MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. E-77-10

LOCATION Left Abutment at Vangorda Creek

CLIENT Kerr Addison W.O. NO. EAM 6163-0

GR'D. ELEV. 015719

PROJECT Drum Joint Venture G.W.L.

SITE Faro, Y.T. PURPOSE Foundation for water supply dam

DRILLED BY Away Speechan LOGGED BY E.G DATE 23/8/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
0-2		Fill Material: Gravelly sand, coarse material.					
		Organic cover: Moss, organic matter.					
4.6		Sand, some gravel, trace of silt, fine to coarse sand grains, up to 3/4" gravel. Organic coarse material, little fines.	4.6	SS			
			5.5	A majority of outwashed material.			
			6.6	poor recovery → 15% recovery			
				Blows/6" → 10, 9, 9, 7			
				N = 16 (Not indicative) Lost			
				Used R.W.O. Water			
7.7			7.7	SS, still a large portion of outwashed			
			8.2	material, 30% recovery			
				Blows/6" → 10, 5, 8, 8			
			9.7	N = 16 (Not indicative) Lost			
				Used R.W.O. Water			
			13.5	High blow count for the 1st 6".			
13.5			13.0	Casing was sinking, therefore stopped blows. Used clear water			
±10'				Falling head test. → Water 7'			
				Head of water from ground ±5'			
				Drop after 2 Min. → 3/16"			
				4 Min. → 3/16"			
				9 Min. → 6/16"			
				14 Min. → 11/16"			
				19 Min. → 13/16"			
			X	Not indicative of real permeability due to sand and block. Used clear water			

START 7:00 FINISH 5:00 P.M. DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. EH-77-10

LOCATION Vangorda Pit

CLIENT KERR ANDISON - W.O. NO. KARM 6E3-0

GR'D. ELEV.

PROJECT KARM JOINT VENTURE

G.W.L.

SITE Faro, Y.T.

PURPOSE Foundation of Water Supply

DRILLED BY A Speechley LOGGED BY E.L. DATE Dec 22/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
17		Gravelly SAND, trace	17				
		silt, fine to	55 4	55, 35% recovery			
		coarse sand stains,		Blows/ft → 5, 5, 5, 8			
		Graded up to ½" Coarse	19	N = 13 (Not indicative			
		to fine and moisture		Used last shot			

START 7:00 FINISH 5:00 DELAYS ETC.

MECO-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B? 77-10

LOCATION Vangorda Creek

CLIENT Kerr Addison W.O. NO. KAM 6157-0

GR'D. ELEV.

PROJECT Grum Joint Venture

G.W.L.

SITE Faro, Y.T.

PURPOSE Foundation for Water Supply Dam

DRILLED BY Pilm, Spiecker LOGGED BY [illegible] DATE 20/9/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS
23.8				Water level from [illegible]
			24.7	
24.7		Gravelly sand, some fine sand grains with coarse sand grains, gravel particles up to 1½", trace of silt, lower part of sample washed out	5	SS 5, 40% recovery; # blows/6": 10, 11, 9, 10; N = 19; Last foot used
			26.7	
26.7				Falling Head Water Test. After 45 min of filling the initial saturation was still unfinished; material extremely pervious. No actual test was done
			30.3	
30.3		Gravelly sand with fine sand grains & some coarse grains. Fine gravel up to ¼", a trace of silt. Remaining of sample washed out	6	SS #6, 35% recovery; # blows/6": 8, 7, 8, 8; N = 16 (Not indicative due to washed-out material); Last foot used
			32.3	
			35.5	
35.5			7	SS #7, 40% recovery; # of blows/6": 8, 9, 9, 15; N = 24; Last foot used
			37.5	

START 7.00 am FINISH 5.00 pm DELAYS ETC.

MECo-10-031

SHEET 2 OF 2

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-10
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L.
PURPOSE Foundation for Water Supply Dam

CLIENT Kerr Addison W.O. NO. EAM 6163-0
PROJECT Grum Joint Venture
SITE Faro, Y.T.
DRILLED BY Andy Spichen LOGGED BY E.G. DATE

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TESTS
39.5	..	First 1" of recovery is fine uniform sand. The remaining gravelly sand, some fine sand with coarse sand, gravel particles up to ½", a trace of fines (silt)	39.5 / 8 / 41.5	SS #8, 35% Recovery. # of blows/6": 15, 11, 10, 10. N = 20. Last foot used.			
44.8		Gravelly sand, some fine sand grains with coarse grains, gravel particles up to ½". Rounded to semi-angular particles, a trace of silt.	44.8 / 9 / 46.3	SS #9, 10% Recovery. # blows/6": 10, 8, 8, 5. N = 13 (Not indicative). Last foot used			
49.3		Gravelly sand, dense, with fine sand grains, a trace of coarse grains, some silt, gravel sizes up to ½"	49.3 / 10 / 51.3	SS #10, 50% Recovery. # blows/6": 14, 26, 38, 33. N = 74. Last foot used.			

START 7:00 AM FINISH 5:00 PM DELAYS ETC.

MECO-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B 77-10

CLIENT KERR ADDISON W.O. NO. EAM 6162-0

LOCATION VANGUARD Creek

PROJECT GRUM JOINT VENTURE

GR'D. ELEV.

SITE FRO, Y.T.

G.W.L.

PURPOSE FOUNDATION for WATER SUPPLY DRUM

DRILLED BY A. SPICHER LOGGED BY E.G DATE 25/8/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & SIZE/FT	RECOVERY	TESTS
51.5				NO WATER LEVEL COULD BE		
				OBTAINED		
			54			
54		Well graded sand, with	# 22	SS #11, 55% RECOVERY		
		small % soft fragments		# of blows/6" : 21, 31, 44, 47		
		brought a trace of	56	N = 91		
		gravel, some silt, Grey		N for T6 last foot only		
		in place, generally				
		fine grain material				
			59.6			
59.6		Fine To Medium Sand	# 12	SS #13, 60% RECOVERY		
		with small soft fragments		# of blows/6" : 15, 20, 28, 33		
		rock, above any water	61.6	N = 36		
		content, dense in place		N for T6 last foot only		
		a trace of silt				
			63.9			
64.5 - 65.6		Well graded sand, fine	# 13	SS #13, 70% RECOVERY		
		to coarse sand grains,		# of blows/6" : 24, 33, 33, 34		
		a trace of gravel &	65.9	N = 71		
		silt, and density		N for T6 last foot only		
				TWO TYPES of soil found as		
65.6		Fine Uniform sand, above		described.		
		average density, some				
		brown clay, low plasticity				

START 8:30 FINISH 9:50 DELAYS ETC. Broken Rg-wire 2½" at depth 73'.

MECo-10-001

SHEET ___ OF ___

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-10

LOCATION Kaysgeda Creek

GR'D. ELEV.

G.W.L.

CLIENT Kerr Addison W.O. NO. KAM 6163-0

PROJECT Grum Joint Venture

SITE Faro, Y.T.

PURPOSE Foundation for Water Supply Dam

DRILLED BY A. Spiichen LOGGED BY E.I. DATE 25/8/77

DEPTH FT.	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
69.4			69.4	
			X 14	SS #14, 60% recovery
70.2-70.9		Fine uniform dense		of blows/ft: 14, 100, 140, 41
		sand, some clay,	71.4	N value not indicative
		Brownish colour		of density of soil, result of
				encountered some cobble piece
70.9		Till: Silty sand,		N value not indicative
		some pebbles, a trace		
		of gravel some clay,		
		above average plasticity,		
		greenish brown		
END				Due to broken Bx-core piece
				which could not be removed
				from hole. Off-setted a 15 ft
				toward the center line of
				dam along dam axis

START FINISH DELAYS ETC.

MECG-10-C01

SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. TH-77-10 OFF SET

LOCATION Vangorda Creek

CLIENT KERR ADDISON W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT GRUM JOINT VENTURE

G.W.L.

SITE FAIO, Y.T.

PURPOSE Foundation for Water Supply Dam

DRILLED BY A. Spicken LOGGED BY E.C DATE Aug 26/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
0-36.5				No sampling done, just drilled hole & placed casing up to this depth.		
				One "Falling Head Water Test" was done.		
20				Test "1"		
				Saturation Time: 35 min		
				Head of water above ground: 5'		
				Time(min) Drop(ft)		
				2 15.5		
				4 20.3		
				6 24.3		
				K = 9 x 10⁻³ cm/sec		

TOTAL FOOTAGE 5.00 DELAYS ETC

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-10 OFF-SET

LOCATION Vangorda Creek

CLIENT KEEL MADISON W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT CRUMM JOINT VENTURE

G.W.L.

