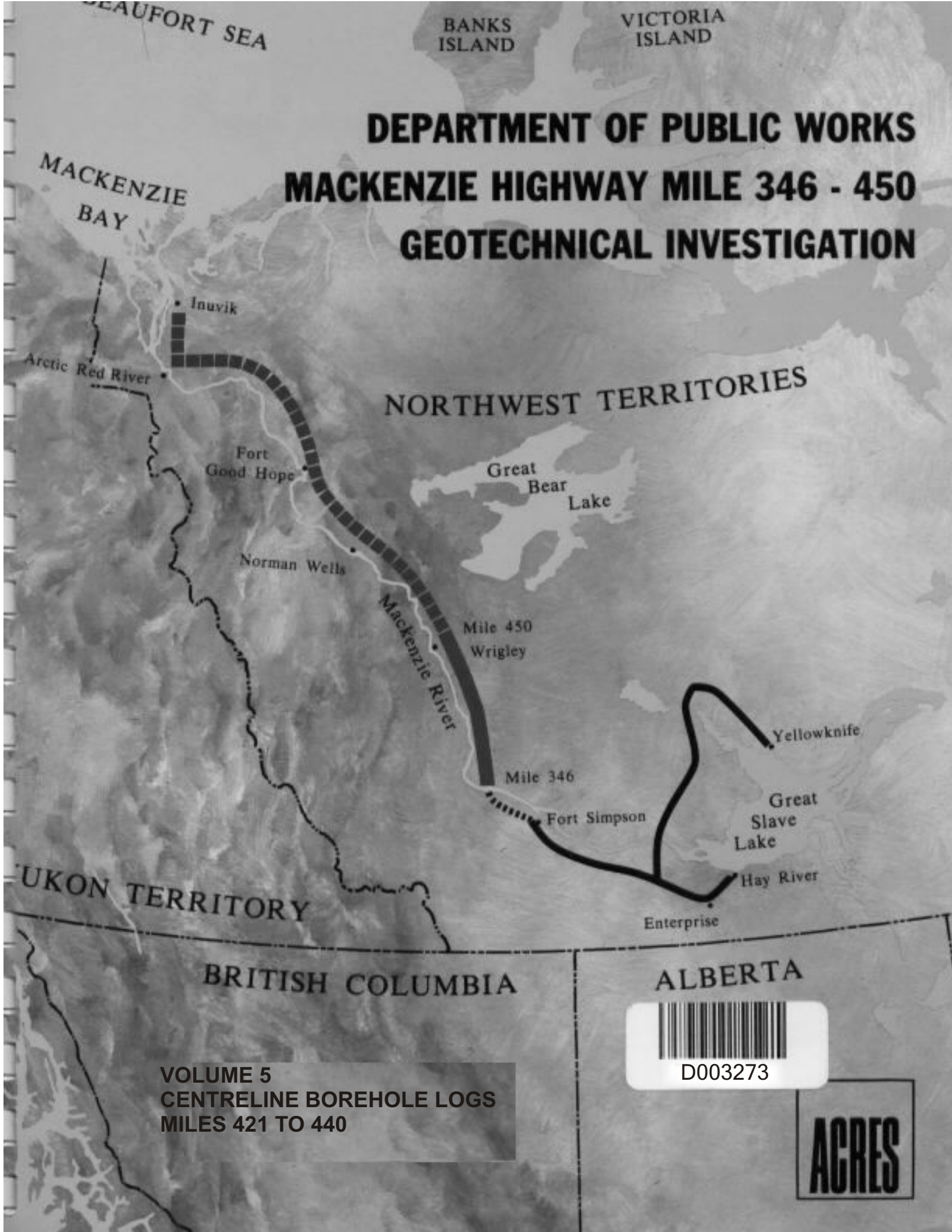


DEPARTMENT OF PUBLIC WORKS
MACKENZIE HIGHWAY MILE 346 - 450
GEOTECHNICAL INVESTIGATION



VOLUME 5
CENTRELINE BOREHOLE LOGS
MILES 421 TO 440



D003273

ACRES

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG	DATE DRILLED: 13/2/13		APPHOTO NO: A22772-122	CHAINAGE: 1378+00		OFFSET:										
CKD	TECH	R.G.	RIG	2	SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 624									
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.)	TEST HOLE		
										CLAY %	SILT %	SAND %	GRAVEL %			MILE	B,C,S	NUMBER
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+								
2	1				Pt	PEAT			2									
4									4									
6									6									
8	2						F	V _x	8									
10									10									
11									11									
12									12									
13	3				ML	SANDY SILT		N _{bn}	13									
14									14									
15						END OF HOLE AT 15'			15									
16									16									
18									18									
20									20									
22									22									
24									24									

0633

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED: 13/2/73		AIRPHOTO NO: A22772-122		CHAINAGE: 1388+00		OFFSET:								
CKD		TECH R.G.		RIG: 2'		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 624								
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.)	TEST HOLE		
										CLAY %	SILT %	SAND %	GRAVEL %			MILE	B,C,S	NUMBER
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+								
2					Pt	PEAT		V _x	2									
1					ML	SANDY SILT			4									
6									6									
2					ML		F	N _{bn}	8									
8									10									
10									12									
12									14									
3					ML				16									
14									18									
16						END OF HOLE AT 15'			20									
18									22									
20									24									
22																		
24																		
REMARKS																		

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED 13/2/		AIRPHOTO NO: A22772-122		CHAINAGE 1393+50 (APPROX)		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION: A		ELEV 642'						
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 80 100 100+						
2	1				GP	BROWN COARSE SAND AND GRAVEL			2							
4									4							
6									6							
8									8							
10	2				GP				10							
12						END OF HOLE AT 11'			12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED 14/2/73		AIR PHOTO NO: A22772-123		CHAINAGE 1411+00		OFFSET		TEST HOLE																	
CKD		TECH M.H.R.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A B		ELEV 671																			
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+																			
2	1				GP	BROWN SANDY GRAVEL		N _f	2							HOLE CAVING IN													
4									4																				
6									6																				
8	2				GP				8																				
10									10																				
12									12																				
14									14																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				
END OF HOLE AT 10'																													

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 4/2/77		AIRPHOTO NO. A22772-123		CHAINAGE 1425+00		OFFSET						
CKD		TECH M.H.R.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A B		ELEV 669						
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.)	TEST HOLE MILE B,C,S NUMBER
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 60 100 100+						
2	1				SP	BROWN COARSE SAND			2							AIR UNABLE TO BLOW MATERIAL UP ANY FURTHER
4							F	N _F	4							
6	2				SP				6							
8									8							
10									10							
12						END OF HOLE AT 10'			12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DOWN:		FIELD ENG		DATE DRILLED 4/2/71		AIRPHOTO NO: A22772-123		CHAINAGE: 1438+00		OFFSET:		TEST HOLE				
CKD		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 640						
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	1				GW	BROWN SANDY GRAVEL	F	N _f	2							
4									4							
6									6							
8	2				GW				8							
10						END OF HOLE AT 10'			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
OWN:		FIELD ENG:		DATE DRILLED: 14/2/77		AIR PHOTO NO: A22772-124		CHAINAGE: 1447+00		OFFSET:		TEST HOLE																	
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 630		MILE: 422		B,C,S: C		NUMBER: D													
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	1				GW	BROWN COARSE SAND AND FINE GRAVEL	F	N _f	2							NO RECOVERY BY AIR AFTER 5'													
4									4																				
6						END OF HOLE AT 5'			6																				
8									8																				
10									10																				
12									12																				
14									14																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN:	FIELD ENG:	DATE DRILLED: 14/2/73	AIRPHOTO NO: A22772-124	CHAINAGE: 1462+20	OFFSET:		TEST HOLE											
CKD:	TECH: M.H.R.	RIG: 2	SURFACE DRAINAGE: ON SPRING	VEGETATION: A B	ELEV: 565													
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					
2						ICE (FROZEN STREAM)			2									
4									4									
6						WATER			6									
8									8									
10						SAND AND GRAVEL	UP		10									
12					GW				12									
14									14									
16	1	P		26	ML	GREY CLAYEY SILT WITH A TRACE OF SAND			16					29	65	6	1	
18						END OF HOLE AT 16.5'			18									
20									20									
22									22									
24									24									

HOLE DRILLED
ON A FROZEN
STREAM

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG.		DATE DRILLED: 14/2/77		AERPHOTO NO: A22776-200		CHAINAGE: 1475+00		OFFSET		TEST HOLE	
CKD		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 609			

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	1				SM	BROWN SAND WITH SOME SILT AND A TRACE OF CLAY		N _{bn}	2		2	15	72	1		
4									4							
6	2				SW	BROWN GRAVELLY SAND WITH A TRACE OF SILT	F	N _f	6		1	7	55	37		
8									8							
10									10							
12	3				SW				12		1	8	73	18		
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 14/2/71		AIRPHOTO NO: A22776-200		CHAINAGE: 1485+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 679		MILE: 423				
												B,C,S: C				
												NUMBER: B				
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 60 80 100 100+						
2	1				SM	BROWN SILTY SAND			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12									12							
14	3				SM				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 14/2/73		AIRPHOTO NO: A22776-199		CHAINAGE 1499+50		OFFSET		TEST HOLE						
CKD		TECH R. G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 690		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	1				SP	BROWN FINE AND MEDIUM SAND WITH SOME SILT AND A TRACE OF GRAVEL	F	N _{DN}	2	1	10	85	4					
4											4							
5											5							
6									6									
8	2				SP				8									
10									10									
12	3				SP				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 14/2/73		AIRPHOTO NO: A22776-199		CHAINAGE: 1513+50		OFFSET:		TEST HOLE				
CKD		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 687						
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	1				ML	BROWN SILTY SAND WITH A TRACE OF GRAVEL			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10							UF		10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

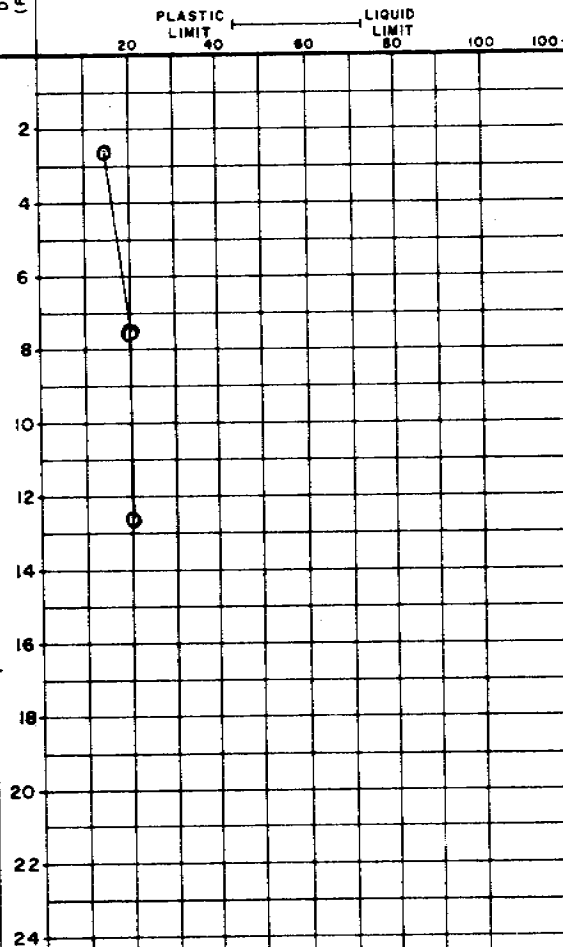
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED: 15/2/74		AIR PHOTO NO: A22776-199		CHAINAGE: 1519+30		OFFSET:		TEST HOLE								
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: A B F		ELEV: 697										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
														CLAY %	SILT %	SAND %	GRAVEL %			
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+										
2	1				ML	BROWN SILT WITH SOME SAND AND A TRACE OF GRAVEL			2											
4							F	N _{bn}	4											
6									6											
8	2				ML				8											
10							UF		10											
12	3				ML				12											
14									14											
16						END OF HOLE AT 15'			16											
18									18											
20									20											
22									22											
24									24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN:		FIELD ENG		DATE DRILLED 15/2/73		AERPHOTO NO: A22776-199		CHAINAGE 1529+50		OFFSET		TEST HOLE						
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: B		ELEV 680'								
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					Pt	PEAT		V _x	2									
4	1					SILT AND SAND WITH SOME GRAVEL AND A TRACE OF CLAY	F	N _{bn}	4	○								
5									6									
6									8									
8	2				SM				8									
10									10									
12	3				ML		UF		12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED: 15/2/73		AERPHOTO NO: A22776-198		CHAINAGE: 1536+40		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 665						
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	1				SP	BROWN SAND WITH SOME SILT	F	N _f	2	6	14	79	1			
4						A GRAVEL BED STARTS AT 11'	UF		4							
6									6							
8									8	3	21	75	1			
10									10							
12						END OF HOLE AT 11'			12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG:		DATE DRILLED: 15/2/13		AIRPHOTO NO: A22776-198		CHAINAGE: 1544+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 653						
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	1				SP	BROWN SAND, MEDIUM GRAINED	F		2							
4							UF		4							
6									6							
8	2				SP				8							
10									10							
12	3				SP				12							
14									14							
16	4	T	0			END OF HOLE AT 16.5'			16							
18									18							
20									20							
22									22							
24									24							

