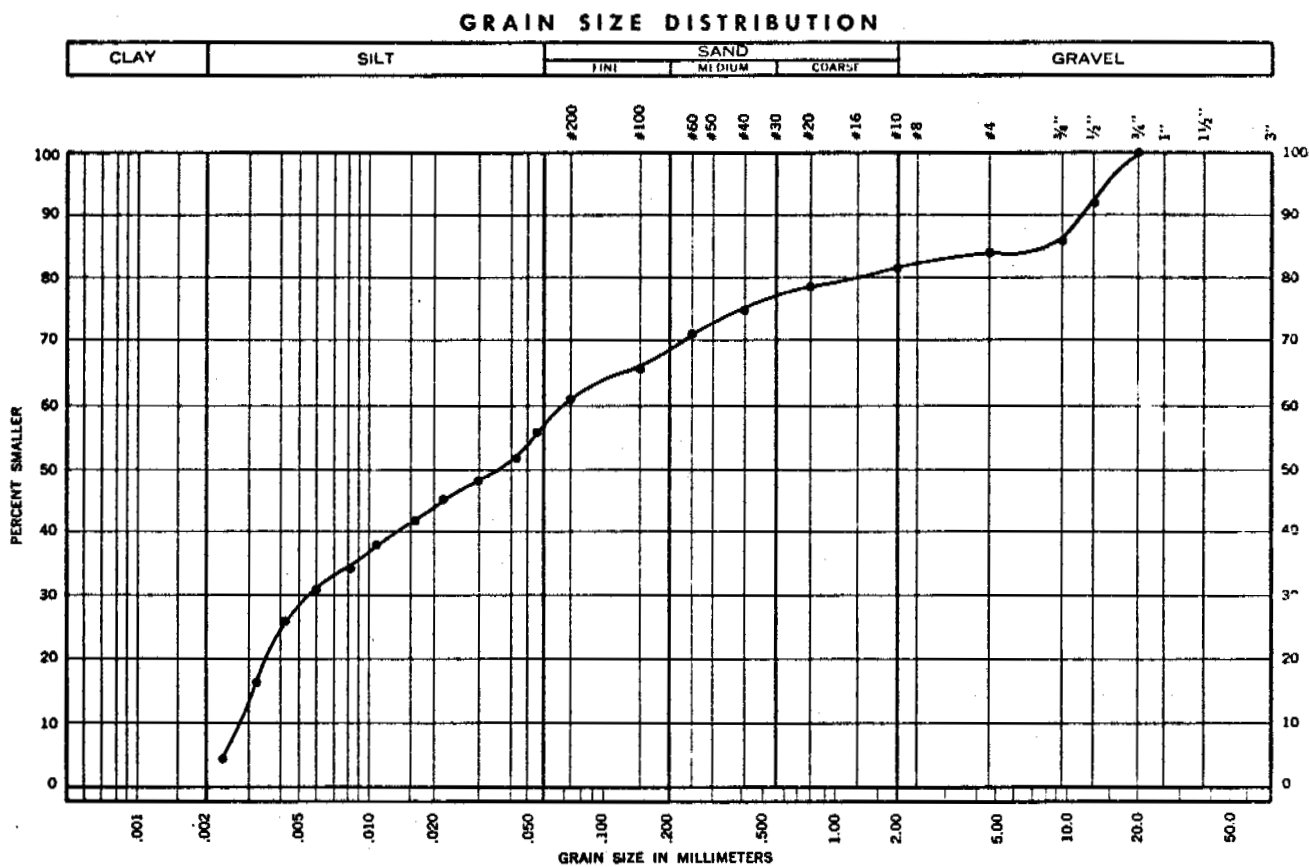


BROOKER & ASSOCIATES

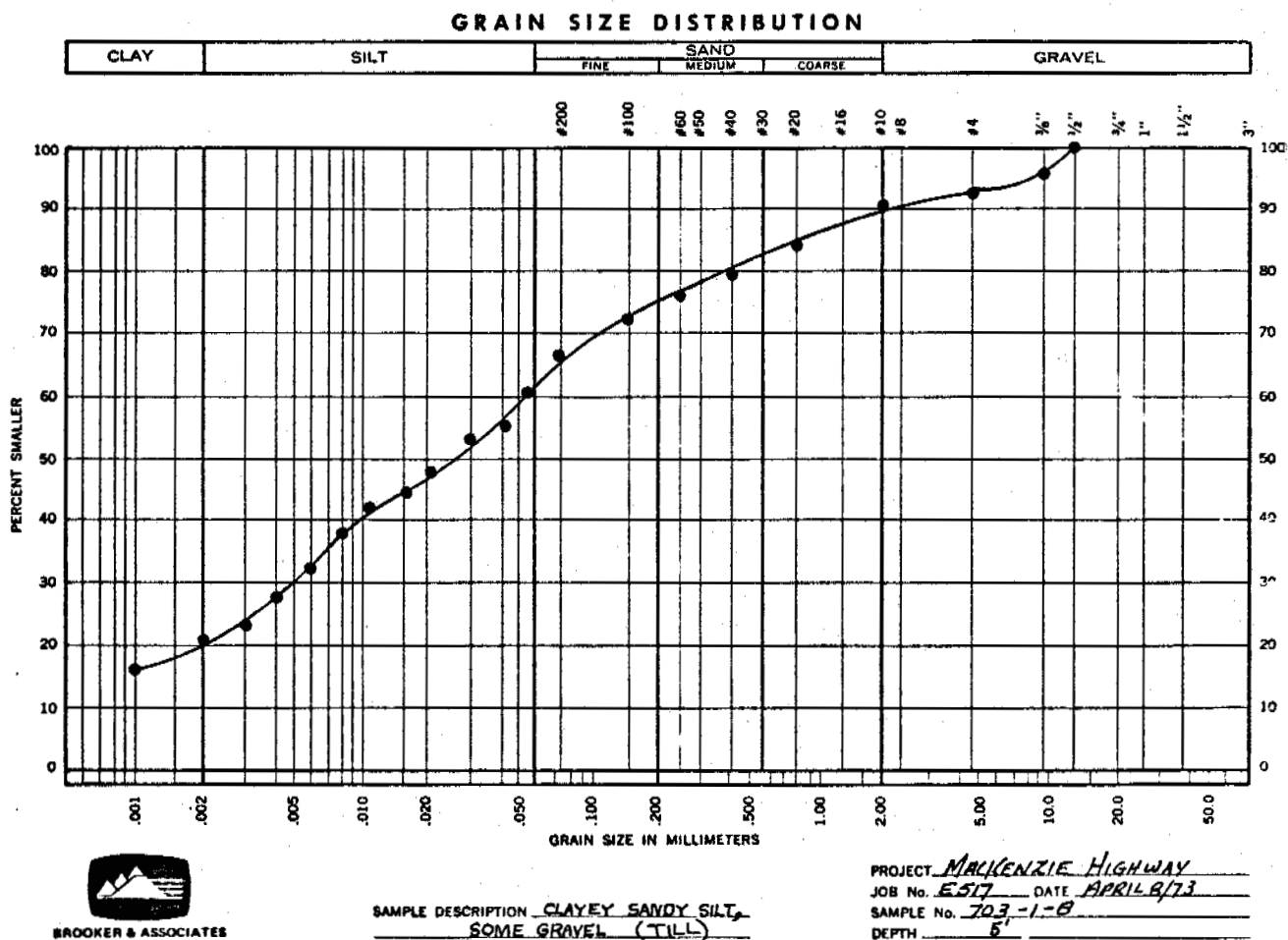
SAMPLE DESCRIPTION SANDY SILT, CLAYEY

PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 708-B-2b
DEPTH 5'

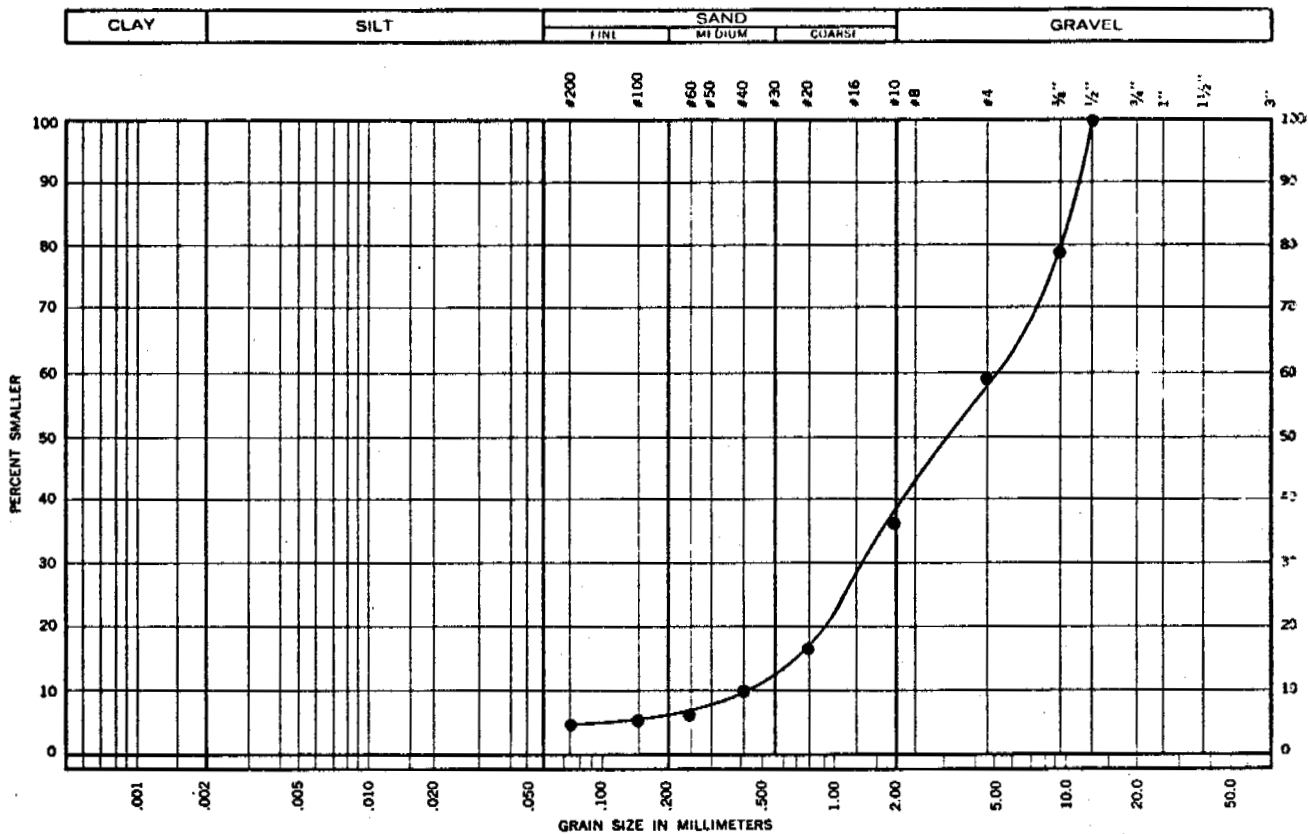
FIGURE



FIGURE



GRAIN SIZE DISTRIBUTION



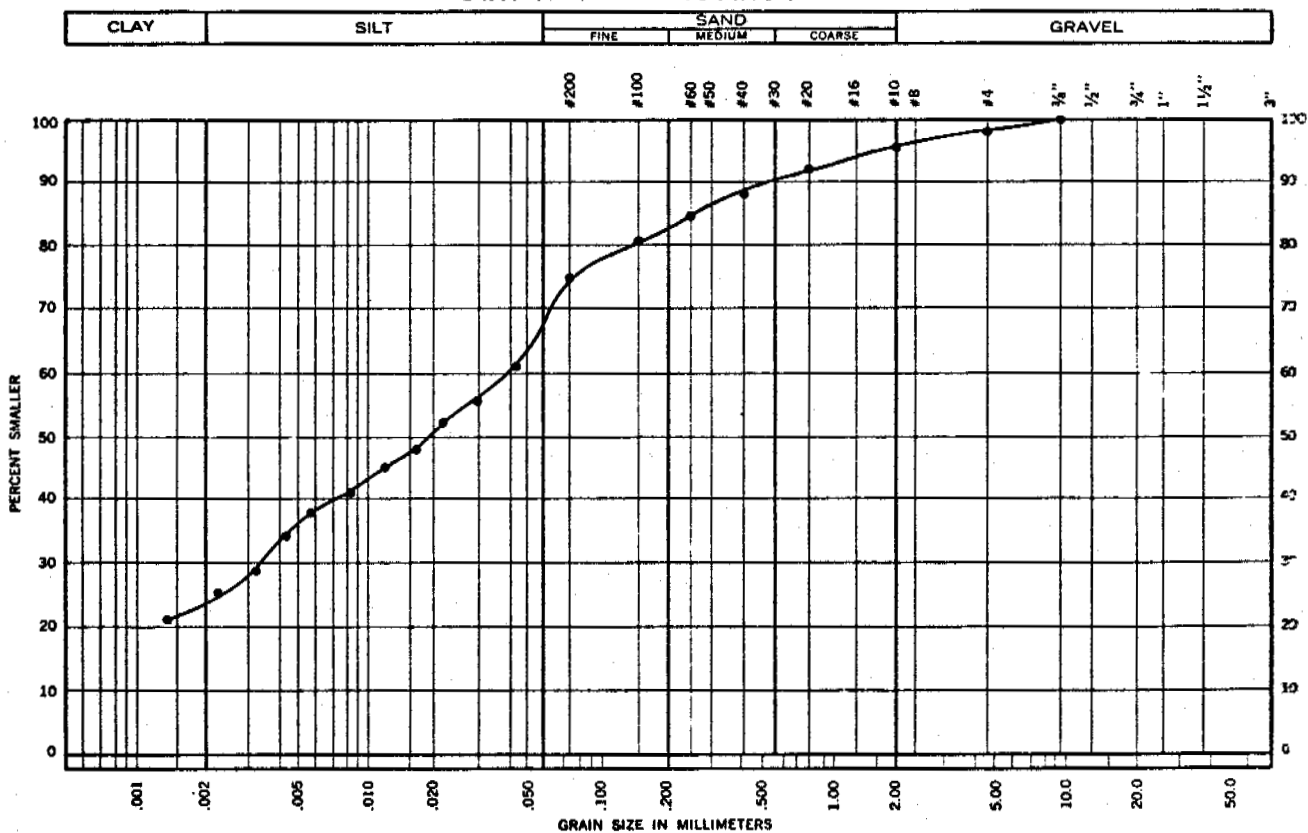
FIGURE



SAMPLE DESCRIPTION SANDY GRAVEL,
WELL GRADED, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 703-B-5
DEPTH 3'

GRAIN SIZE DISTRIBUTION



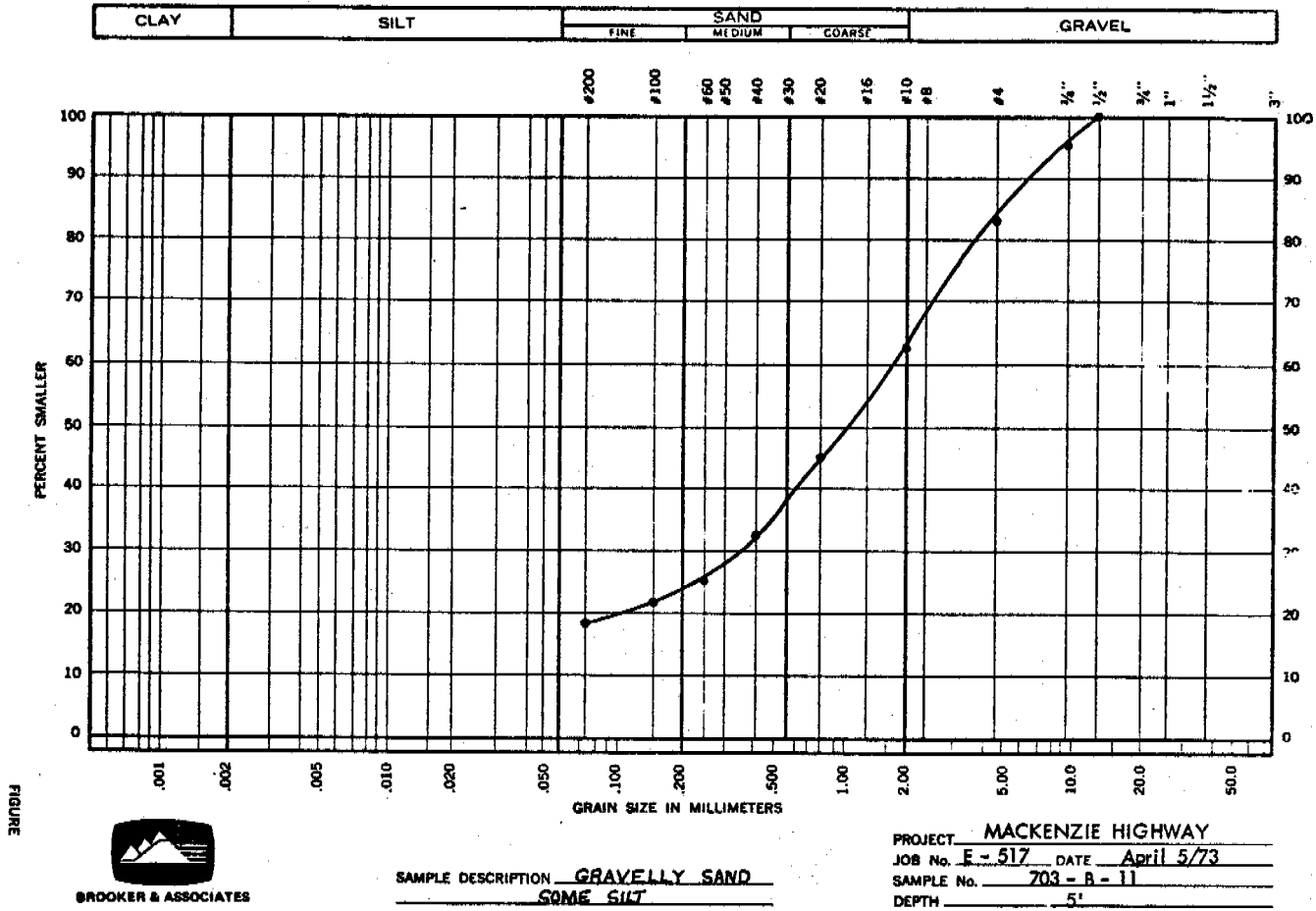
FIGURE



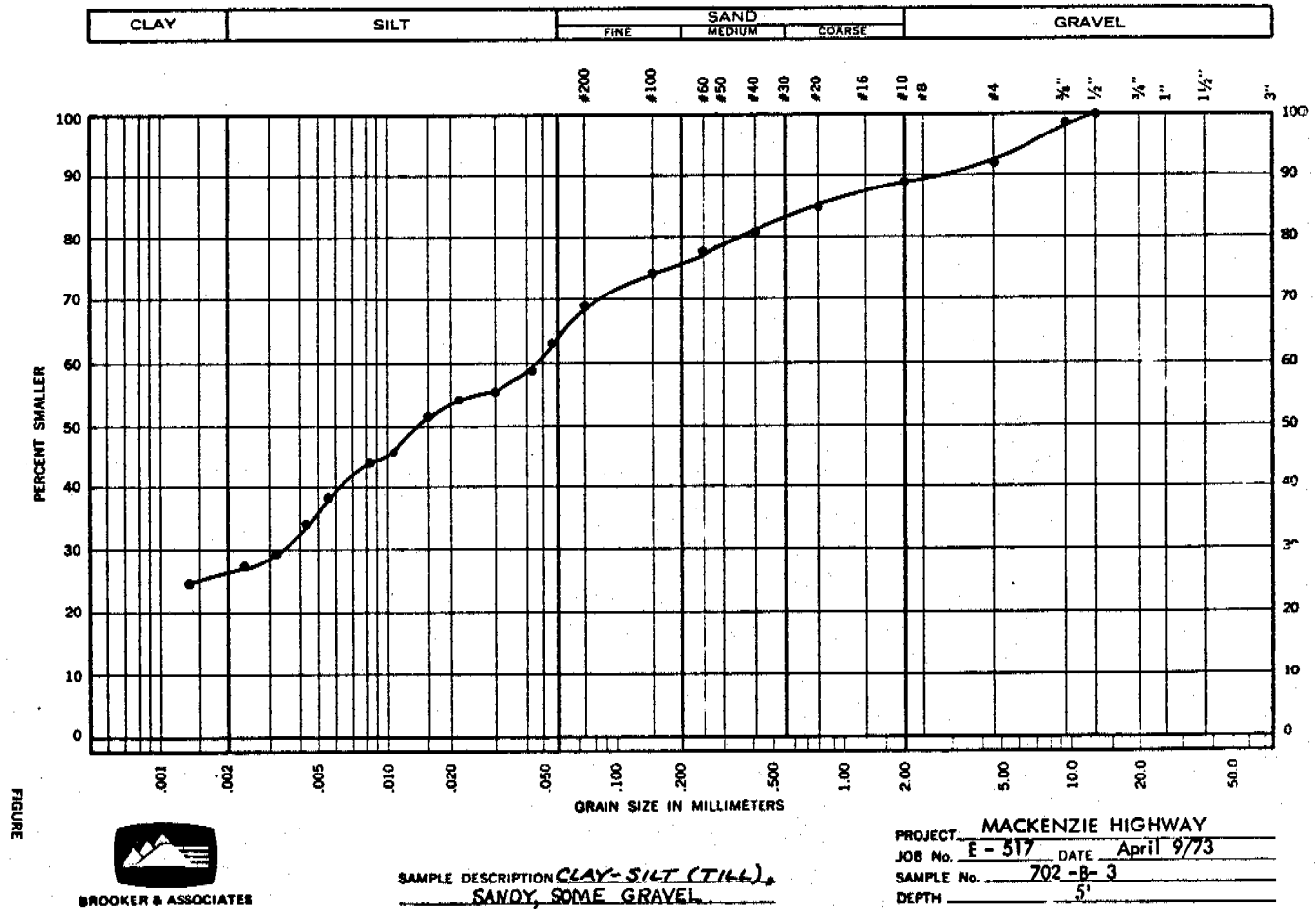
SAMPLE DESCRIPTION CLAY-SILT, SANDY,
TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 7/73
SAMPLE No. 703-B-8
DEPTH 10'

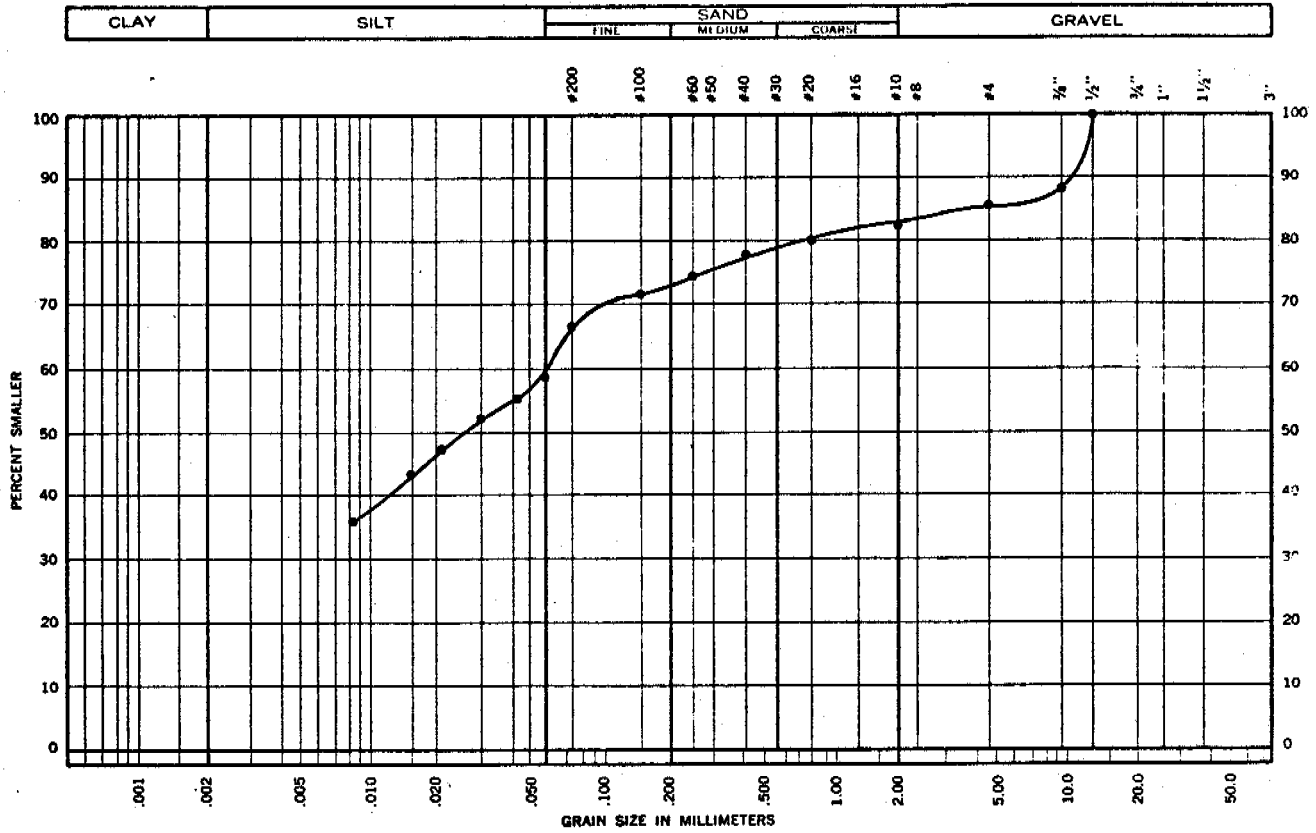
GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



GRAIN SIZE DISTRIBUTION



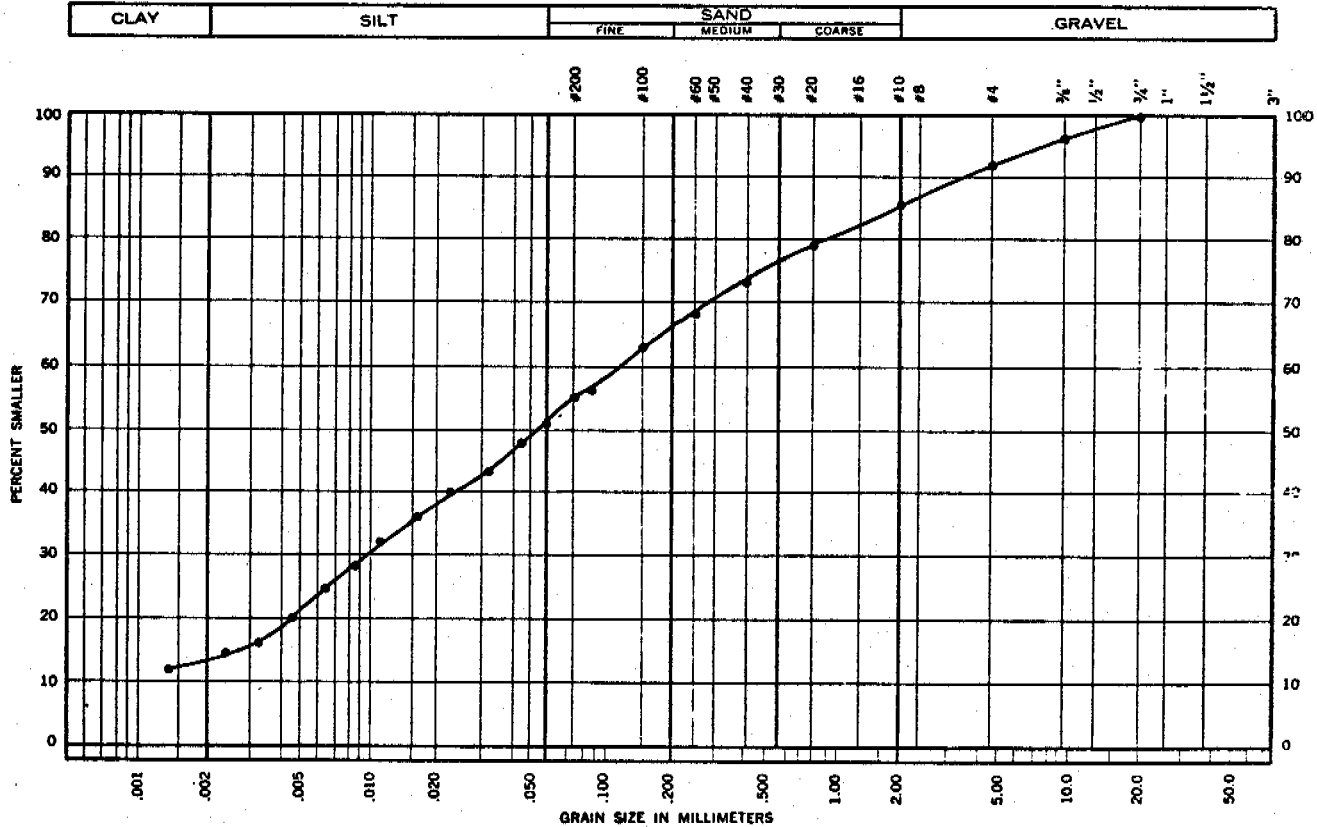
FIGURE



SAMPLE DESCRIPTION CLAYEY, SANDY, SILT
SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 701-B-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



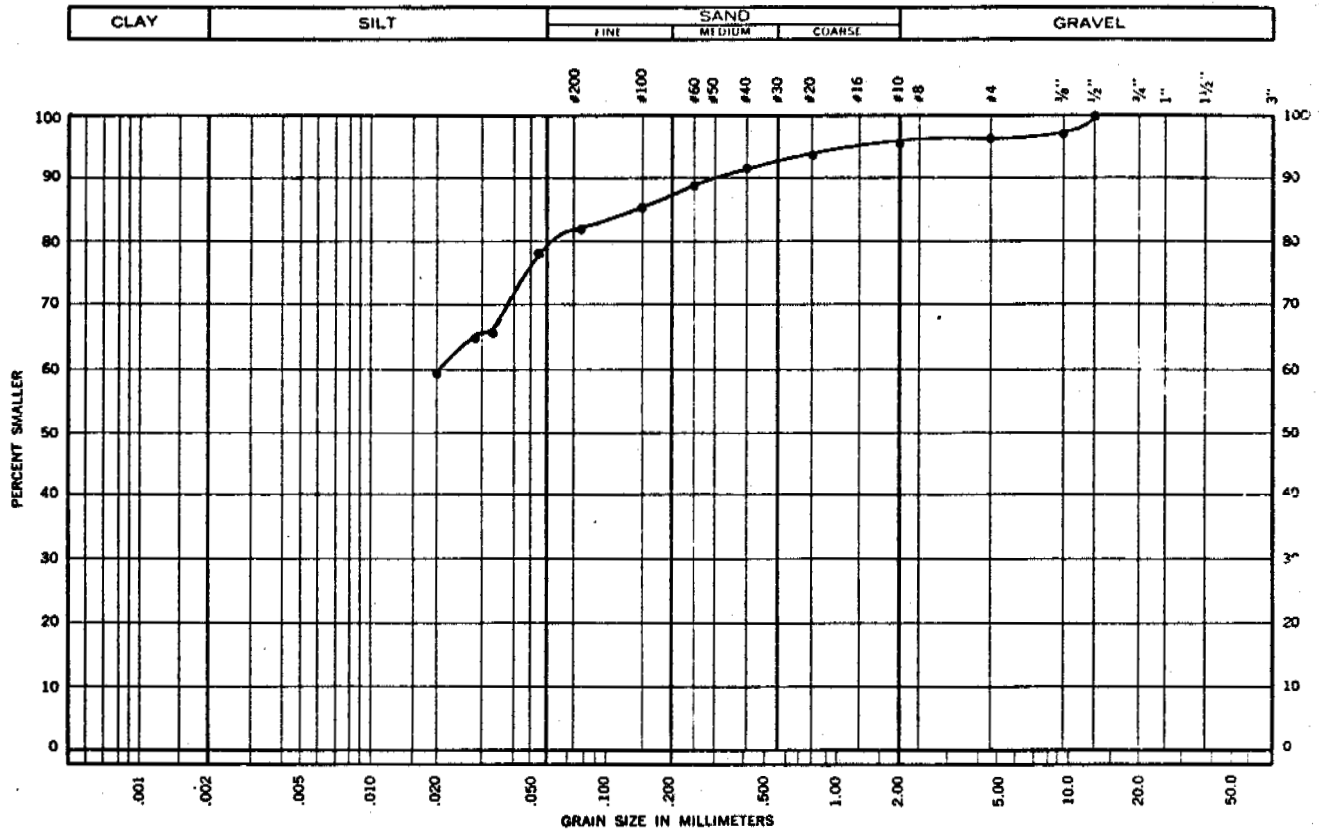
FIGURE



SAMPLE DESCRIPTION SAND, SILTY, SOME
CLAY, SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 701-B-5
DEPTH 5'

