

GR-05-022

Drawer #24

LIBRARY

DEMPSTER HIGHWAY  
MILE 254.5 TO 268.5  
TEST HOLE LABORATORY RESULTS  
1976 GEOTECH SURVEY  
PAC. REG.

(7 additions)

CAN-1976-17

DATA FROM 1955-1956  
 M 251-265.5  
 Des Moines Hwy.

PILE	CORRUGATE AREA SQ MI	50 YR FLOW CFS	CULVERT DIAMETER IN	TAILWATER DEPTH FT	FURROWS FT	OUTLET VELOCITY FPS	ASSIGNED FISH MIGRATION DISCHARGE	TAILWATER DEPTH	MAX VELOCITY	NOTES
255.8	0.06	60	60	1.5	37	9.1				MIN. CSPP BECAUSE OF HIGH FILL. OVERSIZED PIPE TO MAKE USE OF EXISTING MATERIAL
256.9	1.5	650	156	8.25		10.0				
257.1	1.3	570	132	3.4	2.2	11.9	340	1.3	7.4	
257.7	0.3	130	60	9.3	1.0	12.8	510	2.1	7.7	
259.5	9.0	1740	2x156"							
260.5	17.0	2550	2x168"							
261.2	0.6	900	2x60"							
262.1	0.3	150	3x48"							
263.4	1.0 +	600	36x60"							
263.4	1.0 +	600	5x60"							
264.0	7.0	2100	2x168"	2.5	2.4	10.6				
264.5	0.2409	280	2x60"							
264.9		100 +	60"							
265.9	0.5	325	2x60"							
266.5	6.0	1400	2x132"	25.0	0.8	11.0				
267.5	1.1	550	120"	23.5	0.6	11.6				

NOTES: NO CULVERTS WERE DESIGNED SPECIFICALLY TO PROVIDE LOW MAIN VELOCITIES IN REDUCED FLOWS TO ACCOMMODATE FISH MIGRATION AS WE HAD NO INFORMATION SUGGESTING THAT ANY EXISTING CROSSINGS SHOULD BE DESIGNED TO ALLOW FISH MIGRATION. VELOCITIES AT 20% OF 50 YEAR PEAK FLOW WERE HOWEVER BEEN CALCULATED FOR 2 CROSSINGS, 1 MILES 259.5 AND 260.5 AT 17 CFS. LEARNED SUBSEQUENTLY THAT DOE FISHERIES AND EXPRESSED INTEREST IN THOSE CROSSINGS. VELOCITIES WERE NOT CALCULATED FOR 60" AND SMALLER PIPES DUE TO THE LACK OF DETAILED FIELD INFORMATION. MOST SMALL PIPES SHOULD CARRY THE DESIGN FLOW WITH HEADWATER LESS THAN PIPE DIAMETER.

\* DEPTH ABOVE NATURAL STREAM BED, BASED ON X-SEC DATA AT ORIGINAL LINE - OR ESTIMATED FILLING. BY  
 \*\* ARBITRARY 20% OF 50 YR PEAK

DEMPSTER Hwy - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN	FIELD ENG.	DATE DRILLED: 19 4/77	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE		
CKD	TECH: TRONCH	RIG: <del>2022</del>	SURFACE DRAINAGE:	VEGETATION:	ELEV:	MILE	B,C,S	NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			

○ = WATER CONTENT (% OF DRY WEIGHT)  
 △ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40      LIQUID LIMIT 80

20      40      60      80      100      100+

2						BROWN - SHALE - SOFT TO MEDIUM			2	26	55	19	DAMP		ALL SAMPLES DRY SIEVED ON # 40
4									4	19	74	7	DAMP		
6									6						
8						HARD STRINGERS	F		8	12	83	5	DAMP		
10									10						
12									12	5	73	22	DAMP		
14									14						
16									16	28	69	3	DAMP		
18									18						
20									20	3	71	26	DAMP		
22									22						
24									24	2	62	36	DAMP		

GREY -

BOTTOM OF HOLE - 30'

3-67-30 Humid

DEMPSTER Hwy. - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN FIELD ENG. DATE DRILLED: 9/4/77 AIRPHOTO NO: CHAINAGE: OFFSET: TEST HOLE

CKD TECH: IRONYCH RIG: A-100-2 SURFACE DRAINAGE: VEGETATION: ELEV:

DEPTH (FEET) SAMPLE NUMBER SAMPLE TYPE % RECOVERY PENETRATION RESISTANCE UNIFIED SOIL SYMBOL SOIL DESCRIPTION ICE DESCRIPTION DEPTH (FEET) GRAIN-SIZE ANALYSIS (CLAY, SILT, SAND, GRAVEL) WET DENSITY (P.C.F.) DRY DENSITY (P.C.F.) MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
									CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN - CLAY - SHALE MIX DECOMPOSED SHALE		2	88	8	4			MOIST	Government of Yukon Community & Transportation Services Transportation Engineering, S.O. P.O. Box 2703 (201 Range Road) Whitehorse, Yukon Y1A 2C6 # A-3 DRY SIEVED
4						SOFT - MEDIUM		4	31	49	20			WET	
6						HARD STRINGERS		6	28	32	40			MOIST	
8							F	8	35	44	21			MOIST	
10								10	33	41	26			DAMP	
12								12	11	53	36			DAMP +	
14						GREY -		14	8	58	34			DAMP	
16								16							
18								18							
20								20							
22								22							
24								24							

Bottom of Hole - 30'

-31-66-3 DAMP WET SIEVED

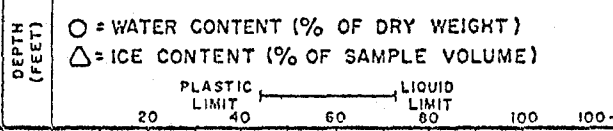
DEMPSTER Hwy. - YUKON

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN	FIELD ENG.	DATE DRILLED: 19/4/77	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE
CKD	TECH: RONYCH	RIG: <del>2-23</del>	SURFACE DRAINAGE:	VEGETATION:	ELEV:	MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN-SHALE - SOFT			2	60	20	14			WET SIEVED	
4						DECOMPOSED			4	17	54	29			WET 40 DRY SIEVED	
8						SOFT TO MEDIUM WITH HARD STRINGERS	F		8	7	60	33			DAMP ✓ ✓	
12									12	20	77	3			DAMP ✓ ✓	
16									16	15	53	32			HUMID WET SIEVED	
20									20	19	64	17			HUMID ✓ ✓	
24						HARD @ 24'			24	11	75	14			HUMID ✓ ✓	



REFUSAL @ 27'  
 BOTTOM OF HOLE - 27'  
 TWISTED BIT OFF

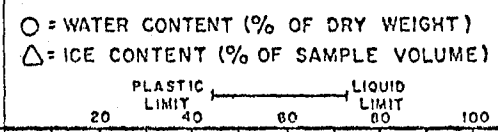
Dempster Hwy - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN	FIELD ENG.	DATE DRILLED:	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE
CKD	TECH: <b>PRONCH</b>	RIG: <b>ANITA</b>	SURFACE DRAINAGE:	VEGETATION:	ELEV:	MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						Brown - SHALE - SOFT DECOMPOSED			2	59	29	12	Moist		Moisture content not true	
4									4	51	31	18	Moist		Samples taken from ground	
10						GREY -			10	33	55	12	Moist		Hole was drilled on arrival	
16						BROWN -			16	30	60	10	Humid			
20						GREY -			20	13	62	25	Humid			
24									24	12	54	34	Humid			