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



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 15/2/74		AIRPHOTO NO: A22776-198		CHAINAGE: 1547+00 (APPROX)		OFFSET:		TEST HOLE												
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B F		ELEV: 656'		MILE		B,C,S		NUMBER								
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	1				SP	BROWN SAND WITH SOME SILT AND A TRACE OF CLAY AND GRAVEL	F	N _f	2	6	18	75	1											
4											4													
6									6															
8	2				SP		UF		8	7	19	70	4											
10									10															
12	3				SP				12															
14									14															
16	4	T	O						16															
18						END OF HOLE AT 16.5'			18															
20									20															
22									22															
24									24															

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED 15/2/74		AIRPHOTO NO: A22776-198		CHAINAGE: 1562+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 654						
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	1				SP	BROWN COARSE SAND WITH A TRACE OF SILT			2							
4									4							
6									6							
8	2				SP		F	N _f	8							
10									10							
12	3				SP				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 15/2/11		AIRPHOTO NO: A22776-198		CHAINAGE: 1568+00		OFFSET:		TEST HOLE				
CKD:		TECH M.H.R.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 647						
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	1				SM	BROWN SAND AND SILT			2							
4									4							
6		P O			20/1"	----- F	N _{bn}		6							
8	2				ML	SILT WITH SOME GRAVEL			8							
10									10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 15/2/73		AERPHOTO NO: A22776-197		CHAINAGE: 1574+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 649						
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						BROWN SAND WITH SOME GRAVEL			2							
4					SW			N _f	4							
6	1						F		6							
8									8							
10						GREY SILT WITH SOME SAND			10							
12	2				ML			N _{bn}	12							
14									14							
16	3	P		100					16							
18						END OF HOLE AT 16.5'			18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT								DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY						
DWN:	FIELD ENG.		DATE DRILLED: 15/2/91		AIRPHOTO NO: A22776-197	CHAINAGE: 1584+00				OFFSET:										
CKD	TECH M.H.		RIG: 2	SURFACE DRAINAGE: GOOD		VEGETATION: A B				ELEV: 650			TEST HOLE							
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				
										O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME)	CLAY	SILT	SAND	GRAVEL						
										PLASTIC LIMIT ——— LIQUID LIMIT	%	%	%	%						
										20 40 60 80 100 100+										
2	1				SW	BROWN SAND WITH SOME GRAVEL AND A FEW COBBLES AND SMALL BOULDERS	F	N _f	2											
4									4											
6									6											
8									8											
10									10											
12	2				ML	GREY SILT		N _{bn}	12											
14									14											
16	3 P		100						16											
END OF HOLE AT 16.5'																				
18									18											
20									20											
22									22											
24									24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN		FIELD ENG		DATE DRILLED 15/2/43		AIR PHOTO NO: A22776-196		CHAINAGE: 1607+50		OFFSET:		TEST HOLE				
CKD		TECH W.P.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION: B D		ELEV. 652		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 %			
						PEAT				○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	SILT WITH SOME SAND AND CLAY AND A TRACE OF GRAVEL			2	11	51	28	10			
4									4							
6	2				ML			N _{bn}	6	13	60	26	1			
8						BROWN GREY			8							
10									10							
12	3				ML				12	14	72	12	2			
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

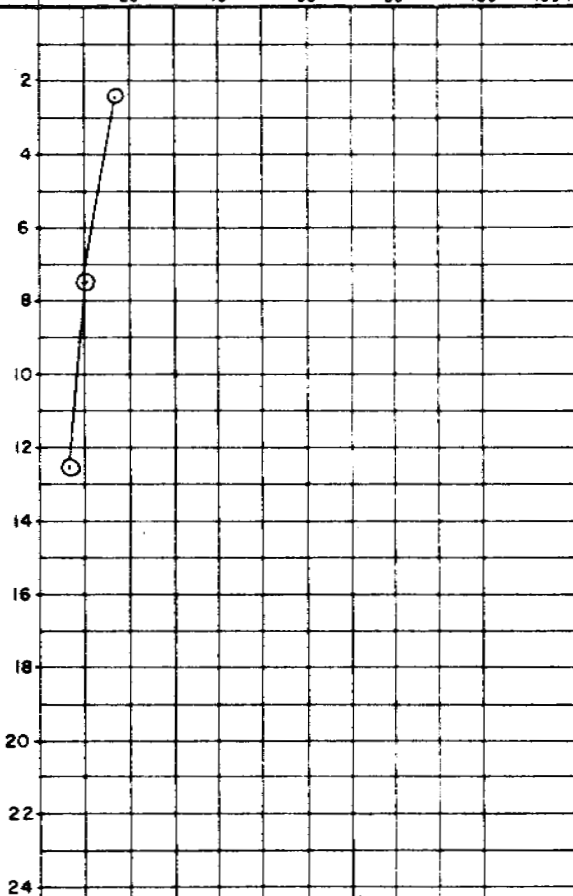
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA					DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG		DATE DRILLED: 15/2/74		AIRPHOTO NO: A22776-126		CHAINAGE: 1616+00		OFFSET		TEST HOLE		
CKD:		TECH: W.P.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B D		ELEV: 653				
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 %			
2					Pt	PEAT		V _x	2					
4	1				SM	SILT WITH SOME SAND AND CLAY AND A TRACE OF GRAVEL			4					
6	2				SM		F	N _{bn}	6	12	63	22	3	
8						---BROWN--- GREY			8					
10									10					
12	3				SM				12					
14									14					
16						END OF HOLE AT 15'			16					
18									18					
20									20					
22									22					
24									24					

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 15/2/73		AIRPHOTO NO: A22776-126		CHAINAGE: 1623+80		OFFSET:		TEST HOLE																	
CKD:		TECH: W. R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 658		MILE: 425		S,C,S: C		NUMBER: E													
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 %																
						PC PEAT		V _x																					
2	1					SW SAND WITH SOME GRAVEL AND A TRACE OF SILT			2	1	6	73	20																
4									4																				
6	2				SW		F	N _{bn}	6																				
8						BROWN GREY			8																				
10									10																				
12	3				SM				12																				
14							UF		14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED 15/2/73	AIRPHOTO NO. A22772-134	CHAINAGE: 1641 + 10	OFFSET		TEST HOLE								
CKD	TECH W.R.	RIG 1	SURFACE DRAINAGE GOOD		VEGETATION: ABD	ELEV 684										
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	1				ML	BROWN SILT WITH SOME SAND AND CLAY AND A TRACE OF GRAVEL AND CLAY			2	8	85	6	1			
4									4							
6									6							
8	2				ML		F	N _{bn}	8	6	56	31	7			
10									10							
12	3				ML				12							
14									14							
16						End of hole at 15'			16							
18									18							
20									20							
22									22							
24									24							

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

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 5/2/73		AIRPHOTO NO: A22772-174		CHAINAGE: 1647 + 50		OFFSET:		TEST HOLE	
CKD:		TECH W.R.		RIG 1		SURFACE DRAINAGE: GOOD		VEGETATION: ABD		ELEV: 679			

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	1	/			SM	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND AND GRAVEL			2									
4											4							
6	2								SM	F	6							
8									8									
10									10									
12									12									
14	3				SM		UF		14									
16						End of hole at 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED 15/4/73		AIRPHOTO NO: A22772-134		CHAINAGE: 1659 + 50		OFFSET		TEST HOLE																	
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE: FAIR		VEGETATION: BD		ELEV 621																			
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					Pt	PEAT	F	V _x	2							HOLE FLOODING WITH WATER SO STOPPED DRILLING AT 12'.													
4	1					BROWN SILT WITH SOME CLAY AND A TRACE OF SAND AND GRAVEL			4																				
6									6																				
8	2				ML		UF		8																				
10		P	0	59 1/2"					10																				
12	3								12																				
14						End of hole at 12'			14																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED 15/2/73		AIRPHOTO NO:		CHAINAGE 1672 + 50		OFFSET:	
CKD:		TECH N.R.		RIG 1		SURFACE DRAINAGE FAIR		VEGETATION B		ELEV 659	

TEST HOLE		
MILE	B,C,S	NUMBER
426	C	F
REMARKS		

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.)	
										CLAY %	SILT %	SAND %	GRAVEL %			
					Pt	PEAT		V _x								
2	1				SP	SAND WITH SOME SILT AND A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8					ML	SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	8							
10									10							
12					ML				12							
14									14							
16						End of hole 15'			16							
18									18							
20									20							
22									22							
24									24							

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

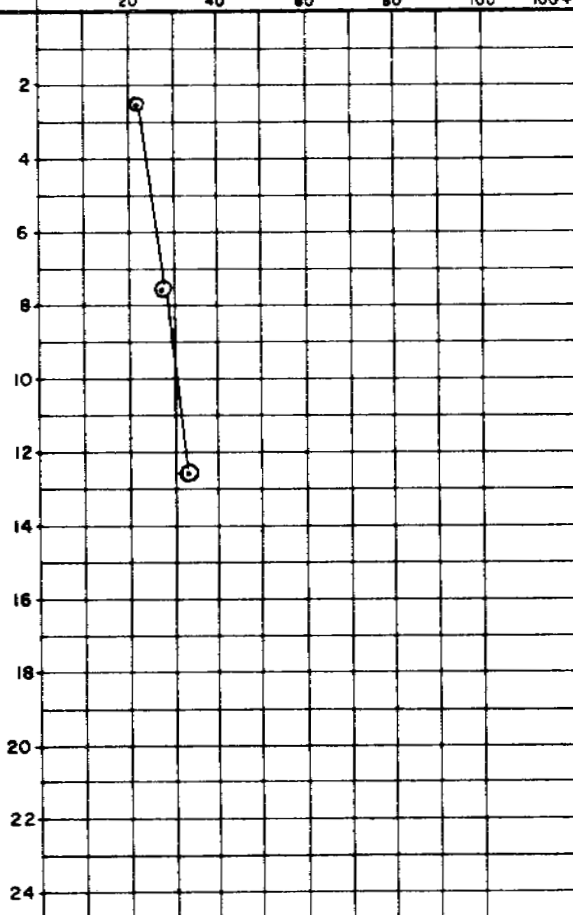
PLASTIC LIMIT LIQUID LIMIT

20 40 60 80 100 100+

REMARKS

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:			FIELD ENG			DATE DRILLED 16/2/73			AIRPHOTO NO: A22772 -134			CHAINAGE: 1687 + 10			OFFSET			TEST HOLE											
CKD:			TECH V.S.			RIG 1			SURFACE DRAINAGE FAIR			VEGETATION: BG			ELEV 654														
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	PLASTIC LIMIT		LIQUID LIMIT		GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS									
										20	40	60	80	100	100+	CLAY %	SILT %				SAND %	GRAVEL %							
2	1				ML	BROWN SANDY SILT		N _{bn}	2																				
4									4																				
6	2				CL	GREY CLAYEY SILT		V _r	6																				
8									8																				
10									10																				
12	3				CL				12																				
14									14																				
16	4				CL				16																				
18									18																				
20						End of hole at 18'			20																				
22									22																				
24									24																				

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



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED 15/2/73		AIRPHOTO NO: A22772-135		CHAINAGE: 1694 + 00 (Approx)		OFFSET:		TEST HOLE																	
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION:		ELEV: 649																			
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	1				SP	BROWN SAND WITH SOME SILT			2																				
4									4																				
5									5																				
6									6																				
8	2				SP		F	N _f	8	0	12	87	1																
10									10																				
12	3				SP				12	0	12	87	1																
14									14																				
15		P	0	25	SP				15																				
16									16																				
17						END OF HOLE AT 16.5'			17																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED 15/2/73		AIRPHOTO NO: A22772-135		CHAINAGE: 1696 + 00 (Approx.)		OFFSET:		TEST HOLE									
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION:		ELEV: 635											
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 %										
2	1				CL	SILT WITH SOME CLAY			2												
4									4												
5									5												
6						BROWN GREY			6												
8	2				CL		F	V _s	8												
10									10												
12									12												
14									14												
15.5	3	P	50%		CL				15.5												
16						END OF HOLE AT 15.5'			16												
18									18												
20									20												
22									22												
24									24												