GRAIN SIZE DISTRIBUTION



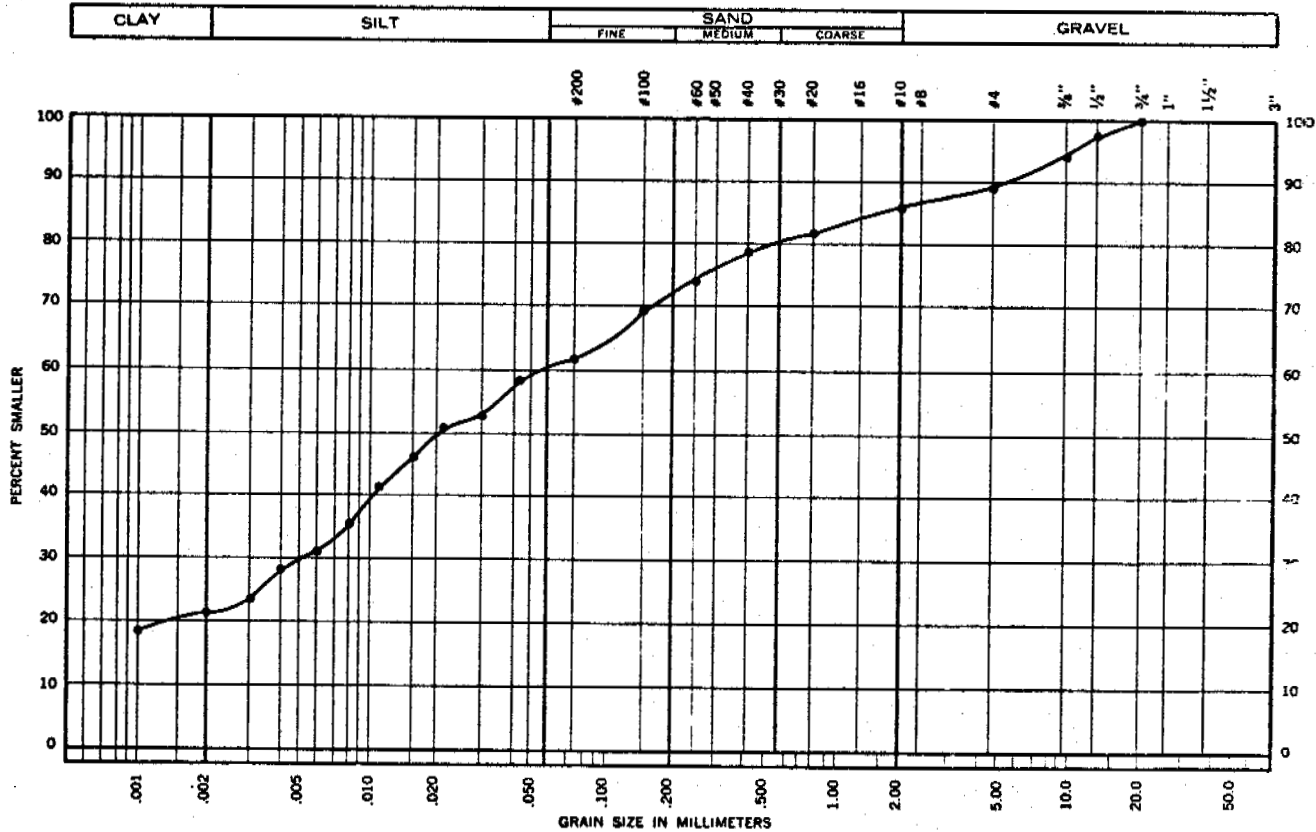
FIGURE



SAMPLE DESCRIPTION CLAY OR SILT SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 699-B-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



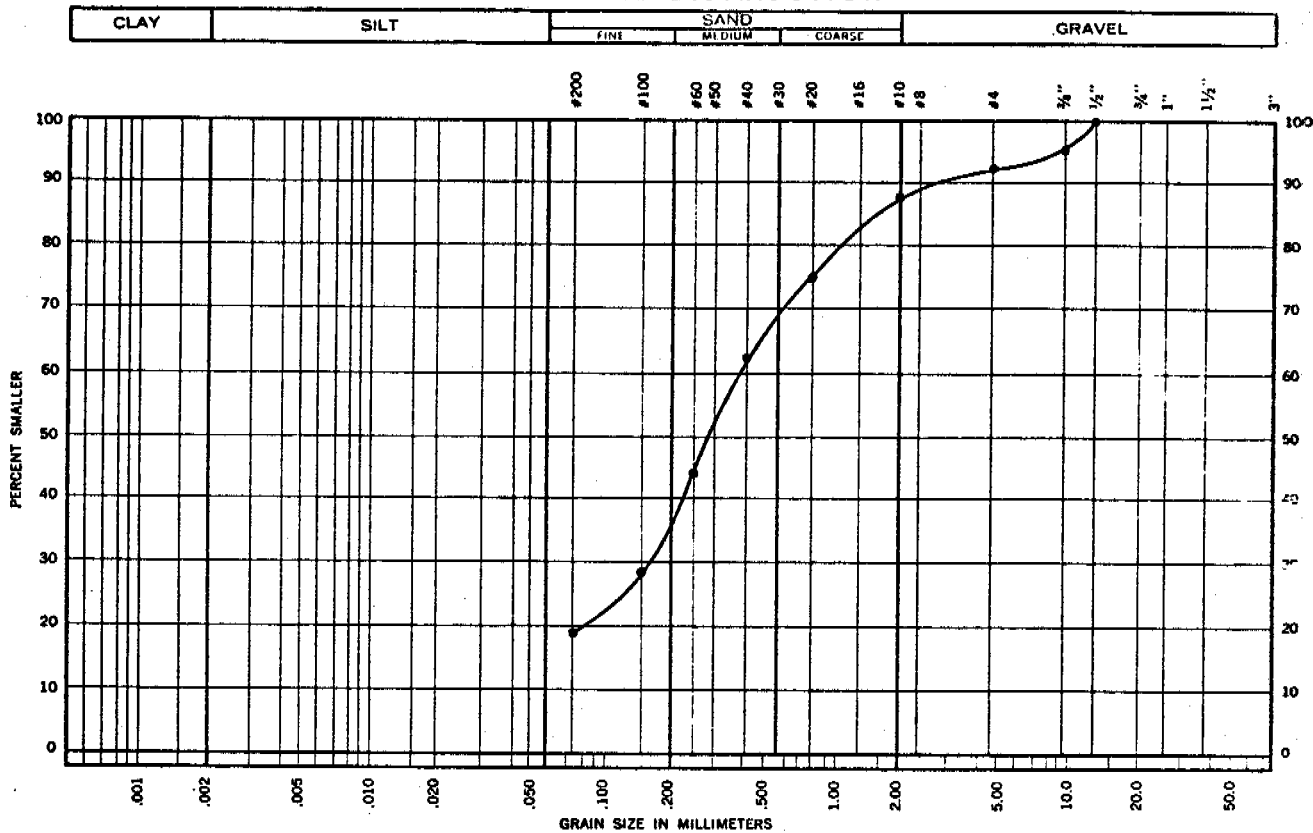
FIGURE



SAMPLE DESCRIPTION CLAYEY SANDY SILT (TILL), SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-317 DATE MARCH 30/73
 SAMPLE No. 698-B-2
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



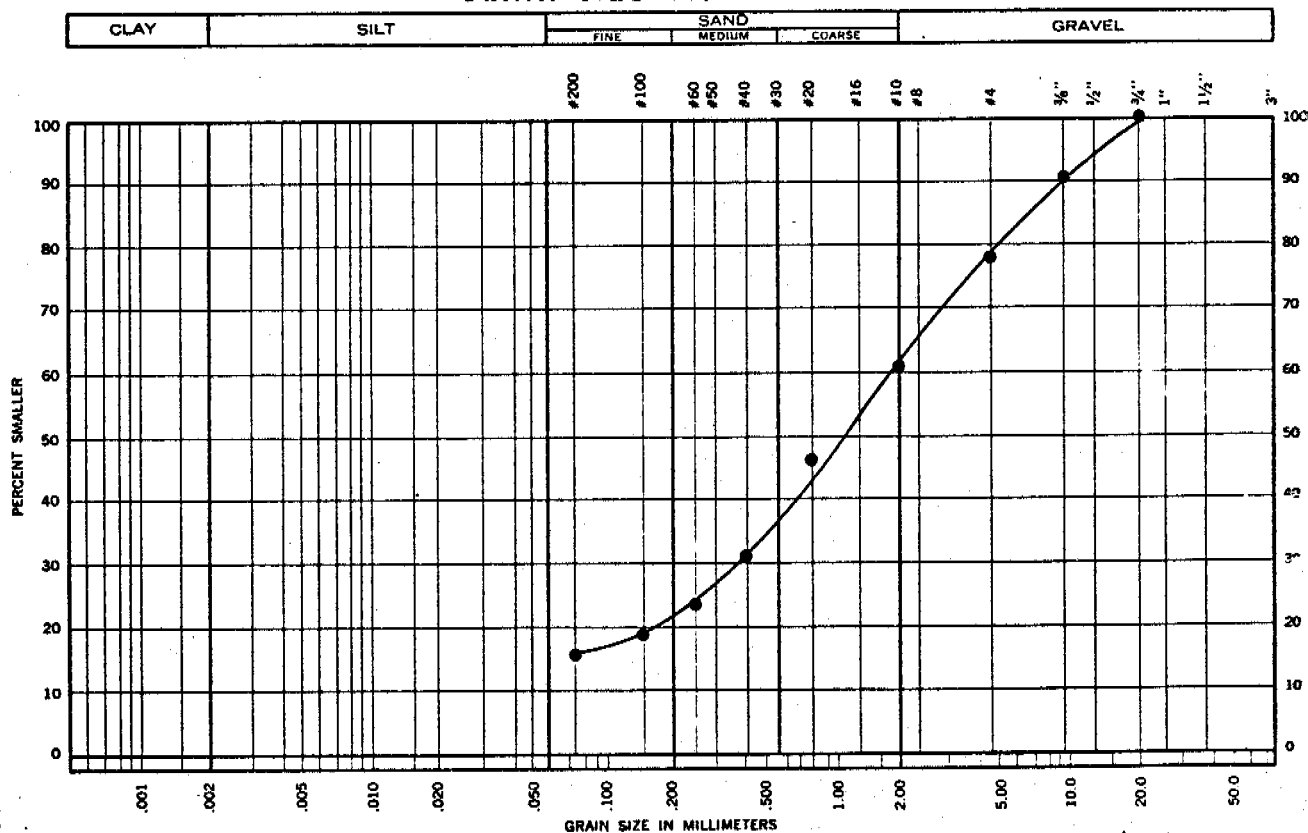
FIGURE



SAMPLE DESCRIPTION SAND, SOME SILT,
SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 697-B-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



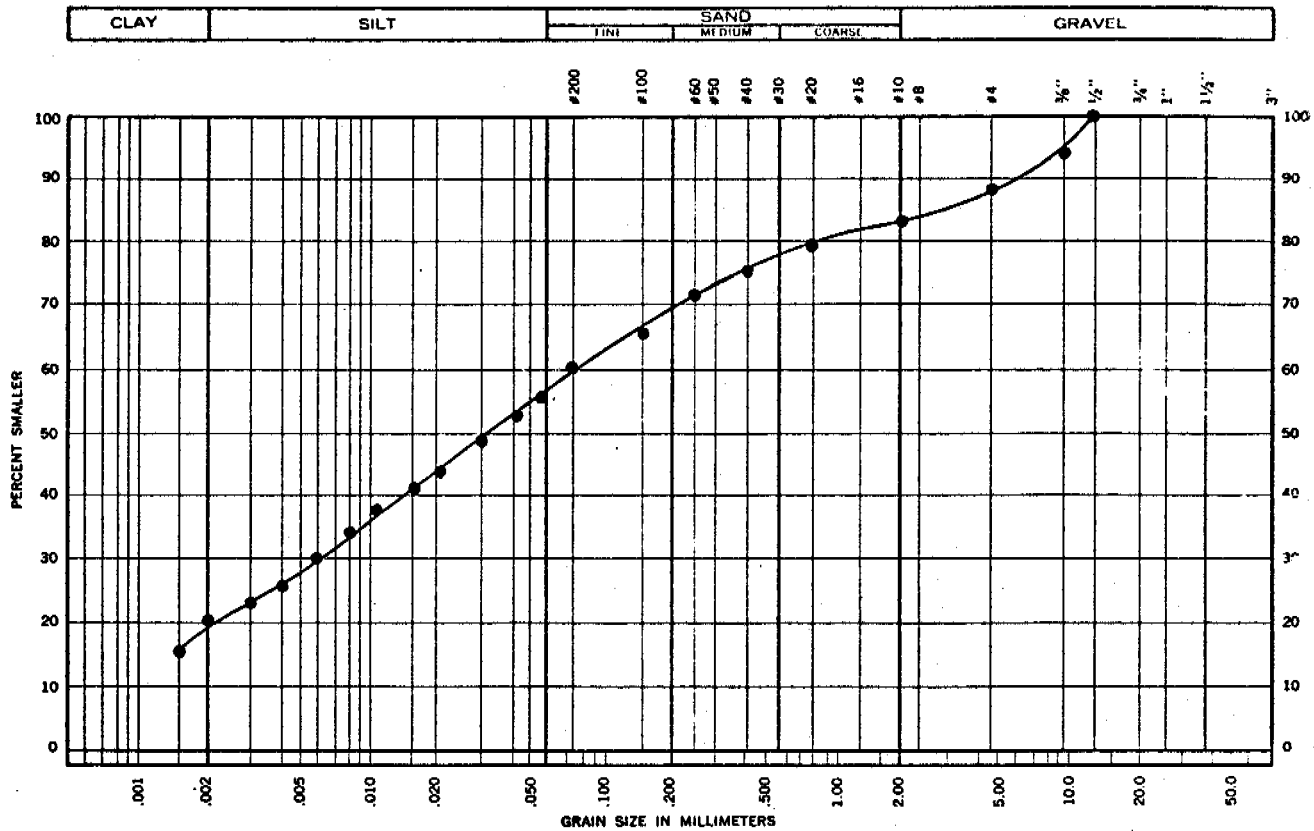
FIGURE



SAMPLE DESCRIPTION SANDY GRAVEL, SOME
SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 11/73
SAMPLE No. 696-A-B
DEPTH 5'

GRAIN SIZE DISTRIBUTION



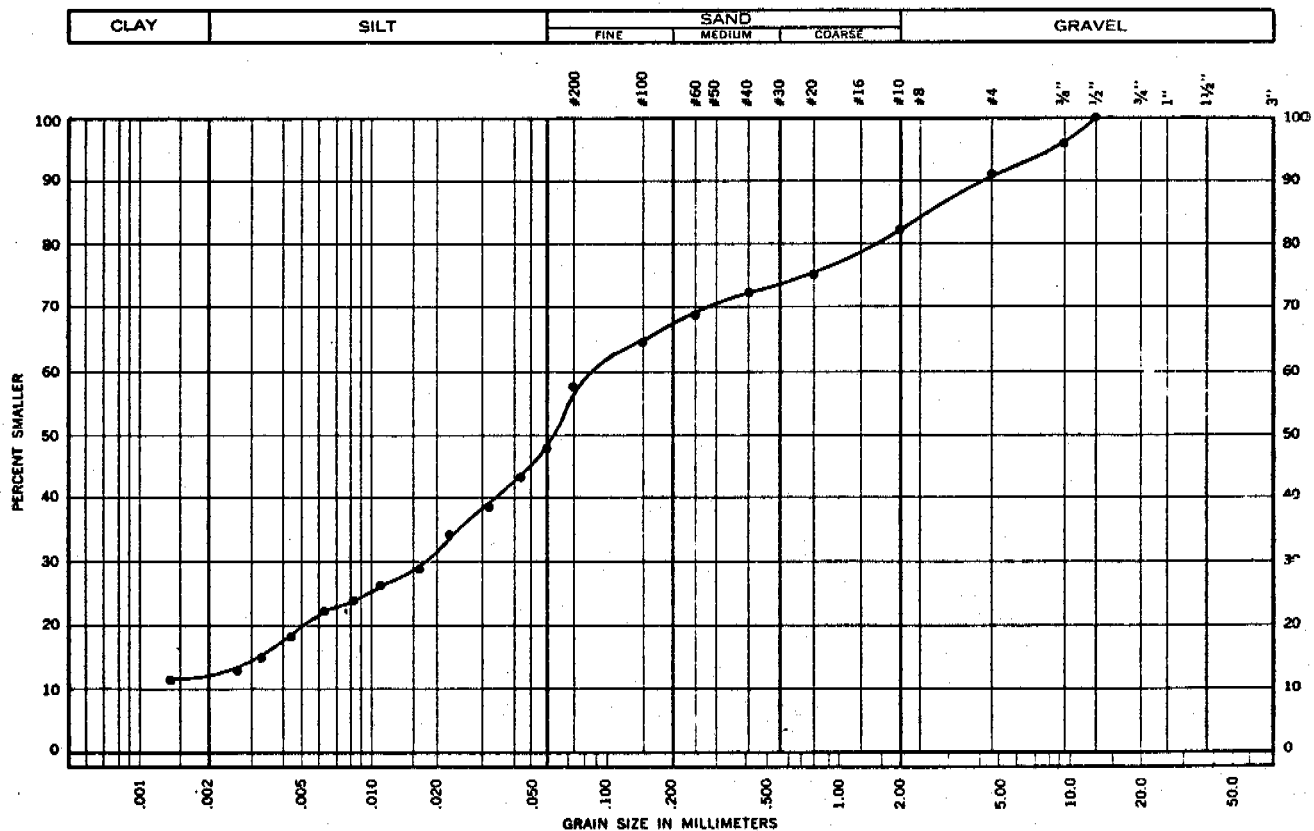
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME CLAY, SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 8/73
 SAMPLE No. 695-3-B
 DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION



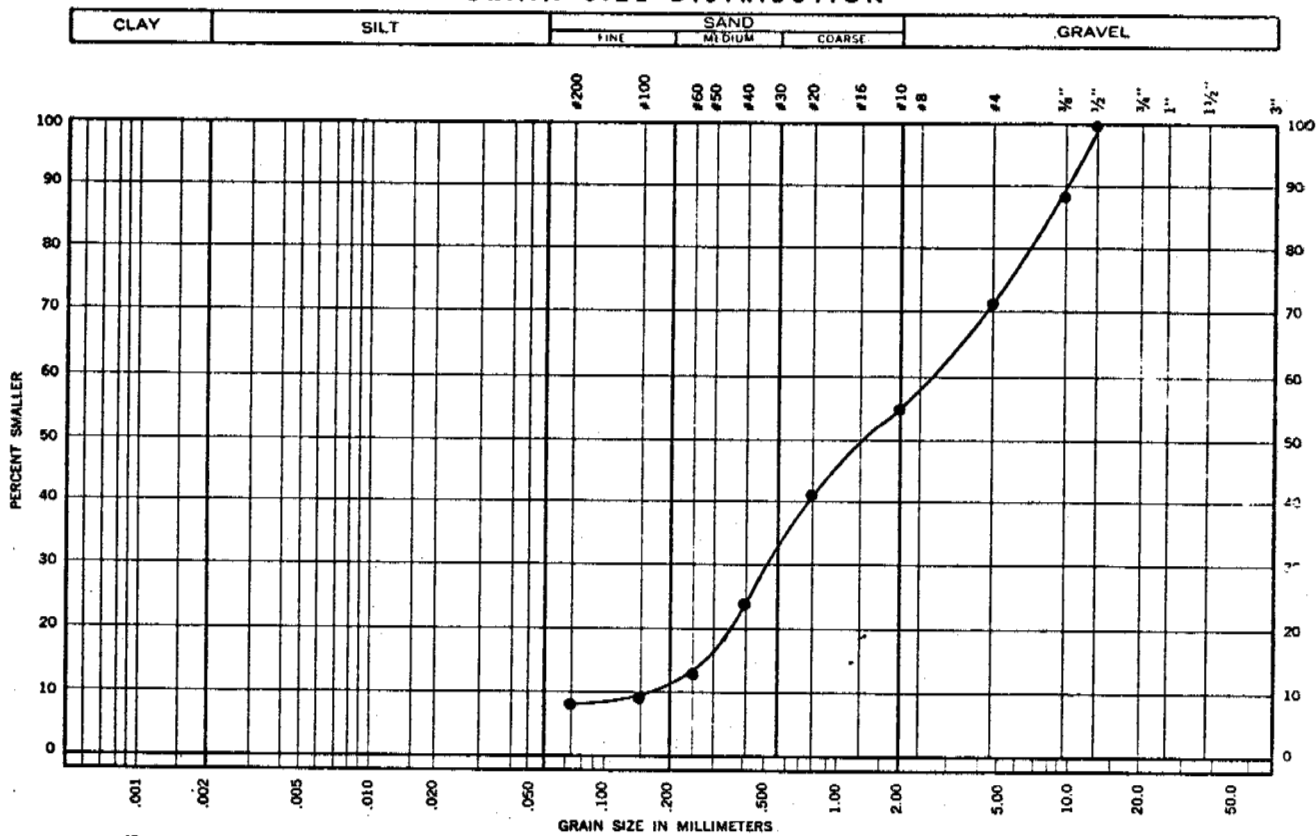
FIGURE



SAMPLE DESCRIPTION SILT AND SAND (TILL), SOME CLAY, SOME GRAVEL

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 7/73
 SAMPLE No. 695-B-8
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



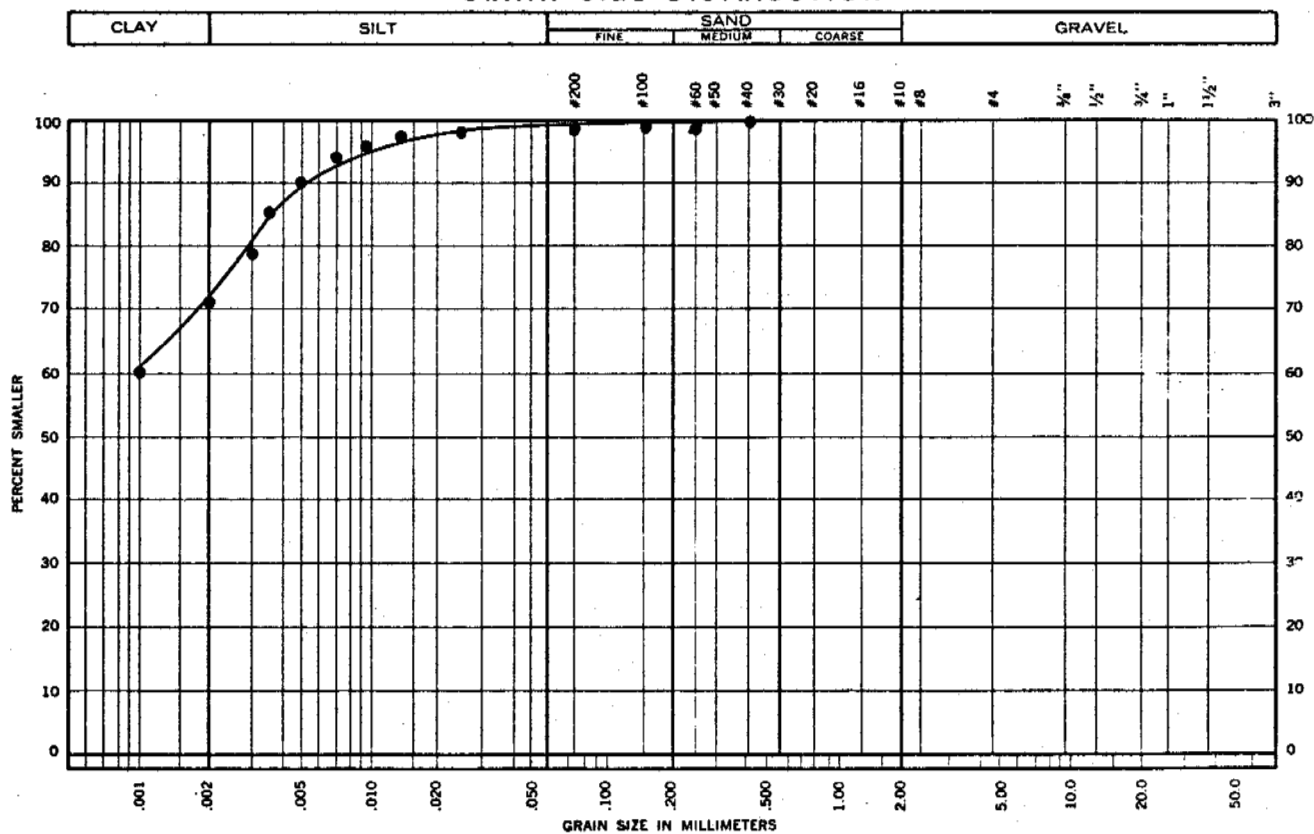
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 20 1973
SAMPLE No. 694-B-2
DEPTH 2.5'

GRAIN SIZE DISTRIBUTION



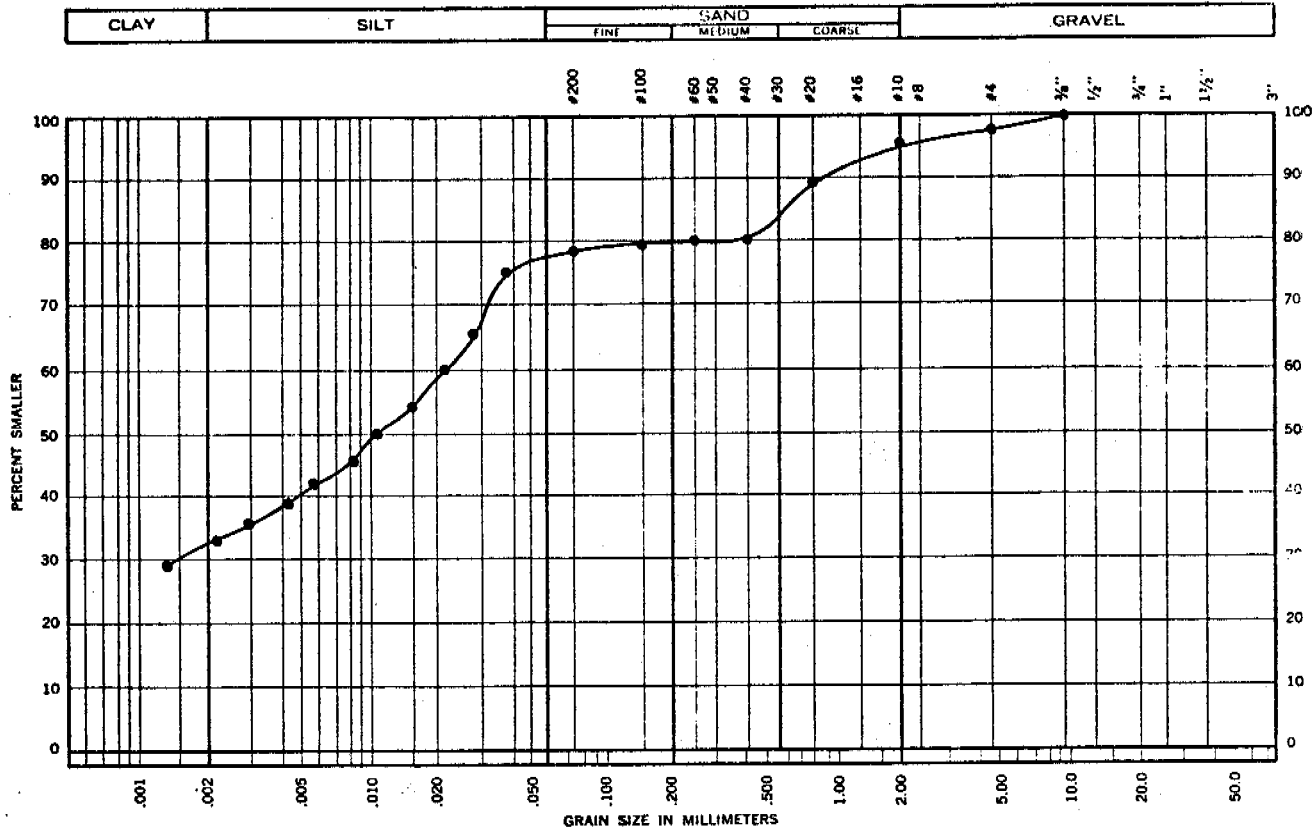
FIGURE



SAMPLE DESCRIPTION SILTY CLAY, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 690-B-3
DEPTH 2 1/2'

GRAIN SIZE DISTRIBUTION

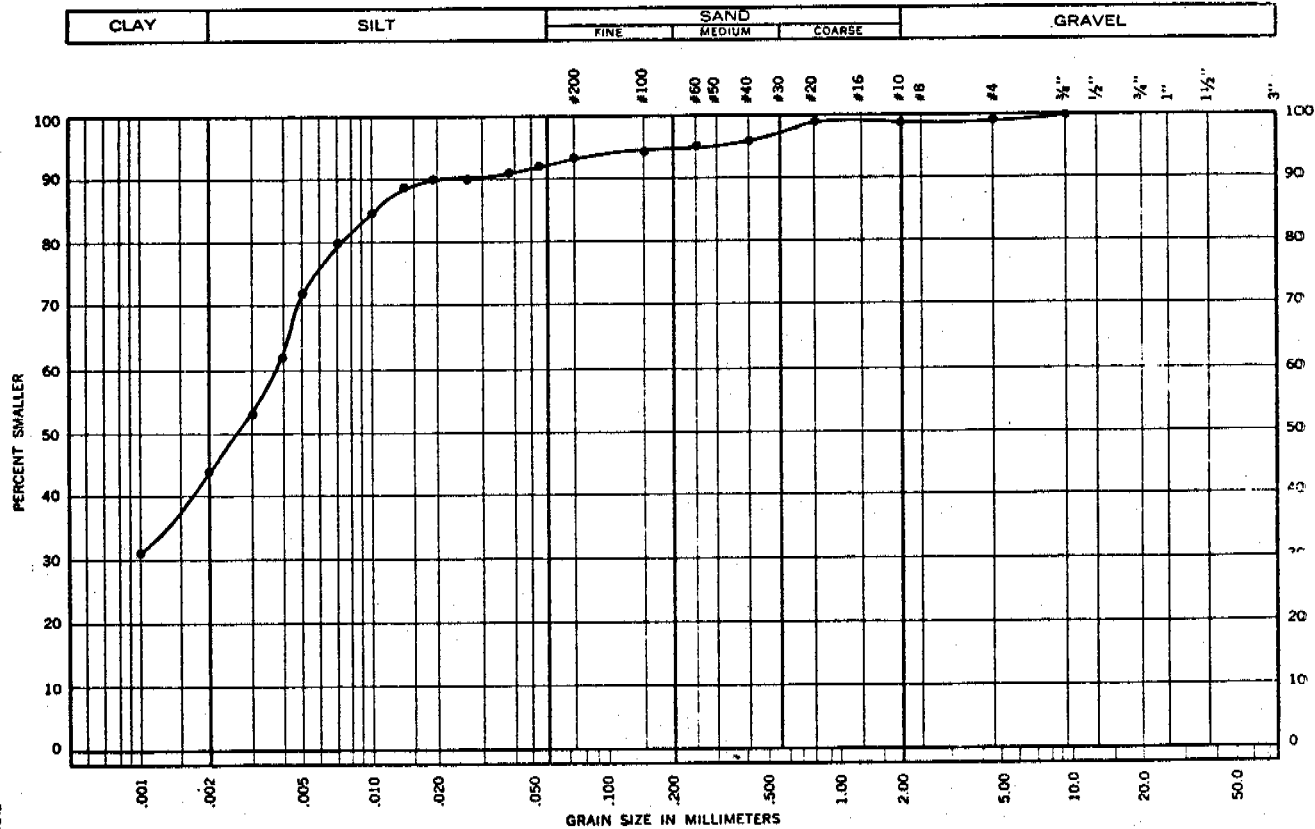


SAMPLE DESCRIPTION CLAY, SILTY, SOME
SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 23/73
SAMPLE No. 689-B-2
DEPTH 10'

FIGURE

GRAIN SIZE DISTRIBUTION

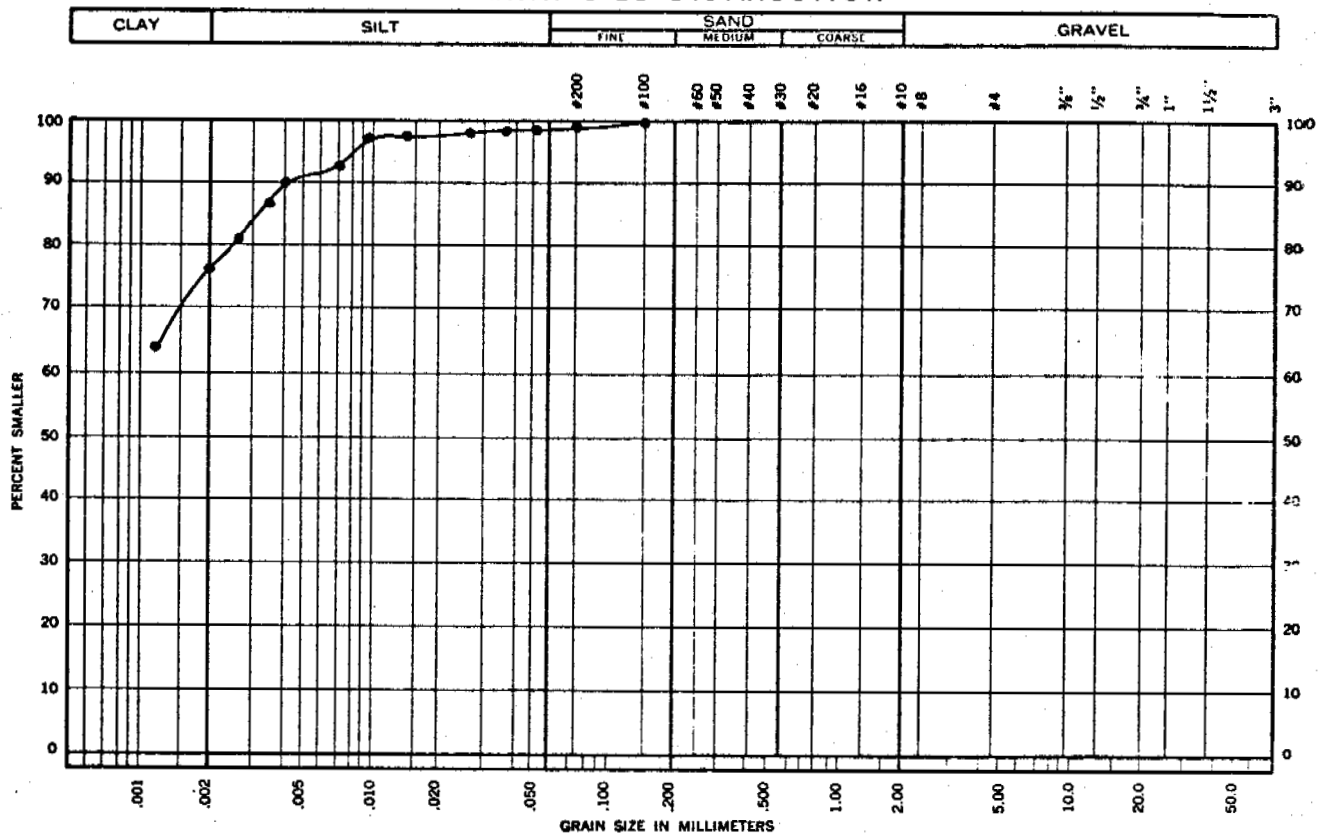


SAMPLE DESCRIPTION CLAY(SHALE), SILTY,
SOME SAND, TRACE OF GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 688-B-5
DEPTH 10'