BOTTOM OF HOLE - 30'

-16-64-20 Humid

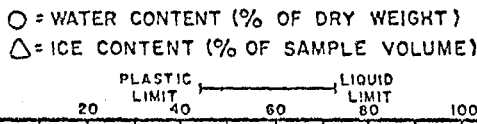
DEMOSTER Hwy - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

OWN	FIELD ENG.	DATE DRILLED	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE
CKD	TECH PRONYCH	14/77				MILE B,C,S NUMBER
		RIG	SURFACE DRAINAGE:	VEGETATION:	ELEV:	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN-SHALE - SOFT			2						# +40	
4						DECOMPOSED			4						DRY SIEVED	
6						SOFT - MED.			6							
8						HARD STRINGERS	F		8						ALL <del>SAMPLE</del> SAMPLE	
10						GREY-SHALE & SILTSTONE			10							
12						MED. HARD			12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							



19-738 SAT.  
7-7320 SAT  
2-6137 MOIST  
5-4748 DAMP  
3-5938 HUMID  
4-5838 DAMP

SHALE  
SOFT-MED

-34-23-43 DAMP

Dempster Hwy - Yukon

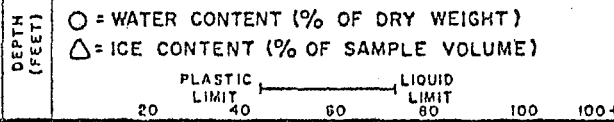
DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DOWN FIELD ENG. DATE DRILLED AIRPHOTO NO: CHAINAGE: OFFSET: TEST HOLE

CKD TECH RIG SURFACE DRAINAGE: VEGETATION: ELEV: MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
2						BROWN - CLAY - SHALE MIX			2						14% As HOLE	
4					C1				4						254-4	
6						BROWN - SHALE - SOFT - MEDIUM			5'							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20	71	263				Moist	
22									22							
24									24	41	563				DAMP	
									15	5	6332				DAMP + 20 DRY SIEVED	
									20	7	6924				HUMID	
									24	7	6528				HUMID	



- 30' - 8-62-30 HUMID ✓ ✓
- 35' - 8-60-32 DAMP ✓ ✓
- 40' - 50' - 7-50-43 HUMID ✓ ✓

0 - 100 FT.

# DEMPSTER Hwy - Yukon

## DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN FIELD ENG. DATE DRILLED AIRPHOTO NO. CHAINAGE OPP. ST. 1931 OFFSET TEST HOLE  
CKD TECH RONYCH RIG:            SURFACE DRAINAGE: VEGETATION: ELEV:

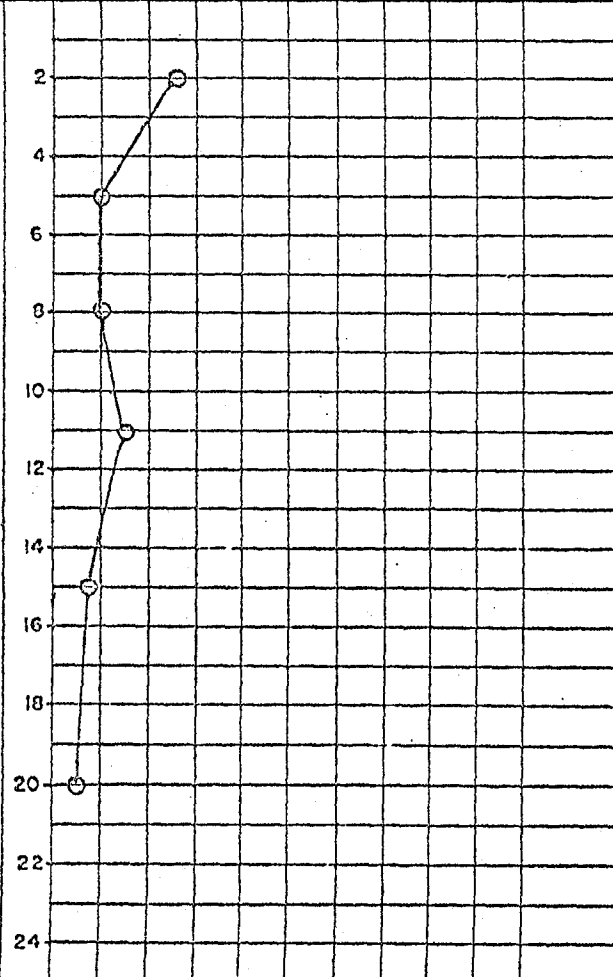
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER
										CLAY %	SILT %	SAND %	GRAVEL %					

○ = WATER CONTENT (% OF DRY WEIGHT)  
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40      LIQUID LIMIT 80

2						BROWN-CLAY - SHALE MIX			2	55	41	4	FREE WATER			
4					CL				4	9	54	37	SAT. + 40 DRY SIELED			
6						BROWN-SHALE - SILTSTONE DECOMPOSED			6							
8									8	22	66	12	MOIST	✓	✓	
10									10							
12						SOFT - MED.			12	38	53	9	WET			WET SIELED
14									14							
16									16	9	62	29	MOIST + 40 DRY SIELED			
18									18							
20									20	4	50	46	DAMP	✓	✓	
22									22							
24									24							

20' BOTTOM OF HOLE - 20'



# DEMPSTER Hwy - Yukon

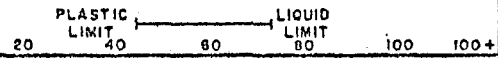
# DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN	FIELD ENG.	DATE DRILLED.	AIRPHOTO NO.	CHAINAGE: 1923	OFFSET	TEST HOLE
CKD	TECH PRONYCH	RIG	SURFACE DRAINAGE:	VEGETATION:	ELEV.	MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			

○ = WATER CONTENT (% OF DRY WEIGHT)  
△ = ICE CONTENT (% OF SAMPLE VOLUME)



2						BROWN-SILTY CLAY - SHALE FRAGS.			2						71-263 Moist
4						SILTSTONE - SHALE			4						11-6029 WET
6						SOFT-MEDIUM GREY - SHALE			6						16-777 DAMP-40 DRY SIEVED
8						SOFT-MED.			8						
10									10						
12									12						6-7816 DAMP ~ ~
14									14						4-5739 Humid ~ ~
16									16						
18									18						
20									20						5-7619 Humid ~ ~
22									22						
24									24						

20'  
BOTTOM OF HOLE - 20'