SITE Faro, Y.T

PURPOSE Foundation for Water Supply Dam

DRILLED BY A. Spicken LOGGED BY E.L DATE 27/8/77

DEPTH Ft.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO./DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
36.5				No water level obtained			
		Open D.					
				Test #2 (Falling Head Test)			
				Saturation Time: 20 M			
				Head of water above ground 5.5'			
		D.		Time (m) Interval		Drop (ft)	Σ D.
				2	2	6'	6
				2	4	6'	12
				5	9	8'	20
		Fine to medium		5	14	7.5'	27.5
				5	19	3.5'	31.0
				5	24	3.0	34.0
		K=8x10 -3		5	29	2.0	36.0
				5	34	1.4	37.4
				5	39	1.6	39.0
				Total Time 39 min Total Drop 39'			
52.7				Test #3			
				Saturation Time: 10 min			
				Head above ground 4.5'			
		3 or 4		2	2	7'	7'
				2	4	6.2'	13.2
		K=1x10 -2		5	9	11.8'	25.0
				5	14	8.0	33
				5	19	4.9	37.9
				5	24	3.1	41.0
				5	29	2.9	43.9

START 2.00 FINISH 5:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-10 ?/-56

LOCATION Vanguard Pool

GR'D. ELEV.

G.W.L.

PURPOSE Foundation for Water Supply Dam

CLIENT Kerr Addison W.O. NO. KAN 6163-0

PROJECT Grum Joint Venture

SITE Faro, Y.T.

DRILLED BY A. Spiclos LOGGED BY E.G. DATE 27/8/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS
				Test #3 (cont'd)
				Time Interval — Drop — Σ
				5' — 34 — 2.1 — 46
				5' — 39 — 1.6 — 47.6
				5' — 44 — 1.5 — 49.1
				5' — 49 — 1.6 — 50.7
				Total time: 49 min
				Total drop 50.7'
			63.2	
63.2		Well graded Sand, dense in place, some small soft fragmented bedrock, some silt, a trace of gravel. Remaining of sample washed out gravel	1 (63.2–65.2)	SS #1, 10% recovery; # of blows/6": 6, 8, 25, 38
			65.2	N = 63 (Not indicative) N for the last foot
				The full recovery was 92% but only 10% was good, the remaining washed out gravel

START 2:00 FINISH 5:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-10 Obser.

LOCATION Vangorda Creek

GR'D ELEV.

G.W.L. 61.5

PURPOSE Foundations for fresh water supply dam

CLIENT Kerr-CNRL W.O. NO. 6163-0

PROJECT Grum joint venture

SITE Faro, Yukon

DRILLED BY A. S. Aitchen

LOGGED BY E. Gomez / M. Mallette

DATE 28-8-'77

DEPTH FT. 65	FIELD CLASSIFICATION: GROUP	FIELD CLASSIFICATION: DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
65.2		Well graded sand, some silt and traces of gravel.		
68.1		Fine uniform clayey sand, slight plasticity, Brownish green	68.9 #2 70.9	SS, 0% recovery Blows/6" => 3,5,9,9 N = 14
71.5			#3 71.5	SS, 50% recovery Blows/6" => 28 (71.0-71.5)
		End of shift at 71.5		
				N.B. SS#3 started at a depth of 69.5' but evidently in outwashed material.
				Took over from Mr. E. Gomez after SS#3 at a depth of 71.5 feet. BW casing was descended by rotation to 74.6 feet but can't be driven further for the shoe bit is shot. Since pulling of the casing would cause caving of the walls I decided to use bentonite from 71.5 on down.

START 7:00 FINISH 17:00 DELAYS ETC.

MECO-10-001

SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-10 Offset

LOCATION Vangorda Creek

CLIENT Kerr-CNRL W.O. NO. 6163-0

GR'D. ELEV.

PROJECT Grum joint ventures

G.W.L. 18.8'

SITE Faro, Yukon

PURPOSE Foundations for water supply dam.

DRILLED BY A. Spilchen LOGGED BY M. Mallette DATE 29-8-'77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
71.5				Used bentonite thru previous hole so the water level is stabilized		
		Grey uniform sand and silt with trace of gravel and cobbles	75.1	SS, 61% recovery		
74.1			#4	Blows/6" = 14, 70, 119, 125		
			76.9	N = 189		
		Olive green till: Sandy silt with some clay, gravelly. Well graded. Very dense, slightly plastic, saturated. Sub-rounded pebbles. Some cobbles noted, very few if any boulders. End of shift at 86.4'	80.7 SS #5 81.0	SS, 0% recovery. 132 blows with refusal after 0.3' of penetration.		
			#6 83.7	SS, 0% recovery. 210 blows with refusal after 0.3' of penetration.		
86.4			86.0 #7 86.4	SS, 100% recovery 221 blows with refusal after 0.4' of penetration.		
				N.B. SS #4 recovered 0.3' of grey uniform sand and silt with trace of gravel and 0.8' of olive green till. Used BQ core barrel with bentonite as a lubricant to drill ahead and wash hole between cobbles. Cobbles present between 71.5'-75.1' and 83.7'-86.0'		

START 7:00 FINISH 17:00 DELAYS ETC.

MECo-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-10 Offset
LOCATION Vangorda Creek

CLIENT Kerr - CNRL W.O. NO. 6163-0
GR'D. ELEV.
PROJECT Grum joint venture
G.W.L. 66.9'
SITE Faro, Yukon
PURPOSE Foundations for fresh water supply dam.

DRILLED BY A. Szitchen LOGGED BY M. Mallotte DATE August 30th

DEPTH FT. 86	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TESTS
86.4							
		Dark grey till:					
		Sandy and gravel-					
		ly silt with some					
		clay in spots. Very	91.1	SS, 100% recovery			
		dense, slight plasti-	#8	Blows/6" => 132, 200 with			
		city to none however.	91.6	refusal after 0.2' of penetration			
		Well graded,					
		angular to sub-roun-					
		ded particles. Cobbles	96.0	SS 71% recovery			
96.7		in traces.	#9	Blows/6" => 190, 199 with			
		End of hole at 96.7	96.7	refusal after 0.2' of penetration			
				N.B.			
				SS#8, some clay content for slightly plastic			
				SS#9, no clay observed			
				Cobbles found while drilling ahead between 86.4' and 91.1'			

7:00 12:00 DELAYS ETC.

MECO-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B-77-11

LOCATION Vangorda Creek

GR'D. ELEV.

G.W.L.

PURPOSE Foundations for pres. water supply dam

CLIENT Kerr-CNRL W.O. NO. 6163-0

PROJECT Grum joint venture

SITE Faro, Yukon

DRILLED BY A. Spilchen LOGGED BY M. Mallette DATE August 30

DEPTH FT. 0	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TESTS
		Uniform brown sand with some silt and traces of gravel. Compact material.	4.1	SS, 15% recovery			
			#1	Blows/6" => 18, 13, 7, 5 N = 20			
			6.1				
7.9		Uniform brown silty sand with pottings. Compact material	9.6	SS, 65% recovery			
10.2		Brown gravelly sand and silty sand. Well graded, angular to subrounded particles. Compact material	#2	Blows/6" => 4, 10, 11, 12 N = 21			
11.1			11.6				
		End of shift at 11.6		N.B. SS#2 recovered 0.6' of brown silty sand and 0.8' of brown gravelly and silty sand.			
				BH-77-11 is situated on the road leading to hole no. 10. It is impossible to evaluate the depth of fill if any. The topography of the terrain seems to indicate that a portion of the soil in place was [illegible] by the caterpillar to grade a slope of the road and that an unknown depth			

START 12:00 FINISH 17:00 DELAYS ETC.

MECO-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11

LOCATION Vangorda Creek

CLIENT Kerr-CNRL W.O. NO. 6163-0

GR'D. ELEV.

PROJECT Grum joint venture

G.W.L. Foundation for proc...

SITE Faro, Yukon

PURPOSE for supply dam

DRILLED BY A. Spilchan LOGGED BY M.M Allette DATE August 3...

DEPTH FT.	FIELD CLASSIFICATION GROUP	FIELD CLASSIFICATION DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
				of material at the dri...			
				site was either disturb...			
				bed or transported.			

START 12:00 FINISH 17:00 DELAYS ETC.