FIGURE

GRAIN SIZE DISTRIBUTION

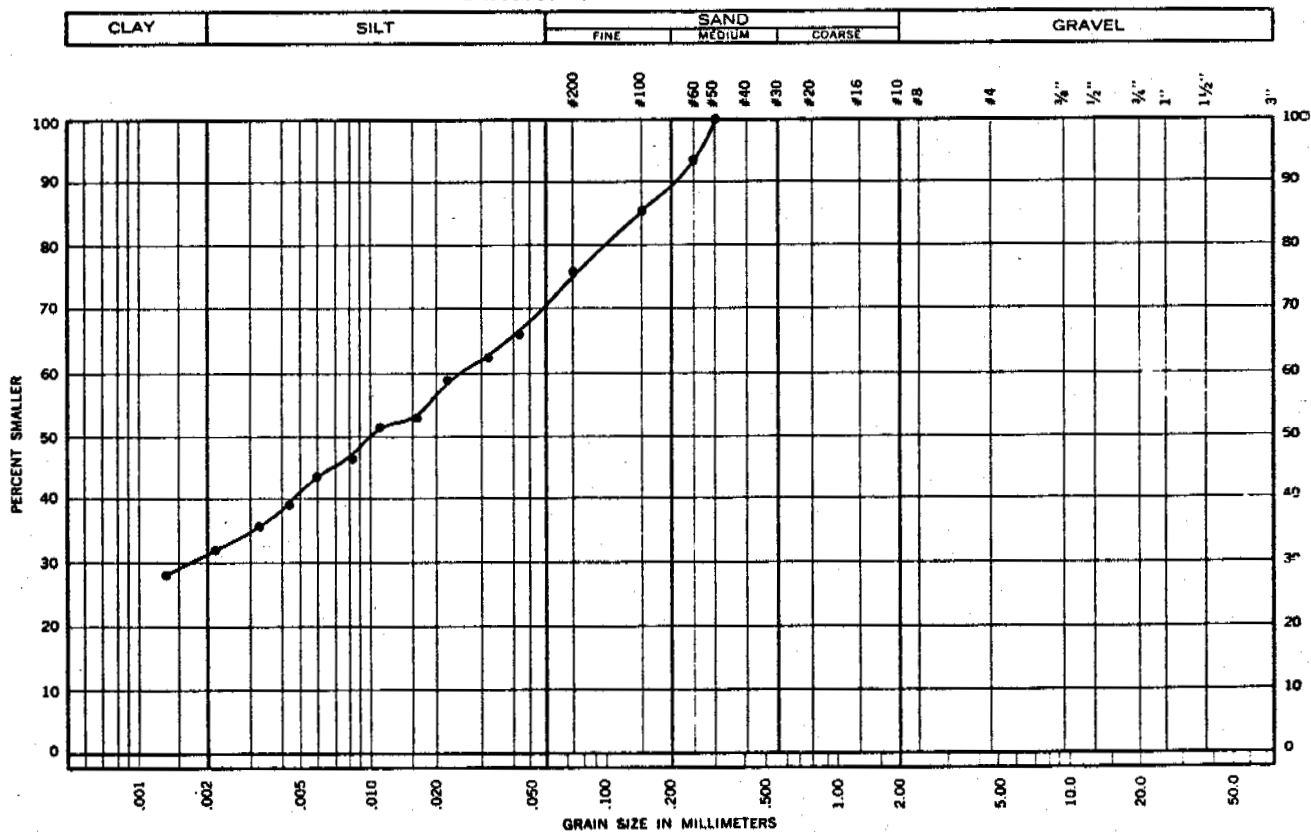


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY, SOME SILT,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 23/73
SAMPLE No. 688-B-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION

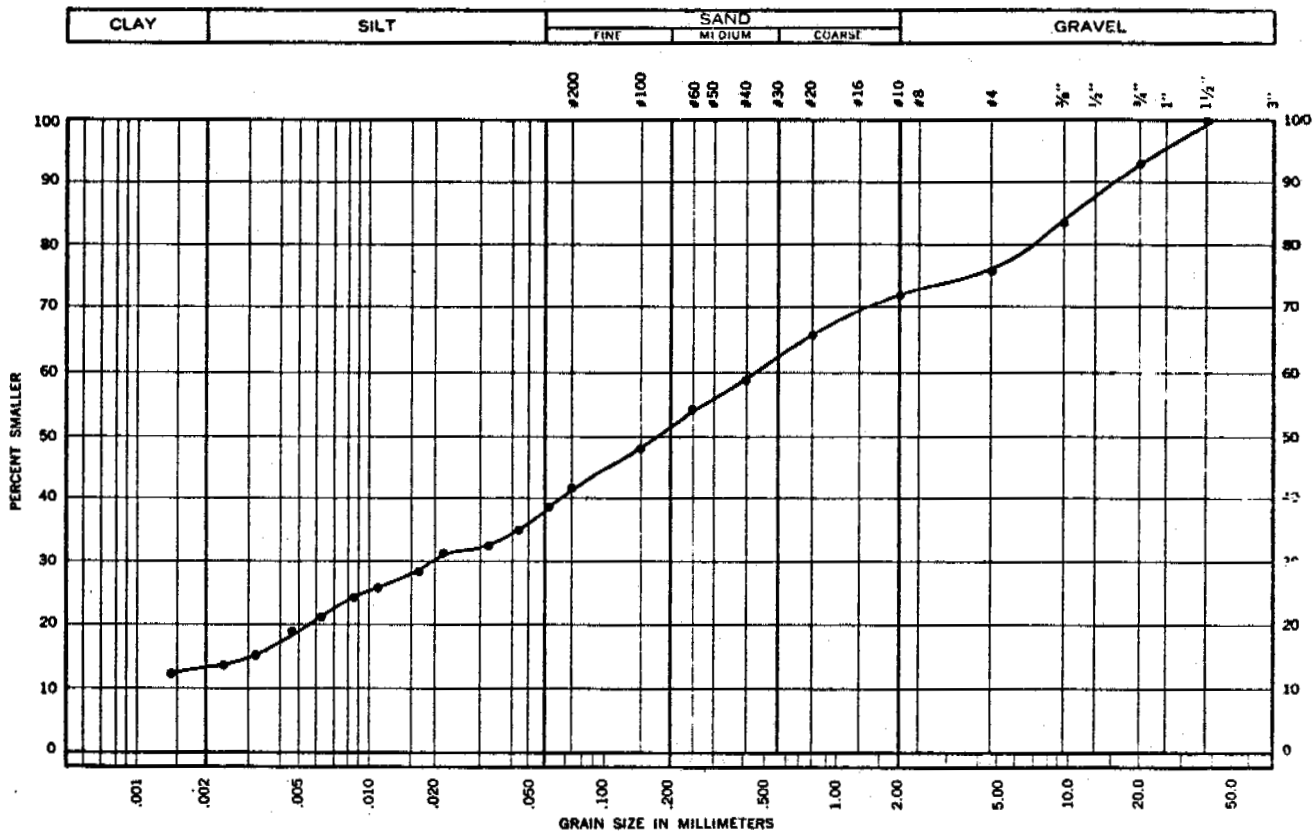


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY, SILTY, SANDY.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 685-B-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



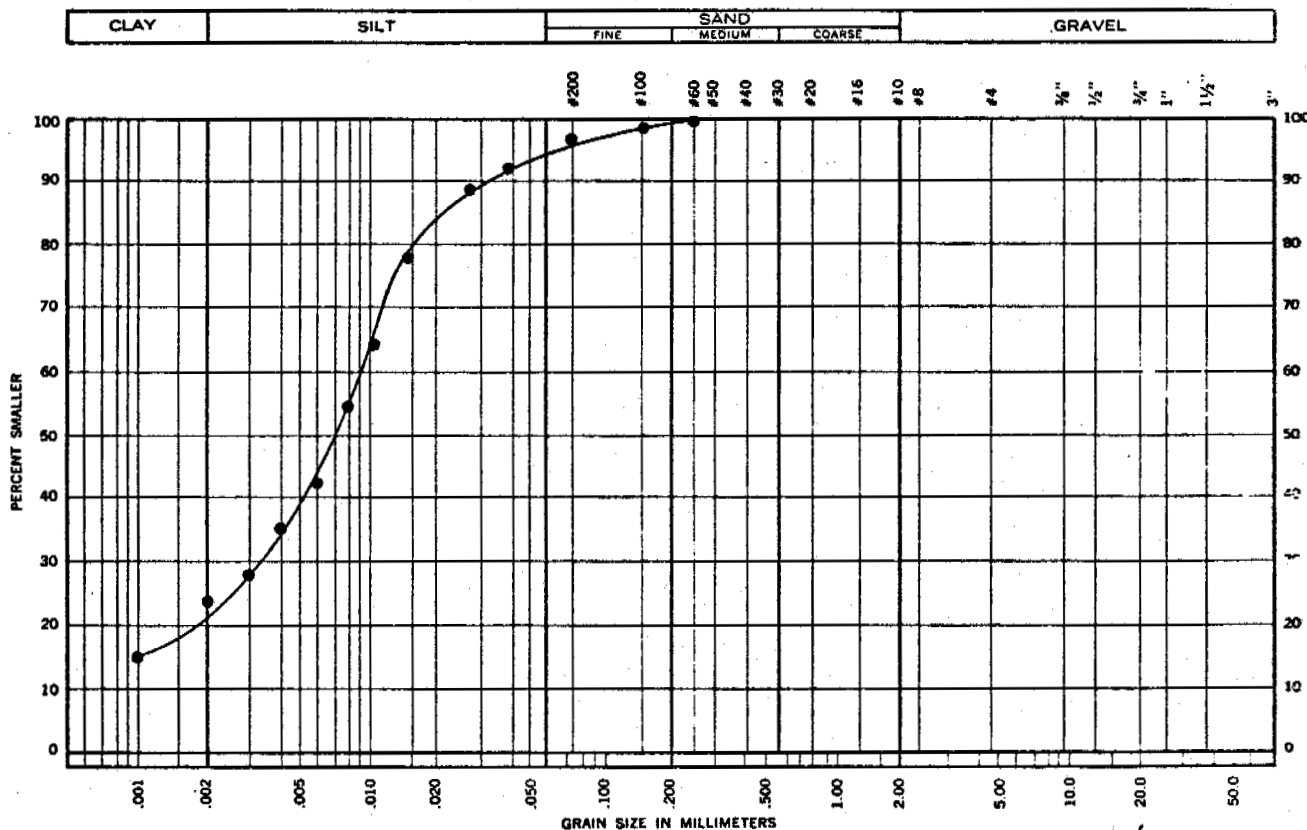
FIGURE



SAMPLE DESCRIPTION SAND, GRAVELLY,
SILTY, SOME CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 680-B-2
DEPTH 5

GRAIN SIZE DISTRIBUTION



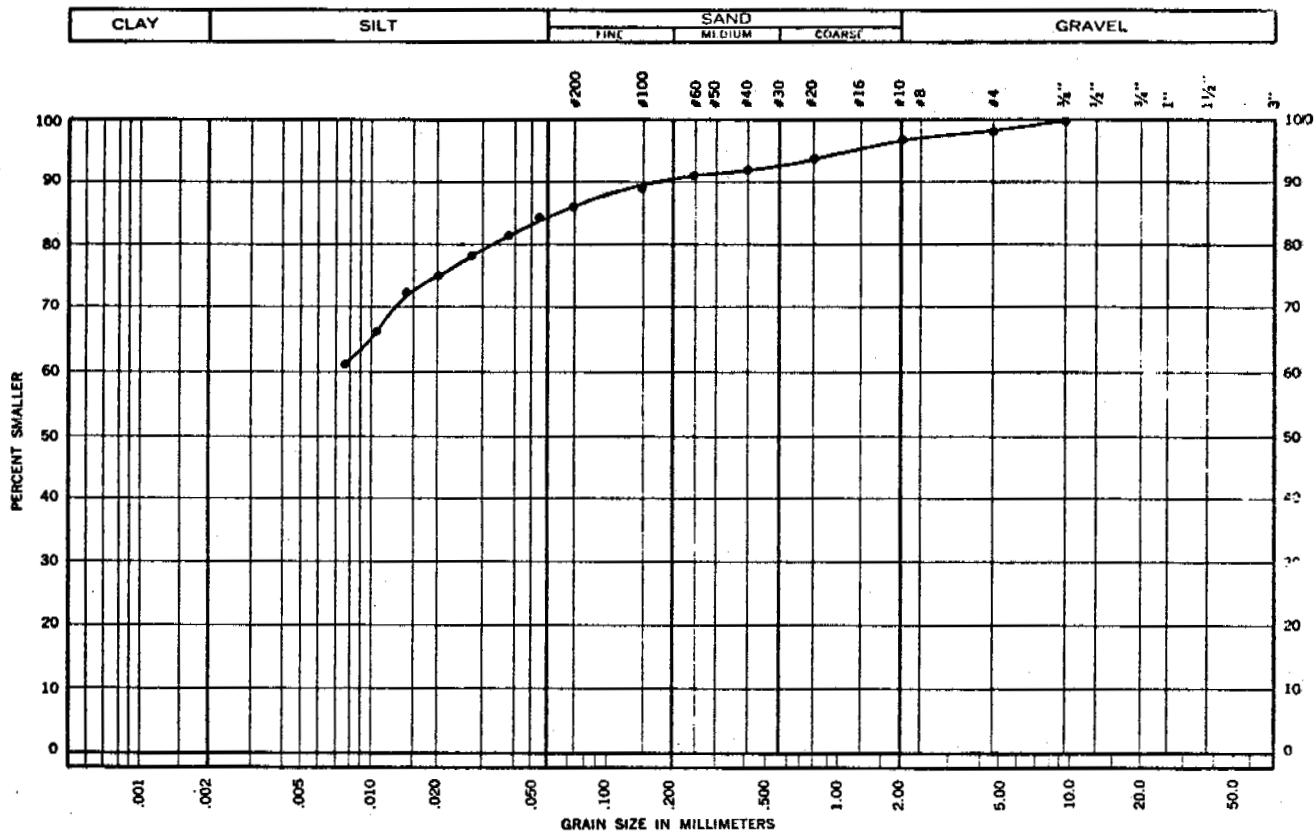
FIGURE



SAMPLE DESCRIPTION CLAYEY SILT,
TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 12/73
SAMPLE No. 676-B-1
DEPTH 10

GRAIN SIZE DISTRIBUTION



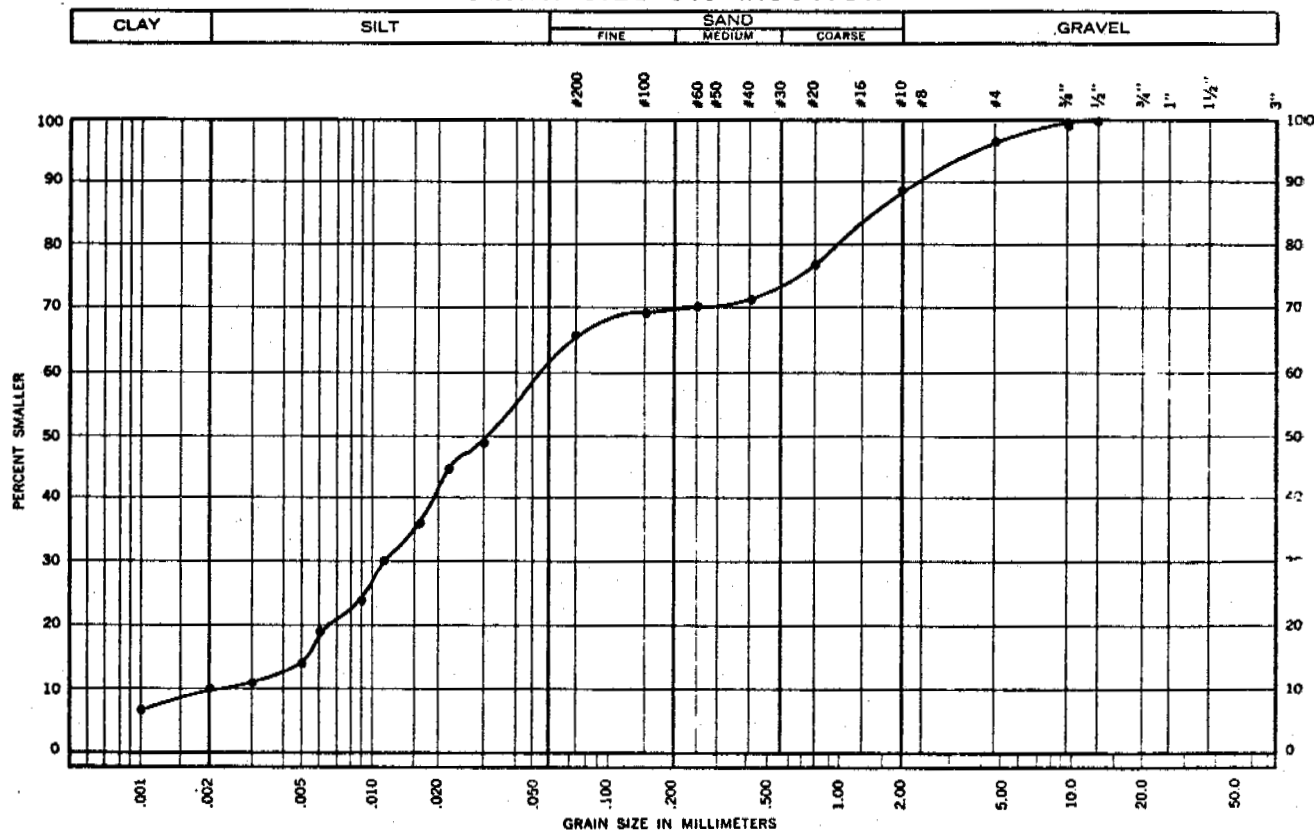
FIGURE



SAMPLE DESCRIPTION CLAY, SILT, SOME
SAND, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 676-B-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



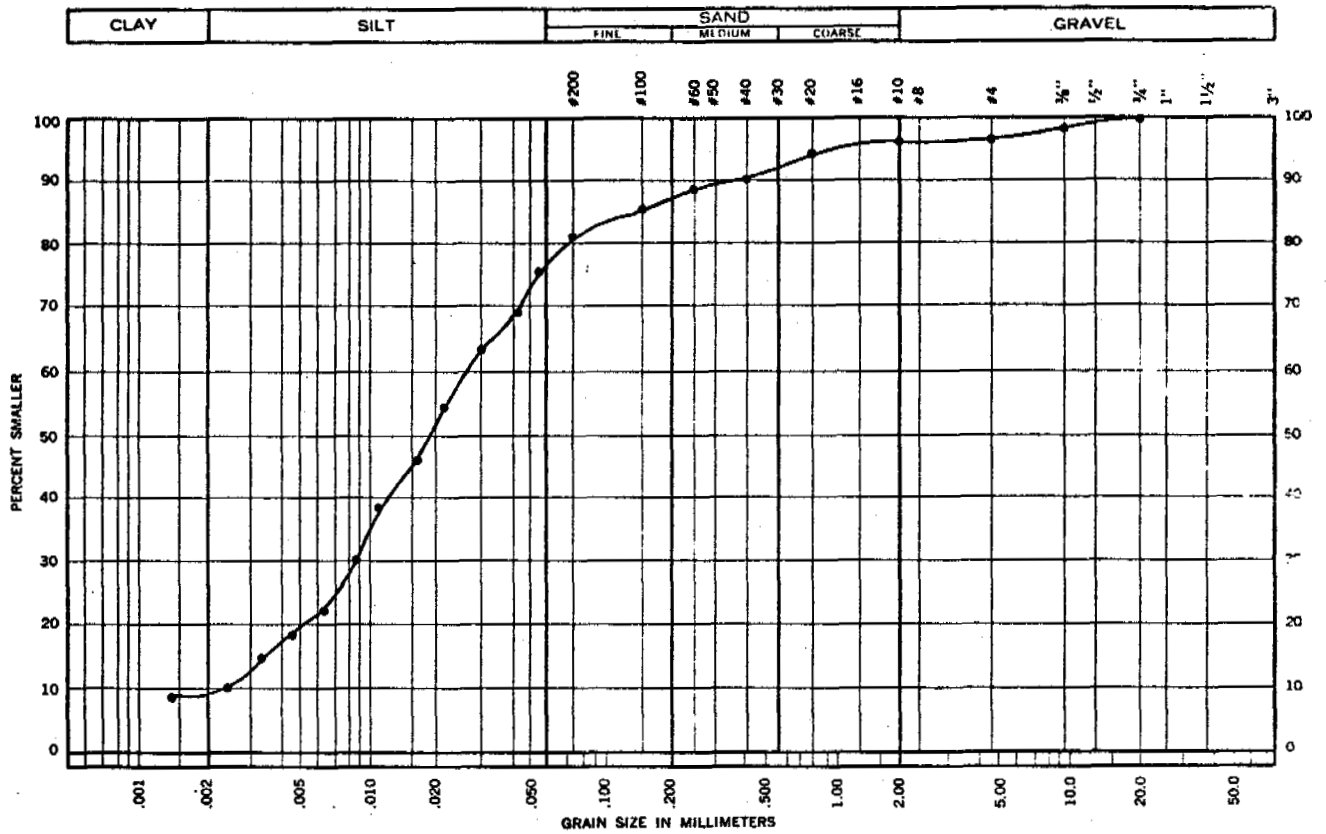
FIGURE



SAMPLE DESCRIPTION SANDY SILT, SOME
GRAVEL, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 676-B-3
DEPTH 10'

GRAIN SIZE DISTRIBUTION



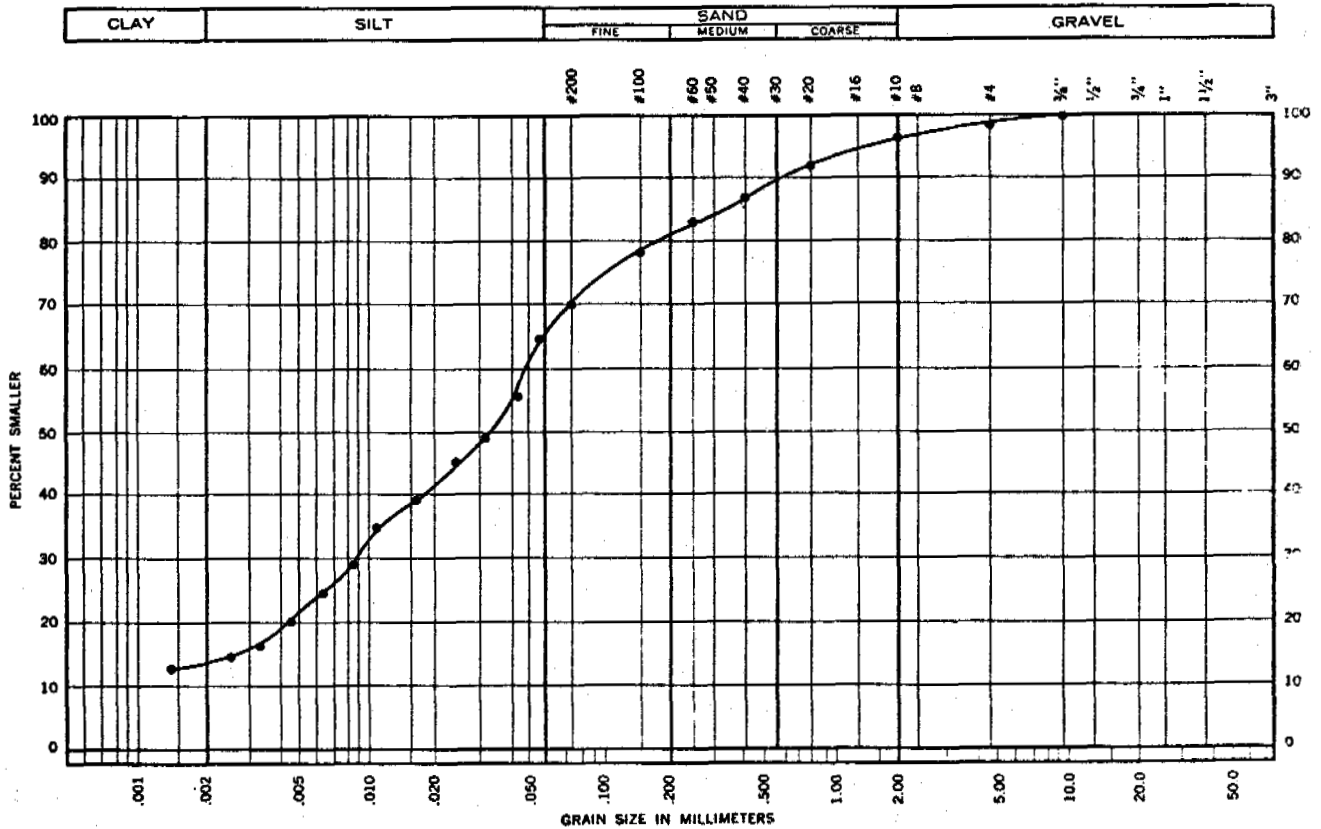
FIGURE



SAMPLE DESCRIPTION SILT, SOME SAND,
TRACE OF CLAY AND GRAVEL

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 676-B-4
DEPTH 10'

GRAIN SIZE DISTRIBUTION



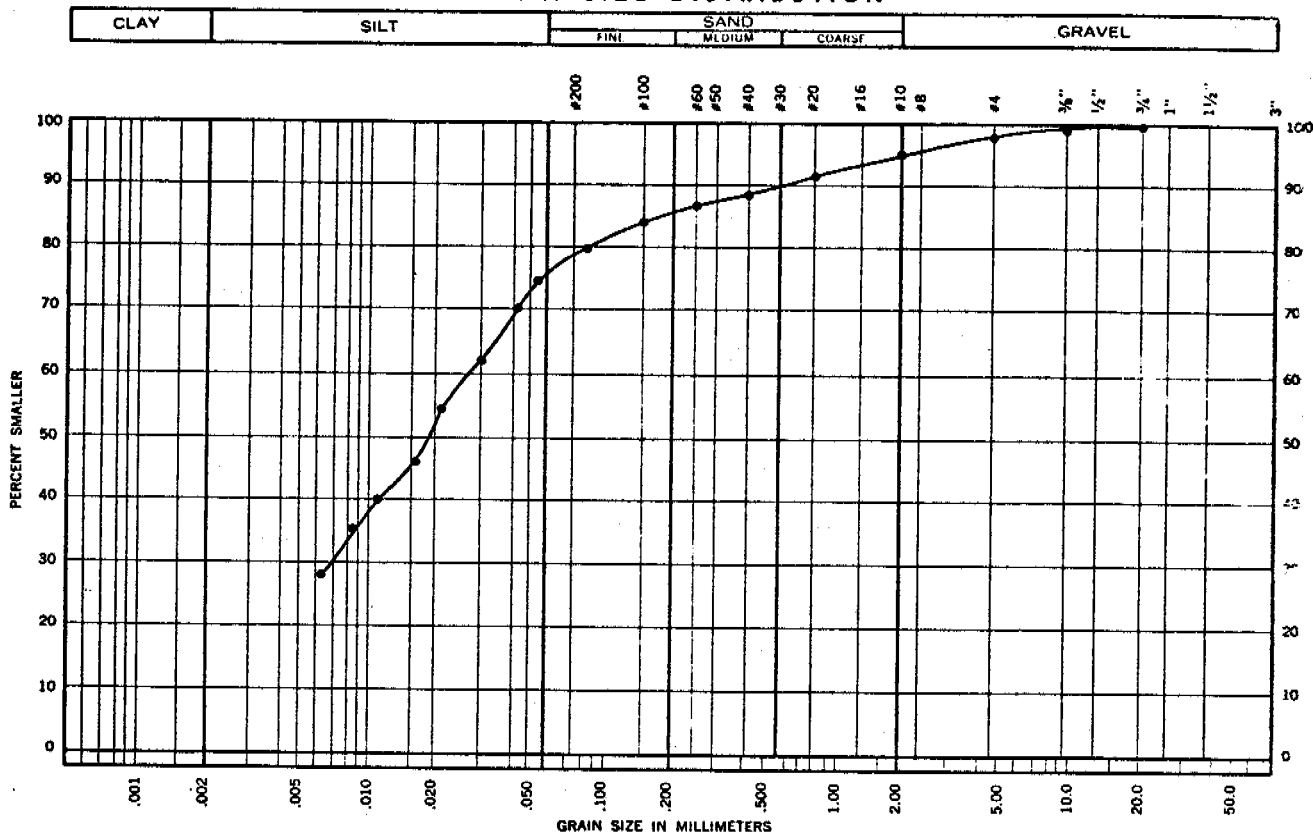
FIGURE



SAMPLE DESCRIPTION SILT, SANDY,
SOME CLAY, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 675-B-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

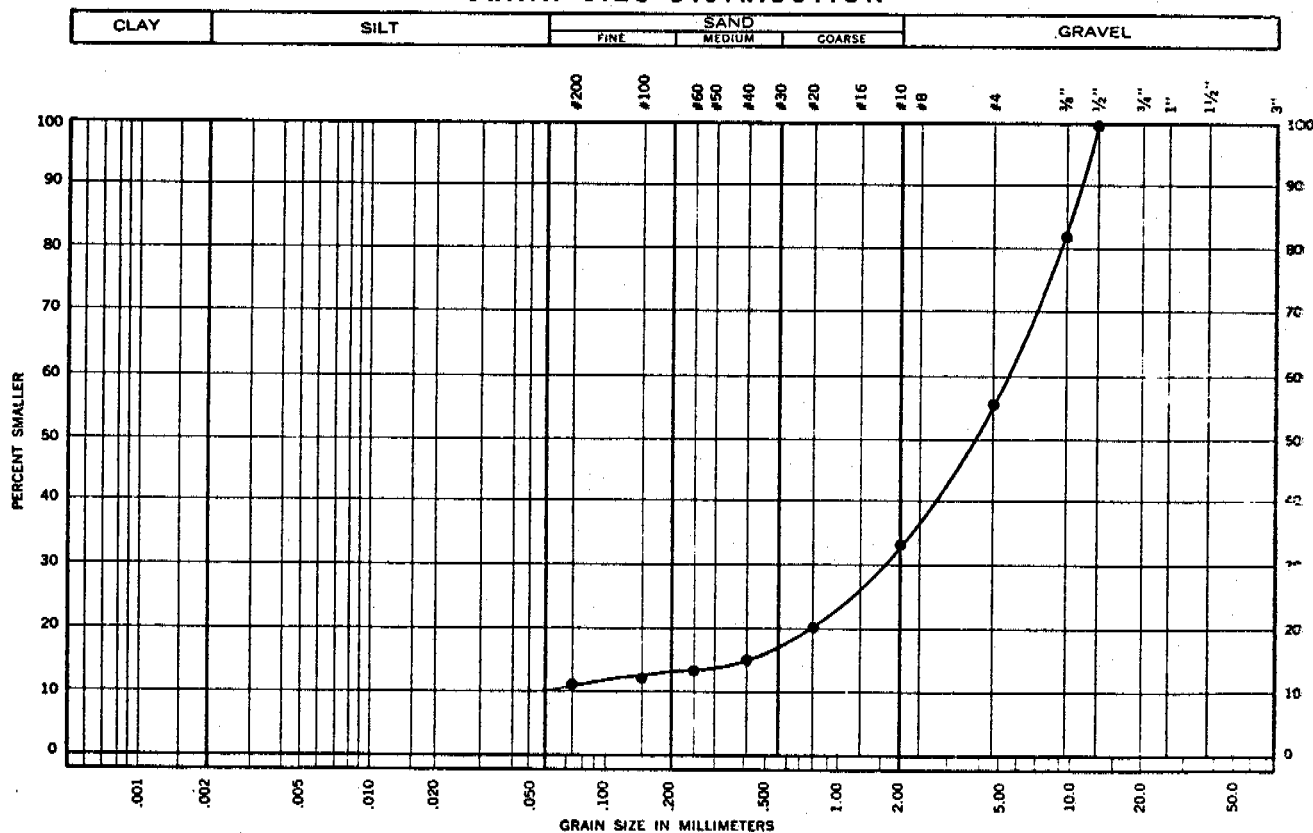


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILT, SOME SAND,
SOME CLAY, TRACE OF GRAVEL (TLL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30, 1973
SAMPLE No. 675-B-4
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

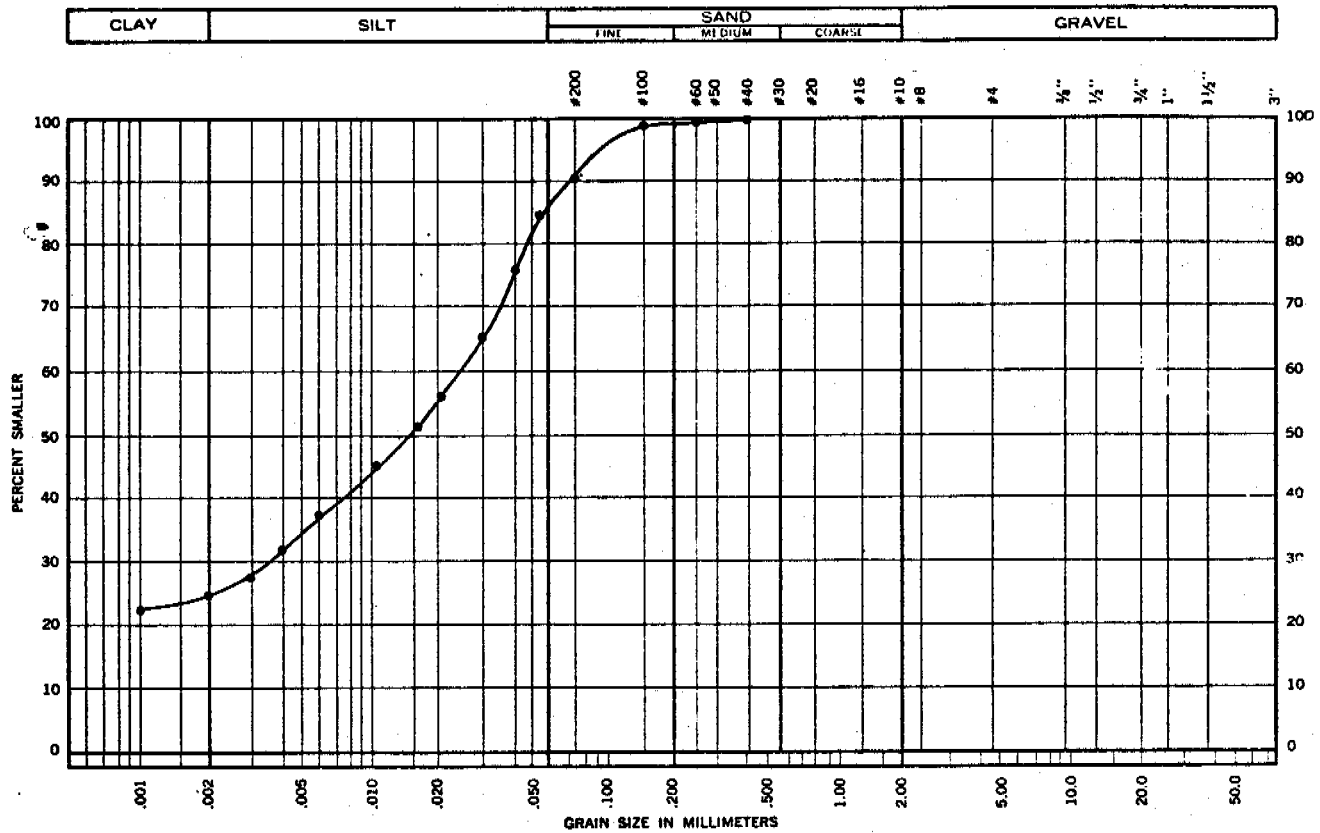


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY GRAVEL,
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30, 1973
SAMPLE No. 674-B-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