DWN:		FIELD ENG	DATE DRILLED 15/2/73	AIRPHOTO NO: A22772-135	CHAINAGE: 1698 + 00 (Approx.)	OFFSET	MACRENEE HIGHWAY		TEST HOLE									
CKD	TECH	R. G.	RIG 2	SURFACE DRAINAGE GOOD	VEGETATION A	ELEV. 647												
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	1				SM	BROWN SAND WITH SOME SILT AND A TRACE OF CLAY	F	N _{bn}	2		5	25	69	1				
4									4									
5									6									
6									8									
8	2				SM				8									
10									10									
12									12									
15	3				SM				12									
16									14									
18	4				SM				16									
20						END OF HOLE AT 20'			18		8	26	65	1				
22									20									
24									22									
									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED 15/2/73		AIRPHOTO NO: A22772-136		CHAINAGE 1703 + 50 (Approx.)		OFFSET		TEST HOLE																	
CKD		TECH R. G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 645																			
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	1				ML	BROWN SILT WITH SOME CLAY AND FINE SAND	F		2																				
4								N _{bn}	4																				
5																													
6																													
8	2				ML		UF		8																				
10									10																				
12									12																				
14	3				ML				14																				
15									15																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DOWN:		FIELD ENG		DATE DRILLED 15/2/73		AIRPHOTO NO: A22772-136		CHAINAGE 1721 + 35		OFFSET:		TEST HOLE									
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 593											
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						FINE SAND WITH SOME SILT AND A TRACE OF CLAY	F	N _{bn}	2												
4									4												
5	1	P	80	10	ML				5												
6									6												
8									8												
10	2	P		27	SM				10												
12									12												
14									14												
15									15												
16	3	P		28	SM			N _f	16												
18									18												
20	4	P		32	SM				20		4	16	80	0							
22									22												
24	5	P		18	SM	END OF HOLE AT 25'			24		7	20	73	0							
25																					

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

PLASTIC LIMIT LIQUID LIMIT

HOLE CAVING AT
25"

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN		FIELD ENG		DATE DRILLED 15/2/73		AIRPHOTO NO: A22772-136		CHAINAGE: 1726 + 00				OFFSET:				TEST HOLE					
CKD		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD				VEGETATION: A				ELEV: 570							
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					ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND			2												
4	1								4												
5									5												
6									6												
8	2				ML		F	N _{bn}	8												
10									10												
12									12												
14	3				ML				14												
15						END OF HOLE AT 15'			15												
16									16												
18									18												
20									20												
22									22												
24									24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG		DATE DRILLED 15/2/73		AIRPHOTO NO: A22772-136		CHAINAGE: 1733 + 50 (Approx.)		OFFSET:		TEST HOLE								
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 558										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
														CLAY %	SILT %	SAND %	GRAVEL %			
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+										
2	1				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND			2											
4									4											
5									5											
6									6											
8	2				ML		F	N _{bn}	8											
10									10											
12									12											
14	3				CL				14											
15									15											
16						END OF HOLE AT 15'			16											
18									18											
20									20											
22									22											
24									24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED 15/2/13		AIRPHOTO NO: A22772-136		CHAINAGE 1738 + 55		OFFSET		TEST HOLE					
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 548							
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 80 100 100+							
2	1				SM	BROWN SILTY SAND			2								
4									4								
5									5								
6									6								
8	2				SM		F	N _{bn}	8								
10									10								
11									11								
12						END OF HOLE AT 11'			12								
14									14								
16									16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 16/2/77		AIR PHOTO NO: A22772-137		CHAINAGE: 1753+60		OFFSET:						
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 496						
TEST HOLE																
MILE		B,C,S		NUMBER												
428		C		B												
REMARKS																
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	WATER CONTENT (% OF DRY WEIGHT) ICE CONTENT (% OF SAMPLE VOLUME)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
											CLAY	SILT	SAND	GRAVEL		
											%	%	%	%		
2	1				Pt	PEAT		V _x	2							
4					ML	SANDY SILT WITH SOME CLAY			4							
6							F	N _{bn}	6							
8	2				ML				8							
10									10							
12					ML	BROWN GREY		V _s	12							
14									14							
16	3 P		130						16							
18						END OF HOLE AT 16'			18							
20									20							
22									22							
24									24							

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 15/2/15		AIRPHOTO NO: A22772-137		CHAINAGE: 1767+40		OFFSET:		TEST HOLE				
CKD:		TECH: V.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A F G		ELEV: 508		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 %			
					SM	SILTY SAND		N _{bn}								
2	1				GP	FINE TO COARSE GRAVEL	F	N _f	2							
4									4							
6									6							
8	2				ML	GREY SILT WITH SOME CLAY			8							
10					ML		UF		10							
12									12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 15/2/74		AIR PHOTO NO: A22772-137		CHAINAGE: 1776+50		OFFSET:		TEST HOLE									
CKD:		TECH: V.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B F G		ELEV: 511											
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	1				SP	BROWN SAND WITH SOME GRAVEL AND A TRACE OF SILT			2	0	3	79	18								
4									4												
6									6												
8	2				SP		F	N _F	8	0	3	87	10								
10									10												
12					SP				12												
14	3								14												
16						END Of hole at 15'			16												
18									18												
20									20												
22									22												
24									24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG.		DATE DRILLED 16/2/73		AIR PHOTO NO: A22772-137		CHAINAGE: 1790+00		OFFSET				TEST HOLE			
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A B D		ELEV 512							
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 %				
					Pt	PEAT		V _x		○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
2	1				SM	SANDY SILT WITH SOME CLAY AND A TRACE OF GRAVEL			2								
4									4								
6									6								
8	2				SM		F	N _{bn}	8								
10									10								
12						BROWN GREY			12								
14	3				SM				14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG		DATE DRILLED: 16/2/		AIRPHOTO NO: A22772-139		CHAINAGE: 1808+00		OFFSET		TEST HOLE	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B D		ELEV: 510			

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 %			
					Pt	PEAT		V _x								
2	1				ML	GREY SILT WITH SOME SAND AND A TRACE OF CLAY			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12									12							
14	3				ML				14							
16						END OF HOLE at 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG.		DATE DRILLED 16/2/73		AIRPHOTO NO. A22772-139		CHAINAGE: 1819+00		OFFSET		TEST HOLE				
CKD:		TECH W.R.		RIG 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV 437		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 %			
						0-3 FT. PEAT										
2	1				ML	CLAYEY SILT WITH SOME SAND	F	N _{bn}	2	27	50	16	7			
4	2	P		39			UF		4	19	78	3	0			
6									6	24	72	4	0			
8	3				ML				8							
10									10							
12	4	P		35			F	N _{bn}	12	7	60	33	0			
14	5				ML				14							
16	6	P		54		BROWN GREY			16							
18	7				ML				18	12	80	8	0			
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED: 16/2/73		AIRPHOTO NO: A22772-139		CHAINAGE: 1826+00 (APPROX)		OFFSET:		TEST HOLE																	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 395		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 %																
						PEAT																							
2	1				ML	GREY SANDY SILT WITH SOME CLAY AND A TRACE OF GRAVEL			2																				
4									4																				
6	2	P		34	ML				6																				
8	3				ML				8																				
10	4	P		60	ML				10																				
12	5				ML				12																				
14									14																				
16	6				ML				16																				
18									18																				
20						END OF HOLE AT 20'			20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 16/2/73										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG.		DATE DRILLED		AIRPHOTO NO: A22772-139		CHAINAGE		1832+00		OFFSET:		TEST HOLE		
CKD:		TECH: V.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A F G		ELEV 378		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	1				SM	BROWN SILTY SAND		V _x	2	17	27	34	22			
4					SM	GREY SILTY AND SANDY TILL WITH SOME CLAY AND GRAVEL			4							
6									6							
8									8							
10	2	P	45		ML	GREY SILT WITH SOME CLAY AND A TRACE OF SAND	F		10	28	59	12	1			
12	3				ML			V _s	12	25	63	12	0			
14									14							
16									16							
18	4	P	50		ML				18	10	88	2	0			
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG		DATE DRILLED 16/2/72		AIRPHOTO NO: A22772-139		CHAINAGE 1840+00		OFFSET:		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION A		ELEV 333		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 %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+						
2						CLAYEY SILT WITH SOME SAND	F	N _{bn}	2							WATER AT 5' AND HOLE CAVING AT 10'; CASED HOLE TO 15'. NO SAMPLES TO 15'.
4									4							
6							UF		6							
8									8							
10									10							
12									12							
14	1	CL							14							
16	2	T				GREY CLAYEY SILT WITH SOME SAND			16	26	52	21	1			
18									18							
20									20							
22	3	T							22	30	47	23	0			
24									24							

Continued

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED 16/2/73		AIRPHOTO NO: A22772-140	CHAINAGE: 1846+00	OFFSET		TEST HOLE							
CKD		TECH V.S.	RIG 1	SURFACE DRAINAGE GOOD		VEGETATION A F G	ELEV 271									
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	1				ML	GREY SILT WITH SOME CLAY AND SAND AND A TRACE OF GRAVEL	F	V _x	2	18	44	31	7			
4									4							
6									6							
8									8	26	60	10	4			
10	2	P		4	ML		UF		10							
12									12							
14									14							
16	3	T			ML				16							
18									18							
20	4	T			ML				20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:			FIELD ENG			DATE DRILLED 16/2/74			AIRPHOTO NO: A22772-140			CHAINAGE: 1833+00			OFFSET			TEST HOLE											
CKD			TECH V.S.			RIG 1			SURFACE DRAINAGE GOOD			VEGETATION: A F G			ELEV 372														
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 %																
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)																			
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80																			
2					Pt	BROWN PEATY GRAVEL AND SILT			2																				
4	1								4	8	19	66	7																
6					SW	GREY SAND WITH SOME SILT AND A TRACE OF CLAY AND GRAVEL		V _x	6																				
8									8																				
10	2	P		88	ML	GREY SILT WITH SOME SAND AND CLAY		F	10	6	52	41	1																
12									12	19	71	10	0																
14									14	4	63	33	0																
16	3	P		90	ML				16																				
18									18																				
20	4	P		120	ML				20	32	62	6	0																
22						END OF HOLE AT 20'			22																				
24									24																				

[illegible]

DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO: A22772-140	CHAINAGE	1867+50	OFFSET	TEST HOLE										
CKD	TECH	B.P.S.	RIG D-7C CAT	SURFACE DRAINAGE	GOOD	VEGETATION	CLEARED AREA	ELEV	325									
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					
										%	%	%	%	REMARKS				
TOP SOIL																		
2					SW	SILTY SAND BROWN AND GREY		N _{be}	2									THIS IS A TRENCH CUT ALONG THE FACE OF A STEEP ESCARPMENT ON THE NORTH BANK OF SMITH CREEK
4	1	1			GW	GRAVEL WITH COBBLES, SANDY, TRACE OF SILT AND OCCASIONAL SMALL BOLDERS, MODERATLY WELL GRADED.			4		0	1	15	84				
6									6									
8									8									
10	2	2			GW	ROUNDED TO SUBROUNDED FRAGMENTS LAYERED DUE TO LOCAL VARIATIONS IN GRAIN SIZE.	F	V _x	10		0	1	16	83				
12									12									
14									14									
16	3	3			GW	PARTLY OXADIZED AND LOCALLY MILDLY CEMENTED WITH CALCITE PRECIPMATE			16		0	3	37	60				
18									18									
20									20									
22									22									
24	4	4			GW				24		0	1	20	79				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
OWN:		FIELD ENG		DATE DRILLED 16/2/74		AIR PHOTO NO: A22772-140		CHAINAGE:		OFFSET:		TEST HOLE																	
CKD		TECH B.P.S.		RIG D-7c CAT		SURFACE DRAINAGE GOOD		VEGETATION CLEARED AREA		ELEV 300																			
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 80 100 100+																			
2									2																				
4									4																				
6									6																				
8									8																				
10	5	△			GW		F	V _x	10		0	2	21	77															
12									12																				
14									14																				
16						END OF TRENCH AT 38'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

38'

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN:		FIELD ENG:		DATE DRILLED 7/2/73		AIRPHOTO NO: A22772-140		CHAINAGE 1888 + 00		OFFSET:		TEST HOLE										
CKD:		TECH: R. G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 402												
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 ——— LIQUID LIMIT 20 40 60 80 100 100+													
2	1				GP	BROWN SAND AND GRAVEL			2													
4									4													
5									5													
6									6													
8					GP			N _f	8													
10	2								10													
11						END OF HOLE AT 11'			11													
12									12													
14									14													
16									16													
18									18													
20									20													
22									22													
24									24													