MEC0-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L. As yet unobtained
PURPOSE Foundations for fresh water supply dam

CLIENT Kerr-CNRL W.O. NO. 6163-0
PROJECT Grum joint venture
SITE Faro, Yukon

DRILLED BY A. St. Laban LOGGED BY M. Mallette DATE August 31st

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
11.6						
		Brown gravelly and silty sand with rusty patches. Well graded, angular to sub-rounded particles. Contact is tight material	12.4 K1	K1 at 12.4'		
			15.0 # 3	SS 40% recovery Blows/6" = 13, 17, 14, 12 N = 31		
			17.0 # 4	RC #4, recovered 0.4 ft grave		
			19.9 K2	K2 at 19.9		
21.0			#5	SS #5, 19.8-21.8' no rec.		
		Brown sand and gravel. Sub-angular to sub-rounded particles. Traces of cobbles. Dense material	21.0	Blows/6" = 49, 26, 27, 22 N = 53		
			25.0 # 6	SS 35% recovery Blows/6" = 13, 16, 27, 20 N = 43		
27.0		End of shift at 27.0'	27.0			
				4" with BW casing at 12' GWL not reached BW casing above ground level = 3.0'		
				Can't pull casing with a pumping rate of 10 imperial gallons/minute		
				2nd with BW casing at 19.9' pulled SS #5 GWL = 19.0'		
				BW casing above ground level = 5.5'		

START 7:00 FINISH 17:00 DELAYS ETC.

MECo. 10-901

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B. 77-11

LOCATION Vangorda Creek

CLIENT Kerr-CNRL W.O. NO. 6163-0

GR'D. ELEV.

PROJECT Grum joint venture

G.W.L. As yet unobtained

SITE Faro, Yukon

PURPOSE Foundations for proposed water supply dam

DRILLED BY A. Silcher LOGGED BY M. Mallette DATE August 31st

DEPTH FT.	FIELD CLASSIFICATION GROUP	FIELD CLASSIFICATION DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
				K2 @ 19.9 ft		
				Δt (min.)	T	decrement (°C)
				2	2	23.7
				2	4	24.2
				5	9	24.3
				5	14	24.3
				5	19	24.3
				19 : TOTAL :		24.3
				N.B. K2 of the rolling head variety.		

START 7:00 FINISH 12:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L. As of 30.0' undisturbed
PURPOSE Foundation for freshwater supply dam.

CLIENT Kerr-CNRL W.O. NO. 6163-0
PROJECT Grum joint venture
SITE Faro, Yukon
DRILLED BY A. Spilchen LOGGED BY M. MacLeod DATE Sept. 1st '77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
		Brown coarse sand with some gravel. Sub-angular to sub-rounded particles. Some thin layers of fine sand with traces of silt to be found.	30.0 K3	K3 at 30.0'		
			30.5	SS, 100% recovery		
			31.1	Blows/6" = 52, 150 with refusal after 0.1' of penetration		
33.8		Brown till: Gravelly sand with some silt. Well graded sub-angular to sub-rounded particles	35.2	SS#8, no recovery		
			#8	Blows/6" = 18, 150, 106 with refusal after 0.2' of penetration. The blow count for the first 6" of sample may be falsified due to the presence of extraneous material.		
			37.4			
			37.1			
39.6		End of drift at 39.6	39.6 K4	SS#9, 43% recovery		
				Blows/6" = 110, 122 with refusal after 0.2' of penetration		
				K4 at 39.6 feet		
				K3 with BW casing at 30.0' followed SS#7, GWL = 29.0'		
				BW casing above ground = 5.0'		
				Δt (min.)	descent (feet)	
				2	33.3'	
				2	34.2	
				5	34.5	
				5	34.8	
				14 : Total :	34.8'	
				N.B. K3 of the following head variety		

START 7:00 FINISH 17:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. Bll-77-11

LOCATION Vangorda Creek

GR'D.ELEV.

G.W.L. At 30.0' unobtained

PURPOSE Foundations for water supply dam

CLIENT Kerr - CNRL W.O. NO. 6163-0

PROJECT Grum joint venture

SITE Faro, Yukon

DRILLED BY A. Szilchan LOGGED BY M. Mallette DATE Sept 1st 77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS
				K4 with BW casing at
				39.6 feet.
				GWL = 26.4'
				BW casing above ground = 4'
				Δt (min) Gallons (in)
				5 10
				5 8
				5 8
				15 Total: 26
				K4 was a constant
				head permeability test
				N.B.
				The contact between
				the granular material
				and the till has been es-
				timated to be at a depth
				of 33.8' although tentative
				ve for only 0.3' of brown
				till was recovered in
				SS#9.

START 7:00 FINISH 17:00 DELAYS ETC.

MECO-10-091

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11
LOCATION Vangorda Creek
CLIENT Kerr-CNRL W.O. NO. 6163-0
GR'D. ELEV.
PROJECT Grum joint venture
G.W.L. 27.0'
SITE Faro, Yukon
PURPOSE Foundations for [illegible] water supply dam
DRILLED BY A. Spilchen LOGGED BY M. Mabbitt DATE SEPT 2nd '77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
39.6			39.6	SS, 78% recovery			
		Olive green till: Sandy and gravelly silt	40.5	Blows/6" = 128, 201 until refusal after 0.4' of penetration			
		Well graded, sub-angular to sub-rounded particles. Very dense material.	# 11 40.6	RC # 11, recovered 0.6' of dense till + cobble and gravel			
45.4'		End of shift at 45.4'	45.4	SS, 100% recovery			
		N.B. Some cobbles noted between 39.6-45.4'		Blows/6" = 110, 225 until refusal after 0.3' of penetration			
				SS # 12, olive green till: sandy silt with some gravel.			

START 7:00 FINISH 15:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

SHEET 6.5 OF

HOLE NO. BH-77-11

LOCATION VANGORDA CREEK

GR'D ELEV.

G.W.L. 27.9'

PURPOSE Foundation for fresh water supply dam.

CLIENT Kerr-CNRL W.O. NO. 6163-0

PROJECT Grum joint venture

SITE Faro, Yukon

DRILLED BY A.S. Gilchon LOGGED BY M. Mallette DATE SEPT 3rd '77

DEPTH FT. 45	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT / RECOVERY / TESTS (SAMPLING & DRILLING DETAILS)
45.4				N.B. Used bentonite in
		Olive green till.		45.4' to 61.2'; very
47.5				light mixture
		Grey uniform sand		SS 28% recovery
		and silt with traces	49.6	Blows/6" ⇒ 3,17,80,200
		of gravel. Very dense	#13	with refusal after 0.3'
		sub-rounded particles	51.4	of penetration
52.7			52.3	N = 97
		Grey uniform and	#14	SS, 15% recovery
55.1		fairly coarse sand	54.3	Blows/6" ⇒ 7,11,29,47
		with traces of silt	55.8	N not indicative of
		Dark grey till: Gra-	#15	soil in place for remo-
		velly sand and silt	57.0	ved mollier material
59.1		Very dense, sub-an-		K5 at 53.0'
		gular to sub-roun-		SS#15, 67% recovery
		ded particles, well	61.2	Blows/6" ⇒ 138,207,100
		graded	#16	with refusal after 0.2' of
62.7		Dark grey and uni-		penetration
		form silt with so-	62.7	N = 345
		me sand and tra-		SS#16, 60% recovery
		ces of gravel. Very		Blows/6" ⇒ 26,45,150,42
		dense, sub-angular		with refusal after no pe-
		particles, partings		netration
		present.		N = 195
		End of shift at		N.B. SS#14 recovered
		62.7'		but 0.3' of material in-
				terpreted to be in-situ
				soil, that assumption may
				be erroneous

START 7:00 FINISH 17:00 DELAYS ETC.

MECO-FO-001

SHEET 2 OF 2

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BF 77-11
LOCATION VANGORDA CREEK
CLIENT Kaiser-CNRL W.O. NO. 6163-0
GR'D. ELEV.
PROJECT Grum joint venture
G.W.L. 27.9'
SITE Faro, Yukon
PURPOSE Foundations for [illegible] water supply [illegible]
DRILLED BY A. S Nilchon LOGGED BY M. Mallette DATE SEPT 3rd

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
				K5 with BW casing at 53.0' followed SS#14			
				GWL = 26.1'			
				BW casing above ground level = 4.6'			
				Δt (min)		descent (ft)	
				2		24.0	
				2		28.3	
				5		29.0	
				5		29.5	
				5		30.5	
				19 : TOTAL;		30.5'	
				K5 → permeability test of the falling head variety.			

START 7:00 FINISH 17:00 DELAYS ETC.