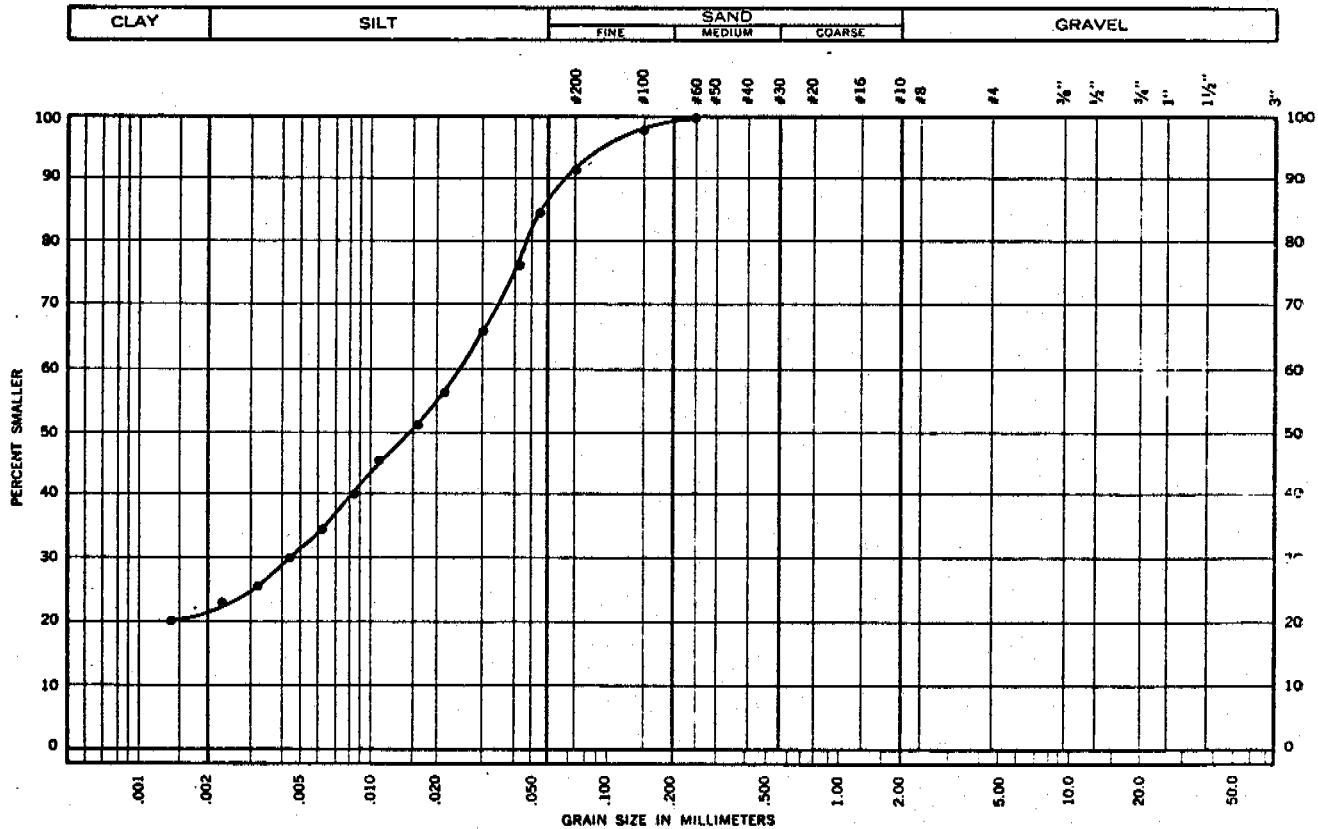
FIGURE



SAMPLE DESCRIPTION CLAY-SILT,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 674-B-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



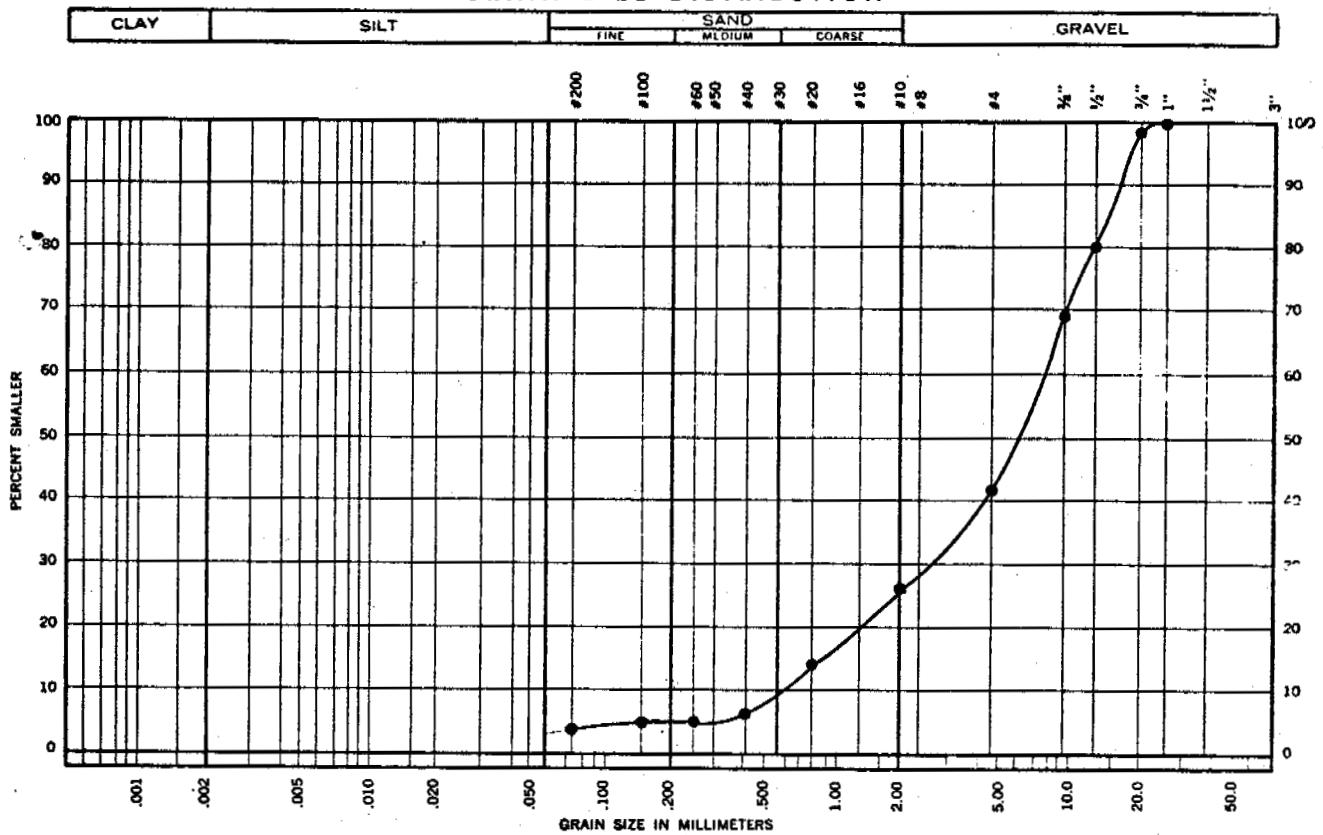
FIGURE



SAMPLE DESCRIPTION CLAY-SILT,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 673-B-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

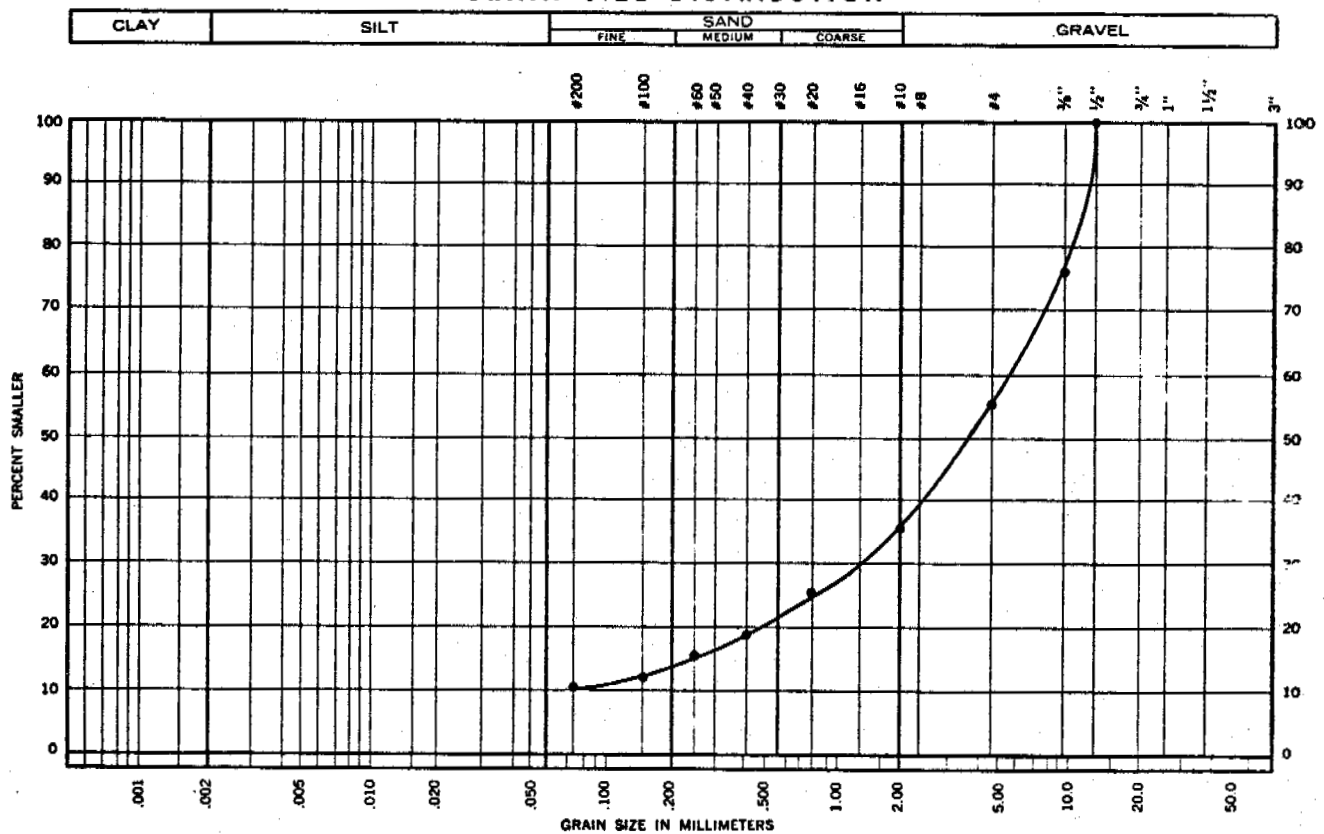


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY GRAVEL,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 20 1973
SAMPLE No. 670-B-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

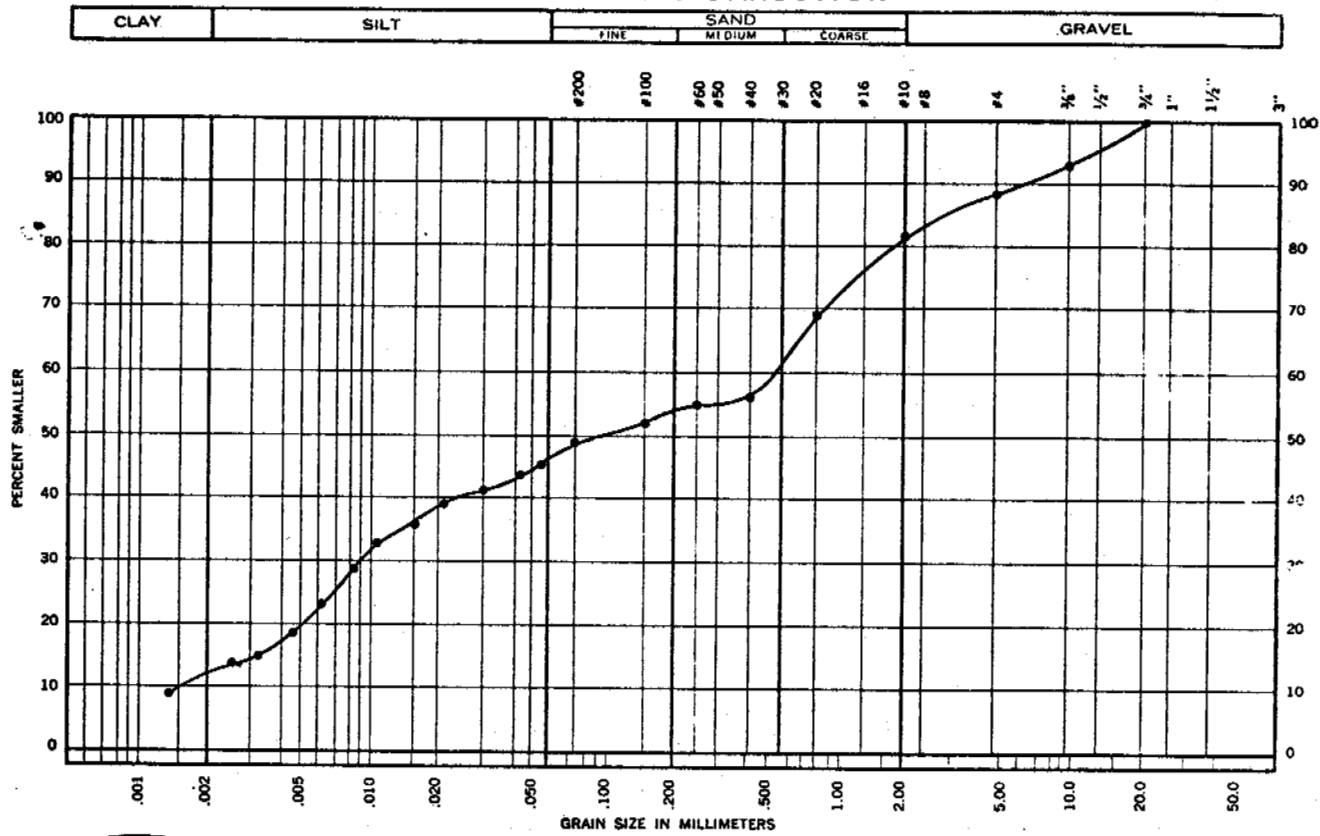


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY GRAVEL,
SOME SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 670-B-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

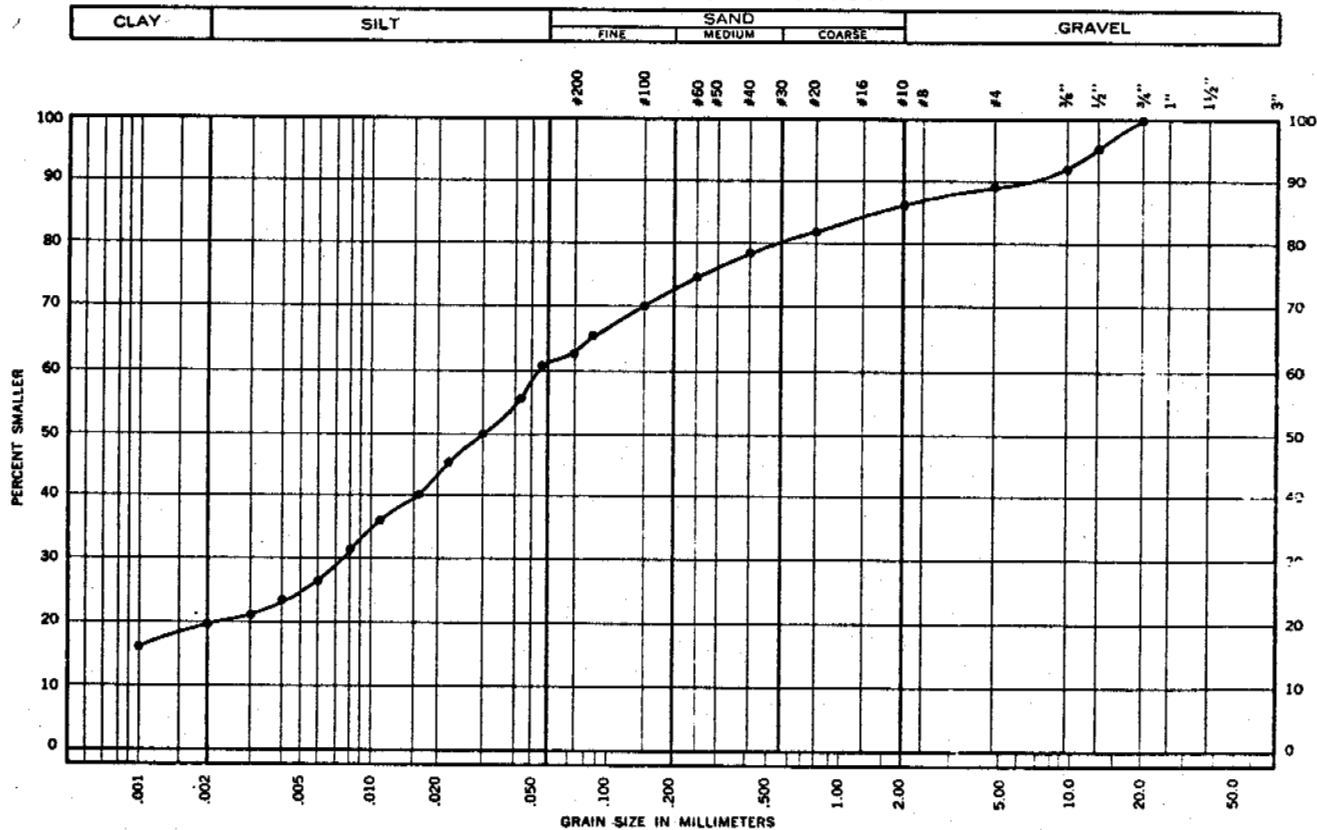


BROOKER & ASSOCIATES

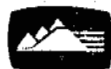
SAMPLE DESCRIPTION SAND AND SILT (TILL),
SOME GRAVEL AND CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 668-B-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

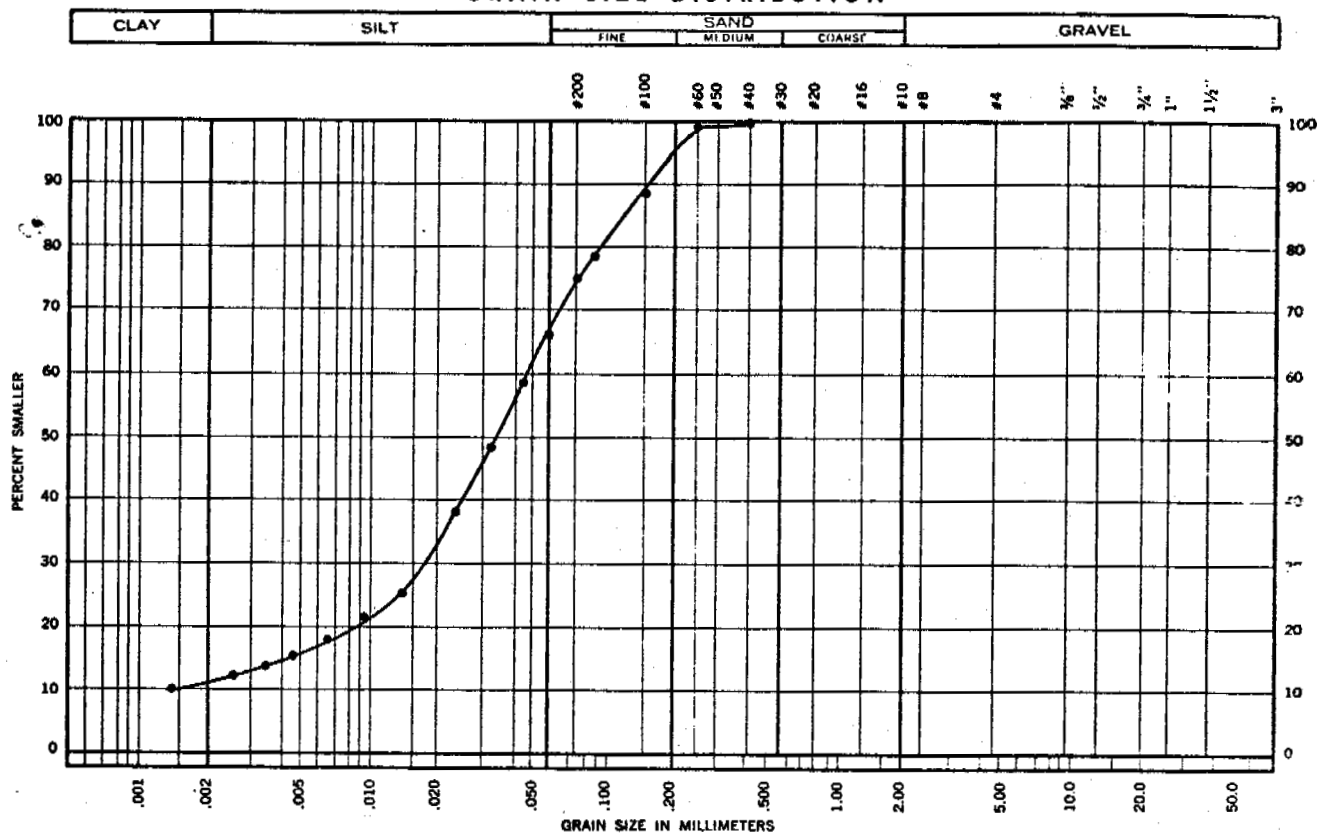


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY CLAY-SILT,
SOME GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 667-B-4
DEPTH 10'

GRAIN SIZE DISTRIBUTION



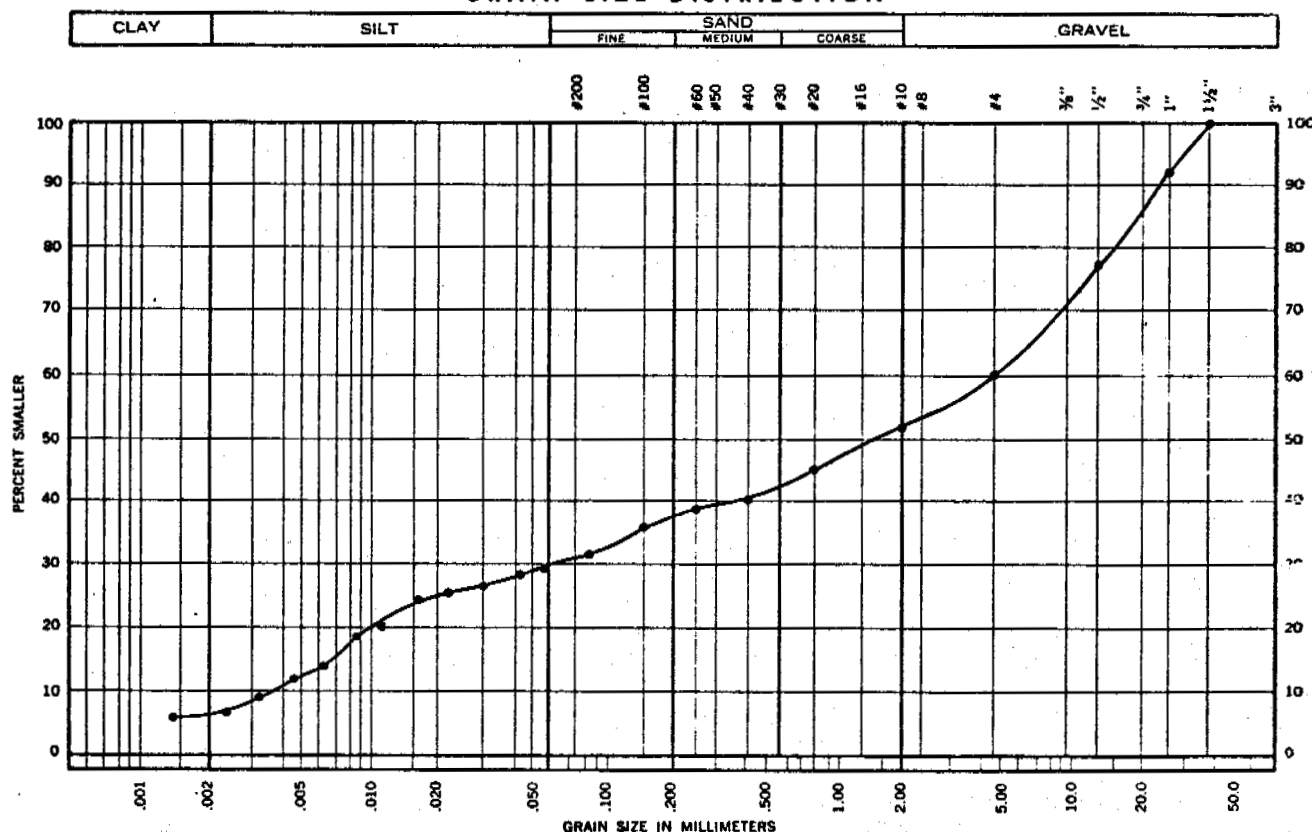
FIGURE



SAMPLE DESCRIPTION SANDY SILT,
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 30/73
SAMPLE No. 667-B-5
DEPTH 5'

GRAIN SIZE DISTRIBUTION



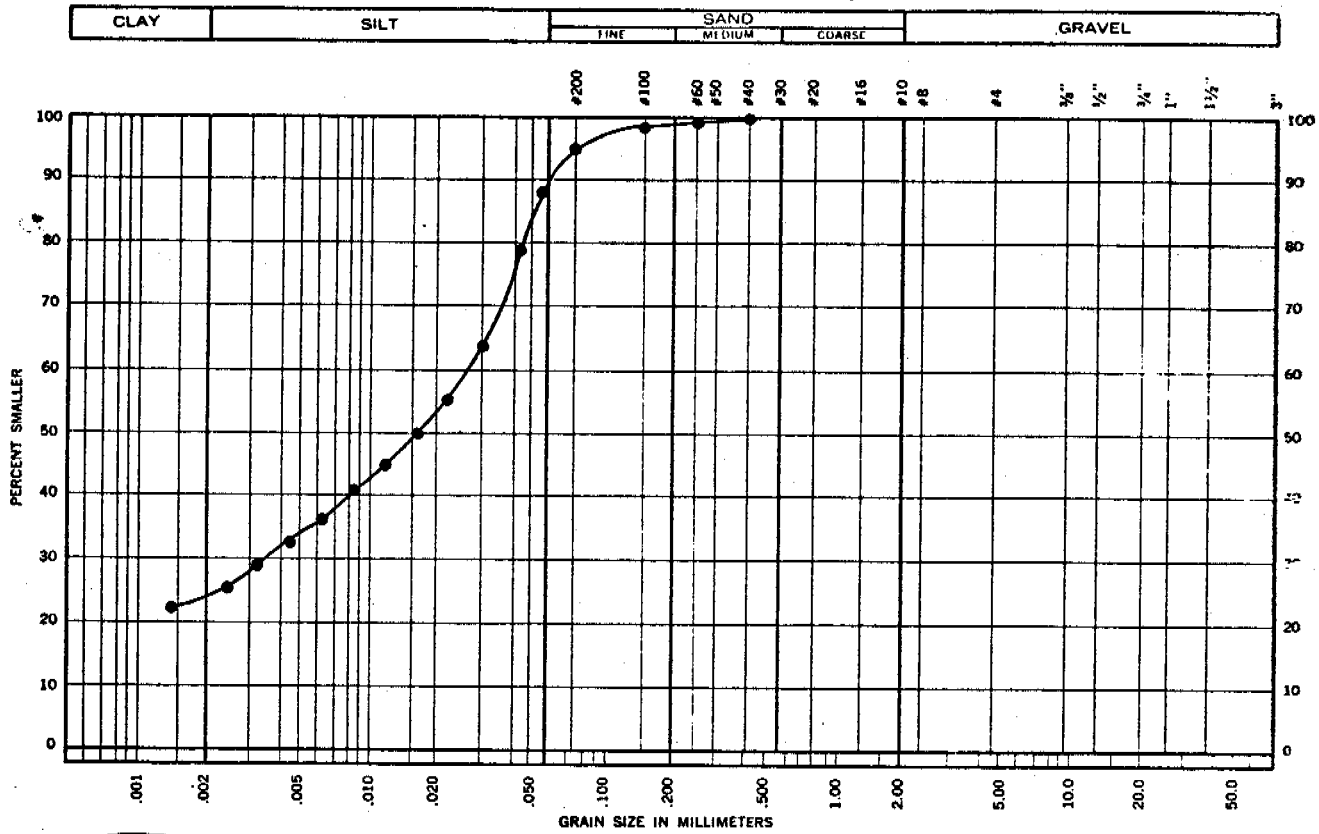
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
SILTY, TRACE OF CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 29/73
SAMPLE No. 667-B-7
DEPTH 5'

GRAIN SIZE DISTRIBUTION



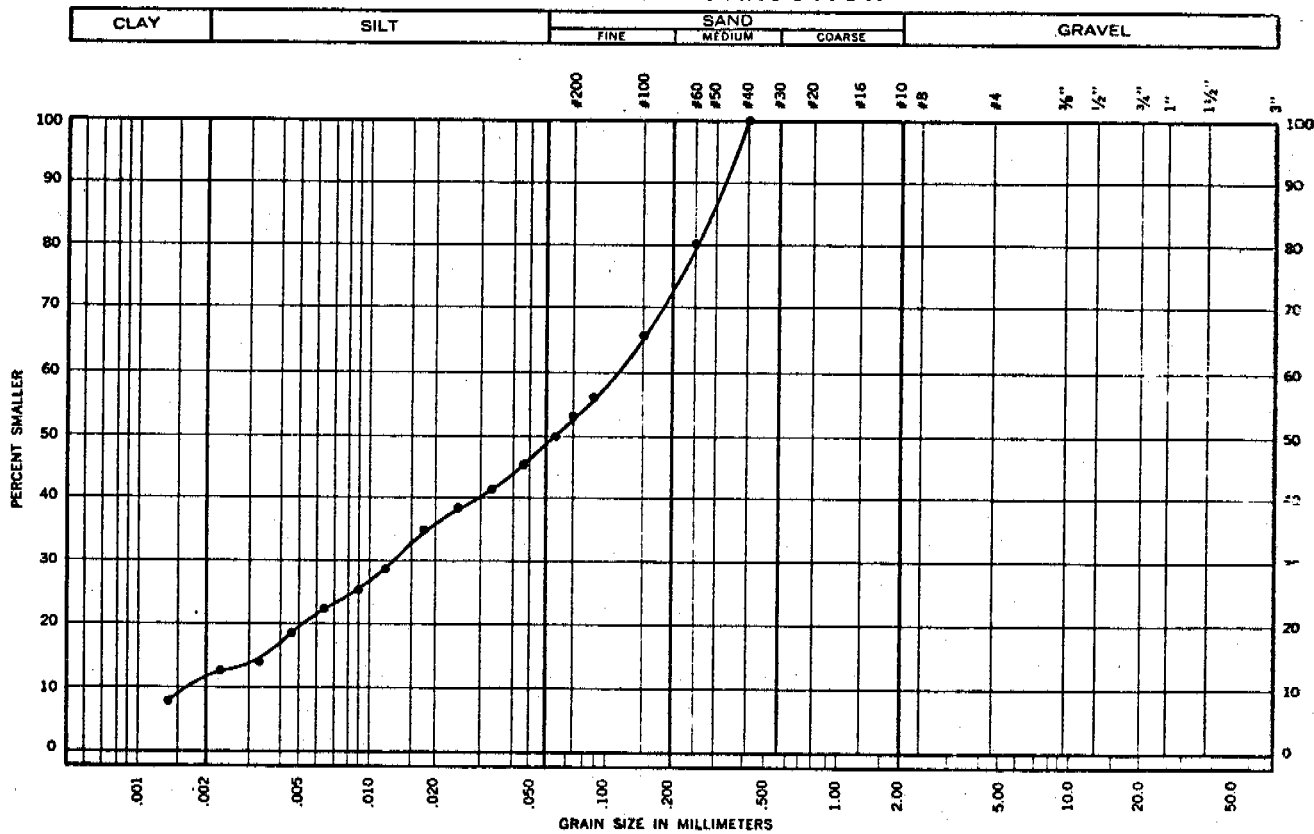
FIGURE



SAMPLE DESCRIPTION CLAY-SILT,
SOME SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 23/73
SAMPLE No. 667-B-10
DEPTH 5'