MILE	B,C,S	NUMBER
430	C	D

REMARKS

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED 17/2/73		AIRPHOTO NO: A22772-142		CHAINAGE: 1933 + 50		OFFSET:		ELEV: 390		TEST HOLE															
CKD:		TECH R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A																					
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	1				GP	BROWN SANDY GRAVEL WITH SOME COBBLES			2																				
4									4																				
5									5																				
6							F	N _f	6																				
8	2				GP				8																				
10									10																				
12									12																				
14	3				GP				14																				
15						END OF HOLE AT 15'			15																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED: 12/2/73		AIRPHOTO NO: A22772-142		CHAINAGE: 1945 + 00		OFFSET:		TEST HOLE						
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 395								
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 %					
2	1				GP	BROWN SANDY GRAVEL WITH COBBLES AND A FEW SMALL BOULDERS			2									
4									4									
5									5									
6	2				GP			N _f	6									
8									8									
10						END OF HOLE AT 10'			10									
12									12									
14									14									
16									16									
18									18									
20									20									
22									22									
24									24									

VERY HARD
DRILLING, SO
HOLE WAS
ABANDONED

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED 19/2/73	AIRPHOTO NO: A22772-142	CHAINAGE: 1956 + 00	OFFSET		TEST HOLE								
CKD		TECH R.G.	RIG 2	SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 408								
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	1				ML	BROWN SAND AND SILT WITH SOME CLAY AND A TRACE OF GRAVEL		N _{bn}	2		12	45	41	2		
4																
5																
6																
8	2					BROWN SAND WITH SOME SILT AND GRAVEL AND A TRACE OF CLAY			8							
10																
12					SM				12		4	18	61	17		
14	3								14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

DOWN		FIELD ENG.	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	1986 + 50	OFFSET	TEST HOLE								
CKD	TECH	R.G.	RIG	2	SURFACE DRAINAGE	GOOD	VEGETATION	A	ELEV	411						
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						
2	1				GP	BROWN SAND AND GRAVEL WITH SOME COBBLES AND A FEW SMALL BOULDERS	F	N _f	2	4	16	67	13			
4									4							
5																
6																
8	2				GP				8							
10						END OF HOLE AT 10'			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN		FIELD ENG		DATE DRILLED 12/2/73		AIRPHOTO NO: A22772-143		CHAINAGE: 2002 + 70		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION A		ELEV 414		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	1				GW	BROWN SAND AND GRAVEL WITH SOME SILT AND COBBLES		N _f	2							
4									4							
5									5							
6									6							
8					GW				8							
10	2					END OF HOLE AT 10'			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

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

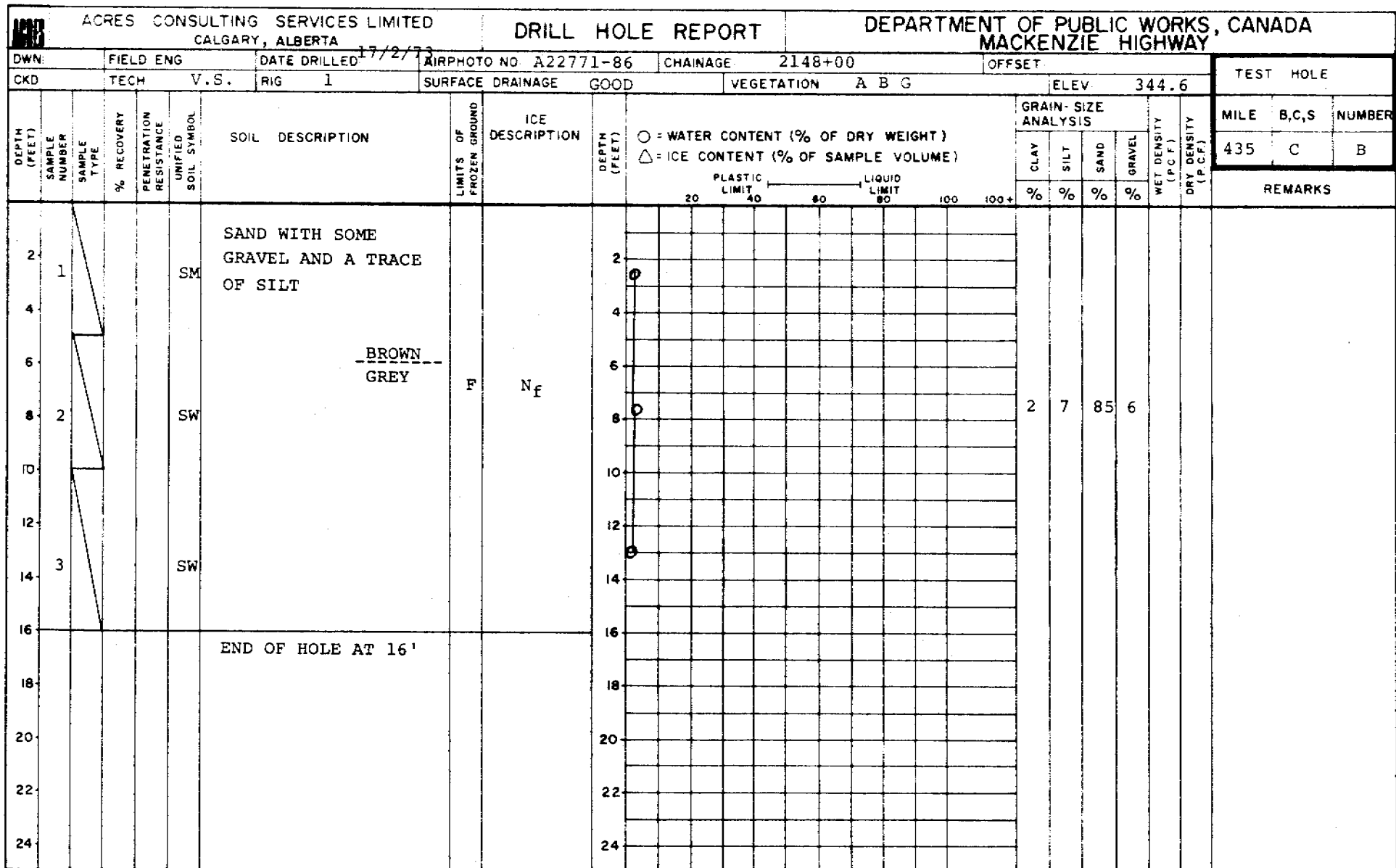
PLASTIC LIMIT 40 LIQUID LIMIT 80

3 12 75 10

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED 17/2/73		AIRPHOTO NO: A22771-84		CHAINAGE: 2027+50		OFFSET:		TEST HOLE				
CKD		TECH: W.R.		RIG: No. 1		SURFACE DRAINAGE: GOOD		VEGETATION: D		ELEV: 402						
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 60 100 100+						
2	1				GM	BROWN SILTY SAND AND GRAVEL			2							
4							F	N _f	4							
6									6							
8	2				GM				8							
10						END OF HOLE AT 10'			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG		DATE DRILLED 17/2/73		AIRPHOTO NO. A22771-84		CHAINAGE 2050+00		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG No. 1		SURFACE DRAINAGE GOOD		VEGETATION: ABD		ELEV: 384						
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	1				SM	SILTY SAND			2							
4					SP	FINE GREY UNIFORM SAND			4							
6							F	N _{bn}	6							
8									8							
10	2				SP				10							
12									12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN		FIELD ENG		DATE DRILLED 17/2/73		AIRPHOTO NO: A22771-85		CHAINAGE: 2134+00		OFFSET		TEST HOLE									
CKD		TECH V.S.		RIG 1		SURFACE DRAINAGE		FAIR		VEGETATION: B G		ELEV 334									
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	1				SM	BROWNISH GREY SILTY SAND		N _{bn}	2												
4									4												
6									6												
8	2				SW	FINE TO COARSE SAND		N _f	8												
10									10												
12									12												
14	3				SW	WELL GRADED SAND WITH FINE GRAVEL			14												
16									16												
18									18												
20									20												
22									22												
24									24												



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.		DATE DRILLED 18/2/18		AIRPHOTO NO. A22771-87		CHAINAGE 2169+97		OFFSET		TEST HOLE									
CKD		TECH		W.R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A B D		ELEV 334		MILE 435		B,C,S S		NUMBER D			
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	1				SM	SILTY AND SANDY TILL WITH SOME GRAVEL AND A FEW COBBLES			2	2	36	52	10								
4									4												
6									6												
8	2				SM	BROWN GREY	F	N _{bn}	8												
10	3	P	25	78					10												
12	4				SC	SILTY AND SANDY TILL WITH SOME CLAY, GRAVEL AND COBBLES			12	12	26	45	17								
14									14												
16									16												
18	5				SC				18	16	36	35	13								
20	6	P	0	30/2"					20												
22					SM	SILTY AND SANDY TILL WITH SOME GRAVEL			22	2	29	62	7								
24	7								24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 10/2/73		AIRPHOTO NO: A22771-87		CHAINAGE: 2172+60		OFFSET:		TEST HOLE																	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 301																			
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 %																
						4" of Peat																							
2	1				SW	BROWN SAND WITH SOME SILT AND A TRACE OF GRAVEL		N _{bn}	2					2	17	78	3												
4	2	P	50	59 6"		SAND AND GRAVEL WITH A TRACE OF SILT			4																				
6									6																				
8	3				SW		F	N _f	8					3	9	56	32												
10	4	P	0	50 3"					10																				
12									12																				
14	5				SW				14																				
16	6	P	0	40 3"					16																				
18	7				SW	BROWN GREY			18					3	10	62	25												
20	8								20																				
22	9	P	20	50 9"					22																				
24						END OF HOLE AT 21'			24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 18/2/11		AIRPHOTO NO: A22771-87		CHAINAGE: 2175+50		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 298		MILE: 435 B,C,S: S NUMBER: F				
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	1				SW	BROWN SAND AND GRAVEL WITH A TRACE OF SILT AND COBBLES			2							
4									4							
6	2	P	10	40 1"			F	N _f	6							
8	3				SW				8							
10		P	0	40 4"		END OF HOLE AT 10'-4"			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 18/2/		AIR PHOTO NO: A23004-140		CHAINAGE: 2176+00		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG: I		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 295						
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 %			
					SM	BROWN SILTY SAND		N _{bn}								
2									2							
4	1				GP	BROWN SAND AND GRAVEL			4							
6		P	5	30/1"					6							
8	2				GP		F	N _f	8							
10		P	0	40/3"					10							
12									12							
14	3				GP				14							
16		P	0	30/2"					16							
18						END OF HOLE AT 15'-5"			18							
20									20							
22									22							
24									24							

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED: 18/2/11		AIRPHOTO NO: A23004-		CHAINAGE: 2188+20		OFFSET:		TEST HOLE				
CKD:		TECH: V.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A F C		ELEV: 260						
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	1				SM	BROWN SILTY SAND			2							
4					SP	BROWN SAND WITH SOME GRAVEL AND A TRACE OF SILT	F	N _{bn}	4							
6									6							
8	2				GP	BROWN SANDY GRAVEL WITH A FEW COBBLES		N _f	8							
10									10							
12									12							
14	3				GP		UF		14							
16									16							
18	4				GP				18							
20									20							
22						END OF HOLE AT 20'			22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN		FIELD ENG		DATE DRILLED 22/2/75		AERPHOTO NO: A23004-140		CHAINAGE 2191+37		OFFSET		TEST HOLE																	
CKD		TECH V.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A F G		ELEV 259		MILE 436		B,C,S S		NUMBER E													
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						SANDY STRATIFIED GRAVEL WITH A FEW COBBLES AND SMALL BOULDERS	F	N _f	2																				
4					4																								
6					6																								
8	1	P	40	49	GW				8																				
10					10																								
12					12																								
14					14																								
16	2	P	25	68	GW				16																				
18					18																								
20					20																								
22	3	P	70	65	GW				22																				
24	4								24																				