MEC 0-15-001

67 SHEET 1 OF 2

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L. 36.8'
PURPOSE Foundations for [illegible] water supply [illegible]

CLIENT Kerr-CNRL W.O. NO. 6163-0
PROJECT Grum joint venture
SITE Faro, Yukon
DRILLED BY A. S[illegible] LOGGED BY M. Mallette DATE Sept 4th '7[illegible]

DEPTH FT. 62	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
62.7			62.7	RC#17 recovered 0.5' of soil,
		Dark grey gravelly silt		also gravel and cobbles
64.3		with some sand. Sub	# 17	K6 at 64.8'
		rounded particles	65.9	SS 75% recovery
		Light brown sand	# 18	Blows/6" => 18, 62, 50, 1[illegible]
		and gravel passes		N = 112
69.0		with depth to a gravel-	67.9	
		ly medium grained	70.1	SS 75% recovery
		Sand. Very dense, sub		Blows/6" => 4, 22, 52, 110
		angular to sub-roun-	# 19	N = 74
		ded particles.	72.1	
		Light brown sand	K7	K7 at 74.3'
74.8		with some silt and	#20	SS, no recovery
		traces of to some gra-	74.5	201 blows with refusal
		vel. Silty layers pre-		after 0.3' of penetration
		sent, very dense, hu-		
		mid. Sub-angular		[illegible] with BW casing at
		to sub-rounded par-		64.8' followed SS#18
		ticles.		GWL = 25.8'
		End of shift		BW casing above GL = 4.8
		at 74.8'		Δt (minutes) Gallons (imp)
			3.[illegible]	2 2 10
			10 /[illegible]	2 4 10
				5 9 30
				5 14 29
				5 19 24
				19 : TOTAL: 103
				K6 was a constant
				[illegible] level permeability test
				at the head.

START 7:00 FINISH 17:00 DELAYS ETC.

MECO-10-001

SHEET C OF C

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B1-77-11

LOCATION Yangorda Creek

CLIENT Kerr-CNRL W.O. NO. 6163-0

GR'D. ELEV.

PROJECT Green joint venture

G.W.L. 36.8'

SITE Faro, Yukon

PURPOSE Foundations for the water supply dam.

DRILLED BY A. Spilden LOGGED BY M. Mallett DATE SEPT 4th '77

DEPTH FT.	FIELD CLASSIFICATION GROUP	FIELD CLASSIFICATION DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
				HQ-I with BW casing at		
				74.3' followed SS#20		
				GWL = 39.7'		
				casing above GL = 5.3'		
				Δt (minutes)	Gallons (imp)	
				5	5	6
				5	10	8
				5	15	6
				15 : TOTAL:		20
				K7 was a constant wa-		
				ter head permeability		
				test.		
				N.B. RC#17 from 62.1'		
				to 65.9' recovered 0.5' of		
				dark grey gravelly silt		
				with some sand. Plus		
				some gravel and cobbles		

START 7:00 FINISH 17:00 DELAYS ETC.

MECo-10-601

67 SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-11
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L 28.5'
PURPOSE Foundations for the with supply line

CLIENT Kehr-CNRL W.O. NO. 6163-0
PROJECT Grum joint venture
SITE Faro, Yukon
DRILLED BY A.S. Gibbon LOGGED BY M.M. Abbott DATE SEPT. 5th '77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
74.8						
		Light brown sand with some silt and some gravel. Very dense, humid, subrounded to sub-rounded particles.	78.0	SS no recovery		
			#21	Blows/(1" = 14, 16, 47, 76		
79.6			79.6	with refusal after 0.1' of		
		End of shift at 79.6'		penetration.		
				N not indicative of soil in place for recovered washed material that was discarded.		
				N.B.		
				We have to use thick mud at 74.8' for the casing shoe need. the added lubrication or else the depth of drilling achieved with fresh water and the constant drilling of the casing to replace the shoe consumed valuable time.		

START 7:00 FINISH 18:00 DELAYS ETC.

MECO-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11
LOCATION Vangorda Creek
CLIENT Kerr-CNRL W.O. NO: 6163-0
GR'D. ELEV.
PROJECT Crum joint venture
G.W.L. 19.7'
SITE Faro, Yukon
PURPOSE Foundations for proposed water supply dam.
DRILLED BY A. Spilchen LOGGED BY M. Mallette DATE 5 Sept. 6th '77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
79.6			79.7	K8 at 79.8'			
		Brown till: Gravelly and silty sand.	80.3	SS, 83% recovery			
		Interlayered with	82.9	Blows/6" = 257, 76 with refusal after 0.1' of penetration			
		light brown sand and gravel with	#23	SS, 45% recovery			
		traces of silt. Humid	84.9	Blows/6" = 15, 114, 75, 41			
		very dense, angular to sub-rounded		N = 189			
		particles. Rusty	89.2	SS, 40% recovery			
90.2		patches present.	#24	Blows/6" = 143, 213, refusal			
		Traces of cobbles from 79.6 - 90.2	90.2	N = 256			
		End of shift at 90.2'		N.B.			
				The ground water level of 19.7' taken at the beginning of the shift was obviously falsified by the use of mud the previous day.			
				SS samples #22 and 24 consist of washed material but were conserved nonetheless due to the wide gaps in the soil description.			
				K8 with BW casing at 79.8' Followed SS #22			
				GWL = 30.6'			

START 7:00 FINISH 19:00 DELAYS ETC.

MEC6-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-11
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L. 19.7'
PURPOSE Foundations for proc. water supply

CLIENT Kerr-CNRL W.O. NO. 6163-0
PROJECT Gruen joint venture
SITE Faro, Yukon

DRILLED BY A. Sobchen LOGGED BY M. Millotta DATE Sept 6th 1977

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
		N.B. Although no till was recovered in the casing between 79.6' and 90.2', the low permeability values of the soil encountered at 79.8 and 89.9 could be due to the presence of glacial till.		K9 - Falling head test BW casing above GL = 5.0		
				Δt (minutes)	Δ feet (feet)	
				2	0.4	
				2	0.8	
				5	1.4	
				5	2.1	
				5	2.7	
				19 :TOTAL:	2.7'	
				K9 with BW casing at 89.9' followed SS #24		
				GWL = 30.6'		
				BW casing above GL = 4.7'		
				K9 - Falling head test		
				Δt (minutes)	Δ feet (feet)	
				2	0.6	
				2	1.9	
				5	5.0	
				5	6.5	
				5	7.4	
				19 :TOTAL:	7.4'	

START 17:00 FINISH 19:00 DELAYS ETC.

TESTHOLE FIELD LOG

HOLE NO. BH 77-11
LOCATION Vangords Creek
GR'D. ELEV.
G.W.L. 8.0'
PURPOSE Foundations for water supply dam

CLIENT Kerr-CNRL W.O. NO. 6163-0
PROJECT Grum joint venture
SITE Faro, Yukon

DRILLED BY A. Sfilden LOGGED BY M. Mallette DATE Sept. 7th

DEPTH FT. 90	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
90.2				GWL = 8.0' is obviously erroneous due to unknown cause.
		Brown till: Gravelly and silty sand with some cobbles Very dense, well graded, sub-angular to sub-rounded particles	93.8 #25 95.7	SS 74% recovery Blows/6" = 39, 171, 160, 1[illegible] with refusal after 0.4' of penetration. N = 331
				K10 at 99.1'
			K10 100.0 #26 100.1	SS, no recovery Blows/1" = 701 with refusal after 0.1' of penetration
			103.2 #27 104.0 105.2 #28	SS, no recovery Blows/6" = 174, 203 with refusal after 0.2' of penetration
106.2		End of shift at 106.2'	106.2	SS#28, no recovery Blows/6" = 104, 95 N = 199
				SS#28 was commenced at 104.2; blow counts not shown for in washed material.
		[illegible] at 99.1'		
		Δt (minutes) drop (feet)		
		2 0.1		K10 with BW casing at 99.[illegible] followed SS#26 GWL = 37.7'
		2 0.2		
		5 0.25		
		5 0.33		BW casing above GL = 3.3'
		5 0.42		Falling head permeability test
		19 : TOTAL: 0.42'		

START 7:00 FINISH 19:00 DELAYS ETC.