Dempster Hwy - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

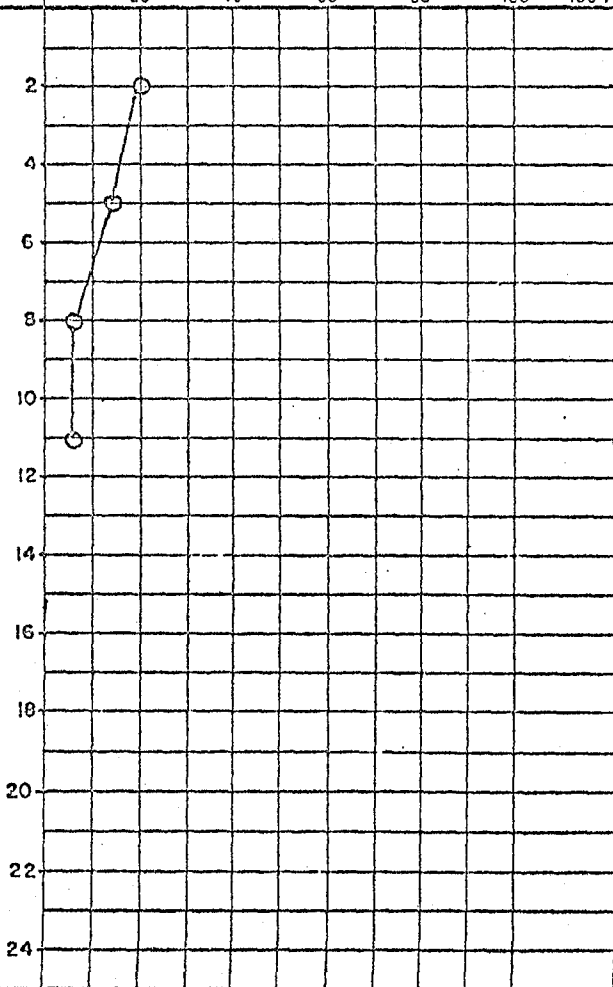
DWN: CKD FIELD ENG: TECH RONYCH DATE DRILLED: 9/17 AIRPHOTO NO: CHAINAGE: 1920 OFFSET: TEST HOLE

RIG: SURFACE DRAINAGE: VEGETATION: ELEV: MILE: 254 B,C,S: C NUM: 8

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN-CLAY-SILTY SHALE FRAG'S 3'			2	60	31	9			WET	
4						SHALE - SOFT DECOMPOSED			4	53	37	10			SAT.	
6						SANDSTONE - SHALE 7'			6	28	59	13			MOIST	
8						GREY SANDSTONE - MEDIUM TO HARD			8	8	64	28			MOIST	
10									10							
12									12							
13						BOTTOM OF HOLE - 13'			13							
14						REFUSAL @ 13'			14							
16									16							
18									18							
20									20							
22									22							
24									24							

○ = WATER CONTENT (% OF DRY WEIGHT)  
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40 LIQUID LIMIT 80



Dempster Hwy. Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN FIELD LOG DATE DRILLED AIRPHOTO NO: CHAINAGE: 1916 OFFSET: TEST HOLE

CKO TECH BROWNECH RIG SURFACE DRAINAGE: VEGETATION: ELEV

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUM
										CLAY %	SILT %	SAND %	GRAVEL %					

2						BROWN-SILTY CLAY - SHALE FRAG'S			2	82	15	3						
4						5' SHALE - SOFT TO MEDIUM			4	31	51	15						
6									6									
8									8	17	80	3						140 DRY SILT
10									10									
12						SILTSTONE - SHALE MED.			12	15	65	20						
14						SHALE - SOFT - MED. HARD STRINGERS			14	17	68	15						
16									16									
18									18									
20						SILTSTONE - SANDSTONE 20'			20	8	68	24						
22						BOTTOM OF HOLE - 20'			22									
24									24									

DEMPSTER Hwy - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

OWN: DWN FIELD ENG. DATE DRILLED: 11/17 AIRPHOTO NO: CHAINAGE: 1910 OFFSET: TEST HOLE

CKD: TECH: PRONYCH RIG: SURFACE DRAINAGE: VEGETATION: ELEV: MILE: 254 B,C,S: C NUMBER: 10

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNITED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN-CLAY SILTY SANDY - SHALE MIX			2	46	44	10			DAMP	
4						DECOMPOSED SHALE			4	53	38	9			IVET	
6						5' GREY-SILTSTONE - SANDSTONE			6							
8						HARD FROM 7'-10' SHALE - SOFT-MED.	F		8	11	71	18			DAMP	
10									10							
12						HARD LAYERS BELOW 11'			12	5	66	29			DAMP + 40 DRY SIEVED	
14									14							
16						SILTSTONE-SHALE SOFT-MED.			16	15	59	26			HUMID IVET	
18									18							
20						SHALE - MED. 20'			20	3	43	54			HUMID DRY	
22						BOTTOM OF HOLE - 20'			22							
24									24							

Dempster Hwy - Yukon

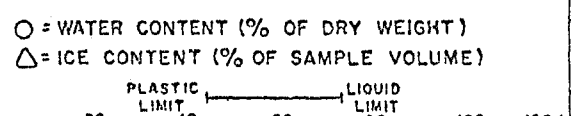
DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN FIELD ENG: DATE DRILLED 14/4/77 AIRPHOTO NO: CHAINAGE: 906 + 50 OFFSET: TEST HOLE

CKD TECH PRONYCH RIG: SURFACE DRAINAGE: VEGETATION: ELEV: MILE 25.4 B,C,S C NUM 11

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN-CLAY SILTY - SHALE - FRAG'S			2	51	47	2	DAMP			
4						SHALE - DECOMPOSED		VISIBLE ICE TO 10'	4	48	51	1	SAT.			
8						SOFT	F		8	35	60	5	WET			
12						SOFT-MEDIUM			12	7	74	19	DAMP	+40 DRY SEI		
16									16	6	64	30	DAMP		✓	
20						BOTTOM OF HOLE - 20'			20	6	76	18	DAMP		✓	



DEMPSTER Hwy - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

OWN: CKD FIELD ENG: TECH PRONYCH DATE DRILLED: 1947 AIRPHOTO NO: CHAINAGE: 1902 OFFSET: TEST HOLE

RIG: SURFACE DRAINAGE: VEGETATION: ELEV: MILE: 254 B,C,S: C NUMB: 12

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						BROWN - CLAY-SILTY SILTSTONE FRAG'S			2	62	31	7	DAMP			
4									4	44	50	6	SAT.			
6									6	22	65	13	WET			
8						SHALE - GREY SOFT-MED	7'	VISIBLE ICE TO 10'	8	3	74	23	DAMP		+40 DRY GEM?	
10							F		10							
12									12							
14									14							
16						BROWN -			16	4	62	34	DAMP			
18									18							
20									20	5	61	34	DAMP			
22						BOTTOM OF HOLE - 20'			22							
24									24							

Dempster Highway - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN: FIELD ENG. DATE DRILLED: 12/76 AIRPHOTO NO: CHAINAGE: OFFSET:

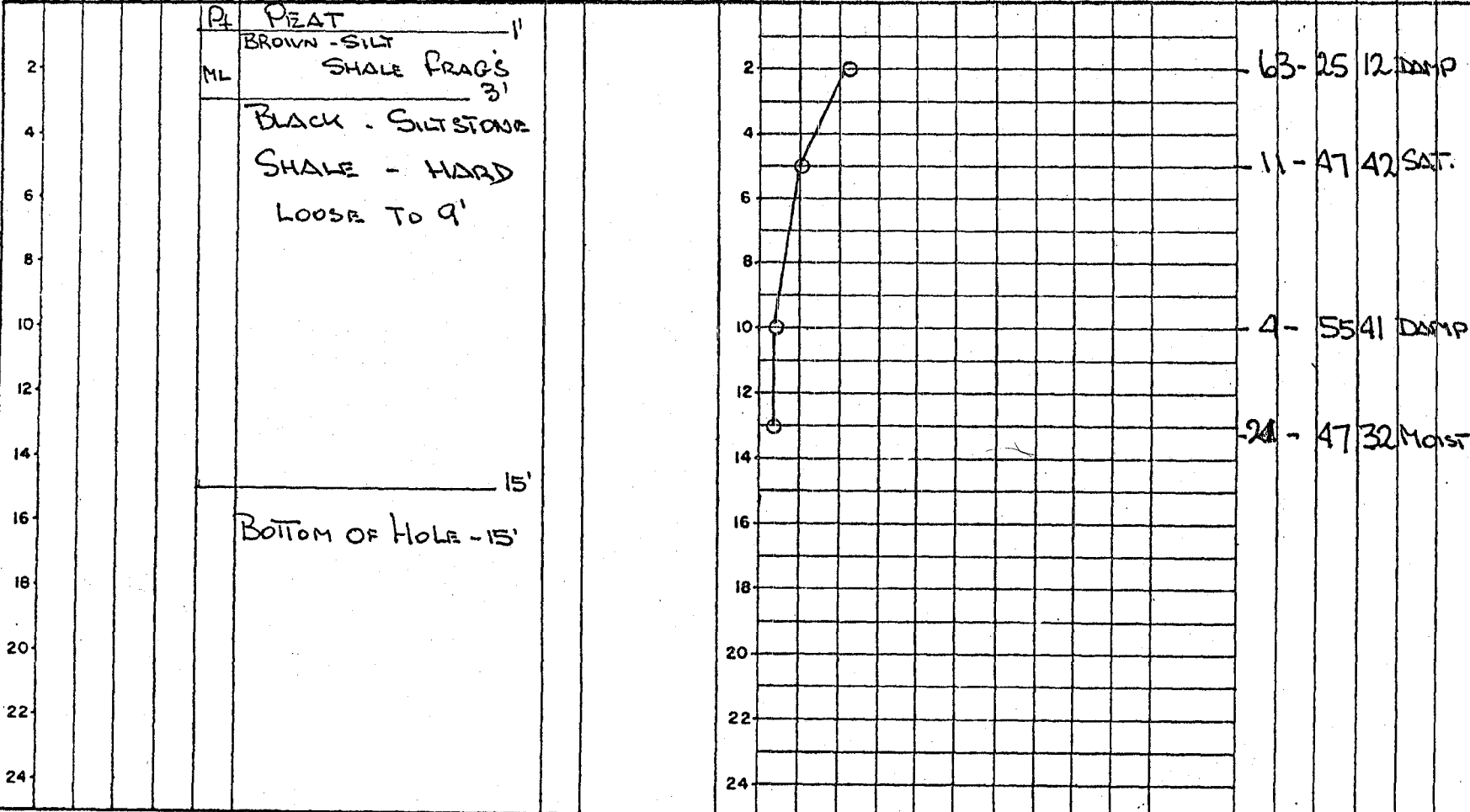
CKD: TECH: PRONYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: ELEV:

TEST HOLE

DEPTH (FEET) SAMPLE NUMBER SAMPLE TYPE % RECOVERY PENETRATION RESISTANCE UNIFIED SOIL SYMBOL SOIL DESCRIPTION LIMITS OF FROZEN GROUND ICE DESCRIPTION DEPTH (FEET) O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME) GRAIN-SIZE ANALYSIS: CLAY SILT SAND GRAVEL WET DENSITY (P.C.F.) DRY DENSITY (P.C.F.)

MILE B,C,S NUMBER  
258 B 1

REMARKS



Dempster Highway - Yukon				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 9/12/76		AIRPHOTO NO:		CHAINAGE:		OFFSET:		TEST HOLE				
CKD		TECH PRONYCH		RIG: AIR		SURFACE DRAINAGE:		VEGETATION:		ELEV:		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT      LIQUID LIMIT 20                      40                      60                      80                      100                      100+						
2						Black-SHALE			2					58-39 3	Moist	+40 DRY SIEVED ALL SAMPLES
4					Decomposed SOFT			4						60-38 2	SAT.	
6						Vc-Vr		6								
10								10						55-42 3	WET	
15						15'			15					62-36 2	DAMP	
16						BOTTOM OF HOLE - 15'			16							
18								18								
20								20								
22								22								
24								24								

Dempster Highway - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN: FIELD ENG. DATE DRILLED: 10/12/76 AIRPHOTO NO: CHAINAGE: OFFSET: TEST HOLE

CKD: TECH: PRONYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: ELEV:

DEPTH (FEET) SAMPLE NUMBER SAMPLE TYPE % RECOVERY PENETRATION RESISTANCE UNIFIED SOIL SYMBOL SOIL DESCRIPTION ICE DESCRIPTION DEPTH (FEET) O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME) GRAIN-SIZE ANALYSIS CLAY SILT SAND GRAVEL WET DENSITY (PCF) DRY DENSITY (PCF) MILE B,C,S NUMBER REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	MILE	B,C,S	NUMBER	REMARKS	
									CLAY %	SILT %	SAND %	GRAVEL %							
2					ML	SILT - GRAVELLY SANDY		2										57-2914 Moist	
4					SM	SAND - GRAVELLY SILTY	Vs	4										35-3728 <sup>P</sup> WATER	
6					SM	SHALE & GRAVELLY SAND - SILTY		6											38-620 SAT.
8								8											
10								10											
12						BLACK - SHALE DECOMPOSED SOFT - MED.	Vx	12											25-732 Moist
14								14											
16						BOTTOM OF HOLE - 15'		16											15-805 Moist + 40 DRY SIEVED
18								18											
20								20											
22								22											
24								24											