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

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:			FIELD ENG:			DATE DRILLED: 21/2/73			AIR PHOTO NO: A23004-140			CHAINAGE: 2192 + 96			OFFSET:			TEST HOLE											
CKD:			TECH: W.R.			RIG: 1			SURFACE DRAINAGE: GOOD			VEGETATION: A F G			ELEV: 262														
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 ——— LIQUID LIMIT 20 40 60 80 100 100+																			
2	1				SW	BROWN STRATIFIED SAND AND GRAVEL	F	N _f	2																				
4									4																				
6		P	0	30/1"			UF		6																				
8	2								8																				
10							F	N _f	10																				
12					SW				12																				
14	3								14																				
16							UF		16																				
18	4				SW				18																				
20									20																				
22	5								22																				
24		P		58					24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN:		FIELD ENG:		DATE DRILLED: 22/2/73		AIRPHOTO NO: A23004-140		CHAINAGE: 2192+96		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: I		SURFACE DRAINAGE: GOOD		VEGETATION: A F G		ELEV: 262						
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	6				SW				2							
4									4							
6		P	0	45					6							
8	7				SW				8							
10		P	10	71					10							
12									12							
14	8				SW				14							
16		P	10	100					16							
18									18							
20						END OF HOLE AT 43'			20							
22									22							
24									24							

43'

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED 19/2/11		AIR PHOTO NO: A23004-140		CHAINAGE 2194+90		OFFSET		TEST HOLE				
CKD:		TECH M.J.C.		RIG 2		SURFACE DRAINAGE: POOR		VEGETATION: A B D		ELEV 259		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	1				Pt	PEAT		V _x	2							
4					ML	SILT WITH SOME SAND AND CLAY AND A TRACE OF GRAVEL		N _{bn}	4							
6									6							
8	2				SW	SAND WITH SOME SILT AND GRAVEL AND A TRACE OF CLAY	F		8							
10								N _f	10							
12									12							
14	3				GW	SANDY GRAVEL WITH A TRACE OF SILT	UP		14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

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

PLASTIC LIMIT 20 40 60 80 100 100+
LIQUID LIMIT 80 100 100+

13	61	20	6
4	19	57	20
2	4	33	61

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 19/2/73		AIRPHOTO NO: A23004-140		CHAINAGE: 2201+80		OFFSET:		TEST HOLE				
CKD:		TECH: M.J.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 317+00						
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 %			
						PEAT		V _x								
2	1				SW	BROWN SAND AND GRAVEL WITH A FEW COBBLES AND SMALL BOULDERS	F	N _f	2		1	10	84	5		UNABLE TO GO FURTHER BECAUSE OF CAVE IN
4									4							
6									6							
8	2								8	1	6	90	3			
10						END OF HOLE AT 10'			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 19/2/73		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A23004-140		CHAINAGE: 2210+00		OFFSET:		TEST HOLE				
CKD:		TECH: M. J. G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV 339						
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 80 100 100+						
2	1				Pt SW	PEAT		V _x	2		2	12	68	18		UNABLE TO GO FURTHER BECAUSE OF CAVE IN
4					SW	GRAVELLY SAND WITH SOME SILT	F	N _F	4							
6									6							
8	2				SW				8		1	11	82	6		
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24						END OF HOLE AT 10			24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 19/2/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A23004-140		CHAINAGE: 2218+50		OFFSET:		TEST HOLE				
CKD:		TECH: M.J.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 345						
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 %			
					Pt	PEAT		V _x								
2	1				SM	GREY SAND WITH SOME SILT AND GRAVEL AND A TRACE OF CLAY	F	N _{bn}	2	8	25	56	11			
4									4							
6						END OF HOLE AT 5			6							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 19/2/73		AIRPHOTO NO: A23004-140		CHAINAGE: 2223+50		OFFSET:		TEST HOLE						
CKD:		TECH: M. J. G.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: A B		ELEV: 346								
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 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+								
2	1				Pt	PEAT		V _x	2									
4					SW	GREY GRAVELLY SAND WITH A TRACE OF SILT	F	N _f	4	○					1	7	80	12
6									6									
8						END OF HOLE AT 7'			8									
10									10									
12									12									
14									14									
16									16									
18									18									
20									20									
22									22									
24									24									

UNABLE TO GET
PAST 7' AS
HOLE CAVES IN

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG.		DATE DRILLED: 19/2/73		AIRPHOTO NO: A23004-141		CHAINAGE: 2234+10		OFFSET:		TEST HOLE				
CKD:		TECH: M.J.G.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: A B		ELEV: 363						
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+						
					Pt	PEAT		V _x								
2	1				SM	BROWN SILTY SAND		N _{bn}	2							
4					GW	BROWN SAND AND GRAVEL			4							
6							F	N _f	6							
8	2				SM	SILT AND CLAY WITH SOME SAND AND GRAVEL			8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET:		TEST HOLE						
CKD:		TECH: M. J. G.	RIG: 2	SURFACE DRAINAGE	FAIR	VEGETATION: A B	ELEV: 383							
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 %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+				
2	1				Pt	PEAT		V _x	2					
4					ML	CLAY AND SILT WITH A TRACE OF SAND		N _{bn}	4					
6							F		6					
8	2				ML				8					
10									10					
12	3				ML				12					
14									14					
16						END OF HOLE AT 15'			16					
18									18					
20									20					
22									22					
24									24					

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED		AIRPHOTO NO: A23004-141		CHAINAGE: 2270+15		OFFSET:		TEST HOLE					
CKD		TECH: M.J.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 465							
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+							
					Pt	PEAT		V _x	2								
2	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND			4								
6							F	N _{bn}	6								
8	2				CL				8								
10									10								
12	3				CL				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A23004-141		CHAINAGE: 2279+10		OFFSET:		TEST HOLE																	
CKD:		TECH: M. J. G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 494		MILE: 437		B,C,S: C		NUMBER: E-2													
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 %																
					Pt	PEAT		V _x																					
2	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND	F	N _{bn}	2																				
4									4																				
6									6																				
8	2				CL				8																				
10							UF		10																				
12	3				CL				12																				
14									14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

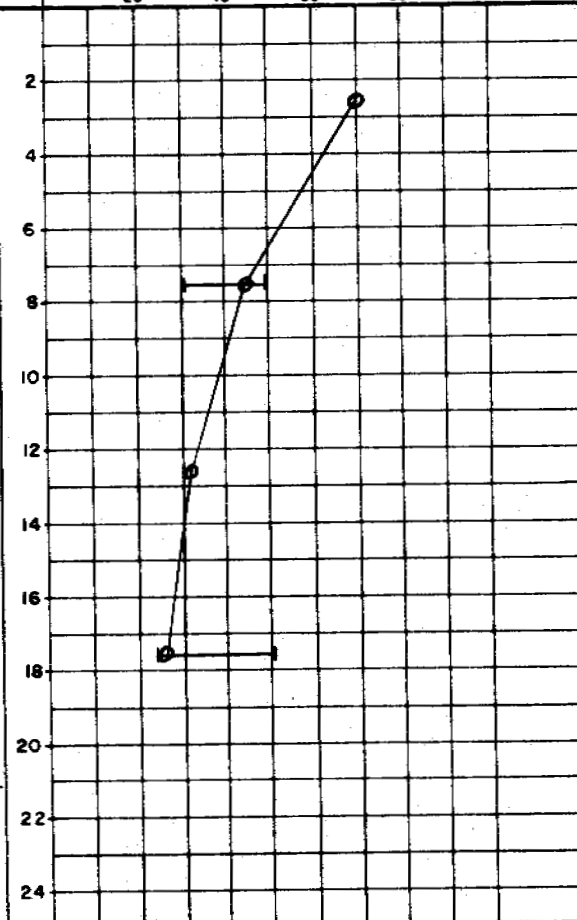
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
OWN: _____		FIELD ENG: _____		DATE DRILLED: 19/2/73		AERIAL PHOTO NO: A23004-142		CHAINAGE: 2291+40		OFFSET: _____	
CKD: _____		TECH: M.J.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 508	

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					PH	PEAT			2							
4	1				CL	GREY CLAY WITH SILT AND A TRACE OF SAND INTERMEDIATE PLASTICITY	F	N _{bn}	4							
6		P		74					6							
8	2				CH				8							
10		P		50/4					10							
12	3				CH		UF		12							
14									14							
16		P		50/4					16							
18	4				CL				18							
20		P		50/4					20							
22						END OF HOLE AT 20'			22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG	DATE DRILLED 19/2/83		PHOTO NO: A23004-142	CHAINAGE	2294 + 20		OFFSET					
CKD:		TECH M.J.C.	RIG	2		SURFACE DRAINAGE FAIR		VEGETATION	AB					
								ELEV 491						
								TEST HOLE						
								MILE B,C,S NUMBER						
								438 S C						
								REMARKS						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	WATER CONTENT (% OF DRY WEIGHT)	ICE CONTENT (% OF SAMPLE VOLUME)	GRAIN SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
1.5						PEAT		V _x						
2	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND								
4														
5		P		50/5"										
6														
8	2				CL		F	N _{bn}						
10		P		50/6"										
12	3				CL									
14														
16		P		51/5"										
18	4				CL									
20		P		50/5"										
22						END OF HOLE AT 20.5'								
24														

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

PLASTIC LIMIT 20 40 60 80 100 100+
LIQUID LIMIT



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 19/2/73		AIR PHOTO NO: A23004-141		CHAINAGE: 2307 + 50		OFFSET:		TEST HOLE	
CKD:		TECH: M.J.C.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: BD		ELEV: 524			

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			
										%	%	%	%			

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

PLASTIC LIMIT LIQUID LIMIT
 20 40 60 80 100 100+

2	1				Pt	PEAT			2							
4					CL	GREY CLAY AND SILT WITH A TRACE OF SAND			4							
6									6							
8	2				CL		F	N _{bn}	8							
10									10							
12	3				CL				12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 19/2/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO:		CHAINAGE:		OFFSET:		TEST HOLE			
CKD:		TECH:		RIG:		SURFACE DRAINAGE:		VEGETATION:		ELEV:					
		M. J. C.		2		POOR		BD		563					
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 %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)					
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+					
2					P _t	PEAT		V _x	2						
4	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND			4						
6									6						
8	2				CL		F	N _{bn}	8						
10									10						
12	3				CL				12						
14									14						
15						END OF HOLE AT 15'			15						
16									16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA					DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO: A23004-143		CHAINAGE: 270 + 20		OFFSET:		TEST HOLE		
CKD:		TECH: R. G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 556				

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	1				CL	CLAY AND SILT WITH A TRACE OF SAND			2							
4									4							
5									5							
6							F	N _{bn}	6							
8	2				CL				8							
10									10							
12	3				CL				12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA					DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY													
DWN:		FIELD ENG		DATE DRILLED: 19/2/77		AIRPHOTO NO: A23004-142		CHAINAGE: 279 + 80		OFFSET:		TEST HOLE											
CKD		TECH R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 580													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS			
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+				CLAY	SILT	SAND	GRAVEL				%	%	%
2	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND			2														
4									4														
6							F	N _{bn}	6														
8	2				CL				8														
10									10														
12									12														
14	3				CL				14														
15						END OF HOLE AT 15'			15														
16									16														
18									18														
20									20														
22									22														
24									24														

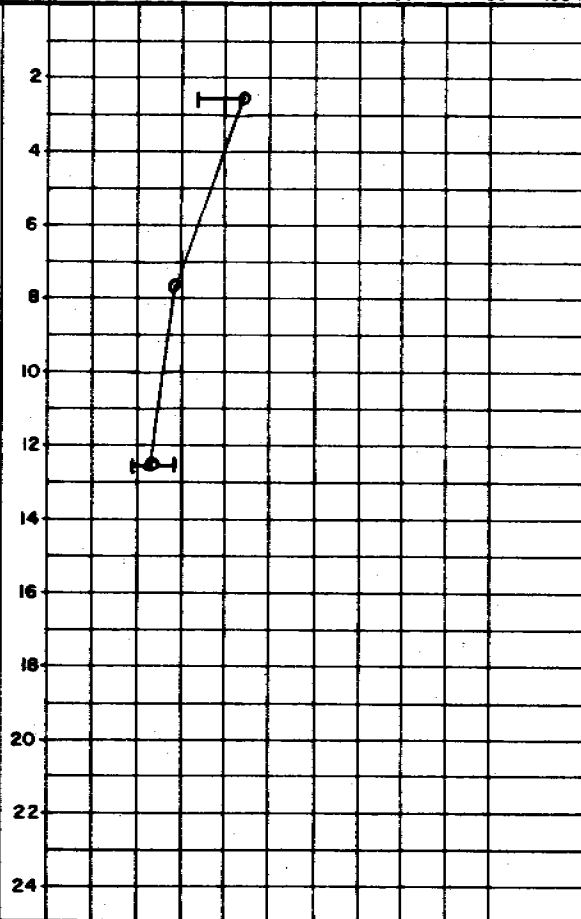
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
OWN:		FIELD ENG:		DATE DRILLED: 19/2/77		AIRPHOTO NO: A23004-143		CHAINAGE: 294 + 00		OFFSET:		TEST HOLE																	
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 594		MILE: 439		B,C,S: C		NUMBER: F													
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	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND			2																				
4									4																				
6									6																				
8	2				CL		F	N _{bn}	8																				
10									10																				
12									12																				
14	3				CL				14																				
15						END OF HOLE AT 15'			15																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED: 19/2/73		AIR PHOTO NO: NIL		CHAINAGE: 306+20		OFFSET:								
CKD:		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 606								
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.)	TEST HOLE		
										CLAY %	SILT %	SAND %	GRAVEL %			MILE	B,C,S	NUMBER
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+								
2	1				ML	GREY SILT WITH SOME CLAY AND A TRACE OF SAND			2									
4									4									
6							F	N _{bn}	6									
8	2				ML				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									
														REMARKS				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN	FIELD ENG.	DATE DRILLED 19/2/73	AIRPHOTO NO: N11	CHAINAGE: 326+00	OFFSET		TEST HOLE											
CKD	TECH: R.G.	RIG: 2	SURFACE DRAINAGE: GOOD	VEGETATION: A	ELEV: 602.3													
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 %					
2	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND GETS LESS CLAYEY WITH DEPTH	F	N _{bn}	2									
4									4									
6									6									
8	2				ML				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