MECo-10-001

SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

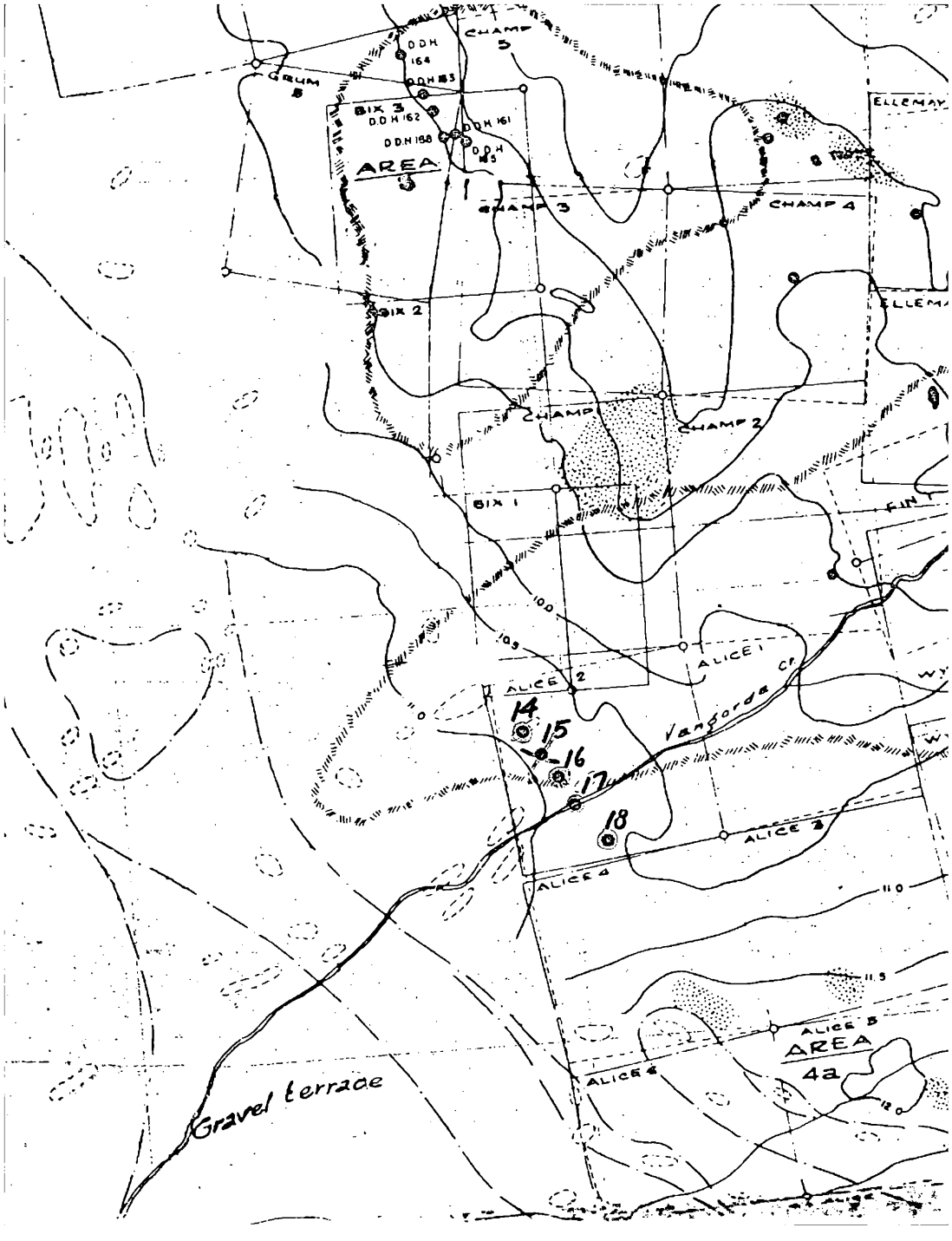
HOLE NO. BH-77-11
LOCATION Vangorda Creek
GR'D. ELEV.
G.W.L. 30.0
PURPOSE Foundations for water supply dam

CLIENT Kerr-CIRL W.O. NO. 6163-0
PROJECT Grum joint venture
SITE Faro, Yukon

DRILLED BY A. Spilchen LOGGED BY M. Mallette DATE SEPT. 8 '77

DEPTH FT. 106	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
106.2		Brown till: Silty	K-11	K11 at 107.0'
		and graveller sand	107.4	SS, no recovery
		Very dense, sub-	109.6	213 blows with refusal
109.8		angular to sub-	#30	after 0.2' of penetration
		rounded particles	109.8	SS#30, 17% recovery
		Some cobbles and		Blows/1" = 17, 293, 221
		traces of boulders		with refusal after 0.2'
				of penetration
		End of hole		
		at 109.8'		SS#30, brown till: sil-
				ty sand with traces
				of gravel.
		N.B.		The gravel content
		The casing shoe		is surely much higher
		could not be dri-		in the till than the
		ven any further		traces of sample #30.
		than 109.8' so the		
		decision was ta-		K11 with BW casing
		ken to terminate		at 107.0' followed SS#29
		the hole.		GWL = 31.2'
				BW casing above GL = 2.7'
				Δt (minutes) drop (feet)
				2 2 7.1
				2 4 11.4
				5 9 18.2
				5 14 22.3
				5 19 25.9
				19 : TOTAL: 25.4'

START 7:00 FINISH 13:00 DELAYS ETC.


CHAMP 5
D.D.H 164
D.D.H 163
SIX 3
D.D.H 162
D.D.H 161
D.D.H 160
D.D.H M5
AREA 5
CHAMP 1
CHAMP 3
CHAMP 4
SIX 2
CHAMP
CHAMP 2
SIX 1
100
ALICE 1
ALICE 2
14
15
16
17
18
Vangorda Cr.
ALICE 3
ALICE 4
110
115
ALICE 5
AREA 4a
ALICE 6
120
Gravel terrace

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-14

LOCATION South Vangorda Flat

CLIENT KERR ADAMSON W.O. NO. EAM 6162-0

GR'D. ELEV.

PROJECT CRUM JOINT VENTURE.

G.W.L.

SITE FARO, Y.T.

PURPOSE Water Supply Dam Site

DRILLED BY A. Spiedel LOGGED BY E. Colmer DATE October 5/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TEST
				Drill Moved To The Lower Vangorda Creek Dam Site. Set-up on the top hole of the right abutment about 75' dam Axis			

START ..... FINISH ..... DELAYS ETC. .....

MECO-10-091

SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-14

CLIENT KERR ADDISON W.O. NO. 6163-D

LOCATION LOWER VANGORDA CRK

PROJECT GRUM JOINT VENTURE

GR'D. ELEV.

SITE FARO Y.T.

G.W.L.

PURPOSE DAM SITE

DRILLED BY A. SPICKEN LOGGED BY E. GOSHER DATE OCT 6/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TEST
0 - 2		ORGANIC CVR: ORGANIC SILT & MOSS, REMOVED TO CLEAR WAY FOR SET-UP APPROXIMATELY 5 FT OF SOIL REMOVED, THE OTHER 2' CONSISTING OF A SANDY SILT TILL				
			3.25'			
		GREYISH BROWN WELL GRADED TILL: GRAVELLY SAND WITH SOME SILT, LOW PLASTICITY, MEDIUM WATER CONTENT, DENSE	#1	SS, 30% RECOVERY # OF BLOWS/FT ⇒ 19, 12, 10, 7 N = 22		
			5.25'			
6.75		ANGULAR TO SUB-ROUNDED PARTICLES.				
			8.25'			
		GRAVELLY SAND, WELL GRADED, TRACE OF SILT, MEDIUM TO COARSE SAND PARTICLES, SEMI-DENSE, MEDIUM WATER CONTENT, ANGULAR TO SUB-ROUNDED PARTICLES	#2	SS, 55% RECOVERY # OF BLOWS/FT ⇒ 7, 6, 6, 7 N = 12		
			10.25'			
15.2			14'			
		GREYISH BLUE TILL: CLAY & SILT, SOME SAND & GRAVEL, MEDIUM PLASTICITY, LOW WATER CONTENT, VERY DENSE, WELL GRADED TILL, ANGULAR TO SUB-ROUNDED PARTICLES	#3	SS, 65% RECOVERY IN 35% SAND & 45% TILL # OF BLOWS/FT ⇒ 11, 10, 10, 27 N = 20		
			16'			

START 7.00 FINISH 5.00 DELAYS ETC. STATCO DRILLING AT 2:00 p.m.

MECo-10-001

SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BI 77-14
LOCATION Lower Vangorda Creek
GR'D.ELEV.
G.W.L.
PURPOSE Dam Site Investig-

CLIENT Kerr Addison W.O. NO. 6163-0
PROJECT Grum Joint Venture
SITE Faro, Y.T.

DRILLED BY A Spirides LOGGED BY E. Gilmore DATE Oct 7/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TEST
			19.7				
19.7		Greyish-blue till:	4	SS, 65% recovery			
		Clay and silt, some		# of blows/6" ⇒ 24, 30, 12, 100			
		sand & gravel, high	21.7	N-32			
		plasticity, low water					
		content, very dense,					
23		angular to sub-rounded					
		particles					
			24	SS, 90% recovery			
		Greyish blue till,	5	# of blows/6" ⇒ 50, 55, 65, 75			
		Gravelly clayey silt,		N= 120			
		some sand, low	26				
		water content, med					
		plasticity, very dense,					
		angular to sub-rounded					
28		particles.					