GRAIN SIZE DISTRIBUTION



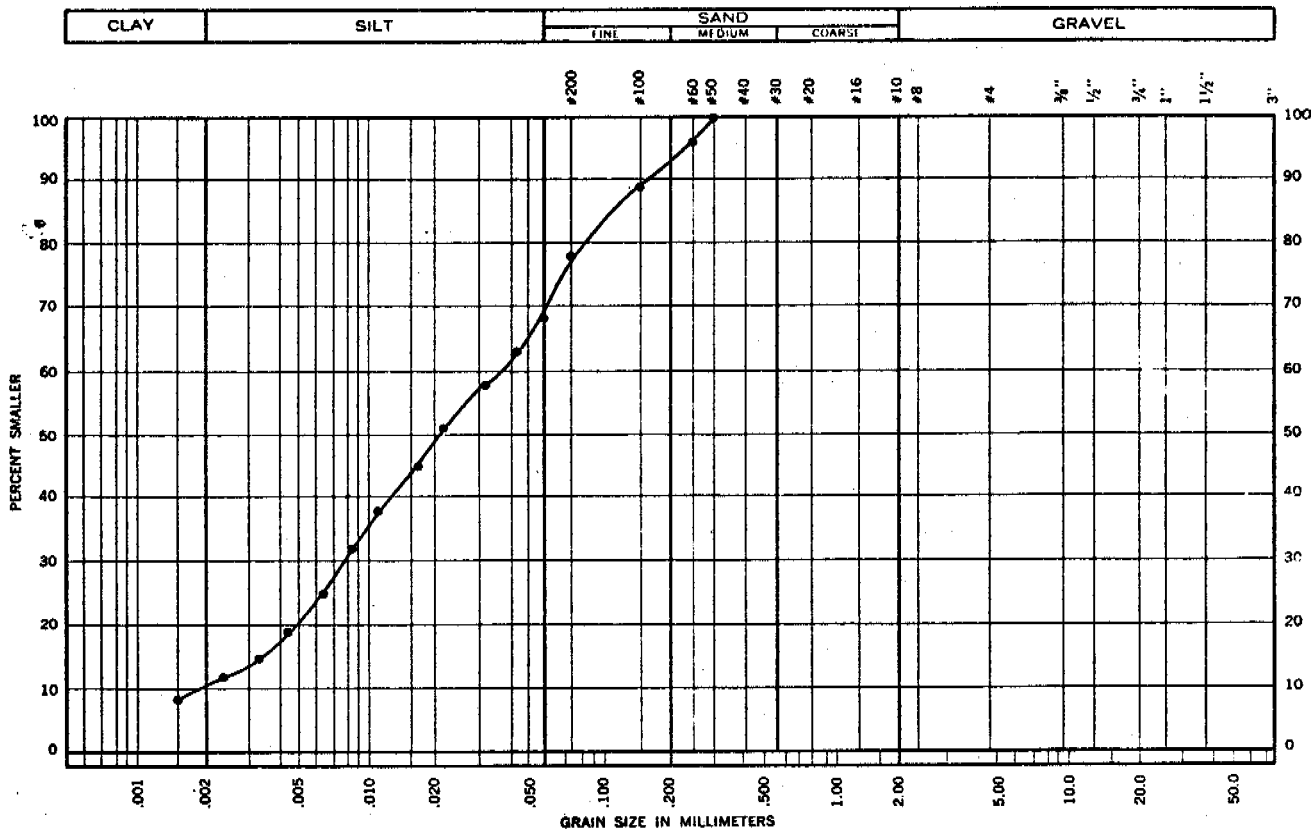
FIGURE



SAMPLE DESCRIPTION SAND, SILTY,
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 26/73
SAMPLE No. 666-B-1
DEPTH 5'

GRAIN SIZE DISTRIBUTION



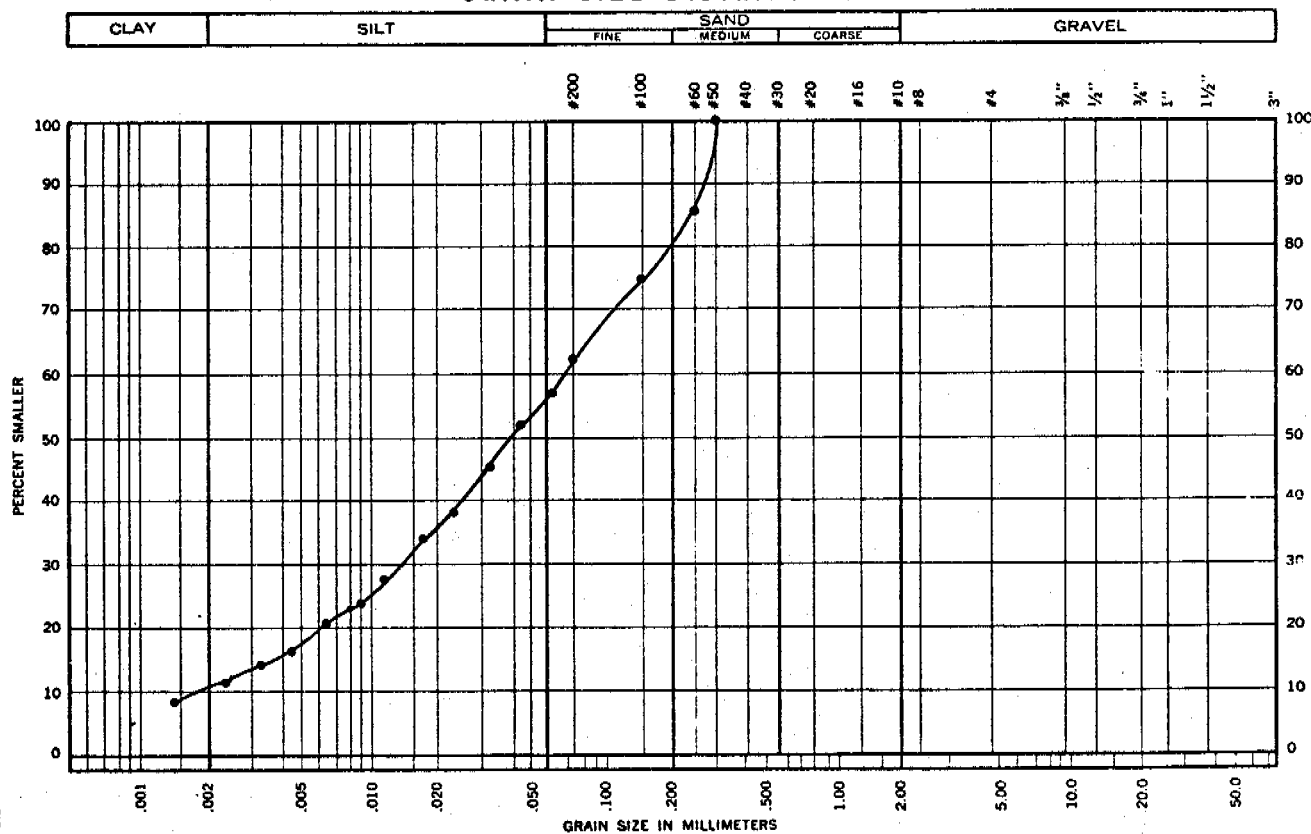
FIGURE



SAMPLE DESCRIPTION SILT, SANDY,
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 664-B-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



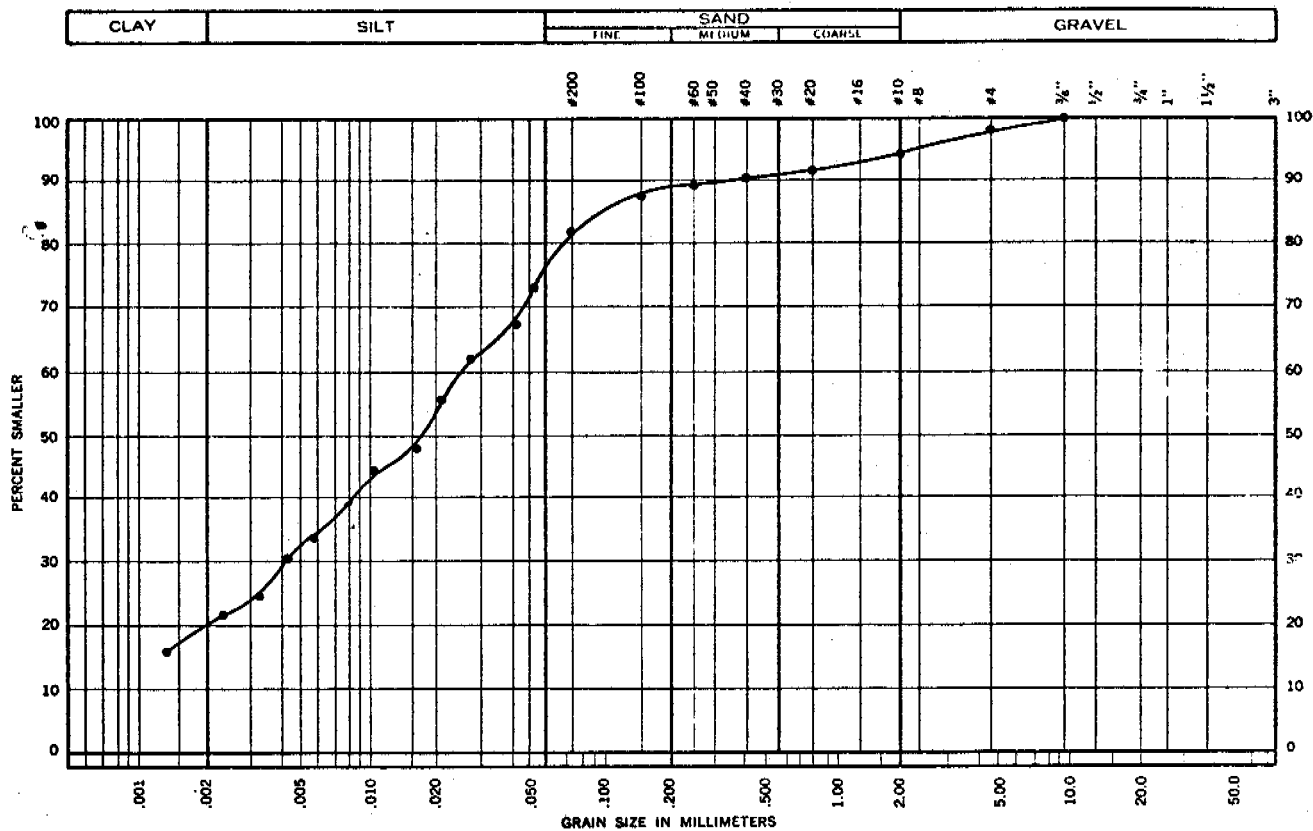
FIGURE



SAMPLE DESCRIPTION SILT AND SAND,
SOME CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E - 517 DATE April 9/73
SAMPLE No. 664-B-5
DEPTH 10'

GRAIN SIZE DISTRIBUTION



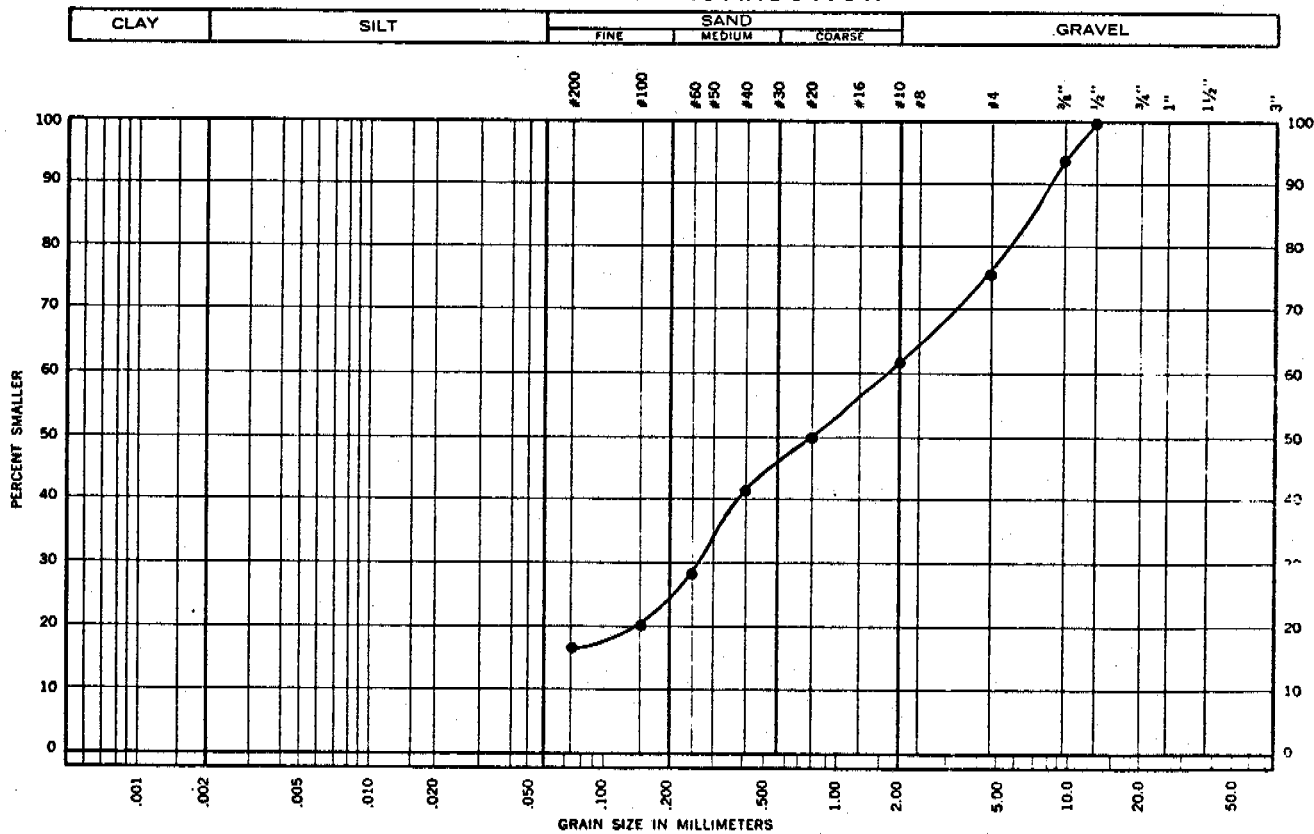
FIGURE



SAMPLE DESCRIPTION SILT, SOME CLAY
AND SAND, TRACE OF GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 7/73
SAMPLE No. 664-B-6
DEPTH 10'

GRAIN SIZE DISTRIBUTION



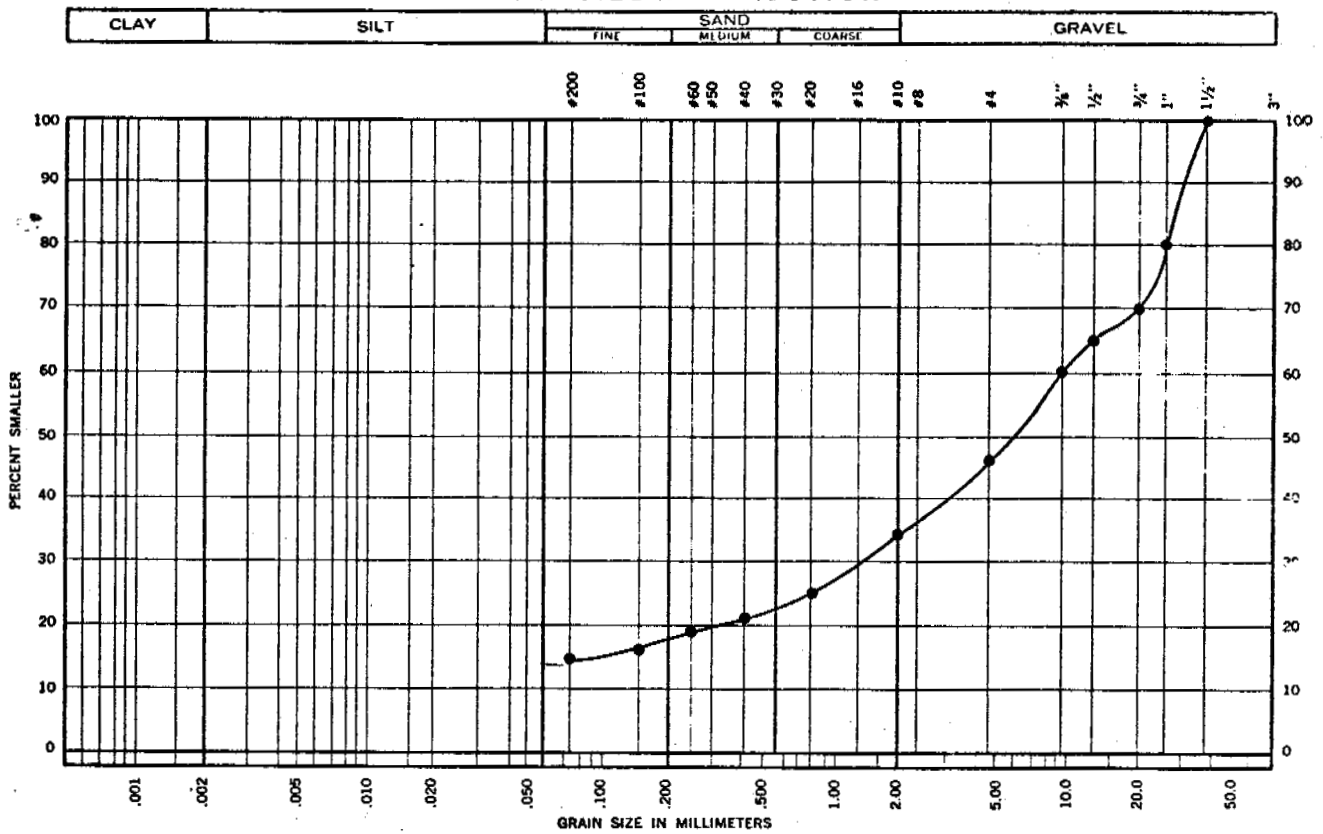
FIGURE



SAMPLE DESCRIPTION SAND AND GRAVEL,
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 20 1973
SAMPLE No. 662-B-4
DEPTH 5'

GRAIN SIZE DISTRIBUTION



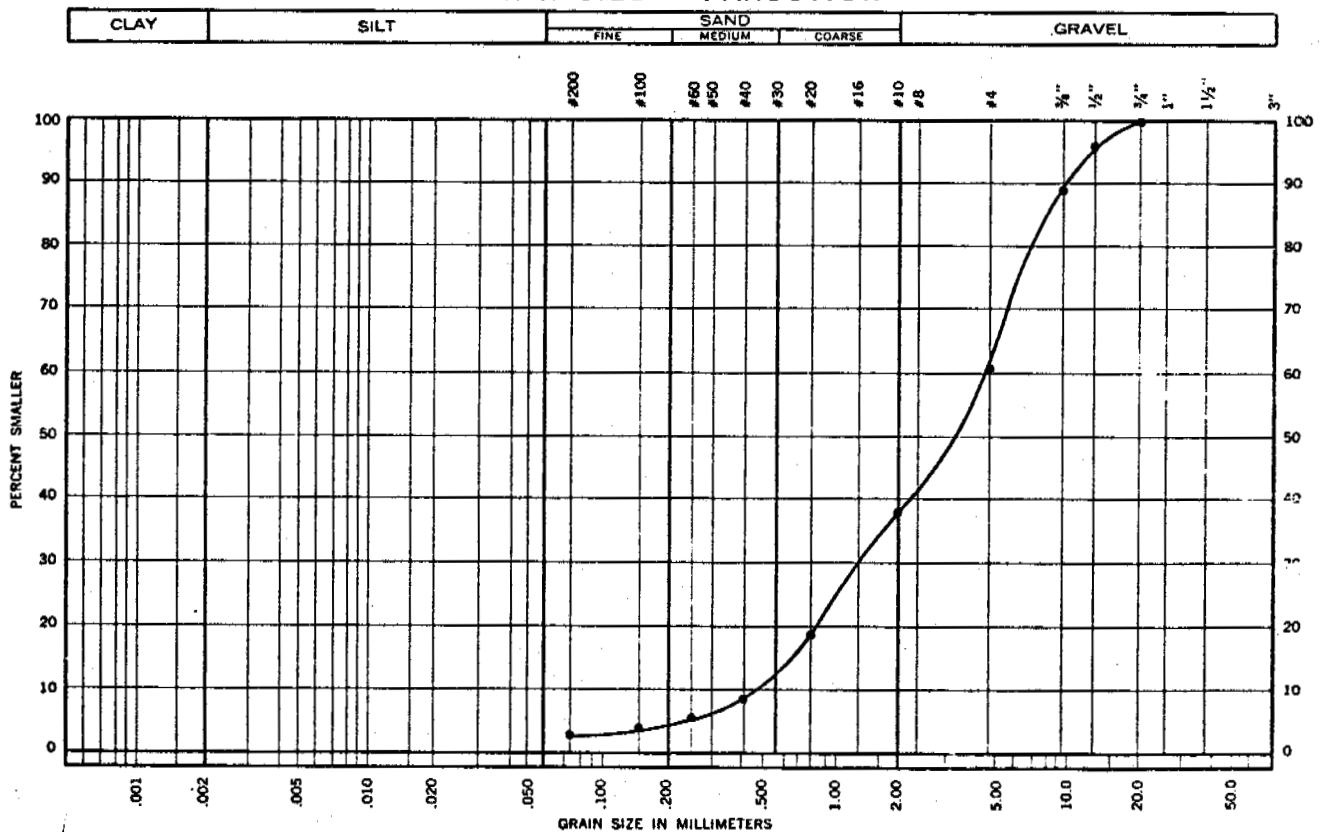
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE MARCH 20 1973
SAMPLE No. 662-B-7
DEPTH 10'

GRAIN SIZE DISTRIBUTION



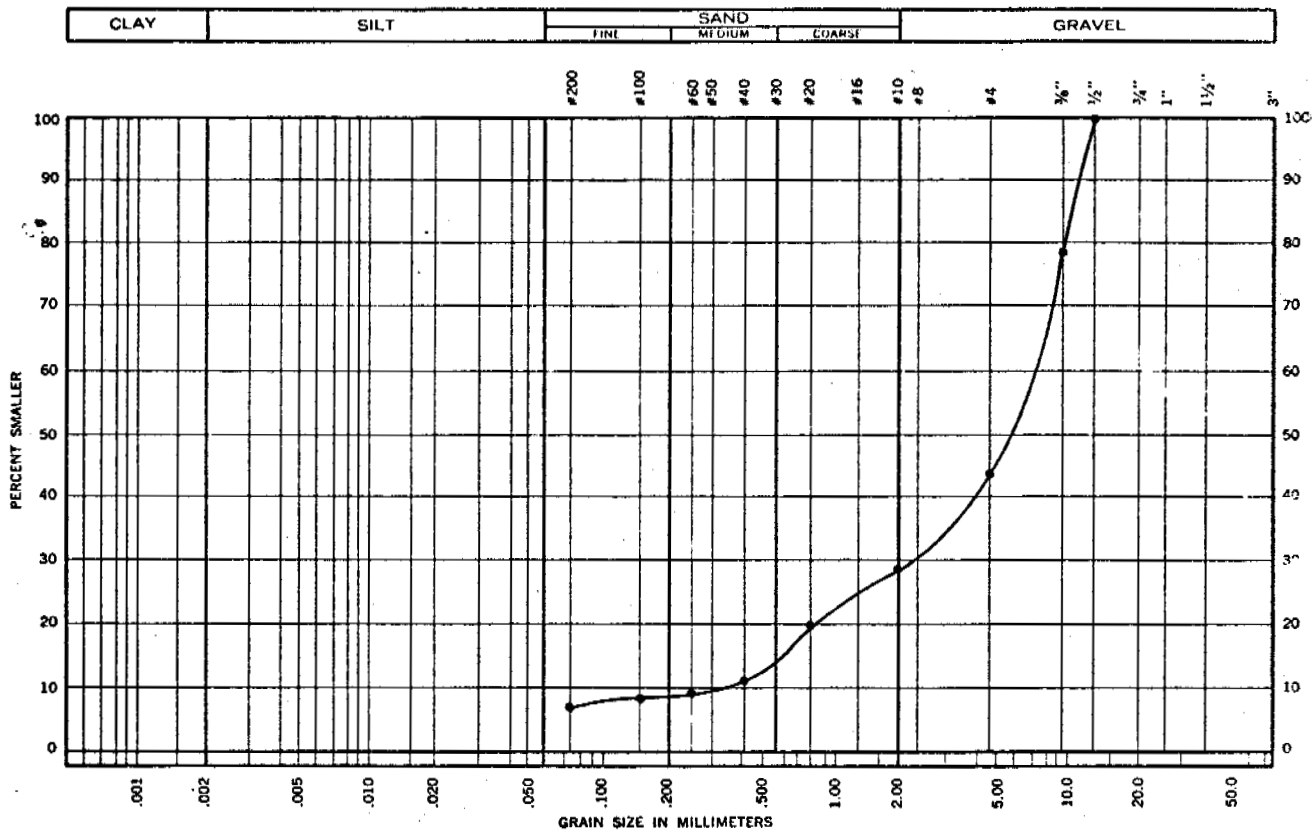
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 658-B-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



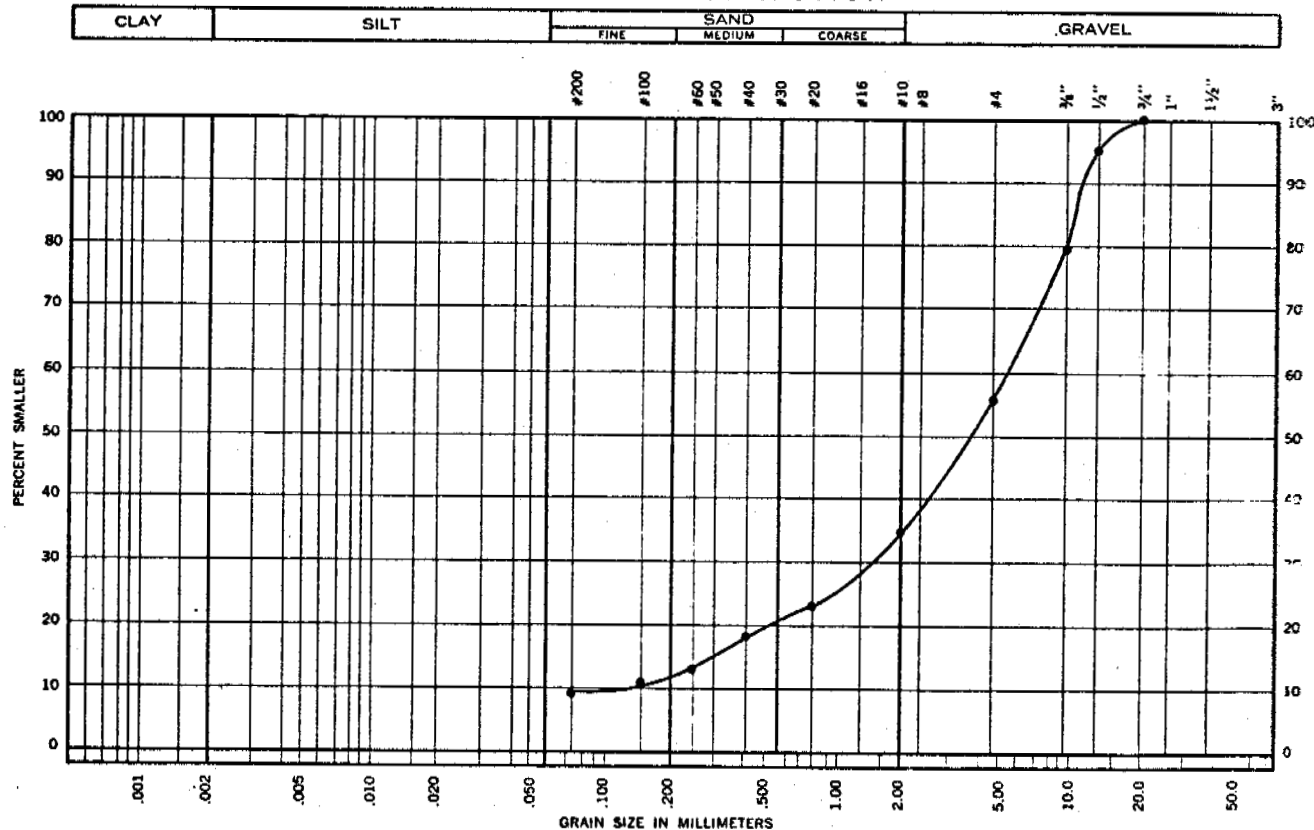
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 658-B-3
DEPTH 18'

GRAIN SIZE DISTRIBUTION



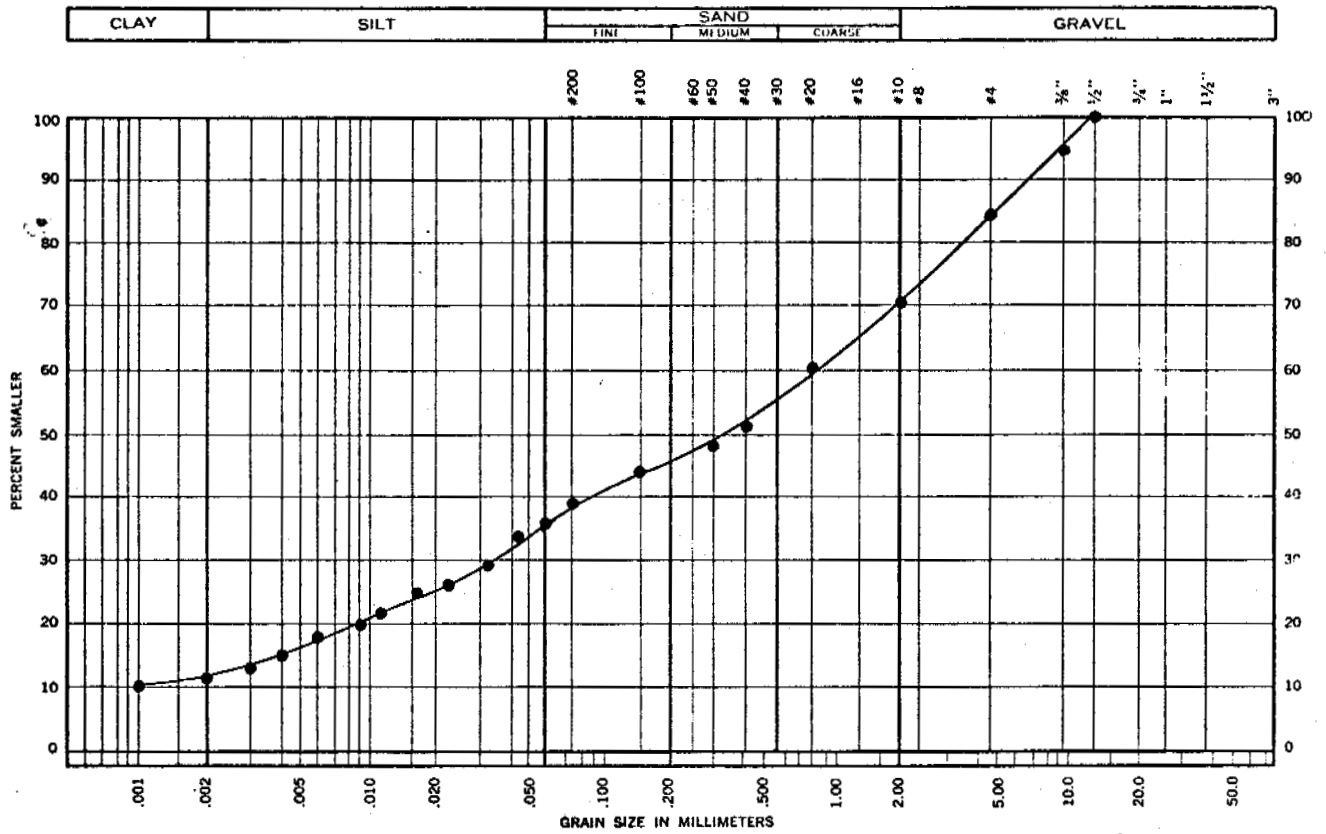
FIGURE



SAMPLE DESCRIPTION GRAVEL, SANDY,
TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 658-B-5
DEPTH 5

GRAIN SIZE DISTRIBUTION



FIGURE

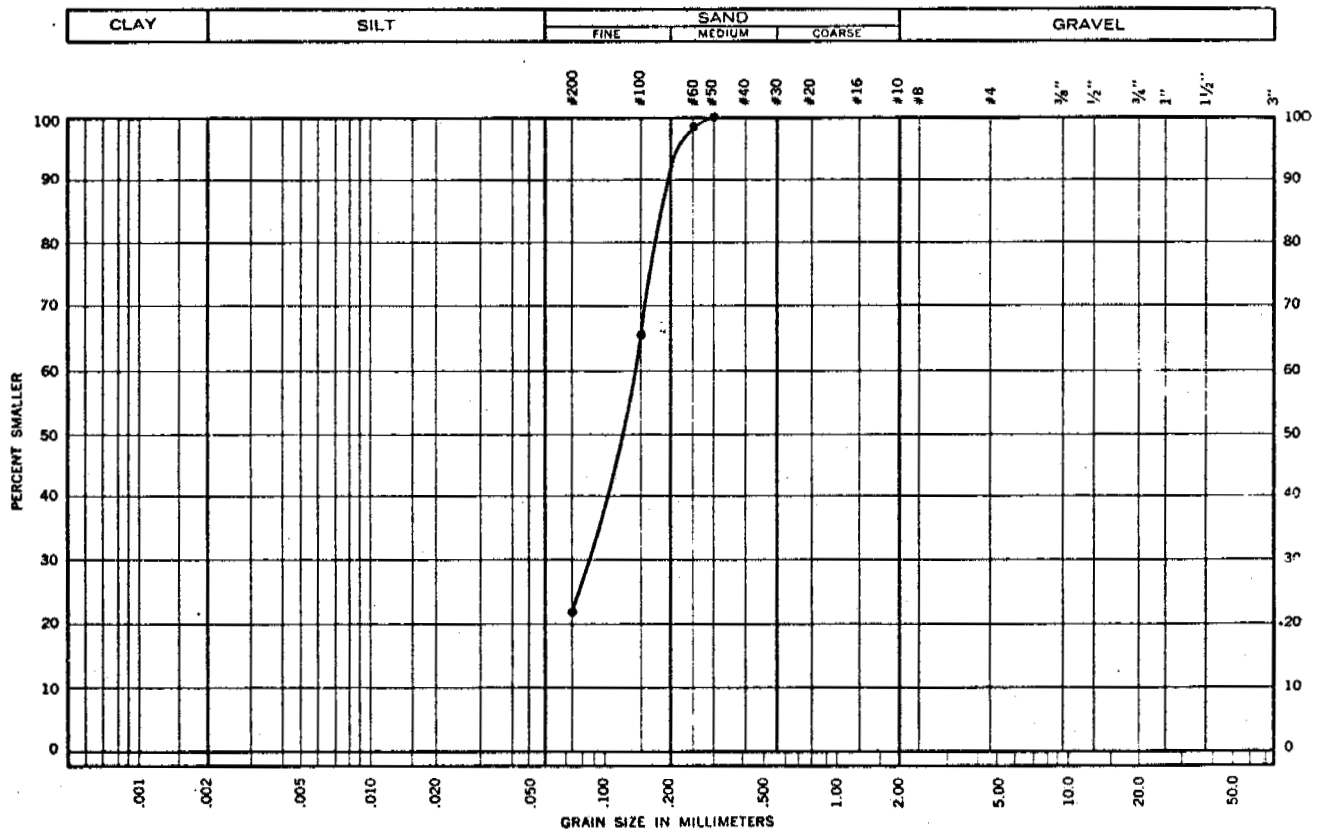


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION GRAVELLY SAND
SILTY, SOME CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 637-B-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