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

PLASTIC LIMIT 40 60 80 100 100+
 LIQUID LIMIT 80 100 100+



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 19/2/73					DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:	DATE DRILLED:	AIRPHOTO NO:	CHAINAGE:	334+00	OFFSET:		TEST HOLE							
CKD B.P.S.		TECH R.G.	RIG 2	SURFACE DRAINAGE GOOD		VEGETATION: A	ELEV: 609		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	1				CL	BROWN CLAYEY SILT WITH A TRACE OF SAND			2							
4									4							
5									5							
6									6							
8	2				CL		F	N _{bn}	8							
10									10							
12	3				CL				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 19/2/73										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO:		CHAINAGE:		OFFSET:		TEST HOLE					
CKD:		TECH:		RIG:		SURFACE DRAINAGE:		GOOD		VEGETATION:		ELEV. 618.5					
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							
2	1				ML	GREY SILT CLAYEY WITH A TRACE OF SAND			2								
4									4								
6									6								
8	2				ML		F	N _{bn}	8								
10									10								
12	3				ML		UF		12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 19/2/73										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO: A22772-150		CHAINAGE: 365+60		OFFSET		ELEV 622		TEST HOLE							
CKD:		TECH: R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION: A													
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 %			
2	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND			2	41	56	3	0								
4									4												
6	2				ML	GREY SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	6	18	79	3	0								
8									8												
10									10												
12	3				ML				12	13	85	2	0								
14									14												
16						END OF HOLE AT 15'			16												
18									18												
20									20												
22									22												
24									24												

NON-PLASTIC
AT 15'

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 19/2/73		AIRPHOTO NO: A22772-150		CHAINAGE: 390+20		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 618						
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 %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				CL	GREY SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4									4							
6									6							
8	2				CL				8	H	P	25	69	6	0	
10									10							
12	3				ML		UF		12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED: 19/2/73		AIRPHOTO NO: A22772-		CHAINAGE: 406+90		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 620						
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	1				ML	GREY SILT, CLAYEY WITH A TRACE OF SAND			2	35	60	5	0			
4									4							
6									6							
8	2				ML		F	N _{bn}	8	24	69	7	0			
10									10							
12	3				CL				12	41	57	2	0			
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED: 19-2-73		AERPHOTO NO: A22772-151		CHAINAGE: 422+50		OFFSET:		TEST HOLE								
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 623										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
														CLAY %	SILT %	SAND %	GRAVEL %			
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+										
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND			2											
4									4											
6									6											
8	2				ML			N _{bn}	8											
10									10											
12	3				ML				12											
14									14											
16						END OF HOLE AT 15'			16											
18									18											
20									20											
22									22											
24									24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED: 19/2/73		AIRPHOTO NO: A22772-151		CHAINAGE: 432+00		OFFSET:	
CKD:		TECH:		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 628	
										TEST HOLE	
										MILE B,C,S NUMBER	
										442 C C	
										REMARKS	

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.)
										CLAY %	SILT %	SAND %	GRAVEL %		
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2						
4									4						
6	2				ML				6						
8									8						
10									10						
12	3				ML				12						
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET		TEST HOLE								
CKD		TECH	R.G.	RIG	SURFACE DRAINAGE	VEGETATION	ELEV.									
			19/2/77	A22772-151	444+00	A	628									
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	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND			2	43	53	4	0			
4									4							
6									6							
8	2				CL		F	N _{bn}	8	37	61	2	0			
10									10	40	58	2	0			
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY																	
DWN:		FIELD ENG		DATE DRILLED: 19/2/73		AIRPHOTO NO: A22772-152		CHAINAGE 457+00		OFFSET													
CKD:		TECH RG		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 618													
TEST HOLE																							
MILE		B,C,S		NUMBER																			
442		C		E																			
REMARKS																							
DEPTH (FEET) SAMPLE NUMBER SAMPLE TYPE % RECOVERY PENETRATION RESISTANCE UNIFIED SOIL SYMBOL SOIL DESCRIPTION LIMITS OF FROZEN GROUND ICE DESCRIPTION DEPTH (FEET) ○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME) PLASTIC LIMIT LIQUID LIMIT CLAY SILT SAND GRAVEL WET DENSITY (P.C.F.) DRY DENSITY (P.C.F.) <tr> <td colspan="12"> 2 1 6 2 12 3 Pt PEAT ML GREY CLAYEY SILT WITH A TRACE OF SAND ML ML V_x N_{bn} 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 </td></tr>												2 1 6 2 12 3 Pt PEAT ML GREY CLAYEY SILT WITH A TRACE OF SAND ML ML V_x N_{bn} 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12											
2 1 6 2 12 3 Pt PEAT ML GREY CLAYEY SILT WITH A TRACE OF SAND ML ML V_x N_{bn} 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12 14 16 18 20 22 24 20 40 60 80 100 100+ 2 4 6 8 10 12																							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 20/2/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG:	DATE DRILLED:	AIRPHOTO NO:	CHAINAGE:	VEGETATION:	OFFSET:	ELEV 619											
CKD:	TECH:	RIG:	SURFACE DRAINAGE:															
		M.J.C.		2		POOR		D										
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				TEST HOLE				
									○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				MILE	B,C,S	NUMBER			
									PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT				CLAY %	SILT %	SAND %	GRAVEL %	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
													REMARKS					
2	1				Pt	PEAT		V _x	2									
4									4									
6									6									
8	2				ML	GREY CLAYEY SILT WITH A TRACE OF SAND		N _{bn}	8									
10							F		10									
12									12									
14	3				ML				14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

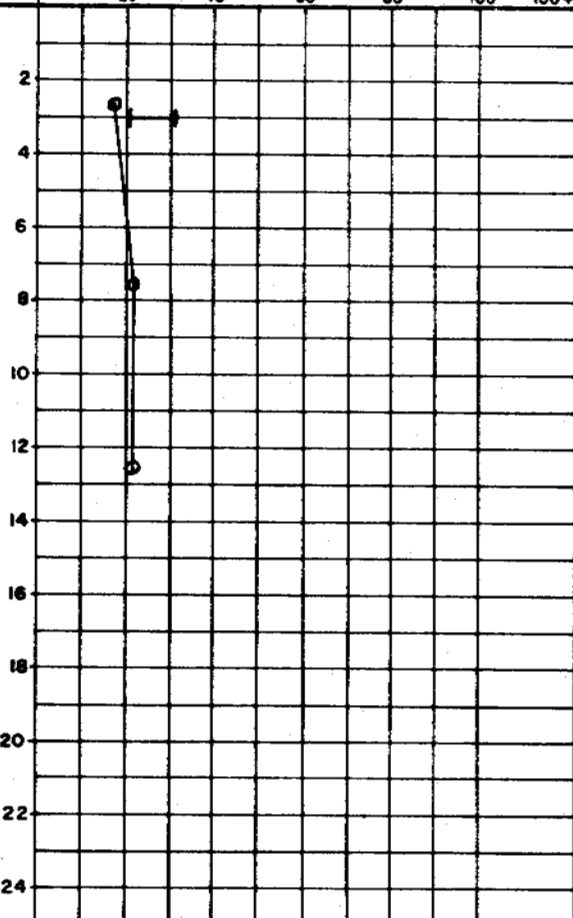
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 20/2/73		AIRPHOTO NO: A22772-151		CHAINAGE: 479+50		OFFSET:		TEST HOLE				
CKD:		TECH: M.J.C.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: A B		ELEV: 632		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					Pt	PEAT		V	2							
4	1				CL	GREY CLAY AND SILT WITH A TRACE OF SAND	F	N _{bn}	4	45	48	7	0			
6									6							
8	2				ML	GREY SILT WITH SOME CLAY AND SAND			8	8	75	17	0			
10									10							
12	3				ML				12							
14							UF		14	14	78	8	0			
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 20/2/73		AIRPHOTO NO: A22772-155		CHAINAGE 488+85		OFFSET 40' R		TEST HOLE				
CKD:		TECH M.J.C.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION: A B		ELEV 641						
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 80 100 100+						
2	1				PE	PEAT			2							
4					ML	GREY CLAYEY SILT WITH A TRACE OF SAND			4							
6							F	N _{bn}	6							
8	2				ML				8							
10									10							
12	3				ML				12							
14							UF		14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED: 20/2/73		AIRPHOTO NO: A22772-153	CHAINAGE: 3+99		OFFSET:								
CKD:		TECH: M.J.C.	RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B D		ELEV: 696							
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 %			
					Pt	PEAT										
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2							
4									4							
6	2				ML	GREY SILT WITH SOME CLAY AND SAND			6							
8									8							
10							UF		10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

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

PLASTIC LIMIT 40 60 80 100 100+



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY	
DWN	FIELD ENG.	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET
CKD	TECH	RIG	SURFACE DRAINAGE	VEGETATION	ELEV
	M.J.C.	2	POOR	B D	684.0
TEST HOLE					
MILE		B,C,S		NUMBER	
443		C		E	
REMARKS					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL
2	1				PT
4					ML
6					
8	2				ML
10					
12	3				ML
14					
16					
18					
20					
22					
24					
END OF HOLE AT 15'					
DEPTH (FEET)	ICE DESCRIPTION				
2	F				N _{bn}
4					
6					
8					
10					
12	UF				
14					
16					
18					
20					
22					
24					
○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)					
PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+					
GRAIN-SIZE ANALYSIS					
CLAY SILT SAND GRAVEL					
WET DENSITY (PCF) DRY DENSITY (PCF)					

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG.		DATE DRILLED: 20/2/73		AIRPHOTO NO: A22772-155		CHAINAGE: 62+00		OFFSET:	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: PAIR		VEGETATION: A B D E		ELEV: 670	

										TEST HOLE	
		MILE		B,C,S		NUMBER					
		444		C		B					
REMARKS											

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.)			
										CLAY %	SILT %	SAND %	GRAVEL %					
2					Pt	PEAT		V _x	2									
4	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	4									
6					ML				6									
8	2				ML				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

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

PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 20/2/73		AERIAL PHOTO NO: A22772-155		CHAINAGE: 71+49		OFFSET:							
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B E		ELEV 672							
TEST HOLE																	
MILE		B,C,S		NUMBER													
444		C		D													
REMARKS																	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)		GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+	CLAY	SILT	SAND	GRAVEL			
											%	%	%	%			
2	1				ML	SILT WITH SOME CLAY AND A TRACE OF SAND		N _{bn}	2								
4									4								
6									6								
8	2				ML				8								
10									10								
12									12								
14						---BROWN GREY			14								
16	3				ML				16								
18									18								
20									20								
22						END OF HOLE AT 21'			22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG.		DATE DRILLED 20/2/73		AERPHOTO NO: A22772-155		CHAINAGE: 77+60		OFFSET:	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B E		ELEV: 674	

TEST HOLE		
MILE	B,C,S	NUMBER
444	C	E
REMARKS		

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.)			
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				ML	SILT WITH SOME CLAY AND A TRACE OF SAND BROWN GREY	F	N _{bn}	2									
4											4							
6	2				ML						6							
8									8									
10									10									
12	3				ML			V _x	12									
14									14									
16						END OF HOLE AT 15'			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