START 7:00 FINISH 5:00 DELAYS ETC. Due to failure of oil pumps, only

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-14

LOCATION Lower Vangorda Creek

GR'D. ELEV.

G.W.L.

PURPOSE Water Supply Dam Site

CLIENT Kerr Addison Mine W.O. NO. KAH 6163-0

PROJECT Grum Joint Venture

SITE Faro, Y.T.

DRILLED BY A. Sparks LOGGED BY E. Gimer DATE Oct 3/77

DEPTH	FIELD CLASSIFICATION		SAMPLE	SAMPLING & DRILLING DETAILS.			
FT.	GROUP	DESCRIPTION	NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TESTS
			30				
30		Hagnell Blue Till:	4 ✕ 5	SS, 10% recovery			
		clay and silt with		# of blows/ft ⇒ 80, 150, 140, 130			
		sand, some gravel,	32	N = 290			
		medium plasticity,		The remaining of sample was			
		low water content, angular		cut-off stone, thus a sudden			
		angular to sub-rounded		amount of blows on the spoon and			
		particles		the no. of blows is not			
				indicative of soil density			
				Casing had to be extended			
				down to level of sampling			
				since the hole was caving in			
				after drilling.			
				Casing depth 35 ft			

START 7:00 FINISH 5:00 DELAYS ETC. Started drilling at 11.00 am due to ice blocks in hoses.

106 SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-14
LOCATION Lower Vangorda Creek
GR'D. ELEV.
G.W.L.
PURPOSE Dam Site

CLIENT Kerr Addison Mine W.O. NO. KAM 6163-0
PROJECT Grum Joint Venture
SITE Faro, Y.T.
DRILLED BY [illegible] LOGGED BY E. Gomez DATE Oct 9/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
				No water level could be obtained.
			35	
		Greyish blue till: Clay and silt with sand, some gravel, medium plasticity, dense, high water content (not indicative of natural water content). Angular to sub-rounded particles.	H 7 / 36.3	55, 55% recovery. # of blows/.5' ⇒ 48, 90, 135 with a .1' refusal.
35.1				Only 5% (2") of recovery was till, the remaining 50% (1.0') was the Quartz Sericite Phyllite
			35.1	
35.1		Quartz Sericite Phyllite Grey, fine grain, plate-like, tender, fragmented.		
				For the core drilling, the rimming shell was too soft and the new ones have not arrived yet, therefore the [illegible] is going to [illegible] [illegible] from [illegible] drilling, instead of risking the chance of losing it and breaking it in the hole.

START 7:00 FINISH 5:00 DELAYS ETC. Stopped drilling at 3:00 p.m.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. RH 77-14
LOCATION Lower Vangorda Cr.
GR'D. ELEV.
G.W.L.
PURPOSE Dam Site

CLIENT Kerr Addison Mine W.O. NO. KCM 6163-0
PROJECT Aquam Joint Venture
SITE Faro, Y.T.

DRILLED BY A. Spirchen LOGGED BY E.G. DATE Oct 10/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	FIELD CLASSIFICATION DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
35.1			35.1'				
		Quartz Sericite Phyllite		RC, 0% recovery			
		Grey Color, phyllite-like					
		schist, fine grain,	# 8				
		silvery sheen on					
		cleavage planes					
			37.4'				
			37.4'				
				RC, 30% recovery			
			# 9				
			39.5'				
				R.C, 100% recovery			
			# 10				
			40.75'				
				RC, 95% recovery			
			# 11				
			42.75'				
				RC, 94% recovery			
			# 12				
			46.0'				
				RC, 28% recovery			
			# 13				
			46.3				

START .... FINISH .... DELAYS ETC. ....

MECO-10-001

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B' 77-14
LOCATION Lower Vangorda Rd
GR'D. ELEV.
G.W.L.
PURPOSE Dam Site

CLIENT Kerr Addison W.O. NO. KAM 5163-0
PROJECT Crum Joint Venture
SITE Faro, Y.T

DRILLED BY A. Spitchen LOGGED BY E. Gómez DATE October 11/77

DEPTH FT.	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TESTS
		Quartz Sericite Phyllite					
		dk. green, plate-like	40.9				
		soft (tender),		RC, 65% recovery			
		silvery sheen on	#14				
		cleavage planes.					
			50.7'				
				RC, 86% recovery			
			#15				
			55.7'				
		— End of Hole —					
				Started moving to the next set-up half-way up the Right Abutment.			

START .... FINISH .... DELAYS ETC. ....

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

SHEET ___ OF ___

HOLE NO. BH - 77 - 15 (75')

LOCATION Lot 24 Vangorda Cr.

CLIENT KERR ADDISON W.O. NO. KAM 6163-0

PROJECT GRUMM JOINT VENTURE

GR'D. ELEV.

G.W.L.

SITE FAro, Y.T

PURPOSE Dam Site

DRILLED BY N Spilchin LOGGED BY R. GOMEZ DATE OCT 11/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
0 - 2		Top Soil - Organic				
		Removed by Cat				
			3.4'			
		Well graded gravel,	1	55, 40% RECOVERY		
		fine to medium grains,		# of blows/6" ⇒ 3, 3, 4, 5		
		loose, medium water	4.4'	N = 7		
6.1		content, traces of gravel				
		and organic silt, organic				
		matter				
			7.8			
		Brownish Brown silty	2	55, 40% RECOVERY		
		sand, some gravel,		# of blows/6" ⇒ 3, 3, 3, 3		
		traces of clay, semi-	9.8	N = 6		
		dense, low				
		plasticity, low water				
		content, adhere to				
		subrounded particles				
			13.3			
			3	55, 55% RECOVERY		
				# of blows/6" ⇒ 2, 4, 5, 5		
			15.3	N = 9		
			18.7			
20.3		SAME AS BUT DENSE	4	55, 55% RECOVERY		
				# of blows/6" ⇒ 28, 19, 22, 21		
			20.7	N = 41		
			23.5			
		Clay Rich Till,	5	35, 30% RECOVERY		
		brownish, sandy silt, some		# of blows/6" ⇒ 11, 19, 17, 18		
		clay, low W.C, very dense	25.5	N = 36		
		low plasticity				

START 7:00 FINISH 5:00 DELAYS ETC. Finished Set-Up. Started drilling at 8:15

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-15

LOCATION Lower Vangorda Creek

GR'D. ELEV.

G.W.L.

PURPOSE Dam Site

CLIENT Kerr Addison   W.O. NO. KAM 6163-D

PROJECT Grum Joint Venture

SITE Faro, Y.T

DRILLED BY A. Spiecken   LOGGED BY E. Gomez   DATE Oct 11/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TEST
		Olive green till:	29	SS, 55% recovery			
		gravelly sandy silt,	4 6	7 blows/6" ⇒ 13, 16, 27, 28			
		some clay, very dense, low		N = 43			
		water content, low	31				
		plasticity, well graded till,					
		angular to sub-rounded					
31		particles					

START .... FINISH .... DELAYS ETC.

MECO-10-001

SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-15

LOCATION Lower Vangorda Cr.

GR'D. ELEV.

G.W.L.

PURPOSE Ore Site.

CLIENT Kerr Addison W.O. NO. KAM 6163-0

PROJECT Grum Joint Venture

SITE Faro, Y.T

DRILLED BY A. Spiehen LOGGED BY E. Gomez DATE Oct 12/77

DEPTH FT.	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS
			35	No water level obtained
35		Olive Green Till: Sandy Silt, some gravel and clay, low water content, low plasticity, angular to subrounded particles, very dense	#7	SS, 70% recovery; # of blows/6" ⇒ 20, 16, 19, 22. N = 35
			37	
			41.1	
			#8	SS, 35% recovery; # of blows/6" ⇒ 23, 26, 42, 55; N = 68
			43.1	
			44'	
47.5		Very Dense (Same Till as above)	#9	SS, 75% recovery; # of blows/6" ⇒ 37, 36, 90, 80; N = 126
			46'	
			49.4	
		Grey Blue Till, clay and silt, some sand & gravel, low water content, med plasticity,	#10	SS, 40% recovery; # of blows/6" ⇒ 25, 63, 70, 150; N = 133
			51.2	Till from 49.4 → 50.5 (5% Poor recovery for good description)
			50.5	
		Soft Fragmented Quartz Sericite Phyllite, fine grain, silvery shine, very shiny color		Bedrock from 50.5 → 51.2

START 7:00 FINISH 5:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

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HOLE NO. BH 77-15

LOCATION Upper Vangorda Cr.

CLIENT KERR DAWSON W.O. NO. KAIT 6165-0

GR'D. ELEV.