Dempster Highway - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

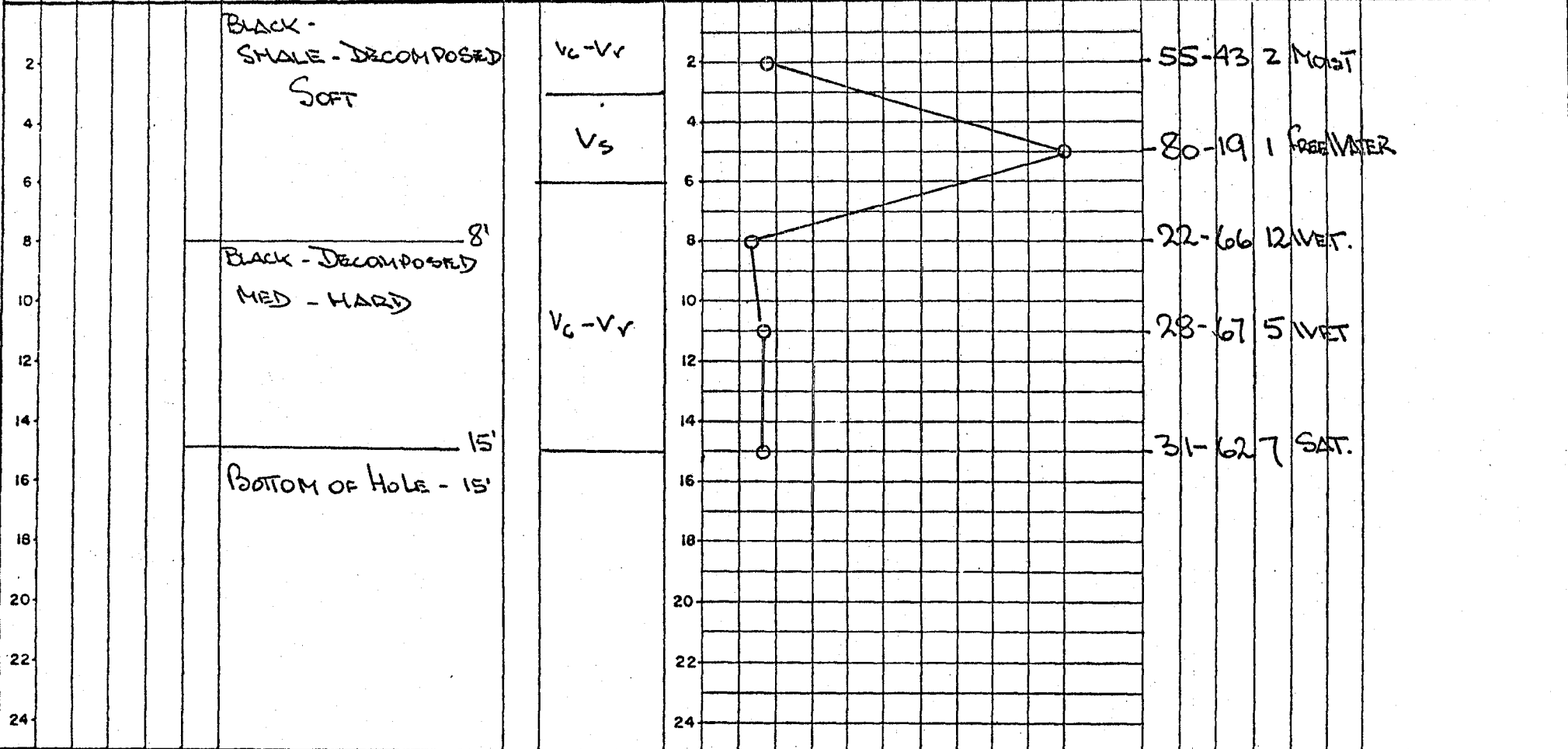
DWN:	FIELD ENG.	DATE DRILLED 12/76	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE
CKD	TECHRONYCH	RIG AIR	SURFACE DRAINAGE:	VEGETATION:	ELEV:	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			

○ = WATER CONTENT (% OF DRY WEIGHT)  
 △ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 20 40 60 80 100 100+  
 LIQUID LIMIT

MILE	B,C,S	NUMBER
259	B	3



# DEMPSTER HIGHWAY - YUKON

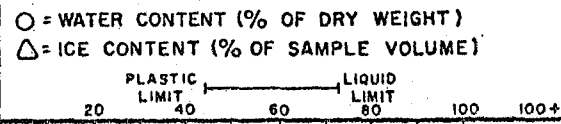
## DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN: FIELD ENG. DATE DRILLED: 10/12/76 AIR PHOTO NO: CHAINAGE: HIGH POINT OF RISE OFFSET: 100' EAST E ELEV: TEST HOLE

CKD TECH PRONYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: MILE: 259 B,C,S: B NUMBER: 4

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
2						SILT-ORGANIC			2							
4						BLACK-SHALE DECOMPOSED SOFT		VS	4							
6									6							
8									8							
10									10							
12									12							
14									14							
16						BOTTOM OF HOLE - 15'			16							
18									18							
20									20							
22									22							
24									24							



46 - 25 7 FREE WATER  
28 - 40 4 FREE WATER  
51 - 100 10 FREE WATER  
40 - 90 0 SAT.

DEMPSTER HIGHWAY - Yukon DRILL HOLE REPORT DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY

DWN: FIELD ENG. DATE DRILLED 8/12/76 AIR PHOTO NO: CHAINAGE Just Short of High Point OFFSET: TEST HOLE

CKD: TECH PRONYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: ELEV: MILE 260 B,C,S B NUMBER 1

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						Black-SHALE DECOMPOSED SOFT, SILTY		V <sub>c</sub> - v <sub>r</sub>	2	35	62	3	WET	+40 DRY GRAVED		
4						5'			4	15	57	28	SAT.	ALL SAMPLES		
6						SHALE - SOFT TO MED.		V <sub>x</sub>	6							
8									8	17	38	45	SAT.			
10									10							
12									12	18	62	20	DAMP			
14									14							
16									16	12	50	38	DAMP			
18									18							
20									20	14	63	23	DAMP			
22									22							
24						DECOMPOSED SHALE SOFT			24	28	59	13	DAMP			

BOTTOM OF HOLE - 25'

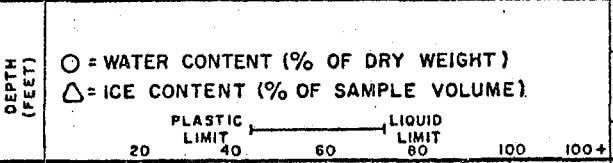
Dempster Highway - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN:	FIELD ENG.:	DATE DRILLED: 8/2/76	AIRPHOTO NO.:	CHAINAGE:	OFFSET:	TEST HOLE
CKD:	TECH: PRONYCH	RIG: AIR	SURFACE DRAINAGE:	VEGETATION:	ELEV.:	MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						SHALE FRAG'S ON SURFACE			2							
4						BLACK - SHALE			4							
6						SOFT - MED. HARD			6							
8								Vc - Vr	8							
10									10							
12									12							
14									14							
16									16							
18									18							
20						BLACK - SHALE			20							
22						DECOMPOSED			22							
24						SOFT			24							



14	55	31	DAMP	+40	DRY SIEVED
22	53	25	MOIST		
18	67	15	WET		
15	66	19	MOIST		
71	29	0	MOIST		
24	62	14	MOIST		

BOTTOM OF HOLE - 30'

-37-60-3 DAMP

Dempster Highway - Yukon DRILL HOLE REPORT DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY

DWN: FIELD ENG: DATE DRILLED: 12/76 AIRPHOTO NO: CHAINAGE: OFFSET: TEST HOLE  
 CKD: TECH: PRONYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: ELEV:

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2						SILTSTONE - SHALE FRAG'S ON SURFACE			2						+ 40 DRY SIEVED ALL SAMPLES	
4						BLACK - SHALE SULTY			4							
6						HARD LOOSE TO 17'		Vc-Vr	6					12-44 44 SAT.		
8									8							
10									10					6-58 36 SAT.		
12								Ux	12							
14									14							
16						MED. HARD TO HARD			16					6-40 54 WET		
18									18							
20									20					7-67 26 MOIST		
22									22							
24						SOFT - MED		Vx	24					13-74 13 MOIST		

MED TO HARD  
 BOTTOM OF HOLE - 30'

-5-64-31 DAMP



Dempster Highway - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN: FIELD ENG. DATE DRILLED 8/12/76 AIRPHOTO NO: CHAINAGE: OFFSET: TEST HOLE

CKD: TECH PROYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: ELEV:

DEPTH (FEET) SAMPLE NUMBER SAMPLE TYPE % RECOVERY PENETRATION RESISTANCE UNIFIED SOIL SYMBOL SOIL DESCRIPTION LIMITS OF FROZEN GROUND ICE DESCRIPTION DEPTH (FEET) O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME) GRAIN-SIZE ANALYSIS CLAY SILT SAND GRAVEL WET DENSITY (P.C.F.) DRY DENSITY (P.C.F.) MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										20	40	60	80	100	100+	
2						SAND - GRAVELLY SILTY			2	25	53	22				SAT.
4									4	9	61	27				H. 13
6								Vc-Vv	6							
8									8	13	62	25				SAT.
10									10							
12									12	16	47	37				SAT.
14									14							
15									15	32	35	33				WET
16						BOTTOM OF HOLE - 15'			16							
18									18							
20									20							
22									22							
24									24							

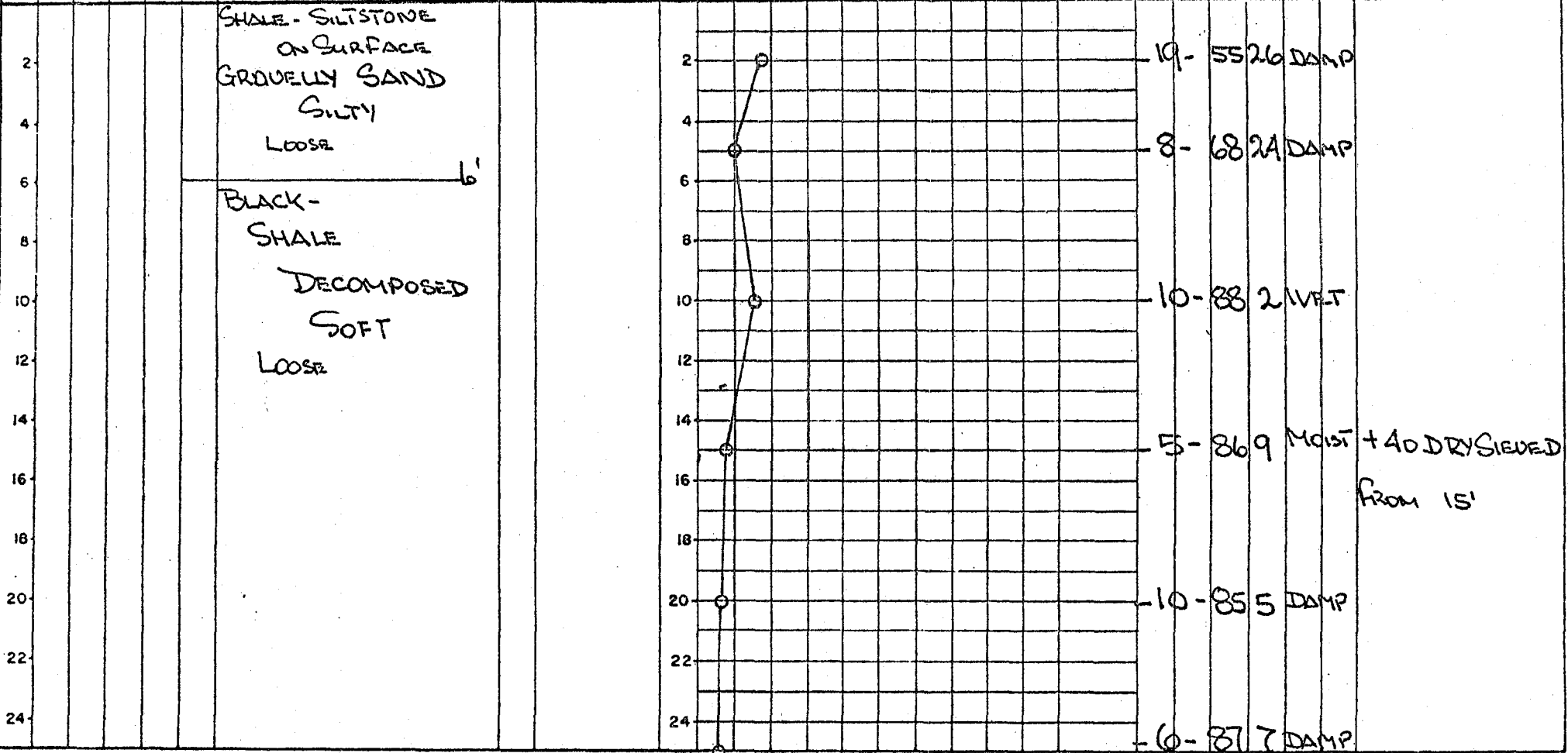
# DEMPSTER HIGHWAY - YUKON

## DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN	FIELD ENG.	DATE DRILLED 8/12/76	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE
CKD	TECH PRONYCH	RIG: AIR	SURFACE DRAINAGE:	VEGETATION:	ELEV:	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %						



SOFT - MED HARD

BOTTOM OF HOLE - 30'

- 5-79-16 DAMP

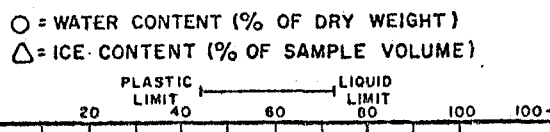
DEMPSTER HIGHWAY - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN:	FIELD ENG.:	DATE DRILLED: 8/12/76	AIRPHOTO NO.:	CHAINAGE:	OFFSET:	TEST HOLE		
CKD:	TECH: PRONYCH	RIG: AIR	SURFACE DRAINAGE:		VEGETATION:	ELEV:		MILE: 26A
							B,C,S: B	NUMBER: 1