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 20/2/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO: A22772-156	CHAINAGE: 94+00	OFFSET		TEST HOLE								
CKD	TECH	W.R.	RIG 1	SURFACE DRAINAGE: GOOD		VEGETATION: A B F		ELEV 675								
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	1				ML	SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4									4							
6	2				ML				6							
8									8							
10							UF		10							
12	3				ML				12							
14						BROWN GREY			14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 20/2/11		AIRPHOTO NO. A22772-156		CHAINAGE 101 + 50		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE POOR		VEGETATION ABDE		ELEV 675.0						
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	1				ML	SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4									4							
6									6							
8	2				ML				8							
10						BROWN GREY	UF		10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG		DATE DRILLED 20/2/73		AERIAL PHOTO NO: A22772-156		CHAINAGE: 117 + 50		OFFSET:		TEST HOLE				
CKD:		TECH W.R.		RIG 1		SURFACE DRAINAGE FAIR		VEGETATION: ABD		ELEV 671.8						
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			
									○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
									PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4									4							
6									6							
8	2				ML				8							
10							UF		10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 20/2/78		AERPHOTO NO: A22772-156		CHAINAGE 131 + 50		OFFSET		TEST HOLE				
CKD		TECH W. R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION: ABD		ELEV 674.5						
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	1				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4									4							
6							UF		6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED 20/2/20		PHOTO NO: A22772-156		CHAINAGE: 136 + 00		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: ABD		ELEV: 658.0						
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	1				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4									4							
6	2	P		12	ML		UF		6							
8									8							
10									10							
12									12							
14	3	P		24	ML				14							
16									16							
18									18							
20	4	P		25	ML				20							
22						END OF HOLE AT 20'			22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 20/2/74		AIRPHOTO NO: A22772-		CHAINAGE 138 + 30		OFFSET		TEST HOLE				
CKD		TECH V.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION AG		ELEV 651.8		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	1				Pt	BROWN SILTY PEAT		N _{bn}	2							
4						BROWN SILT WITH SOME CLAY AND A TRACE OF SAND	F	V	4							
6									6							
8							UF		8							
10	2	P		30					10							
12						END OF HOLE AT 11'			12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO:	CHAINAGE	OFFSET:		TEST HOLE								
CKD:		TECH	RIG	SURFACE DRAINAGE		VEGETATION		ELEV								
		M.J.C.	21/2/73	A22772-156	138 + 30			651.8								
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	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND			2							
4							F	N _{bn}	4							
6									6							
8	2				CL				8							
10									10							
12	3				CL		UF		12							
14									14							
16	P			37/6"					16							
18	4			40/6"	CL				18							
20									20							
22						END OF HOLE AT 20.5'			22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN:		FIELD ENG:		DATE DRILLED 2/2/73		AIRPHOTO NO: A22772-156		CHAINAGE 148 + 00		OFFSET 55' R		TEST HOLE				
CKD:		TECH M.J.C.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION AB		ELEV 654'		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 %			
					Pt	PEAT		V_x								
2	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N_{T-}	2							
4									4							
6	2				CL				6							
8									8							
10							UF		10							
12	3				CL				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED: 21/2/73		AIRPHOTO NO: A22772-156		CHAINAGE: 150 + 70		OFFSET:	
CKD:		TECH: M.J.C.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: ABD		ELEV 649' (DPW)	
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		TEST HOLE	
										MILE: B,C,S NUMBER	
										445 C J	
										REMARKS	
Pt		PEAT									
CL		GREY CLAYEY SILT WITH A TRACE OF SAND		F		N _{bn}					
CL				UF							
CL											
END OF HOLE AT 15'											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG		DATE DRILLED 20/2/78		AIR PHOTO NO: A22771-101		CHAINAGE 159 + 70		OFFSET					
CKD		TECH M.J.C.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION ABD		ELEV 655.0					
TEST HOLE		MILE 446		B.C.S. C		NUMBER A		REMARKS							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	WATER CONTENT (% OF DRY WEIGHT)	ICE CONTENT (% OF SAMPLE VOLUME)	GRAIN-SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
												CLAY	SILT	SAND	GRAVEL
												%	%	%	%
2	1				Pt	PEAT		V _x	2			47	51	2	0
4					CL	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{dn}	4						
6									6						
8	2				CL		UF		8						
10									10						
12	3				ML				12			37	62	1	0
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN		FIELD ENG		DATE DRILLED 20/2/14		AIRPHOTO NO. A22771-101		CHAINAGE 165 + 35		OFFSET		TEST HOLE				
CKD		TECH M.J.C.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION ABD		ELEV 657.6		MILE 446 B,C,S C NUMBER B				
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 %			
					Pt	PEAT		V _x								
2							F	N _{pn}	2							
4	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND			4							
6									6							
8	2				ML		UF		8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG		DATE DRILLED: 20/2/		AIRPHOTO NO: A22771-101		CHAINAGE: 169 + 00		OFFSET	
CKD		TECH M.J.C.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION: AB		ELEV 666.1	
TEST HOLE											
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		MILE B,C,S NUMBER	
								○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)		446 C C	
								PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+		REMARKS	
2		1									
4											
6											
8		2									
10											
12		3									
14											
16											
18											
20											
22											
24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG:		DATE DRILLED 20/2/77		AIR PHOTO NO: A22771-102		CHAINAGE: 174 + 70		OFFSET:		TEST HOLE
CKD		TECH: M.J.C.		RIG 2		SURFACE DRAINAGE: POOR		VEGETATION: AB		ELEV 675.3		

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 %				
					Pt	PEAT									
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2						
4					ML		UF		4						
6	2				ML				6						
8									8						
10									10						
12	3				CL				12						
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED 20/2/73		AIRPHOTO NO: A22771-102		CHAINAGE: 188 + 65		OFFSET:		TEST HOLE				
CKD:		TECH: M.J.C.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: AB		ELEV: 693'						
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 %			
					Pt	PEAT		V _x								
2	1				ML	GREY SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4																
6							UF									
8	2				ML				8							
10																
12	3				ML				12							
14																
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG		DATE DRILLED 20/2/73		AIRPHOTO NO: A22771-103		CHAINAGE 203 + 65		OFFSET		TEST HOLE				
CKD		TECH M.J.C.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION AB		ELEV 684.4		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 %			
					Pt	PEAT		V _x	2							
2																
4	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND			4							
6							F	N _{bn}	6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO:		CHAINAGE:		OFFSET:	
CKD:		TECH:		RIG:		SURFACE DRAINAGE:		VEGETATION:		ELEV:	
		M.J.C.		2		POOR		A B		665.3	
TEST HOLE											
MILE		B,C,S		NUMBER							
447		C		A							
REMARKS											

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.)
										CLAY %	SILT %	SAND %	GRAVEL %		
2	1				PT	PEAT		V _x	2						
4						GREY CLAYEY SILT WITH A TRACE OF SAND			4						
6	2				ML			N _{bn}	6						
8							F		8	34	64	2	0		
10									10						
12	3				CL				12	46	52	2	0		
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 20/2/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO: A22771-103		CHAINAGE		ELEV		TEST HOLE				
CKD		TECH		RIG		SURFACE DRAINAGE		VEGETATION		ELEV		TEST HOLE				
		M. J. C.		2		POOR		A B D		649.8						
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			
									○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
									PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+							
					Pt	PEAT		V								
2									2							
4					ML	GREY CLAYEY SILT WITH A TRACE OF SAND			4							
6							F	N _{bn}	6							
8	2				ML				8							
10									10							
12	3				CL				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 20/2/73		AIRPHOTO NO: A22771-104		CHAINAGE: 247+80		OFFSET:		TEST HOLE				
CKD		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 637.0						
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 %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN CLAYEY SILT WITH A TRACE OF SAND			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN: 20/2/73		FIELD ENG	DATE DRILLED	AIRPHOTO NO: A22771-104	CHAINAGE 250+80										
CKD: TECH R.G.		RIG 2	SURFACE DRAINAGE GOOD		VEGETATION A										
					OFFSET										
					ELEV 633.2										
					TEST HOLE										
					MILE 447 B,C,S C NUMBER G										
					REMARKS										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNITED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)	PLASTIC LIMIT 40 LIQUID LIMIT 80	GRAIN SIZE ANALYSIS CLAY % SILT % SAND % GRAVEL %	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
2	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND			2						
4									4						
6									6						
8	2				ML		F	N _{bn}	8						
10									10						
12	3				ML				12						
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO		CHAINAGE		OFFSET		TEST HOLE				
CKD		TECH		RIG		SURFACE DRAINAGE		VEGETATION		ELEV		MILE B,C,S NUMBER				
		R.G.		2		GOOD		A		639.0		447 C K				
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	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED: 20/2/73		AIRPHOTO NO: A22771-104		CHAINAGE: 224+10		OFFSET		TEST HOLE				
CKD		TECH M.J.C.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION: A B		ELEV 657.0		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)						
										20	40	60	80	100	100+	
2					Pt	PEAT		V _x	2							
4	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND			4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

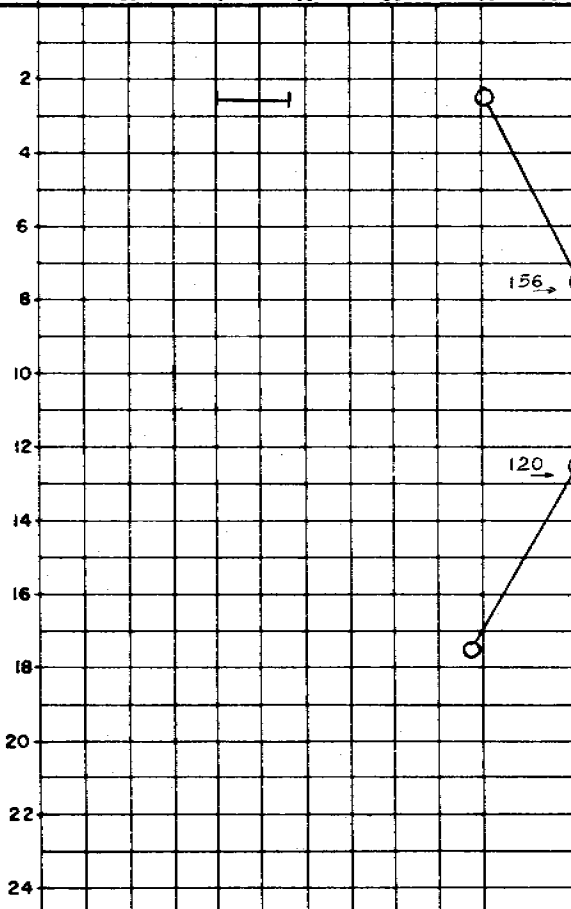
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 20/2/73		AIRPHOTO NO: A2271-104		CHAINAGE 242+50		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 635.8		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	1				CL	GREY CLAYEY SILT WITH A TRACE OF SAND SOME ORGANIC MATTER IN UPPER 2.5 FEET			2							
4									4							
6									6							
8	2				ML			N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG		DATE DRILLED 20.3.72		AIRPHOTO NO: A22771-104		CHAINAGE 270+00		OFFSET		TEST HOLE						
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION: A		ELEV 649.4		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 20 40 60 80 100 100+ LIQUID LIMIT 80								
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2									
4											4							
6											6							
8	2				ML				8					33	65	2	0	
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED: 20/2/83		AERPHOTO NO: A22771-103		CHAINAGE: 276 + 30		OFFSET:		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION: A		ELEV. 595.0						
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	1				Pt	PEAT			2							
4									4							
6	2				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND. LARGE WATER CONTENTS ATTRIBUTED TO PRESENCE OF EXCESS ICE		V _r	6							
8									8							
10									10							
12	3				ML				12							
14									14							
16	4				ML				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

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

PLASTIC LIMIT 40 60 LIQUID LIMIT 80 100 100+



GRAIN-SIZE ANALYSIS

CLAY	SILT	SAND	GRAVEL
35	57	8	0
26	68	6	0
27	70	3	0

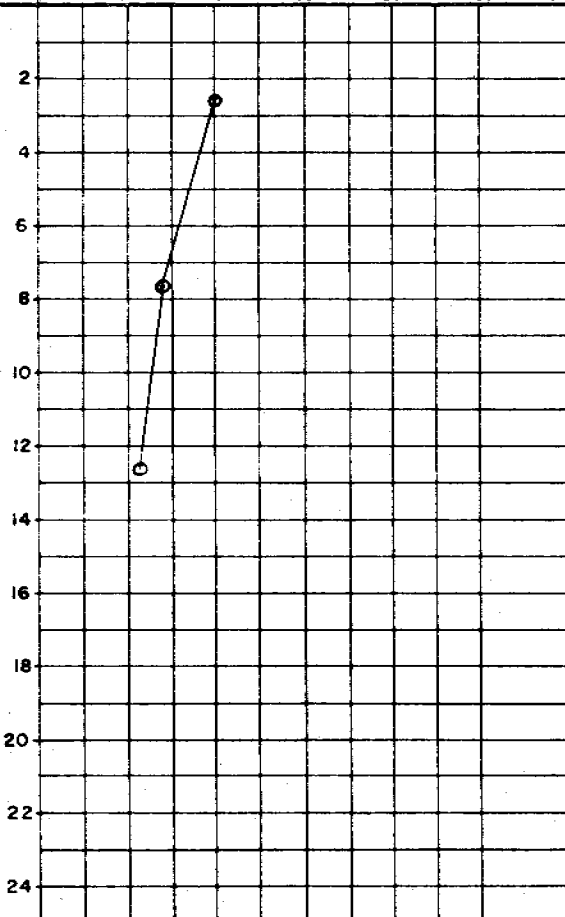
MILE 448 B,C,S S NUMBER B

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 20/2/14		AERIAL PHOTO NO: A22771-105		CHAINAGE: 281 + 03		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 663.9						
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	1				CL	DARK BROWN CLAY AND SILT WITH A TRACE OF OF SAND			2	56	41	3	0			
6	2				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	6							
12	3				ML				12							
18	4				ML				18	37	60	3	0			
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED: 20/2/13		AIRPHOTO NO: A22771-105		CHAINAGE 285 + 50		OFFSET		TEST HOLE						
CKD:		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 672.0								
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	1				CL	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2									
4											4							
6											6							
8	2				ML				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