PROJECT CROW JOINT VENTURE

G.W.L.

SITE FARO, Y.T.

PURPOSE Dam Site

DRILLED BY A. Spillchin LOGGED BY E. Grimes DATE Oct 13/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TEST
				WATER LEVEL = 13.5'		
51.2		RUSTY SERICITE PHYLL.,	51.2'			
		XENOLITH, LIME GRAIN,		RC, 57% RECOVERY		
		SILICIFIED ZONES.	#11	THE FIRST 44% OF 11 RECOVERED		
				WAS SOLID BROKEN PIECES 0.7		
			53.4'	11 WAS 15% GOUGED BEDROCK		
				DRUSHY.		
			#12	RC, 73% RECOVERY		
				11 FIRST 3% - GOUGED BEDROCK		
				11 NEXT 33% - SOLID ROCK (GOOD)		
				11 NEXT 33% - SOME SOLID ROCK		
				11 REMAINING 9% - SOLID ROCK		
			57.5'	C		
			#13	RC, 53% RECOVERY		
				GOUGED BEDROCK - SOFT, FRAGMENTS		
				SOIL-LIKE.		
			62.4'			
				RC, 0% RECOVERY		
			#14			
			62.8			
				RC, 35% RECOVERY		
			#15	11 FIRST 15% - BROKEN GRAVEL ROCK		
				11 REMAINING 20% - SOLID BEDROCK		
			64.8	C		
				RC, 53% RECOVERY		
			#16	11 FIRST 37% - SOFT, FRAGMENTS LIKE		
				11 REMAINING 37% - GOOD SOLID BEDROCK		
			68.3	C		

START 7:00 FINISH 5:00 DELAYS ETC.

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MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. DH 77-15

LOCATION Lower Vangorda Creek

CLIENT Kerr Addison W.O. NO. KAM 6113-0

GR'D. ELEV.

PROJECT Grum Joint Venture

G.W.L.

SITE Faro, Y.T

PURPOSE Dam Site

DRILLED BY A. Spicken LOGGED BY E. Gomez DATE Oct 13/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY	SAMPLING & DRILLING DETAILS	TESTS
			68.3				
68.3		Quartz Sericite Phyllite,				RC, 67% recovery	
		fine grain, silvery, slaty	17			The first 23% - good solid core	
		cleavage, texture, grey				Then 13% of solid broken pieces	
		silvery shiny colour.				The remaining 31% good solid core	
			70.4				
						RC, 50% recovery	
						The first 5% - solid broken core	
						Then 13% - solid hard core	
			18			Then 8% - Gouged Bedrock - soft	
						[illegible], [illegible]	
						Then 24% - Soft, fragmented [illegible]	
			72.4				
						RC, 78% recovery	
			19			Mostly good solid core with	
						a few softer spots	
			75.1				
		END OF HOLE					
						Water level taken October [illegible]	
						before moving - 8' below.	

START 7:00 FINISH 5:00 DELAYS ETC.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-16

LOCATION Lower Vangorda Cr.

CLIENT KERR ADDISON MINE W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT GRUM JOINT VENTURE

G.W.L.

SITE FARO, Y.T

PURPOSE Dam Site

DRILLED BY A. Spielen LOGGED BY E. Gomez DATE October 14/77

DEPTH FT.	GROUP	FIELD CLASSIFICATION DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
			2.2				
		Well Graded Sand,	# 1	SS, 65% RECOVERY			
2.6		fine to coarse grains	4.2	# of blows/6" ⇒ 4, 5, 5, 5			
		trace of Fines		20% of recovery SAND			
		Gravelly sand, fine to		45% of " gravelly sand.			
		medium particles, dense		N = 10			
5.0		above average moisture,					
		trace of silt, brown color					
			8.1				
		Glacial Till:	# 2	SS, 85% RECOVERY			
		Sandy Silt, some gravel	10.1	# of blows/6" ⇒ 5, 7, 10, 13			
		and clay, low water content		N = 17			
		dense, medium plasticity,					
11.5		well graded till with					
		angular to sub-rounded					
		particles					
		Glacial Till: Gravelly	13.9	SS, 65% RECOVERY			
		Clayey silt, some sand,	# 3	# of blows/6" 16, 11, 16, 33			
		low water content, medium	15.9	N = 27			
		plasticity, dense, well					
17.0		graded till, angular					
		to subrounded particles					

START 7:00 FINISH 5:00 DELAYS ETC. Started drilling at 1:00 p.m.

IECO-10-001

SHEET 1/2 OF

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-16

LOCATION Lower Vangorda Cr.

CLIENT Kerr Addison W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT Geom Joint Venture

G.W.L.

SITE Faro, Y.T

PURPOSE Dam Site

DRILLED BY A. Spielman LOGGED BY E. Gomez DATE October 15/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
			18.4	Skipped #4		
		Frozen Blue Till:	4 5	SS, 15% Recovery		
		Gravelly, Sandy Silt,		# of blows for 6" 16, 33, 41, 52		
		some clay, low water	20.4	N= 74		
21		content, very dense,				
		low plasticity, angular		Water level 5.5' below		
		to subrounded particles				
				Permeability Test at el. 20.4'		
				After 19 minutes, 1 cm drop		
		Quartz Sericite Phyllite,		on casing down to 12.4'		
		fine grain, silvery gray				
		cleaving planes, grayish				
		black end	22.9			
			5 6	SS, 0% Recovery		
				#7 blows for 25 mm 5½"		
			23.0	Noticed a change in drilling		
				sound at ≈ 31' also noticed		
				further increase		
			22.9'			
		Good Solid Recovery		RC, 81% Recovery		
		of Quartz Sericite Phyllite	4 7			
			25.9'			
		Good Solid Recovery	4 9	RC, 83% Recovery		
			30.6'			
		Good overall Recovery		RC, 91% Recovery		
36.1		except for the first 5'	4 9			
END		Mud was broken solid pieces	36.1'			

START 7:00 FINISH 5:00 DELAYS ETC.

MECO-18-001

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MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-16

LOCATION LOWER VANGUARD CR.

CLIENT KEDR ADDISON MINES W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT GRUM JOINT VENTURE

G.W.L.

SITE FARO, Y.T.

PURPOSE DAM SITE

DRILLED BY A. SPILCHEN LOGGED BY E. GORMLY DATE OCTOBER 15/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
				WATER LEVEL 21' BELOW			
36.1		END OF HOLE					
				FALLING HEAD TEST AT d: 36.1			
				OF BOREHOLE			
				TIME ELAPSED	FALL		
				1M	5.5'		
				1M	.2'		
				2M	.9'		
				5M	2.1'		
				5M	1.9'		
				5M	1.5'		
				5M	1.4'		
				USED E/Q RODS - dip 11 33'			

MECO-10-001

SHEET 1 OF 1

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MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-17

LOCATION Lower Vangorda Cr. Near Creek & Left Abutment

CLIENT Kerr Addison Mines W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT Grum Joint Venture

G.W.L.

SITE Faro, Y.T

PURPOSE Dam Site

DRILLED BY D. Spielson LOGGED BY F. Gomez DATE Oct 16/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	FIELD CLASSIFICATION DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
		Top Soil		
		6" of Moss, followed		
		by 4' of Gravelly		
		sand, silt and some clay,		
		some organic matter (roots)		
		(Removed by cat)		
			3.5	
0 - 3.5'	—	Glacial Brown Till:	#1	SS, 25% Recovery
		Gravelly sand, silt, some		# of blows/ft ⇒ 2, 2, 3, 4 N = 5
		clay, medium plasticity,	5.5	Not really indicative of N-size
		med. water content, stiff-		soil since there is about 4' of
		dense, well graded till,		soil which was removed by cat
		angular to sub-rounded		to make set-up.
		particles)		
			7.6	
		Glacial Brown Till:	#2	SS, 65% Recovery
		Gravelly Sandy Silt some		# of blows/ft ⇒ 5, 5, 13, 20
		clay, medium plasticity,	9.6	N = 18
		low water content, dense,		Cobbles encountered while drilling.
14.0		angular to sub-rounded		
		particles	13.0'	
			#3	SS, 0% Recovery
				# of blows/ft ⇒ 17, 21, 27, 29
			15.0'	Not indicative soil, rock must
				of been at bottom N = 48
			16.0	
		Grey Blue till: Gravelly	#4	SS, 5% Recovery
		Silt & Clay, some sand,		# of blows/ft ⇒ 17, 10, 27, 113
		highly plastic, soft,	17.5	Not indicative of Soil
		low water content, stiff-clay		Rock found in SS.

START ... DELAYS ETC. STARTED ... AT 1:00 ...