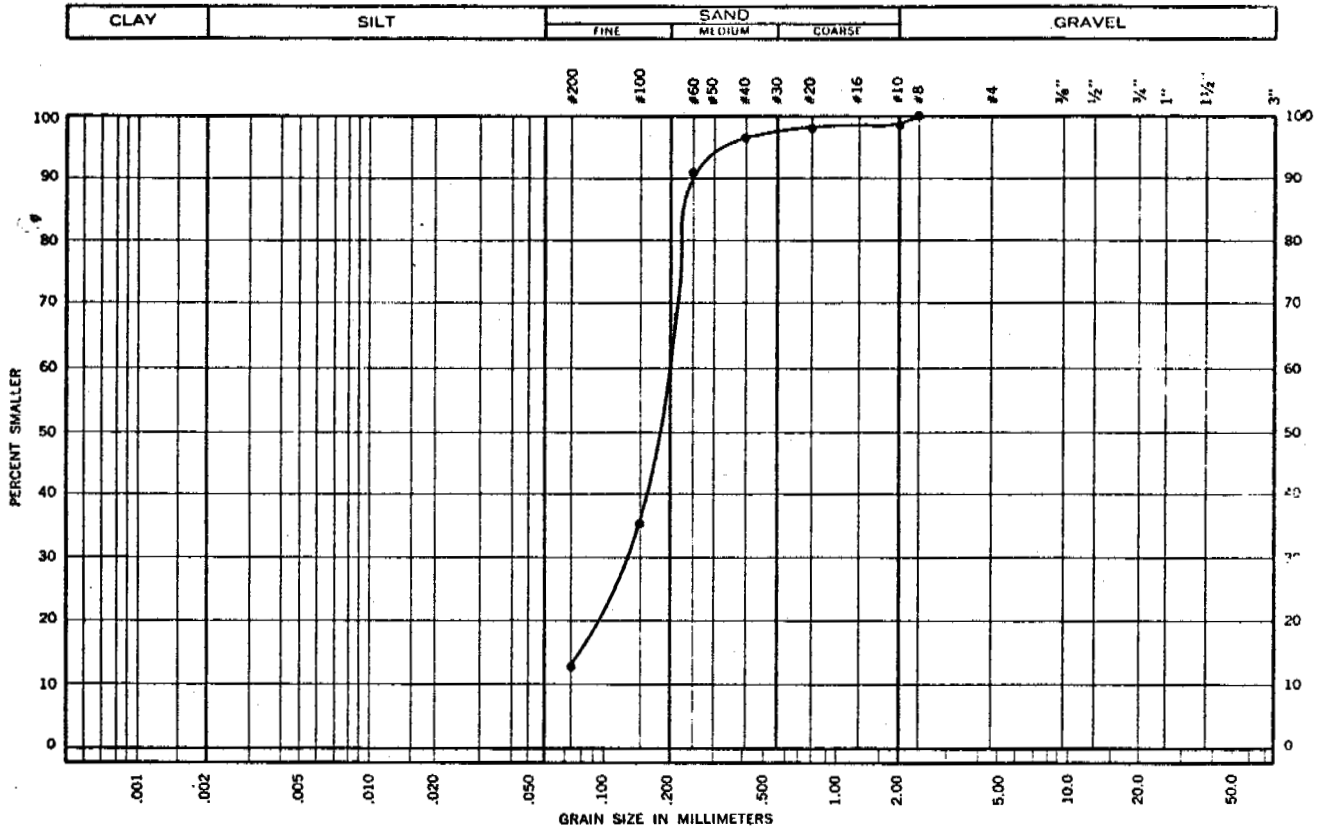


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, POORLY
GRADED

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 656-B-2
DEPTH 10'

GRAIN SIZE DISTRIBUTION



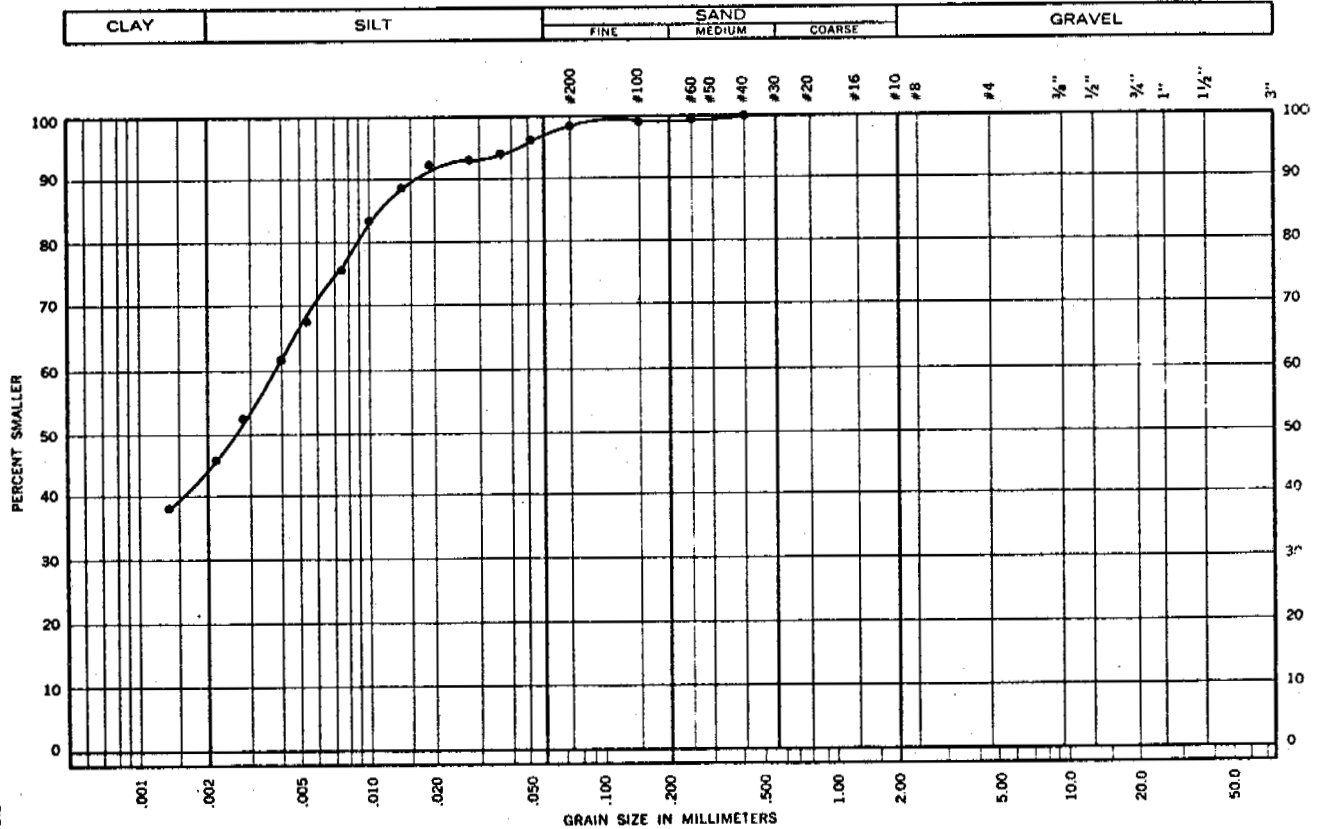
FIGURE



SAMPLE DESCRIPTION SAND, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 654-B-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



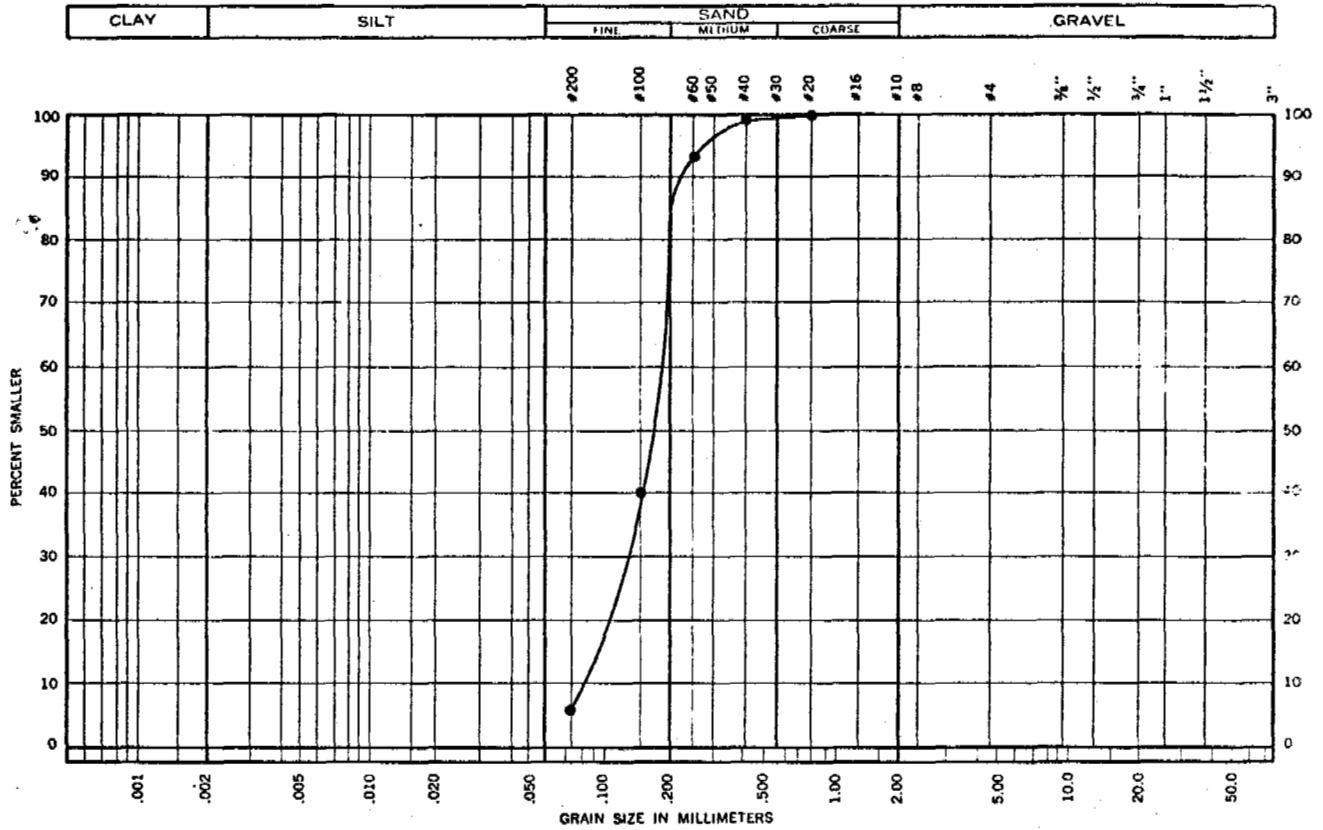
FIGURE



SAMPLE DESCRIPTION SILTY CLAY, TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 9/73
 SAMPLE No. 654-B-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



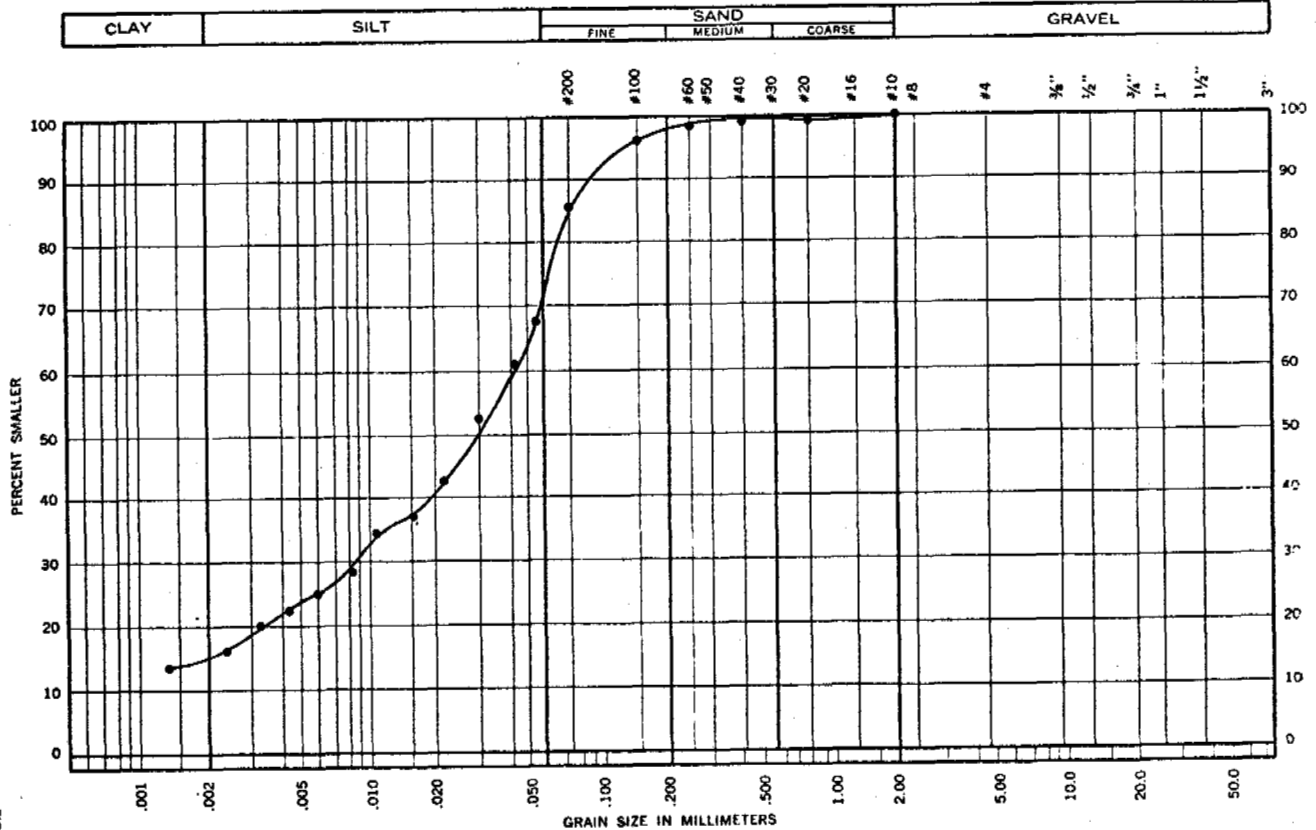
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE MARCH 20 1973
 SAMPLE No. 653-B-3
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



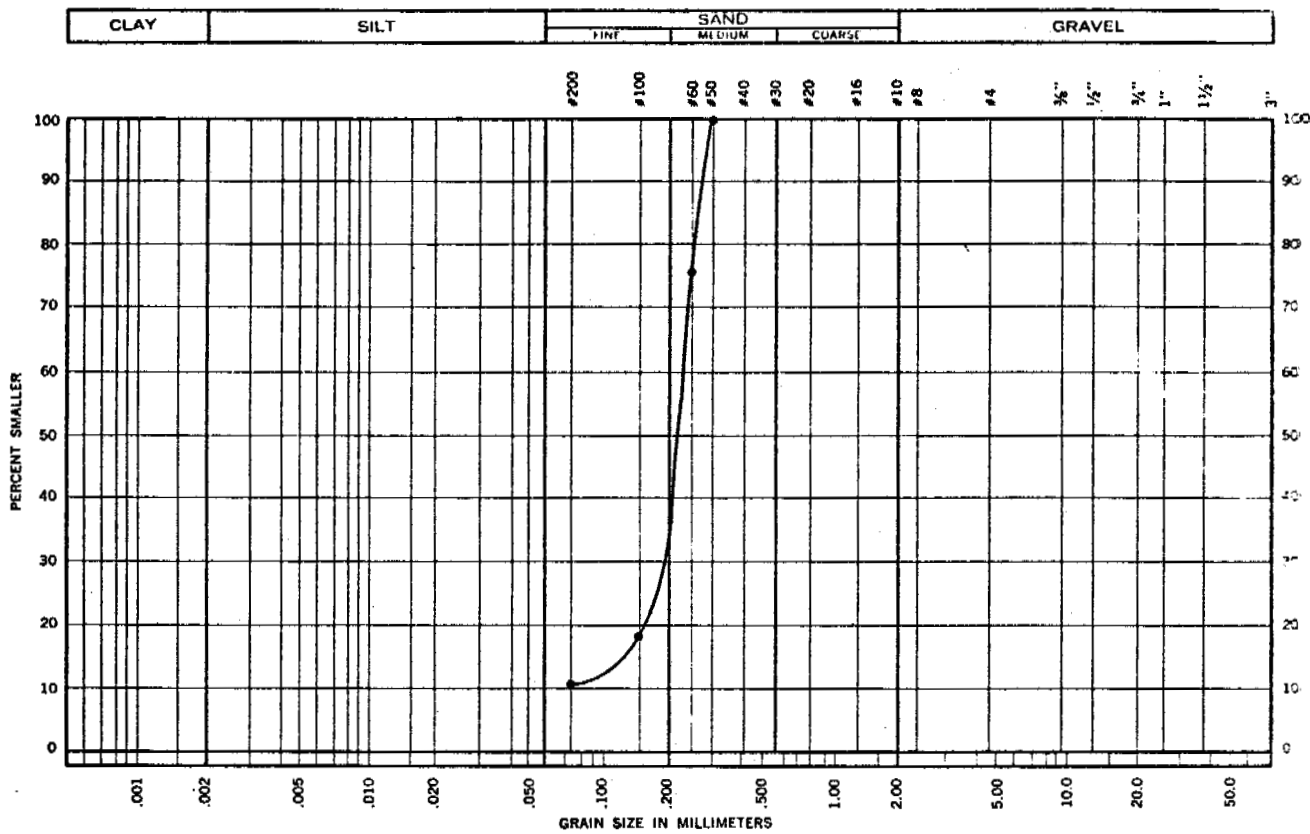
FIGURE



SAMPLE DESCRIPTION SILT, SANDY, SOME CLAY

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 7/73
 SAMPLE No. 652-B-1
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



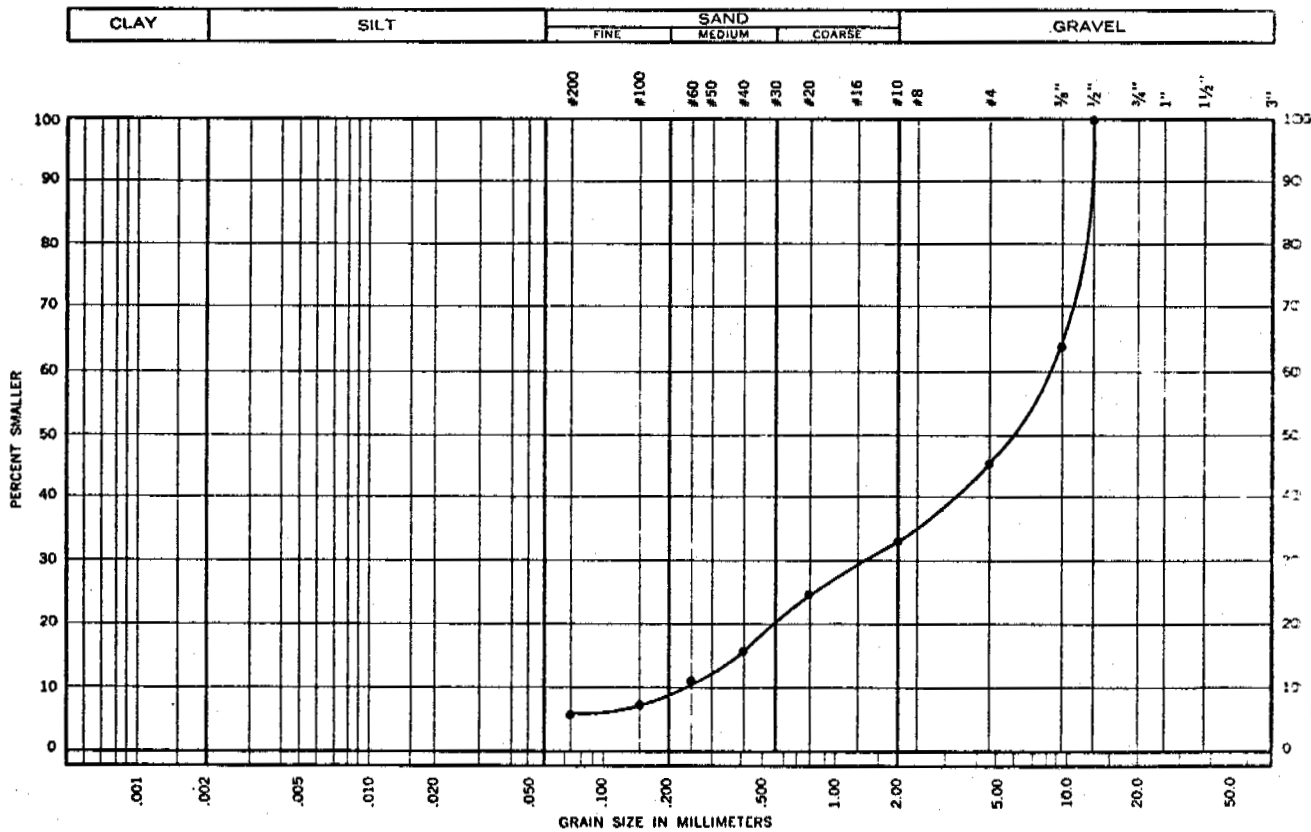
FIGURE



SAMPLE DESCRIPTION SAND, POORLY
GRADED, SOME SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 5/73
SAMPLE No. 652-B-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



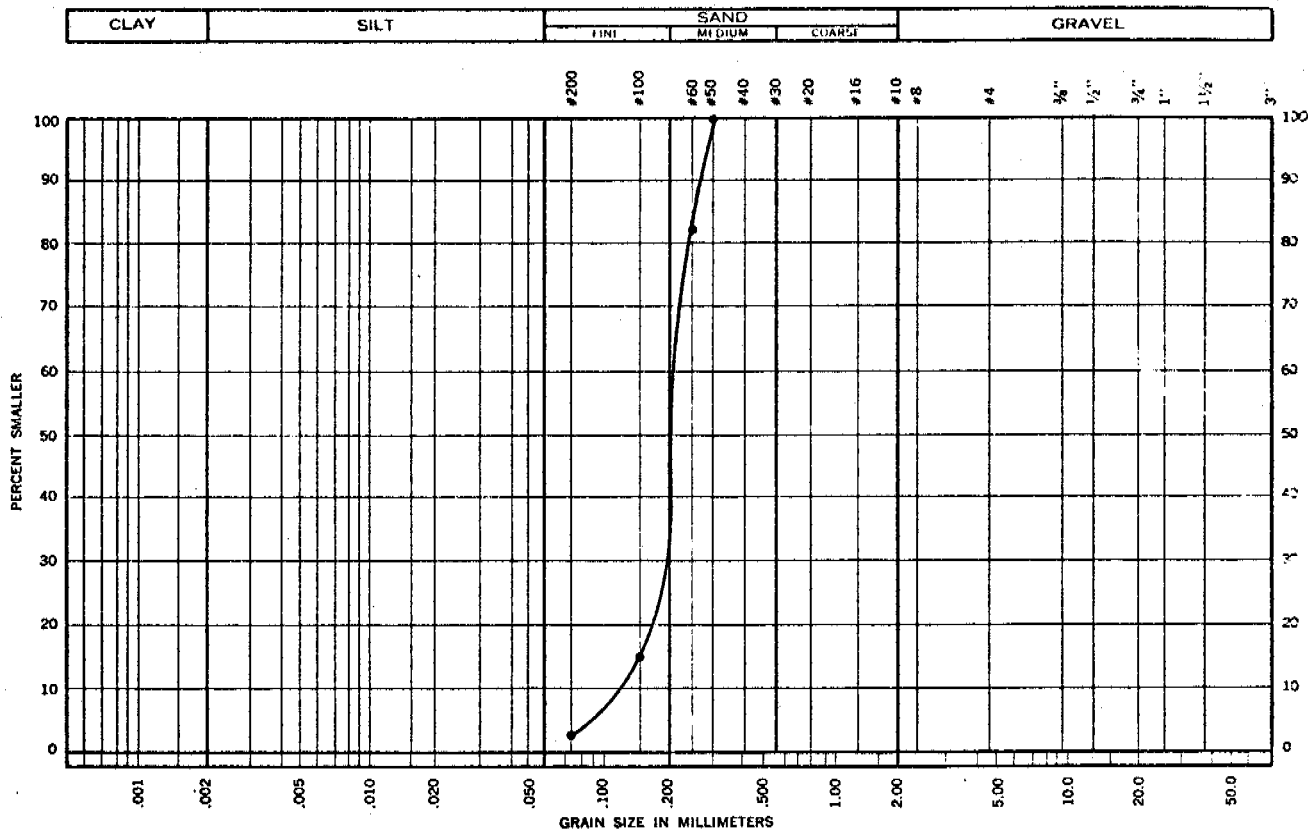
FIGURE



SAMPLE DESCRIPTION SANDY GRAVEL, TRACE
OF SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 649-B-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

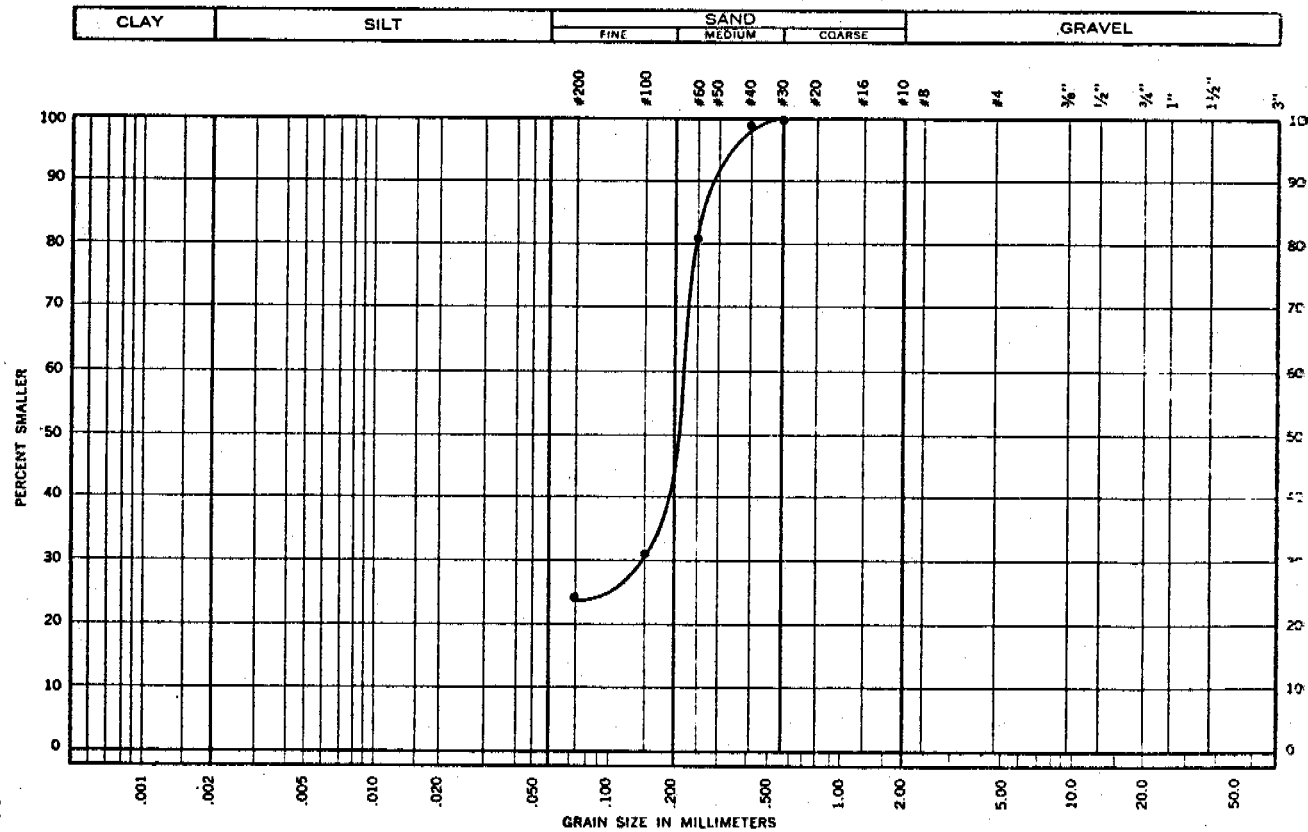


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 9/73
 SAMPLE No. 648-B-1
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

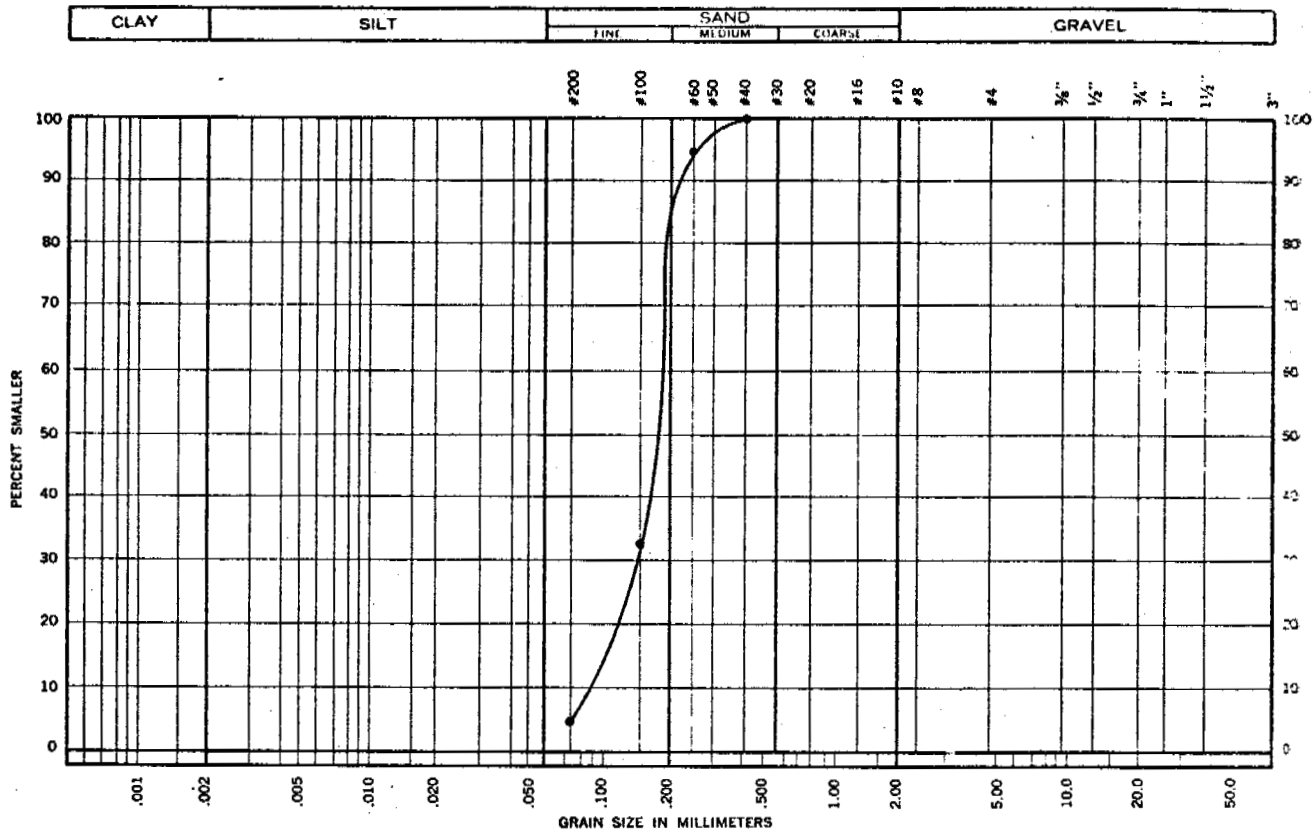


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 4/73
 SAMPLE No. 647-B-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



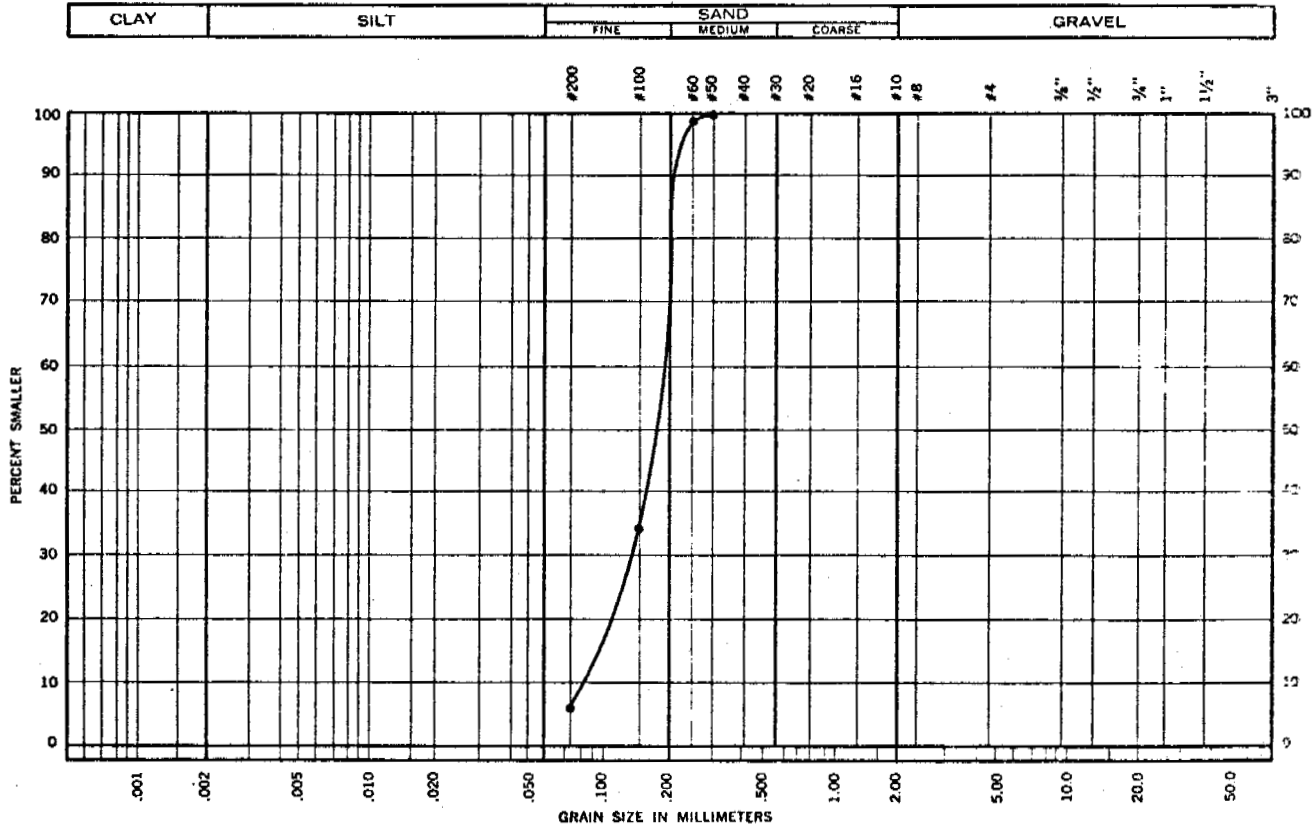
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 646-B-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