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
					P	PEAT										
2						BROWN-SILTSTONE - SHALE HARD		V <sub>C-Vr</sub>	2					23-5126	Moist	+ 40 DRY SIEVED
4									4					21-763	SAT.	ALL SAMPLES
6						BLACK-SHALE DECOMPOSED		V <sub>S</sub>	6					24-760	SAT.	
8									8					17-821	SAT.	
10						SOFT - MED HARD			10					9-874	Moist	
12								V <sub>X</sub>	12							
14									14							
16						BOTTOM OF HOLE - 15'			16							
18									18							
20									20							
22									22							
24									24							



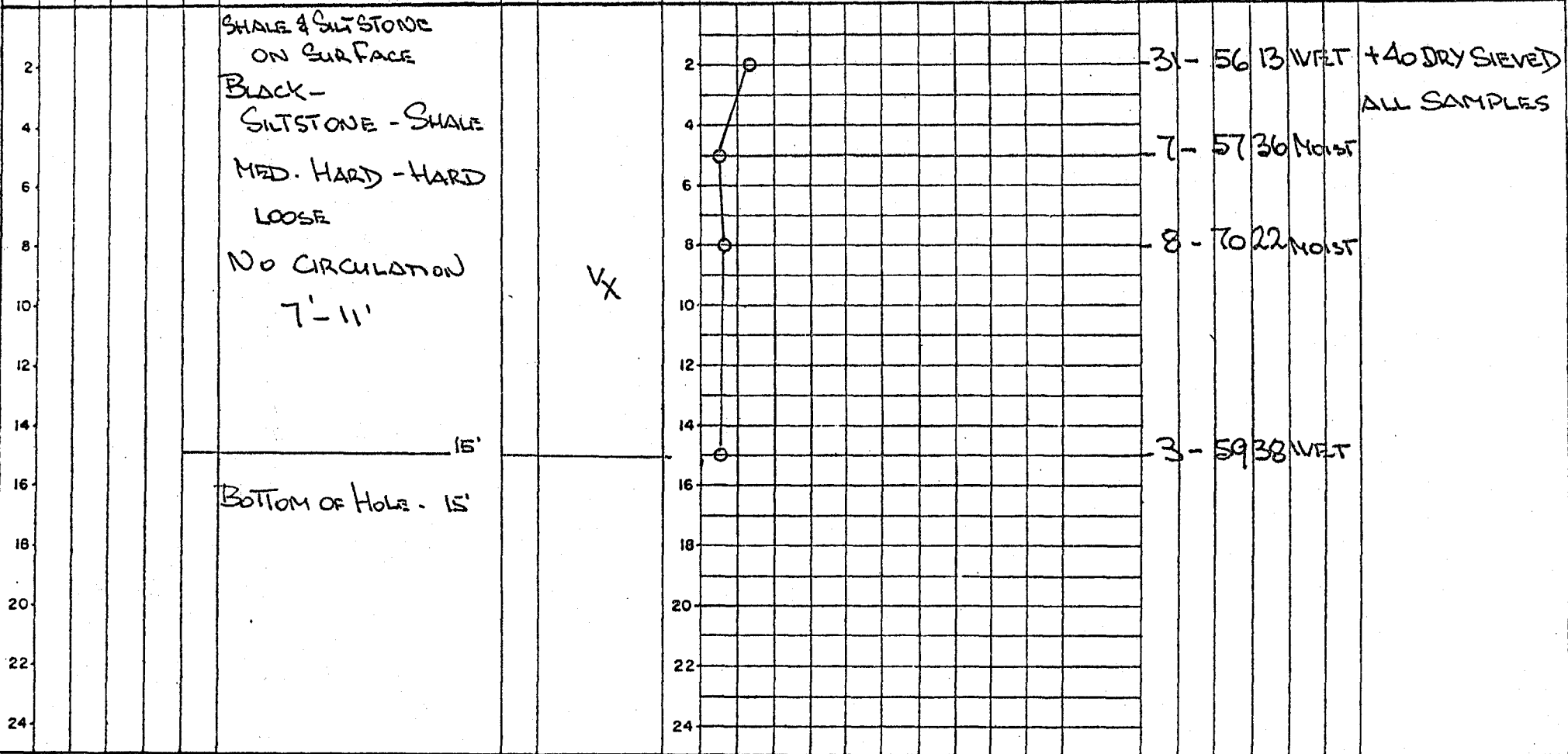
Dempster Highway - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN	FIELD ENG.	DATE DRILLED 8/12/76	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE
CKD	TECH PRONYCH	RIG: AIR	SURFACE DRAINAGE:	VEGETATION:	ELEV:	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER
										CLAY %	SILT %	SAND %	GRAVEL %					

