

EBA Engineering Consultants Ltd.

Civil, Geotechnical and Materials Engineers

BEAUFORT SEA DATABASE 1989
SURFICIAL SEDIMENT AND BOREHOLE LOG DATA
VOLUME I
SURFICIAL SEDIMENT LOGS FOR THE
ISSERK AND ERKSAK REGIONS
OF THE BEAUFORT SEA

GULF CANADA RESOURCES LTD.



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ISSERK AND ERKSAK REGIONS
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GULF CANADA RESOURCES LTD.

0305-34475

APRIL, 1989



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GULF CANADA RESOURCES LTD.

APPENDIX	YEAR OF STUDY	CONSULTANT	CONSULTANT'S	COREHOLE
			JOB NO.	LOG NO. RANGE
A	1982	EBA	101-3686	IB82G001 to IB82G103
B	1982	EBA	101-3659	SUGC001 to SUGC005 SUGC105 to SUGC186



ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G01		BOREHOLE No. IB82G001	
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.06 m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.06 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4000	8000	20	40	60		
0.0			SAND - assumed principal component, no sample recovery								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH •• m	COMPLETE 02/08/06
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G02		BOREHOLE No. IB82G002	
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.06 m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.06 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4000	8000	20	40	60		
0.0		2	SAND - trace silt, trace fine grained gravel, fine grained, light olive grey. END OF GRAVITY CORE								0.0
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/08/06
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G03		BOREHOLE No. IB82G003	
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.36 m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 10.36 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	USC	DEPTH (ft)
0.0		3	SAND - trace to some silt, trace fine gravel, fine grained, light olive grey. END OF GRAVITY CORE		0.0
1.0					3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/06
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G04		BOREHOLE No. IB82G004	
GULF CANADA RESOURCES INC.		WATER DEPTH - 9.75 m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 9.75 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	USC	DEPTH (ft)
0.0		4	SAND - clayey, fine grained, cohesive, light olive grey. - trace of silt END OF GRAVITY CORE		0.0
1.0					3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/06
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G07		BOREHOLE No. IB82G007	
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.36 m.		Project No: EBA / 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.36 (m)	
SAMPLE TYPE ☐ Shelby Tube ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION		USC DEPTH (m)	
0.0	7	SAND - clayey, some fine grained gravel, fine grained, cohesive, dark olive grey to black.			
		END OF GRAVITY CORE			
1.0					
		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/06	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G08		BOREHOLE No. IB82G008	
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.97 m.		Project No: EBA / 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.97 (m)	
SAMPLE TYPE ☐ Shelby Tube ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION		USC DEPTH (m)	
0.0	8	CLAY - trace fine grained sand, soft, dark gray.			
		END OF GRAVITY CORE			
1.0					
		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/06	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G09		BOREHOLE No. IB82G009			
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.50m (approximately)		Project No: EBA / 101-3688			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.50 (m)			
SAMPLE TYPE ☒ SHL BY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		9	CLAY AND SAND - trace of shells, cohesive, dark grey				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m	COMPLETE 82/09/06			
			LOGGED BY JPR	DWC NO.			

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G10		BOREHOLE No. IB82G010			
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.36 m.		Project No: EBA / 101-3688			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.36 (m)			
SAMPLE TYPE ☒ SHL BY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		10	CLAY - silty, brn sand seam, dark grey.				0.0
			SAND				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.0 m	COMPLETE 82/09/06			
			LOGGED BY JPR	DWC NO.			

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G011		BOREHOLE No. IB82G011	
GULF CANADA RESOURCES INC.		WATER DEPTH - 10.67 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -10.67 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4500	8500	20	40	60		
0.0		11	CLAY - silty, dark grey.								0.0
			SAND - silty, trace fine gravel, fine grained								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m	COMPLETE 82/08/06
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G012		BOREHOLE No. IB82G012	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.28 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.28 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4500	8500	20	40	60		
0.0		12	SAND - some silt, fine grained, olive grey.								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G013		BOREHOLE No. B82G013	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.28 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.28 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (um) A				FINES (%)				USC	DEPTH (ft)
				2000	425	600	850	20	40	60	80		
0.0		13	CLAY - some black organics SAND - trace of silt, trace of rounded gravel to 10mm size END OF GRAVITY CORE										0.0
1.0													-3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G014		BOREHOLE No. B82G014	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.28 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.28 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (um) A				FINES (%)				USC	DEPTH (ft)
				2000	425	600	850	20	40	60	80		
0.0		14	SAND - some clay, trace silt, fine grained, slightly cohesive, brown END OF GRAVITY CORE										0.0
1.0													-3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G15	BOREHOLE No. IB82G015
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.28 m.	Project No: EBA # 101-3686
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -11.28 (m)
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 250 (mm) A			# FINES (%)			USC	DEPTH (m)
				2000	4500	8500	20	40	60		
0.0			CLAY - trace sand, trace silt, low plasticity, dark grey								0.0
15			SAND - fine grained, brown								
			END OF GRAVITY CORE								
											1.0
											2.0
											3.0
1.8											