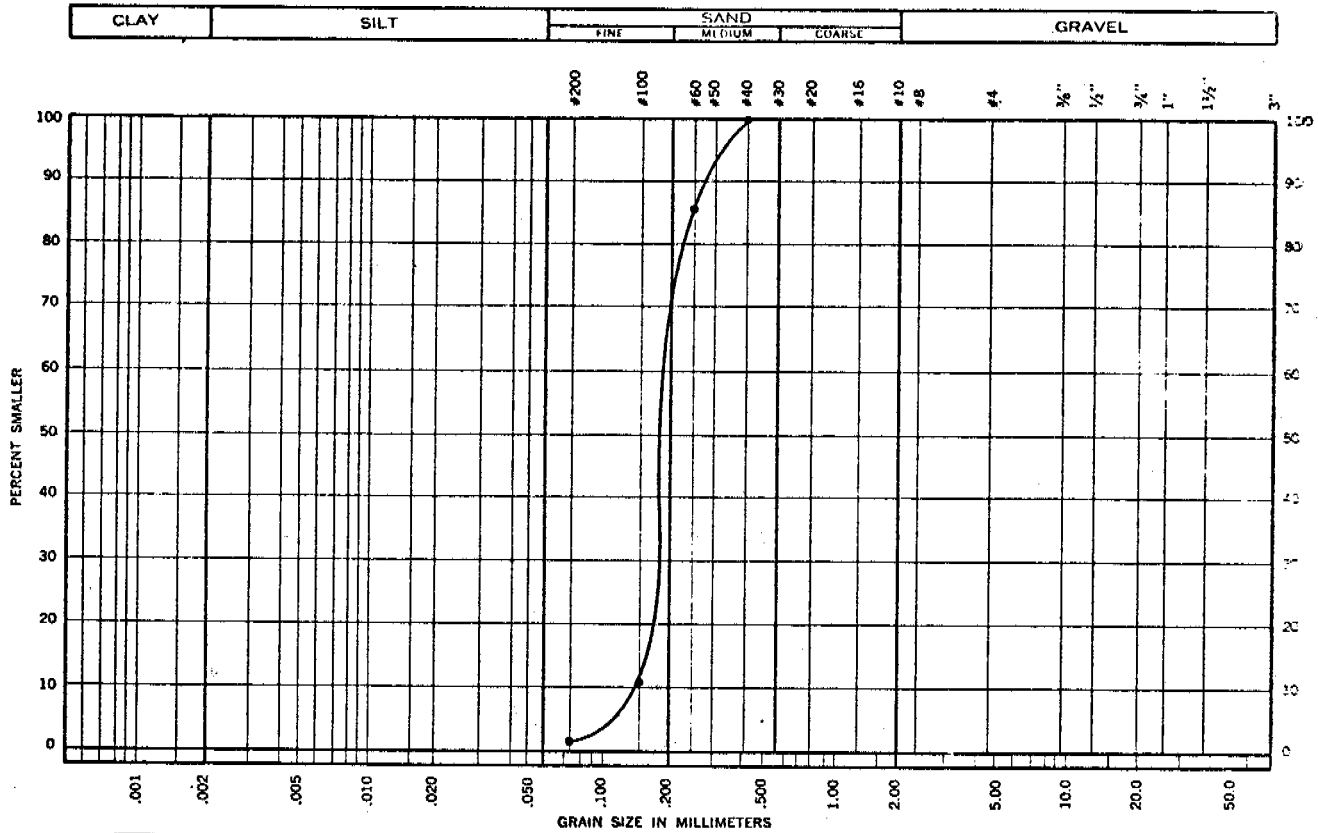
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 646-B-3
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



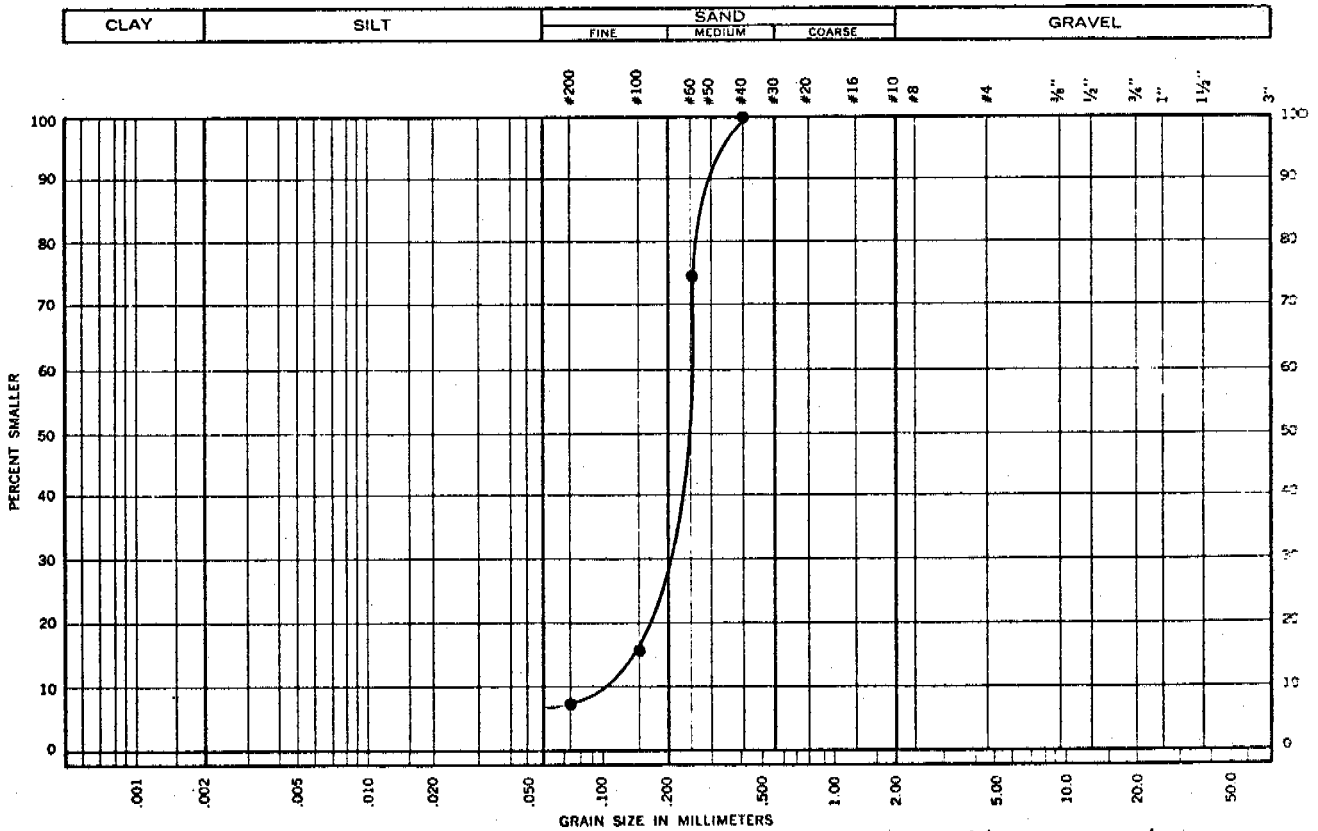
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 646-B-4A
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



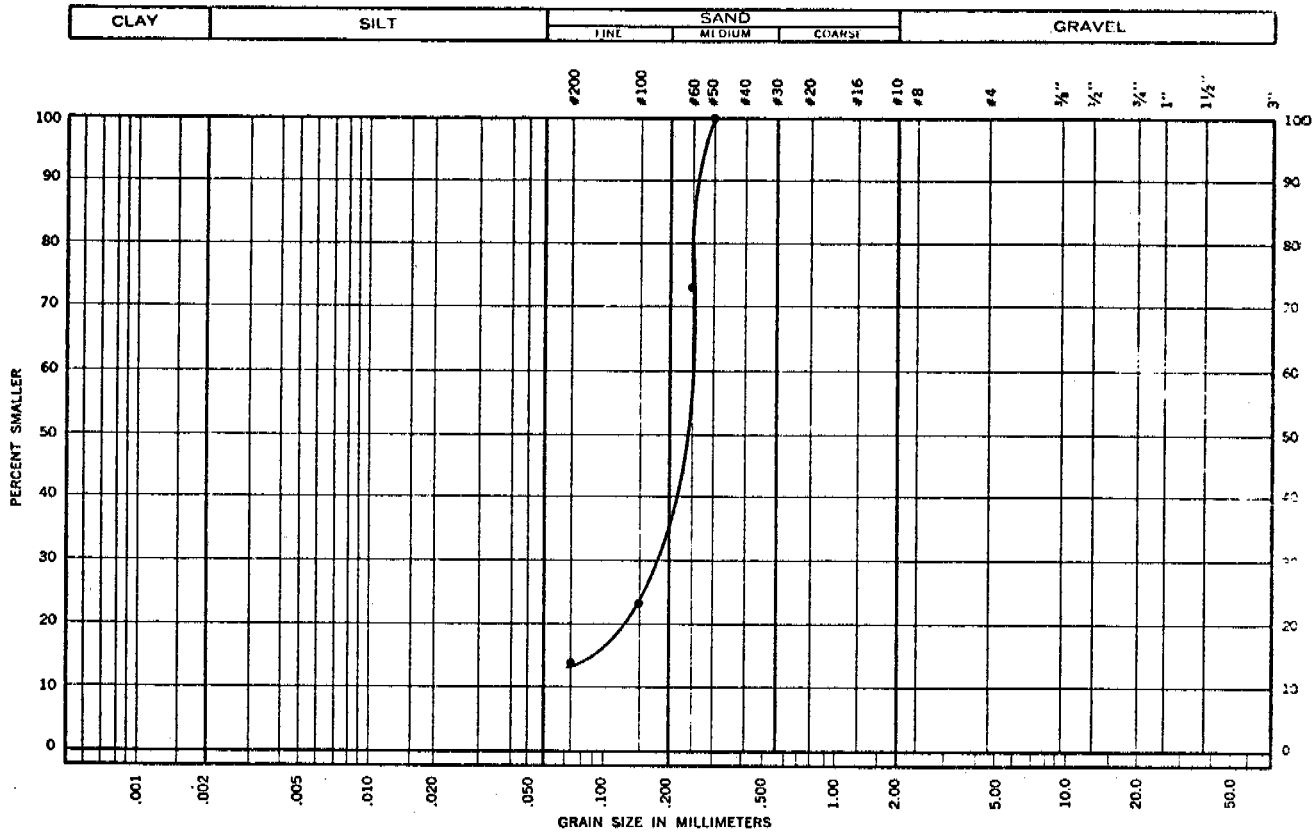
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 12/73
 SAMPLE No. 645-B-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

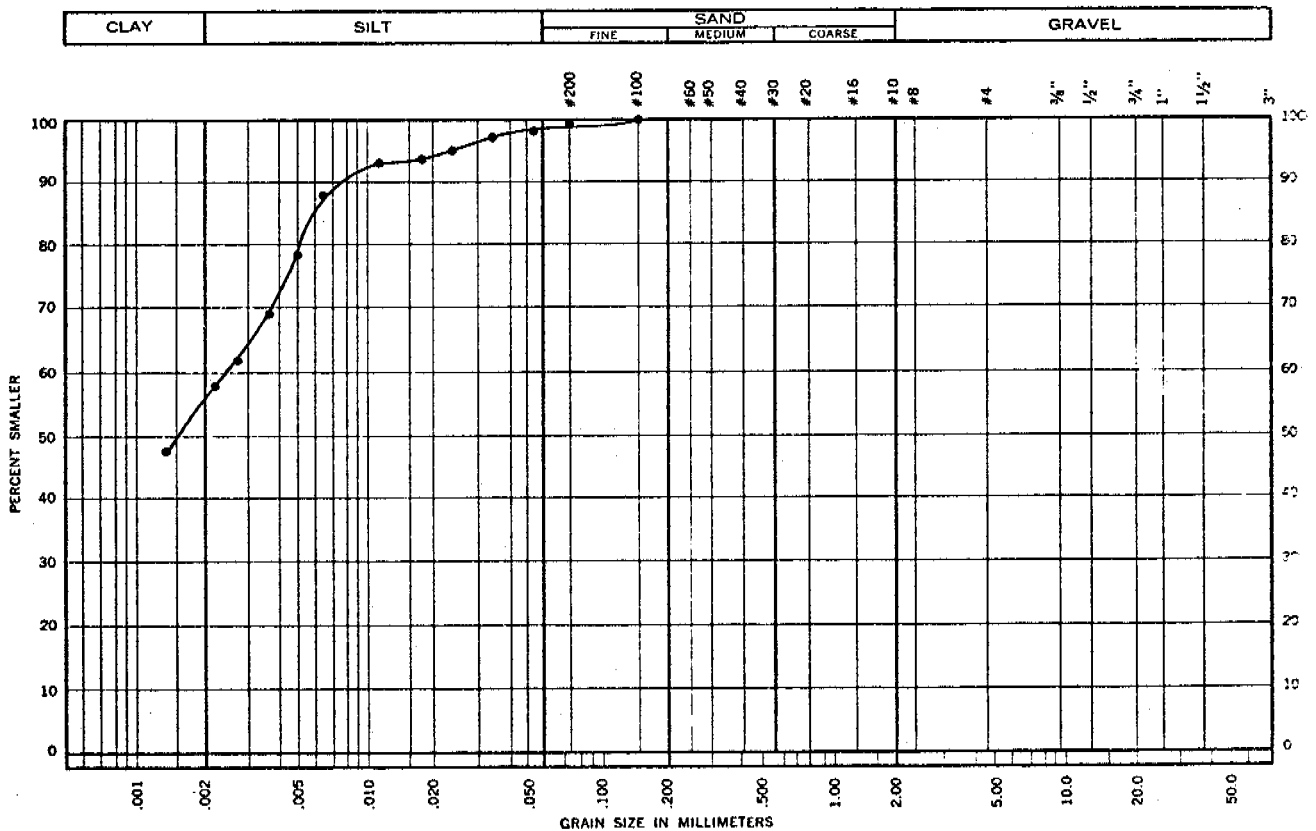


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 4/73
 SAMPLE No. 645-B-3
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

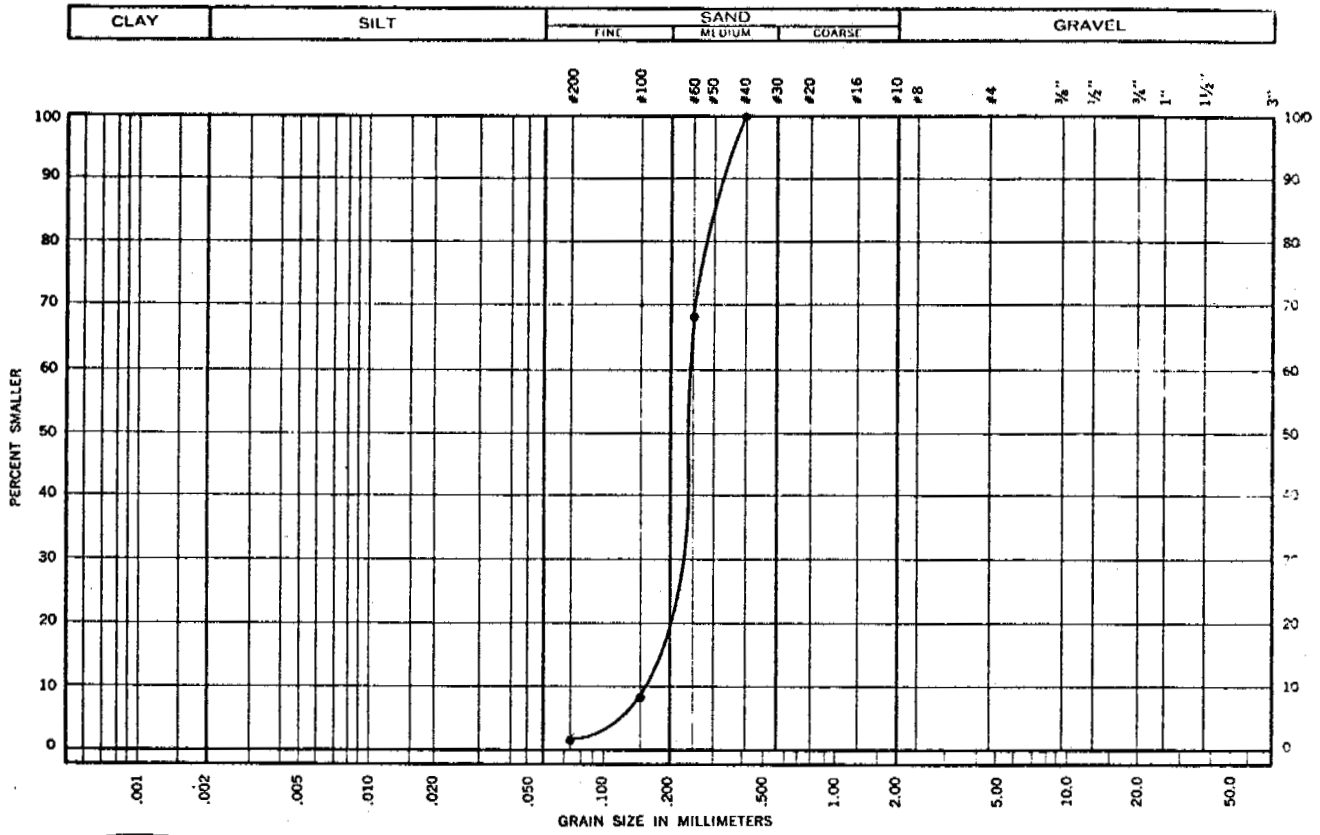


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY CLAY, TRACE OF SAND

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 9/73
 SAMPLE No. 645-B-5
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



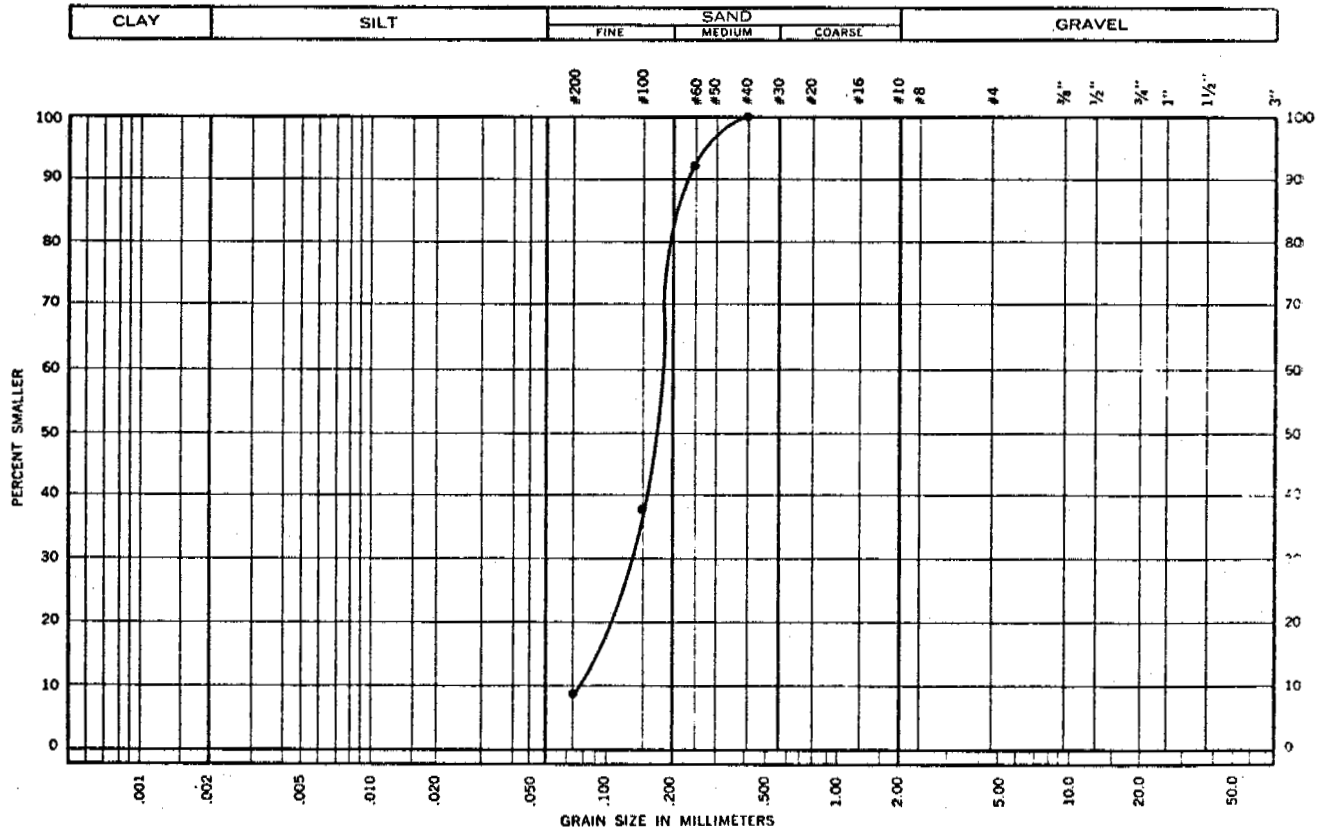
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 4/73
 SAMPLE No. 645-B-7
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



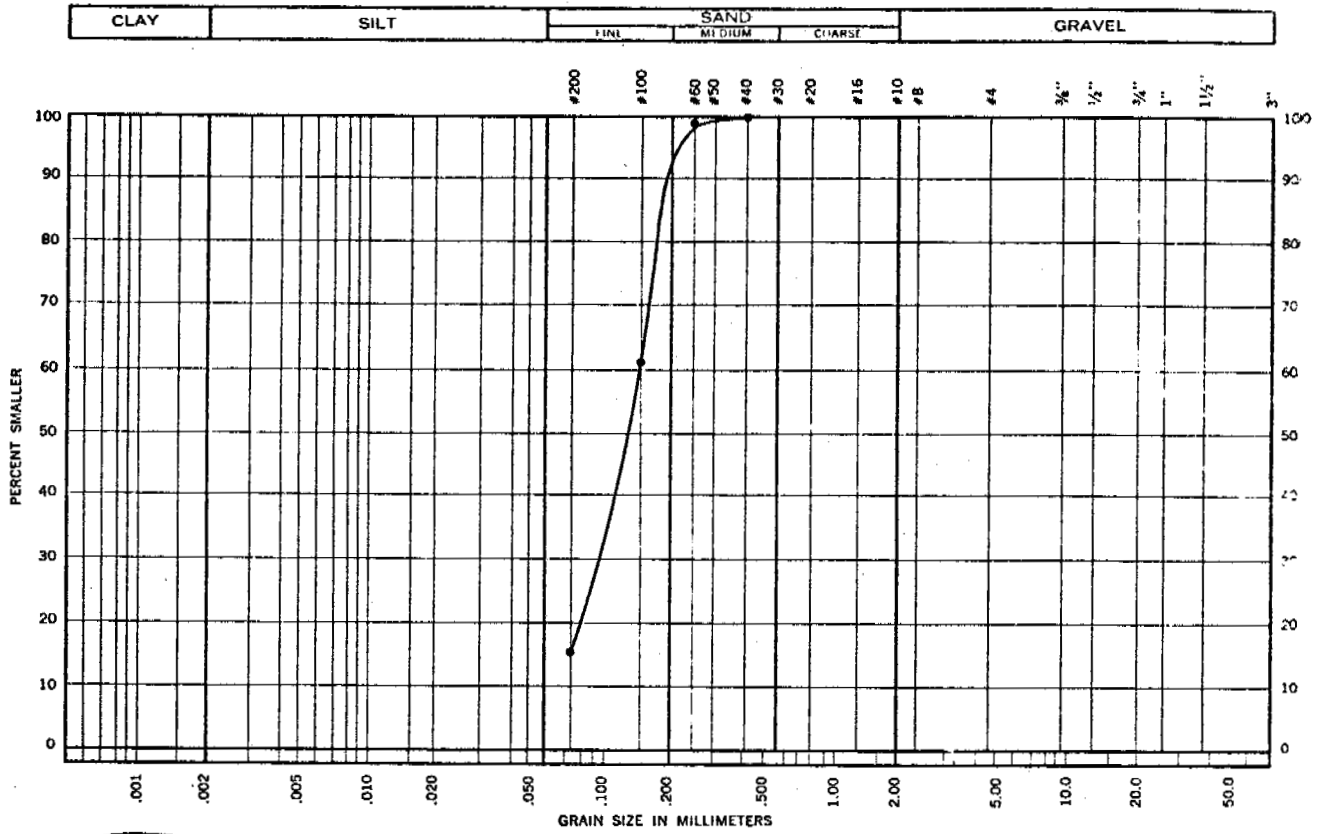
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
 JOB No. E-517 DATE APRIL 4/73
 SAMPLE No. 641-B-2
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



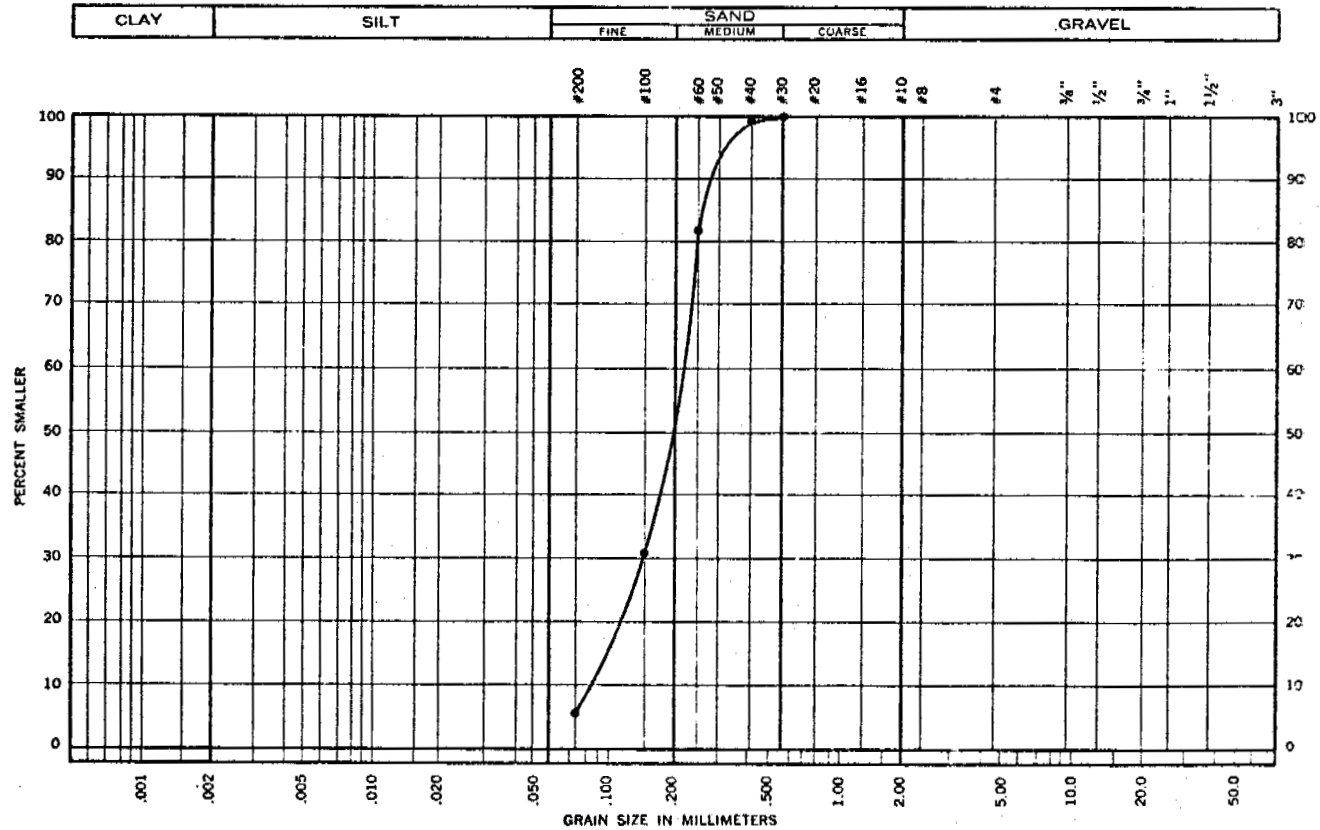
FIGURE



SAMPLE DESCRIPTION POORLY GRADED SAND,
SOME SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 641-B-5
DEPTH 5'

GRAIN SIZE DISTRIBUTION



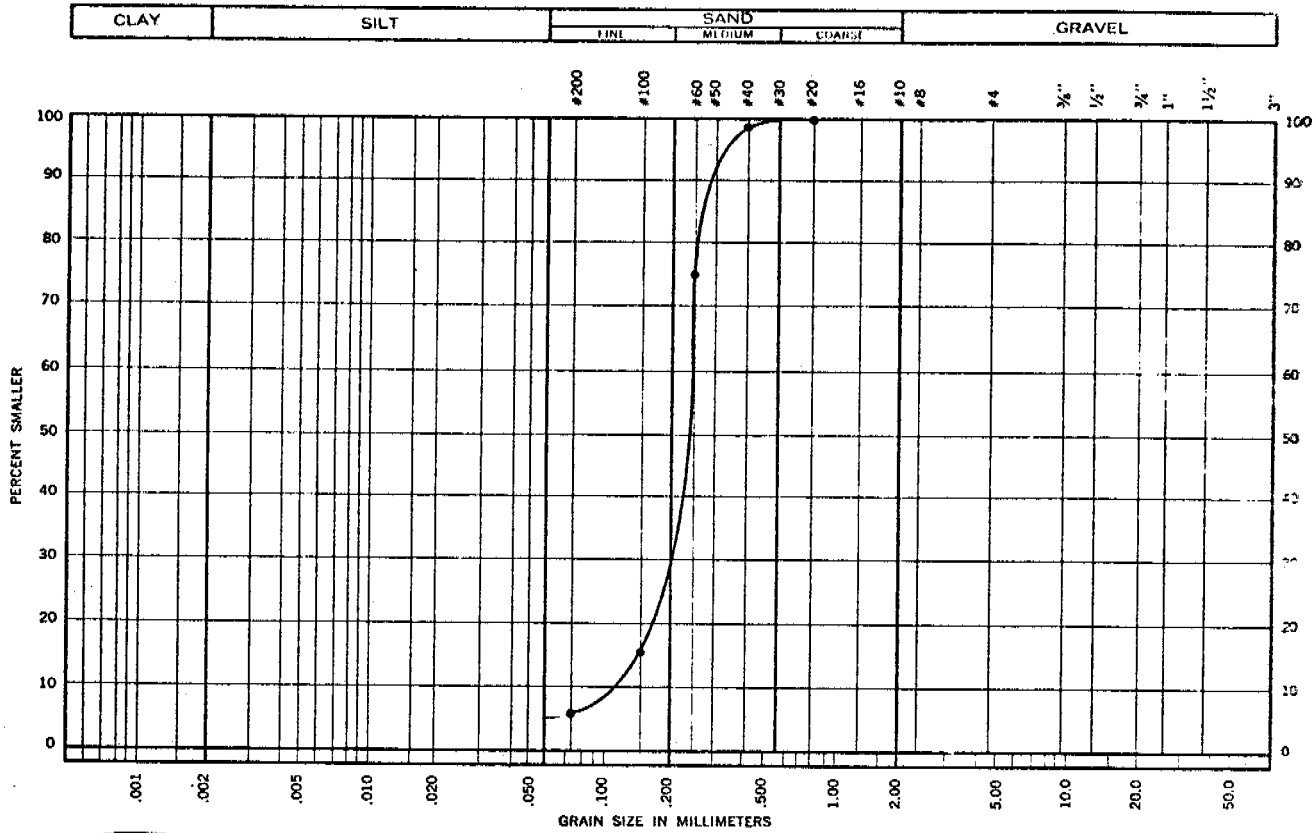
FIGURE



SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 641-B-6
DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

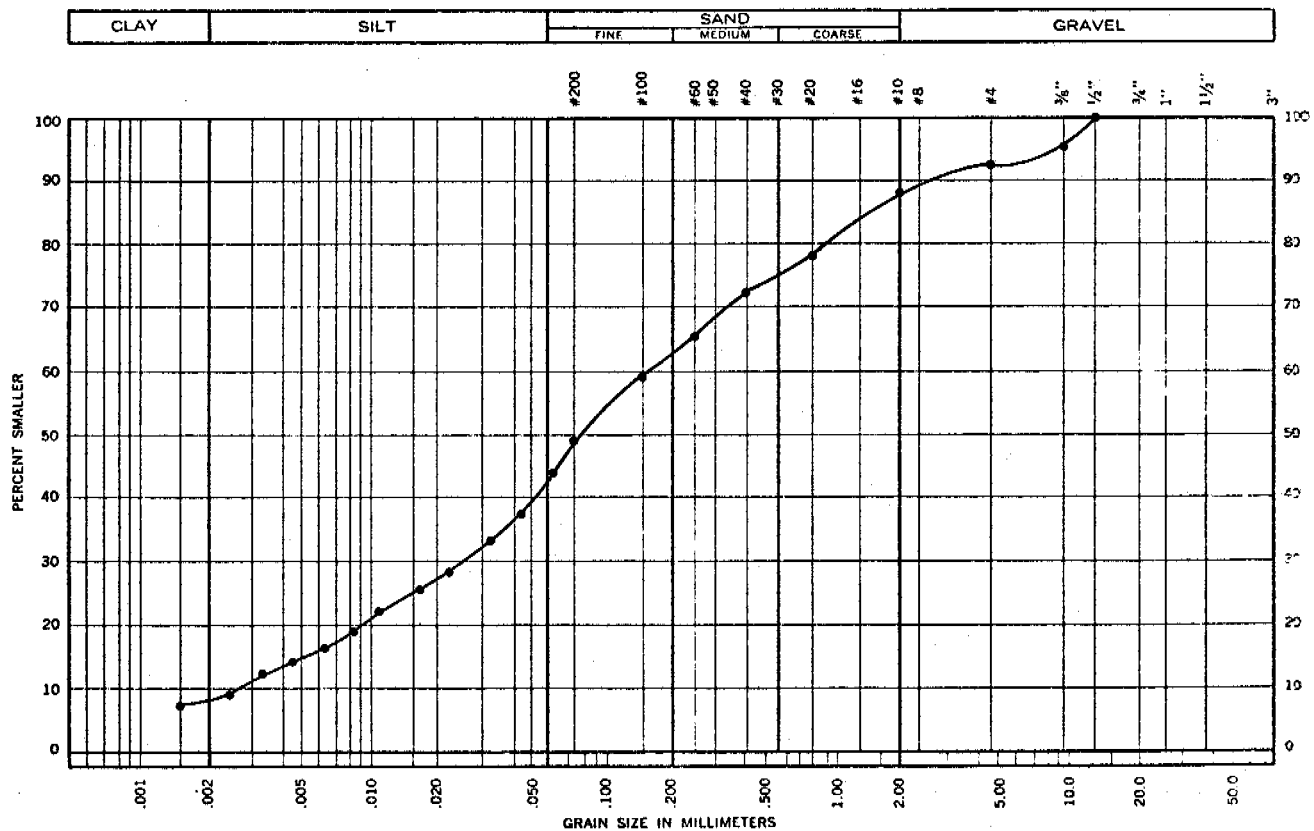


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, POORLY GRADED

PROJECT: MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 5/73
 SAMPLE No. 640-B-1
 DEPTH 5'