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

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT 80 100 100+

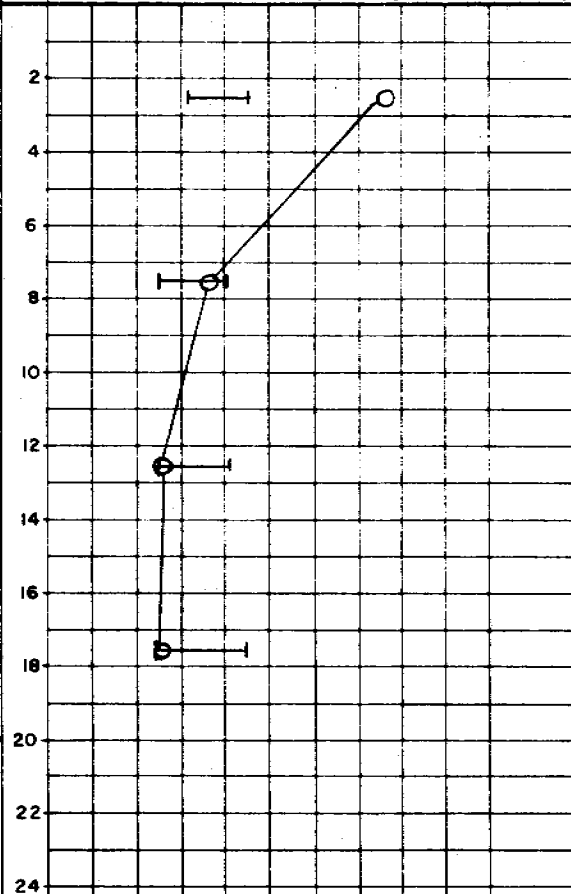


ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED 20/2/10	PHOTO NO. A22771-105	CHAINAGE 287 + 30	OFFSET		TEST HOLE								
CKD		TECH R.G.	RIG 2	SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 675.7								
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	1				CL	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN:		FIELD ENG:		DATE DRILLED 20/2/71		AERIAL PHOTO NO: A22771-105		CHAINAGE 295 + 50		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 651.2		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 %			
					Pt	PEAT		V _x								
2									2							
4	1				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND, ALSO A TRACE OF GRAVEL IN UPPER 10 FEET		N _{bn}	4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16	4				ML				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

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

PLASTIC LIMIT 20 40 60 80 100 100+



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 20/2/73		AIR PHOTO NO: A22771-105		CHAINAGE 297 + 50		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 676.0		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	1				ML	BROWN SILT WITH SOME CLAY, THE CLAY TO SILT RATIO DECREASES WITH DEPTH			2							
4									4							
6									6							
8	2				ML			N _{bn}	8	42	56	2	0			
10									10							
12	3				ML				12	26	72	2	0			
14									14							
16									16							
18	4				ML				18	22	76	2	0			
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG		DATE DRILLED 20/2/13		AIRPHOTO NO: A22771-105		CHAINAGE 300 + 70		OFFSET					
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 681.0					
TEST HOLE															
MILE B,C,S NUMBER															
448 C H															
REMARKS															
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	WATER CONTENT (% OF DRY WEIGHT)	ICE CONTENT (% OF SAMPLE VOLUME)	GRAIN-SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
												CLAY	SILT	SAND	GRAVEL
												%	%	%	%
2	1				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND			2						
4									4						
6									6						
8	2				ML		F	N _{bn}	8						
10									10						
12	3				ML				12						
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 20/2/73		AIRPHOTO NO: A22771-106		CHAINAGE: 311+80		OFFSET:						
CKD:		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 683.0		TEST HOLE				
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 %			
						DARK BROWN CLAYEY SILT WITH A TRACE OF SAND		N _{bn}		○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML				2							
4									4							
6									6							
8	2				ML		F		8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

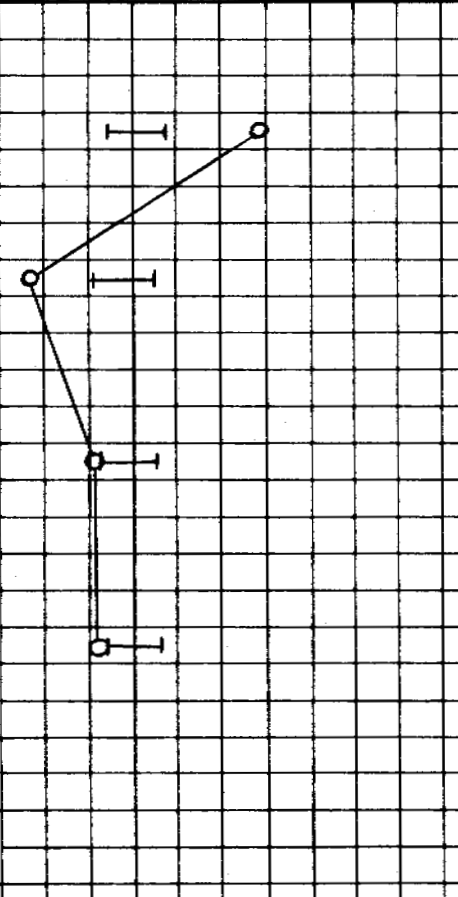
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED: 20/2/73		AERPHOTO NO: A22771-106		CHAINAGE: 314+00 (Approx)		OFFSET:		TEST HOLE								
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 679										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
														CLAY	SILT	SAND	GRAVEL			
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+										
2	1				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND			2											
4									4											
6									6											
8	2				ML		F	N _{bn}	8											
10									10											
12	3				ML				12											
14									14											
16						END OF HOLE AT 15'			16											
18									18											
20									20											
22									22											
24									24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED 20/2/14		AERPHOTO NO: A22771-106		CHAINAGE 318 + 90		OFFSET		TEST HOLE					
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION: A		ELEV 690.4							
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 %						
2	1				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2								
4									4								
6									6								
8	2				ML				8								
10									10								
12	3				ML				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN		FIELD ENG		DATE DRILLED 20/2/73		AIR PHOTO NO: A22771-105		CHAINAGE 284 + 25		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 661.5		MILE 448 B,C,S NUMBER S				
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	1				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND			2							
4									4							
6	2				SM	SILTY SAND WITH A TRACE OF CLAY			6							
8									8							
10									10							
12	3				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND			12							
14									14							
16									16							
18	4				ML				18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

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

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT 80 100 100+



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN:		FIELD ENG.	DATE DRILLED: 20/2/88	PHOTO NO: A22771-105	CHAINAGE: 293 + 10	OFFSET		TEST HOLE									
CKD		TECH: R.G.	RIG: 2	SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 677.1									
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 %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				ML	DARK BROWN CLAYEY SILT WITH A TRACE OF SAND, THE CLAY TO SILT RATIO DECREASES WITH DEPTH PAST EIGHT FEET	F	N _{bn}	2	33	66	1	0				
4									4								
6	2				ML				6								
8									8								
10									10								
12	3				ML				12	28	69	3	0				
14									14								
16									16								
18	4				ML				18	17	82	1	0				
20						END OF HOLE AT 20'			20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:	DATE DRILLED 20/2/86	AIR PHOTO NO: A22771-106	CHAINAGE: 324 + 00	OFFSET		TEST HOLE										
CKD		TECH: R.G.	RIG 2	SURFACE DRAINAGE: GOOD	VEGETATION: A	ELEV 688 (DPW)												
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	1				ML	GREY SILT WITH A TRACE OF SAND	F	N _{bn}	2									
4											4							
6	2				ML						6							
8									8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

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

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT

42 54 4 0

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG		DATE DRILLED 20/2/12		AIR PHOTO NO: A22771-106		CHAINAGE: 328 + 10		OFFSET		TEST HOLE	
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION: A		ELEV 693.9			

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	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2									
4											4							
6											6							
8	2				ML				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

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

Sample	W.C. (%)	L.L. (%)	P.L. (%)
1	42	50	7
2	44	53	2
3	39	58	2

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN:		FIELD ENG:		DATE DRILLED 20/2/78		AIRPHOTO NO: A22771-106		CHAINAGE 332 + 35		OFFSET		TEST HOLE							
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 698.1		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	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND	F	N _{bn}	2										
4																			
6																			
8	2				ML				8										
10									10										
12									12										
14	3				ML				14										
16						END OF HOLE AT 15'			16										
18									18										
20									20										
22									22										
24									24										

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

PLASTIC LIMIT 40 60 80 100 100+
LIQUID LIMIT 80

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN:		FIELD ENG.	DATE DRILLED: 20/2/13	APPHOTO NO. A22771-106	CHAINAGE: 333 + 10													
CKD	TECH	R.G.	RIG 2	SURFACE DRAINAGE GOOD	VEGETATION: A													
					OFFSET													
					ELEV: 699.5													
					TEST HOLE													
					MILE 449													
					B,C,S C													
					NUMBER F													
					REMARKS													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)	PLASTIC LIMIT 20 40 60 80 100 100+	LIQUID LIMIT 80 100 100+	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
											CLAY %	SILT %	SAND %	GRAVEL %				
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND			2									
4									4									
6									6									
8	2				ML		F	N _{bn}	8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED	AIRPHOTO NO:	CHAINAGE	OFFSET		TEST HOLE								
CKD	TECH	R.G.	RIG	2	SURFACE DRAINAGE	GOOD	VEGETATION	A	ELEV							
								711.7								
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+						
2	1				ML	GREY CLAYEY SILT WITH A TRACE OF SAND			2							
4									4							
6									6							
8	2				ML			N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
OWN:		FIELD ENG	DATE DRILLED: 20/2/20		PHOTO NO: A22771-106	CHAINAGE: 350 + 80		OFFSET	
CKD		TECH R.G.	RIG 2	SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV 725.2	
DEPTH (FEET)		SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2	1					ML	SILT, CLAYEY WITH A TRACE OF SAND		
4									
6									
8	2					ML		F	N _{bn}
10							BROWN GREY		
12	3					ML			
14									
16							END OF HOLE AT 15'		
18									
20									
22									
24									

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

PLASTIC LIMIT 40 60 80 100 100+
LIQUID LIMIT 80 100 100+

GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
CLAY	SILT	SAND	GRAVEL		
%	%	%	%		

TEST HOLE		
MILE	B,C,S	NUMBER
449	C	H
REMARKS		

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN		FIELD ENG		DATE DRILLED 20/2/82		AIRPHOTO NO: A22771-108		CHAINAGE: 392 + 00		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		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	1				ML	CLAYEY WITH A TRACE OF SAND			2							LOCATED AT APPROXIMATELY MILE 450.5
4									4							
6									6							
8	2				ML	BROWN GREY	F	N _{bn}	8							
10									10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY													
DWN:		FIELD ENG		DATE DRILLED 20/2/72		AIRPHOTO NO: A22771-107		CHAINAGE 373 + 00		OFFSET									
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		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.)	TEST HOLE			
										CLAY %	SILT %	SAND %	GRAVEL %			MILE	B,C,S	NUMBER	
2	1				ML	SILT, CLAYEY WITH A TRACE OF SAND			2								449	C	J
4									4								REMARKS LOCATED AT APPROXIMATELY MILE 450.1		
6									6										
8	2				ML	---BROWN--- GREY	F	N _{bn}	8										
10									10										
12	3				ML				12										
14									14										
16						END OF HOLE AT 15'			16										
18									18										
20									20										
22									22										
24									24										