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-17

LOCATION Lower Vangorda C.

CLIENT KERR ADDISON W.O. NO. KAM 6153-2

GR'D. ELEV.

PROJECT GRUM JOINT VENTURE G.W.L. 5.3'

SITE Faro, Y.T PURPOSE Dam Site

DRILLED BY A. Spitchen LOGGED BY E. Gomez DATE Oct 17/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO' DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	TESTS
				Water level - 5.3' below		
			19.0	55, 0% recovery		
			R 6	#7 blows/ft ⇒ 150 with 4" rise		
			17.1	Drilling Change indicating Bedrock		
19			19.1			
			# 6	RC, 92% Recovery		
				The first 21% poor broken pieces		
			20.2	The next 71% good solid pieces of bedrock		
			# 7	RC, 71% Recovery		
				The first 17% ⇒ Broken pieces, some soft, mushy-like		
				The next 42% ⇒ Good solid recovery		
			22.6'	The remaining 12% ⇒ Broken solid pieces		
			# 8	RC, 75% Recovery		
				Generally good recovery with a few inches of soft-plate like rock		
			26.6			

START 7:00 FINISH 5:00 DELAYS ETC. Finished Drilling at 3:00 p.m. Started moving to BH 77-18

ME.CO-10-001

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SHEET 2 OF 2

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. TH 77-17

LOCATION Lower Vangorda R.

CLIENT KERR ADDISON MINE W.O. NO. KAM 6163-0

GR'D. ELEV.

PROJECT CRUM JOINT VENTURE

G.W.L.

SITE FARO, Y.T

PURPOSE Dam Site

DRILLED BY J. Spieden LOGGED BY K. Comer DATE OCTOBER 17/74

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		TESTS
			26.6				
			# 9				
			29.7				
			# 10				
35.8'			35.8'				

2C, 97% Recovery
Usually good recovery of solid bedrock broken into .1' to .2'
Gravel. After 66' there is .1' of soft fragmented rock.

2C, 82% Recovery
Good Solid Recovery

BW CASING DOWN TO 13'

END OF HOLE

START 7:00 5:00

MECO-10-031

1/3

SHEET 1 OF 2

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. 8. 77-18

LOCATION Left Abutment - Top

CLIENT KEPE ADDISON MINE W.O. NO. KAM 6163-0

PROJECT CRUM JOINT VENTURE

GR'D. ELEV.

G.W.L.

SITE FARO, Y.T

PURPOSE Dam Site

DRILLED BY A. Spillen LOGGED BY E. Goinet DATE October 18/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY	--	TESTS
		Top Soil:					
		.2' - Organic Mosse					
		.6' - Organic Silt					
		3' - Fill - Sandy silt					
		(Removed by Cat)					
		The first 8' of					
		soil is not indicative					
		of in-situ soil since					
		it is had been removed					
		to build the set-up.					
			2.3				
		Aeonial Brown Till:	4 / 2	55, 40% Recovery			
		Gravelly silty sand,		# of blows/ft = 1, 2, 1, 2			
		some clay, some organic	4.3	-20% organic soil			
		matter mixed in with		70% Fill			
8.0		the fill, above the water		Not indicative of in-situ soil,			
		content		Fill material			
			8.0'				
		Glacial Till:	4 / 2	55, 55% recovery			
		Sandy Silt, some gravel,		# of blows/ft = 4, 5, 6, 11			
		some clay, low plasticity	10.0'	N = 11			
		semi-dense, well graded		Indicative of in-situ soil			
		till, angular to sub-rounded					
		particles	13.0				
			15 / 2	55, 60% Recovery			
		Slightly dense		# of blows/ft = 5, 7, 10, 15			
			15.0	N = 17			
16.5							

START 7:00 FINISH 5:00 DELAYS ETC. Started drilling at 1:00 pm.

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH 77-18
LOCATION Lower Vangorda C.
GR'D. ELEV.
G.W.L.
PURPOSE Dam Site

CLIENT Kerr Addison Mine W.O. NO. EAM 6163-0
PROJECT Grum Joint Venture
SITE Faro, Y.T

DRILLED BY A. Spicden LOGGED BY E. Gomez DATE Oct 12/77

DEPTH FT.	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS TYPE & BLWS/FT	RECOVERY		
16.5			18'				
		Grey Till: Gravelly	4 / 4	SS, 50% recovery			
		Sandy silt, some clay,		#7 blows/6" @ 15, 20, 25, 30			
		dense, low water content	20'	N=45			
		low plasticity, well					
		graded till, angular to					
		sub-rounded particles.					

START 7:00 FINISH 5:00 DELAYS ETC.

MECO-10-001

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SHEET 1 OF 1

MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. BH-77-18

LOCATION LOWER VANGORDA CR.

GR'D. ELEV.

G.W.L. 5.3'

PURPOSE Soil testing for fresh water slightly dam

CLIENT Kerr-CNRL W.O. NO. 6163-0

PROJECT Grum joint venture

SITE Faro, Yukon

DRILLED BY A. S. pitchen LOGGED BY M. M alletta DATE Oct. 20th, 7

DEPTH FT. 20.0	GROUP	DESCRIPTION	SAMPLE NO/DEPTH	TYPE & BLWS/FT	RECOVERY		TESTS
20.0 – 26.5		Dark gray till: Gravelly and clayey silt with some sand. Well graded, dense, sub-angular to sub-rounded particles, high plasticity, average water content, sticks to hands. Ice crystals in traces denotes permafrost.	23.2 #5 25.2	SS 80% recovery Blows/6" => 14, 16, 20, 35 N = 36			
26.5 – 31.1			27.8 #6 29.8	SS 70% recovery Blows/6" => 13, 22, 115, 27 N = 137			
31.1 – 34.4		Dark gray till: Silt and clay with some sand and some gravel. High plasticity, well graded sub-angular to sub-rounded particles, dense 3" of ice lenses present denotes permafrost	32.4 #7 34.4	SS 70% recovery Blows/6" => 24, 22, 27, 35 N = 49			
				N.B. Traces of cobbles and boulders noted between 20.0 and 34.4' in dark gray till			
34.4		Dark gray till: Gravelly silt and clay with some sand. Well graded, high plasticity, sub-angular to sub-rounded particles, loose, average to low water content. No permafrost observed		N.B. The blow count from 28.8 to 29.3' is suhaly due to the presence of permafrost in form of an ice lens.			
				Normal gray mud return.			
		End of shift at 34.4'					

START 7:00 FINISH 17:00

MECO-10-001

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MONTREAL ENGINEERING CO. LTD.

TESTHOLE FIELD LOG

HOLE NO. B-77-18

LOCATION LOWER VANGORDA CREE[K]

GR'D. ELEV.

G.W.L. 6.6

PURPOSE Soil testing for f[...] water supply dam

CLIENT Kerr-CNRL W.O. NO. 6163-0

PROJECT Grum joint venture

SITE Faro, Yukon

DRILLED BY A. S[illegible] LOGGED BY M. Mallette DATE Oct. 31st

DEPTH FT. 34.5	FIELD CLASSIFICATION GROUP	DESCRIPTION	SAMPLE NO/DEPTH	SAMPLING & DRILLING DETAILS (TYPE & BLWS/FT, RECOVERY, TESTS)
		Dark grey till: Gravelly silt with some clay and some sand. Slightly plastic, well graded, very dense, sub-angular particles, low water content. Traces of cobbles and boulders. Thin specks of ice noted in SS#9 from 43.0 to 45.0 though not a prominent feature.	37.7 / #8 / 39.7	N.B. Traces of [illegible] observed in SS#9. SS 40% recovery. Blows/6" => 8, 28, 32, 40. N = 60
			43.0 / #9 / 45.0	SS, 55% recovery. Blows/6" => 9, 27, 53, 14. N = 80
46.7				
		Dark grey till: Gravelly clay and silt with some sand. Highly plastic, well graded, very dense sub-angular particles, low water content. Traces of cobbles and boulders	48.4 / #10 / 50.4	SS, 45% recovery. Blows/6" => 16, 25, 28, 44. N = 53
			52.5 / #11 / 54.5	SS, 35% recovery. Blows/6" => 14, 30, 31, 34. N = 61
56.7		— — — — — —		
		Dark grey till: Gravelly silt with some clay and some sand. Well graded variable plasticity, low water content. Sub-angular particles, very dense. Traces of cobbles and boulders. End of hole at 60.8	58.8 / #12 / 60.8	SS 75% recovery. Blows/6" => 21, 32, 49, 73. N = 81
60.8				N.B. N[illegible] [illegible] to turn from 34.0 to 60.8. BH-77-17 was not cased with casing.