GRAIN SIZE DISTRIBUTION



FIGURE

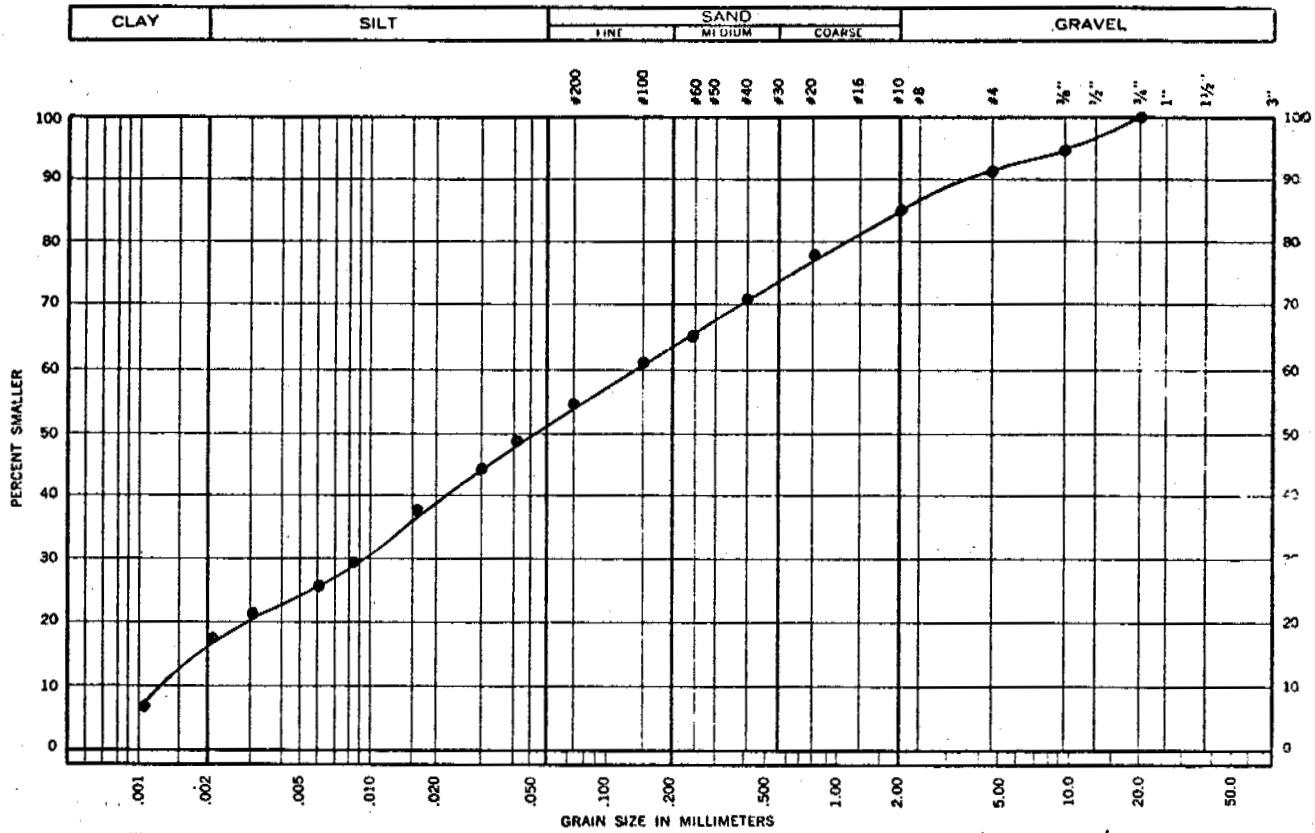


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SILTY SAND, SOME GRAVEL, TRACE OF CLAY (TILL)

PROJECT: MACKENZIE HIGHWAY
 JOB No. E-517 DATE April 9/73
 SAMPLE No. 638-B-1
 DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

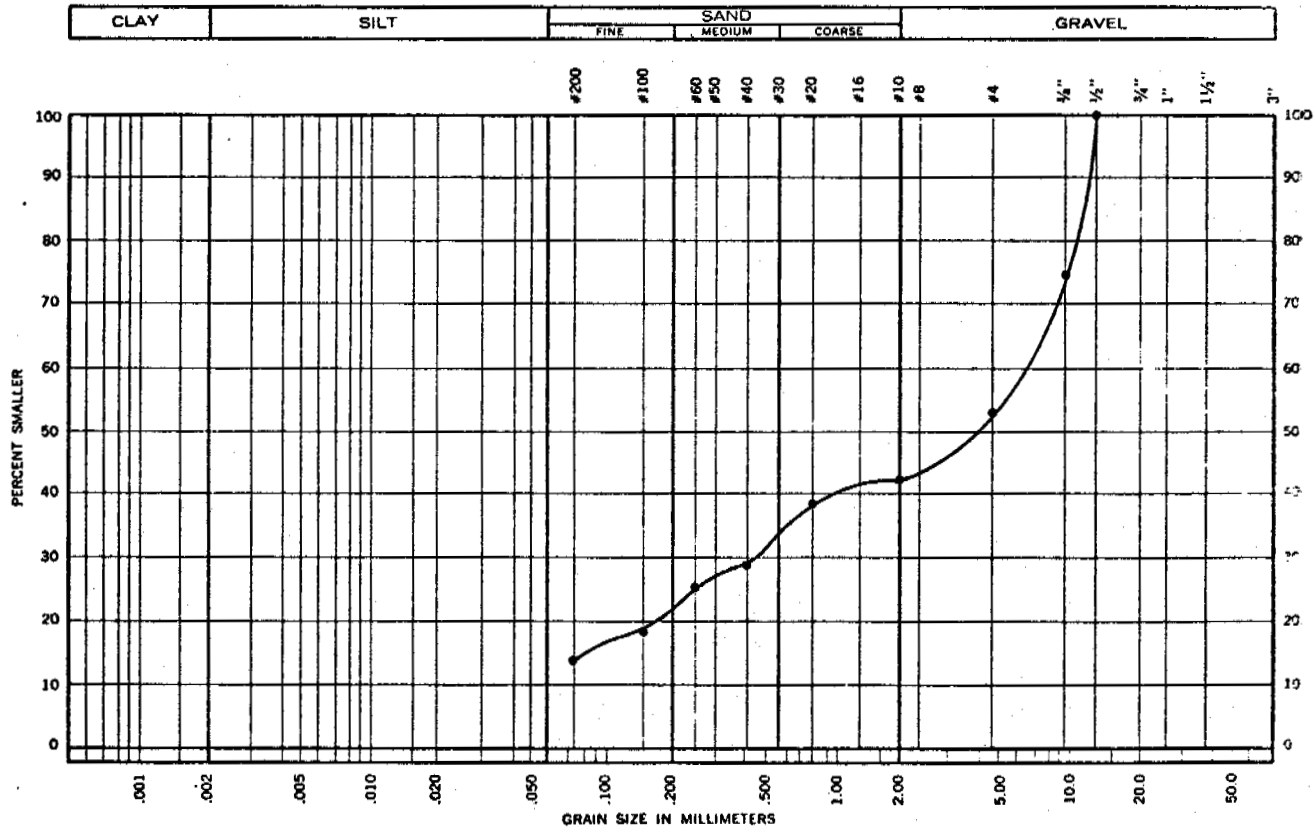


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SAND, SILTY, SOME
GRAVEL & CLAY (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 24/73
SAMPLE No. 63B - B-4
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

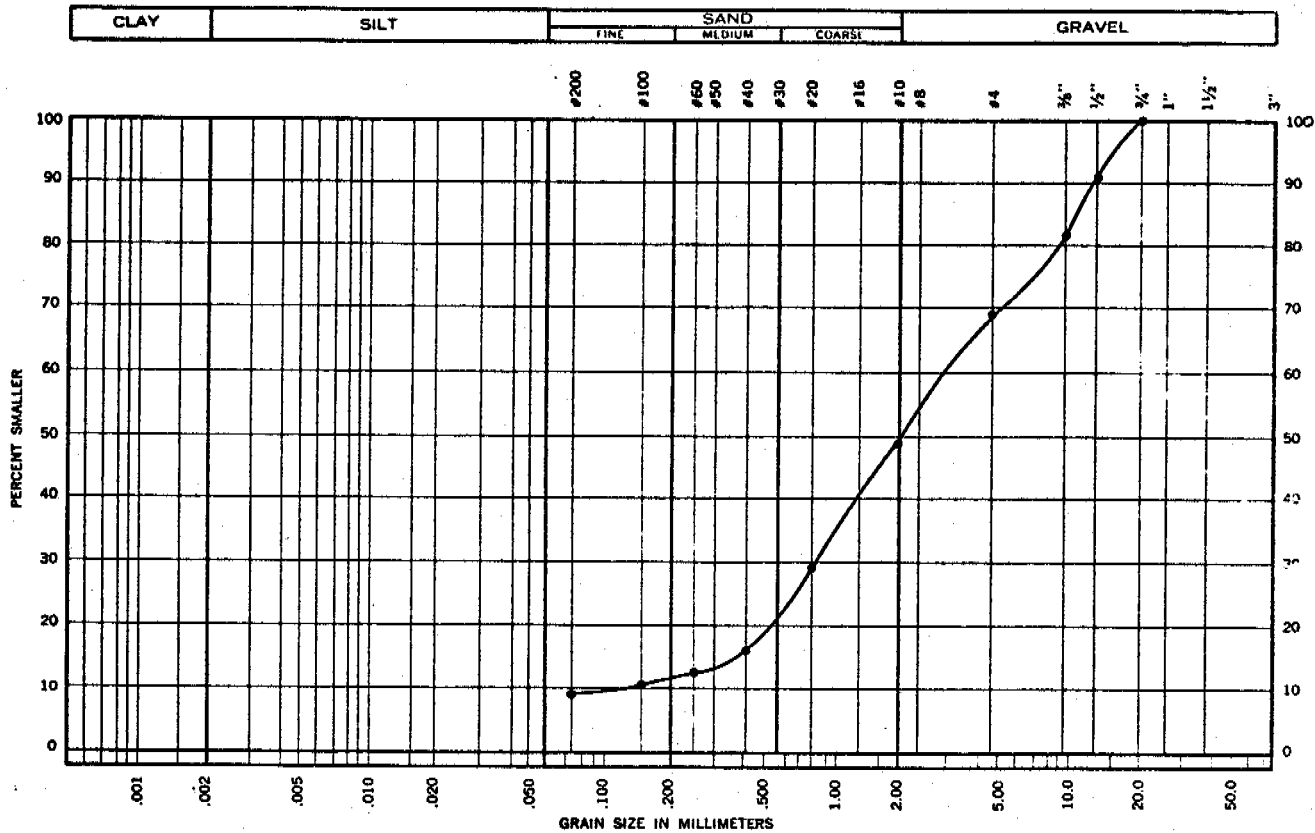


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION SANDY GRAVEL,
SOME SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 637 - B-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



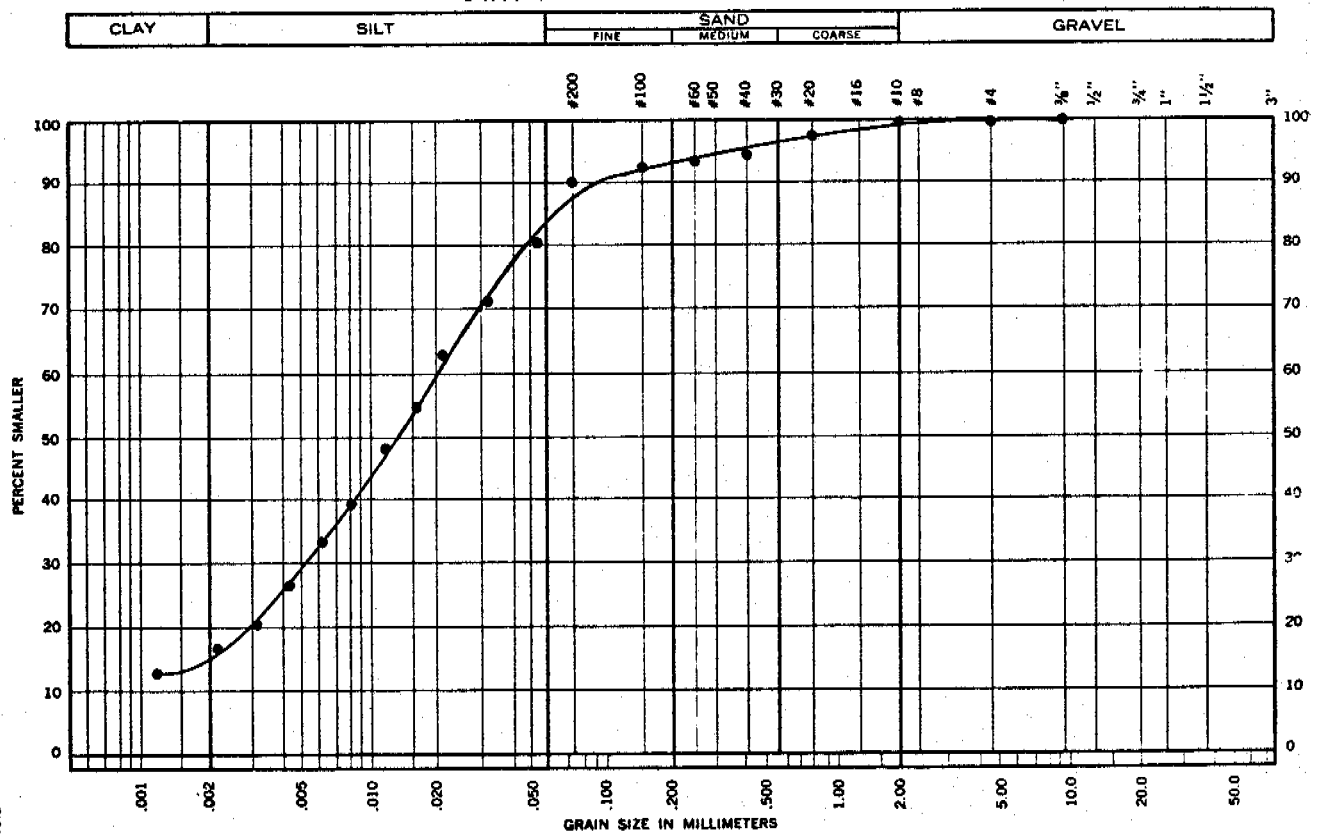
FIGURE



SAMPLE DESCRIPTION GRAVEL, SAND,
TRACE OF SILT.

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 637-B-2
DEPTH 25

GRAIN SIZE DISTRIBUTION



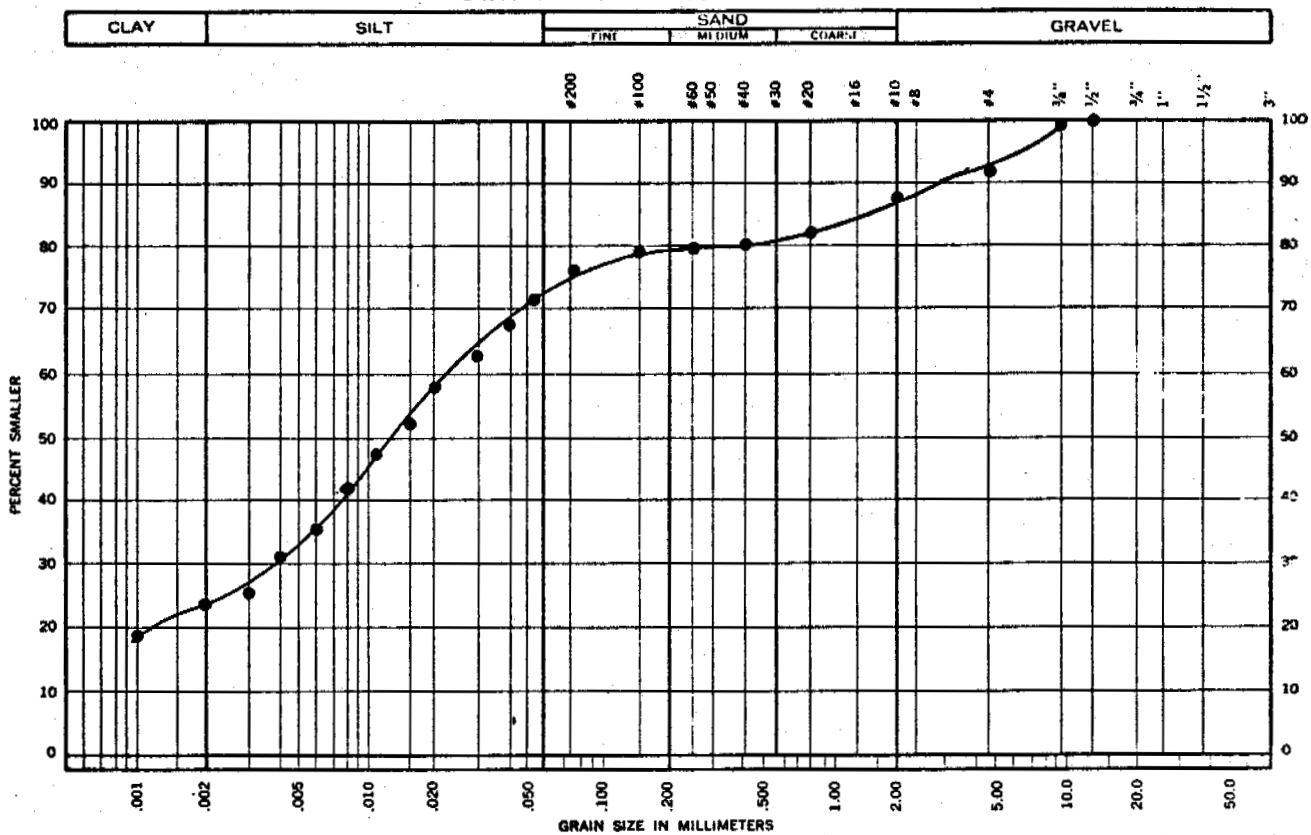
FIGURE



SAMPLE DESCRIPTION SILT, SOME CLAY,
SOME SAND, TRACE OF GRAVEL (SHALE)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 9/73
SAMPLE No. 636-B-6
DEPTH 10'

GRAIN SIZE DISTRIBUTION



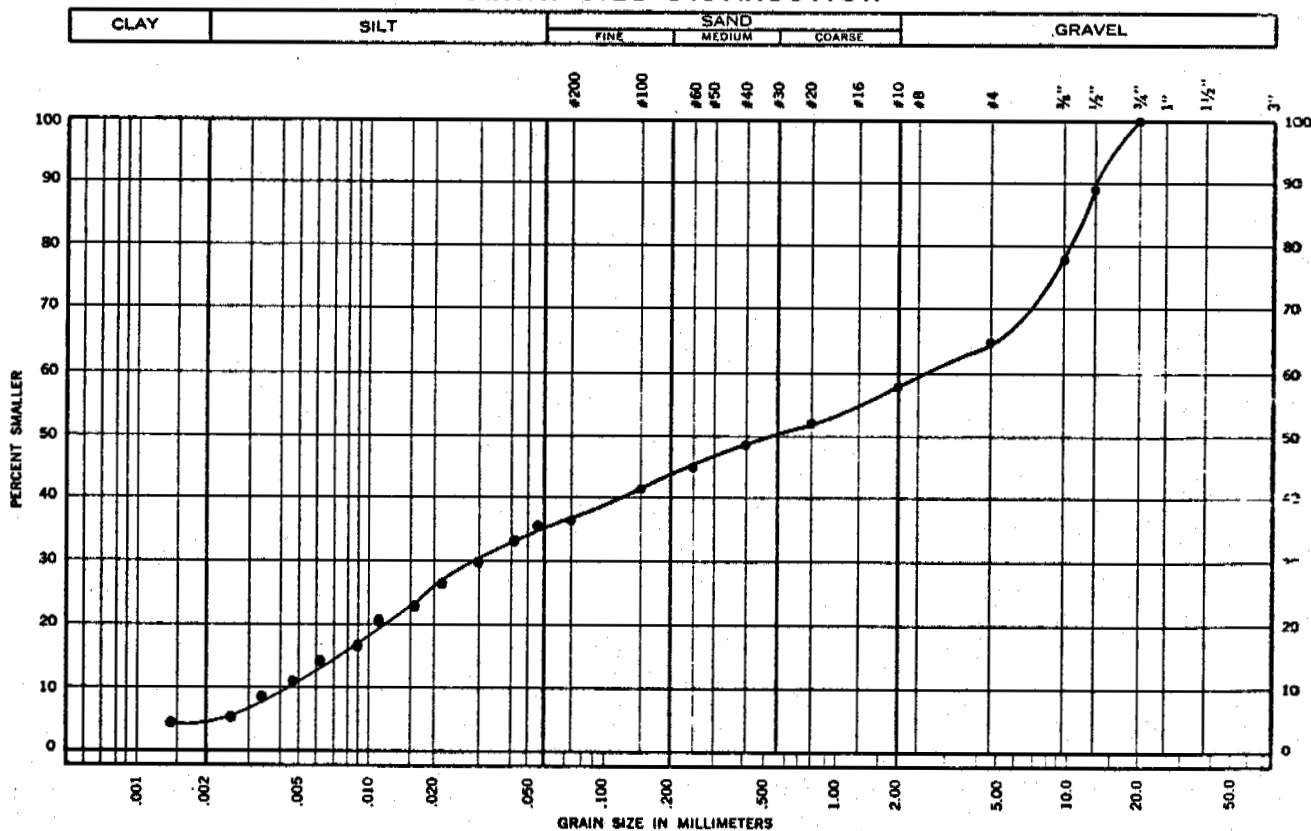
FIGURE



SAMPLE DESCRIPTION CLAY - SILT
SOME SAND AND GRAVEL (TILL)

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 8/73
SAMPLE No. 635-B-2
DEPTH 5'

GRAIN SIZE DISTRIBUTION



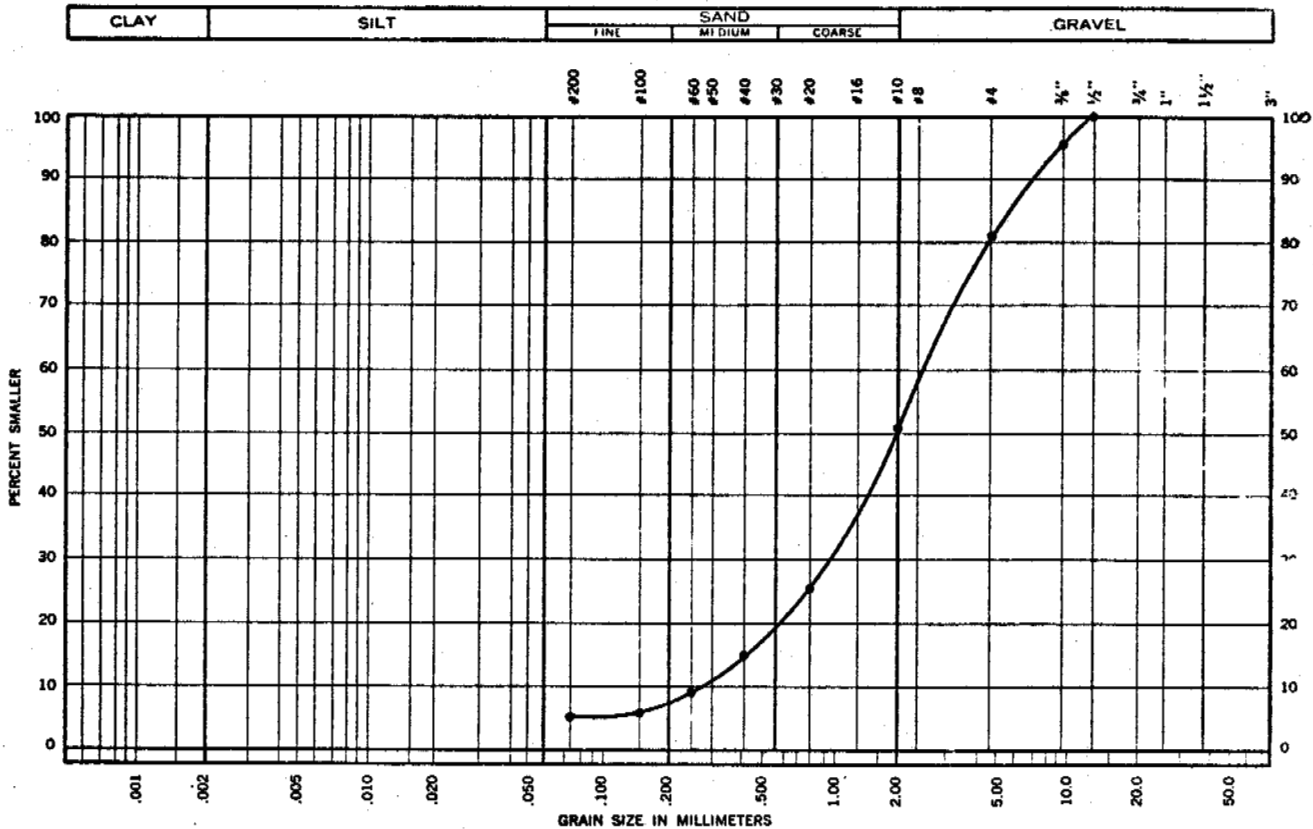
FIGURE



SAMPLE DESCRIPTION SILTY SANDY
GRAVEL, TRACE OF CLAY

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE APRIL 4/73
SAMPLE No. 635-B-5
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

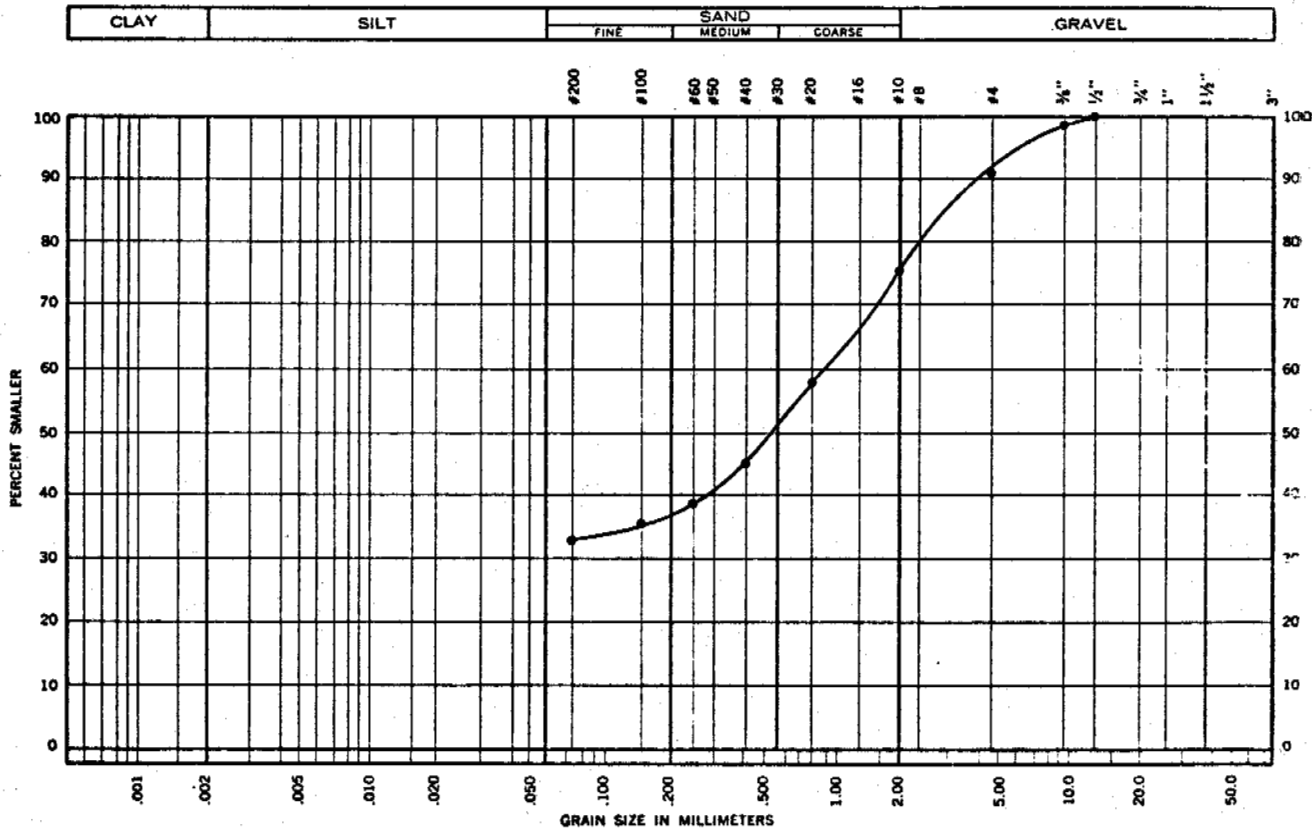


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION GRAVEL AND SAND,
WELL GRADED, TRACE OF SILT

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 633-B-5
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE

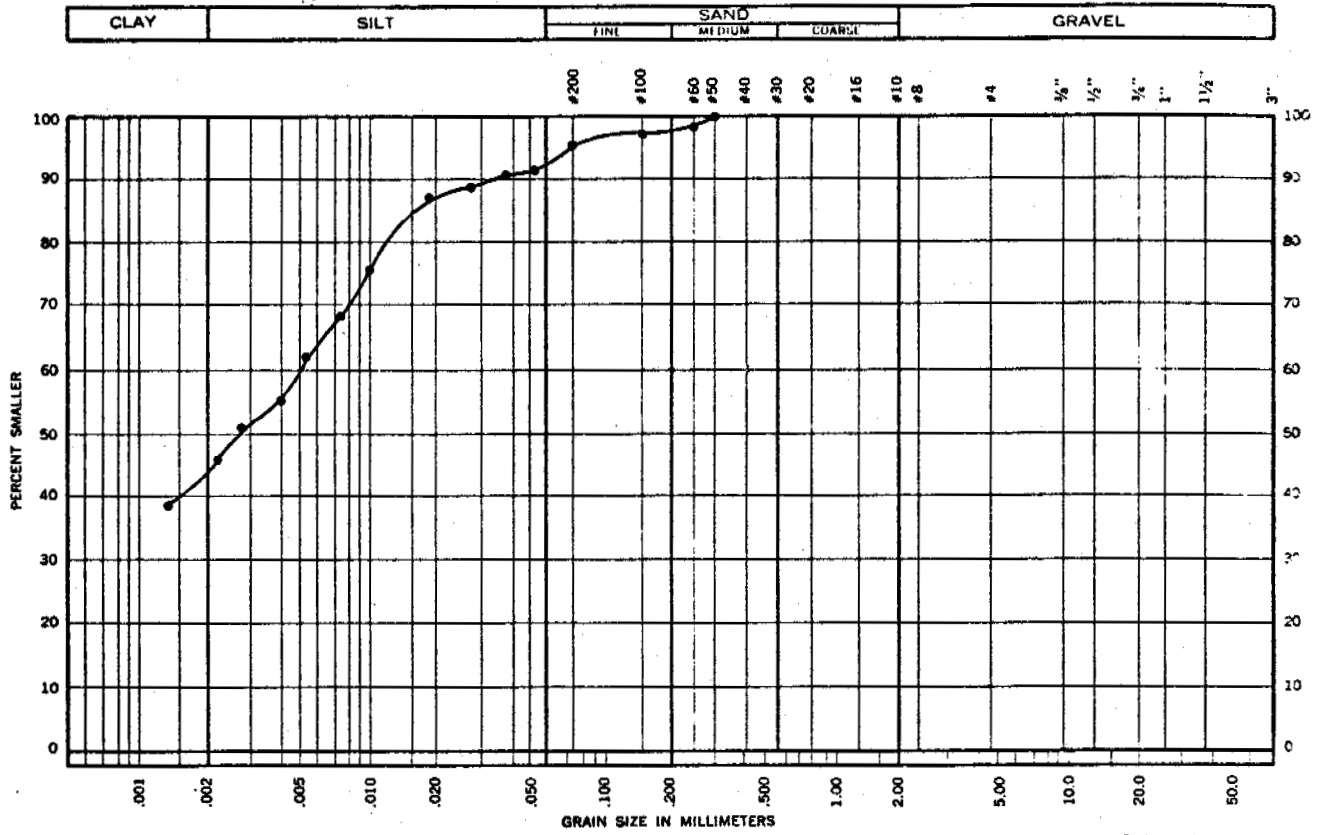


BROOKER & ASSOCIATES

SAMPLE DESCRIPTION GRAVELLY, SILTY,
SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 5/73
SAMPLE No. 632-B-1
DEPTH 10'

GRAIN SIZE DISTRIBUTION



FIGURE



BROOKER & ASSOCIATES

SAMPLE DESCRIPTION CLAY, SILT, TRACE
OF SAND

PROJECT MACKENZIE HIGHWAY
JOB No. E-517 DATE April 9/73
SAMPLE No. 632-B-3
DEPTH 10'