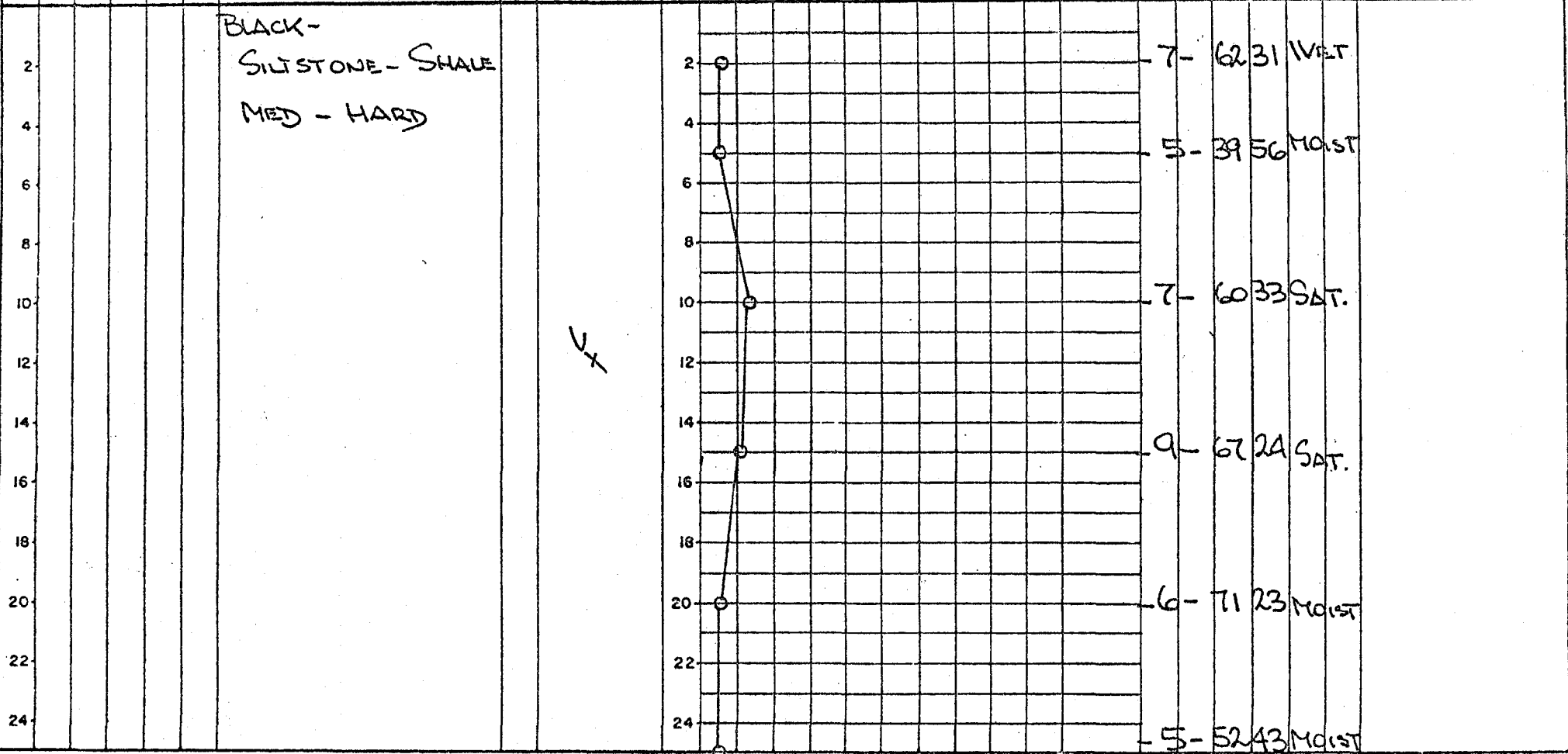


**Dempster Highway - Yukon**      **DRILL HOLE REPORT**      **DEPARTMENT OF PUBLIC WORKS, CANADA**  
**MACKENZIE HIGHWAY**

DWN:      FIELD ENG.      DATE DRILLED: 7/12/76      AIRPHOTO NO:      CHAINAGE:      OFFSET:      TEST HOLE

CKD:      TECH: IRONYCH      RIG: AIR      SURFACE DRAINAGE:      VEGETATION:      ELEV:

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER
										CLAY %	SILT %	SAND %	GRAVEL %					



SOFT-MED.HARD  
 BOTTOM OF HOLE - 30

-20-59-21 DAMP

Dempster Highway - Yukon										DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN		FIELD ENG.		DATE DRILLED: 12/16		AIRPHOTO NO:		CHAINAGE:		OFFSET:		TEST HOLE							
CKD		TECH PRONYCH		RIG AIR		SURFACE DRAINAGE:		VEGETATION:		ELEV:		MILE	B,C,S	NUMBER					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS			
										CLAY	SILT	SAND	GRAVEL						
										O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME)									
										PLASTIC LIMIT      LIQUID LIMIT 20                      40                      60                      80                      100                      100+									
2						BLACK-SHALE - DECOMPOSED LOOSE			2										
4						5' SILTSTONE - SHALE			4										
6						HARD BLACK		Vx	6										
8									8										
10									10										
12									12										
14									14										
16						15' BOTTOM OF HOLE - 15'			16										
18									18										
20									20										
22									22										
24									24										

267	B	2
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5-4847 DAMP

4-2472 DAMP

4-4650 DAMP

+ 40 DRY SIEVED  
ALL SAMPLES

**DEMPSTER HIGHWAY - Yukon** **DRILL HOLE REPORT** **DEPARTMENT OF PUBLIC WORKS, CANADA**  
**MACKENZIE HIGHWAY**

DWN: \_\_\_\_\_ FIELD ENG: \_\_\_\_\_ DATE DRILLED: 7/12/70 AIRPHOTO NO: \_\_\_\_\_ CHAINAGE: \_\_\_\_\_ OFFSET: \_\_\_\_\_  
 CKD: \_\_\_\_\_ TECH: PRONYCH RIG: AIR SURFACE DRAINAGE: \_\_\_\_\_ VEGETATION: \_\_\_\_\_ ELEV: \_\_\_\_\_

TEST HOLE		
MILE	B,C,S	NUMBER
267	B	3

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY	SILT	SAND	GRAVEL				
										PLASTIC LIMIT	LIQUID LIMIT	%	%	%	%		

○ = WATER CONTENT (% OF DRY WEIGHT)  
 △ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT      LIQUID LIMIT

20      40      60      80      100      100+

2						BLACK -			2								
4						SILTSTONE			4								
6						SOME SHALE			6								
8						SLOPEWASH			8								
10								VC-VV	10								
12									12								
14									14								
16						POOR RETURN'S			16								
18						HOLE SLOUGHING 15'			18								
20									20								
22									22								
24						BOTTOM OF HOLE - 15'			24								

9-5635 DAMP

9-6031 SAT.

+40 DRY SIEVED

DEMPSTER HIGHWAY - Yukon

DRILL HOLE REPORT

DEPARTMENT OF PUBLIC WORKS, CANADA  
MACKENZIE HIGHWAY

DWN: FIELD ENG. DATE DRILLED: 7/12/76 AIRPHOTO NO: CHAINAGE: OFFSET: TEST HOLE

CKD: TECH PRONYCH RIG: AIR SURFACE DRAINAGE: VEGETATION: ELEV:

DEPTH (FEET) SAMPLE NUMBER SAMPLE TYPE % RECOVERY PENETRATION RESISTANCE UNIFIED SOIL SYMBOL SOIL DESCRIPTION LIMITS OF FROZEN GROUND ICE DESCRIPTION DEPTH (FEET) O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME) GRAIN-SIZE ANALYSIS (CLAY, SILT, SAND, GRAVEL) WET DENSITY (P.C.F.) DRY DENSITY (P.C.F.) MILE B,C,S NUMBER

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
											CLAY %	SILT %	SAND %	GRAVEL %			
0						Rt PEAT 1'											
2						BLACK - SHALE - SILTY DECOMPOSED			2	○	25-70	5	WET			+40 DRY SIEVED	
4									4	○	19-72	9	Moist			ALL SAMPLES	
6									6								
8									8								
10									10	○	21-72	7	DAMP				
12									12								
14									14								
16									16	○	44-43	13	Moist				
18									18								
20									20	○	49-50	1	Moist				
22									22								
24									24	○	33-62	5	DAMP				

SOFT - MED. HARD  
BOTTOM OF HOLE - 30'

-11-72-17 Moist

NOTES

**DEMPSTER HIGHWAY - Yukon**      **DRILL HOLE REPORT**      **DEPARTMENT OF PUBLIC WORKS, CANADA**  
**MACKENZIE HIGHWAY**

OWN:      FIELD ENG.      DATE DRILLED: 11/27/76      AIRPHOTO NO:      CHAINAGE:      OFFSET:      ELEV:      TEST HOLE 268-C-1

CKD      TECH PRONYCH      RIG: AIR      SURFACE DRAINAGE:      VEGETATION:      ELEV:      MILE 268      B,C,S      NUMBER 1

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS					WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								CLAY	SILT
										PLASTIC LIMIT	LIQUID LIMIT								
										20	40	60	80	100	100+	%	%	%	%
0					PA	PEAT 4"		Vc - Vr	0										
2						CLAY - SILTY FEW PEBBLES		I	2										
4								Vs	4										
6						SHALE - SILTSTONE 6' SOME CLAY			6	NO SAMPLES									
8									8										
10									10										
12						ICE		ICE	12										
14									14										
16						BOTTOM OF HOLE - 15'			16										
18									18										
20									20										
22									22										
24									24										