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COMPLETION DEPTH 0.1 m COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G16	BOREHOLE No. IB82G016
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.28 m.	Project No: EBA # 101-3686
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -11.28 (m)
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 250 (mm) A			# FINES (%)			USC	DEPTH (m)
				2000	4500	8500	20	40	60		
0.0			CLAY - trace sand, trace silt, soft, low to medium plasticity, dark grey								0.0
18			SAND - fine grained, grey-olive								
			END OF GRAVITY CORE								
											1.0
											2.0
											3.0
1.8											

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COMPLETION DEPTH 0.2 m COMPLETE 82/08/07
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ISSEK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G17		BOREHOLE No. IB82G017	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.43 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.43 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				W/FINES (%)				USC	DEPTH (m)
			2000	4200	6000	8000	20	40	60	80		
0.0	17	CLAY - silty, trace of sand and shells, occasional silt inclusions, soft, low plasticity, dark olive grey										0.0
		END OF GRAVITY CORE										
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/07
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ISSEK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G18		BOREHOLE No. IB82G018	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.58 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.58 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				W/FINES (%)				USC	DEPTH (m)
			2000	4200	6000	8000	20	40	60	80		
0.0	18	CLAY - silty, trace sand, soft, dark olive grey										0.0
		SILT - trace clay, firm to stiff, low to no plasticity, moist, dark olive grey										
		END OF GRAVITY CORE										
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G019		BOREHOLE No. B82G019	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3666	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.50 (mm) A				FINES (%)				USC	DEPTH (ft)
			2000	425	600	850	20	40	60	80		
0.0	19	CLAY - very soft, dark grey - silty, soft										0.0
		END OF GRAVITY CORE										
1.0												1.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 8/2/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G020		BOREHOLE No. B82G020	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3666	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.50 (mm) A				FINES (%)				USC	DEPTH (ft)
			2000	425	600	850	20	40	60	80		
0.0	20	CLAY - very soft, dark grey - soft										0.0
		END OF GRAVITY CORE										
1.0												1.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 8/2/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G21		BOREHOLE No. IB82G021		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	AD50 (mm) A 3000 4500 6000 8000	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (H)
0.0	21	CLAY - very soft, dark grey. - soft	PLASTIC M.C. LIQUID 20 40 60 80			0.0
		END OF GRAVITY CORE				-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G22		BOREHOLE No. IB82G022		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	AD50 (mm) A 3000 4500 6000 8000	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (H)
0.0	22A	CLAY (cl) - trace of fine sand, very soft, highly remoulded, dark grey.	PLASTIC M.C. LIQUID 20 40 60 80			0.0
	22A	SAND (sp) - trace silt, fine grained, light olive grey.				-1.0
		END OF GRAVITY CORE				-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82023		BOREHOLE No. IB82G023	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (ft)
				2500	4500	6500	8500	20	40	60	80		
0.0			CLAY (cl) - trace of sand, very soft, dark grey.										0.0
23			SAND (sp) - trace of silt, fine fine grained, dark grey.										
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

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COMPLETION DEPTH 0.1 m COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82024		BOREHOLE No. IB82G024	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (ft)
				2500	4500	6500	8500	20	40	60	80		
0.0			CLAY (cl) - trace of fine sand, very soft, dark grey.										0.0
24C			SAND (sp) - clayey (decreasing with depth), trace silt, fine grained, dark grey.										
24C			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd.
Calgary, Alberta

COMPLETION DEPTH 0.2 m COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G26		BOREHOLE No. IB82G025	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A. DSD (mm) A			FINES (%)			USC	DEPTH (m)
			3000	4350	8550	20	40	60		
0.0	25	CLAY (cl) - trace of fine sand, very soft, dark grey.								0.0
		END OF GRAVITY CORE								
1.0										1.0
2.0										2.0
3.0										3.0

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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G26		BOREHOLE No. IB82G026	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A. DSD (mm) A			FINES (%)			USC	DEPTH (m)
			3000	4350	8550	20	40	60		
0.0		CLAY (cl) - trace fine sand, very soft, light grey.								0.0
	26A	- soft to firm, black.								
	26A	SAND (sp) - trace of sil, fine grained, light olive grey.								1.0
		END OF GRAVITY CORE								
2.0										2.0
3.0										3.0

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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G27		BOREHOLE No. IB82G027	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19m (approximately)		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION		USC DEPTH (m)	
0.0		SAND - assumed principal component, no sample recovered		0.0	
		END OF GRAVITY CORE			
1.0				-3.0	
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G28		BOREHOLE No. IB82G028	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION		USC DEPTH (m)	
0.0		CLAY (cl) - very soft, dark grey. - soft		0.0	
	28	END OF GRAVITY CORE		1.0	
1.0				-3.0	
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G29		BOREHOLE No. IB82G029	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISBURSED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	USC	DEPTH (ft)
0.0			CLAY SAND - assumed principal component, no sample recovery		0.0
			END OF GRAVITY CORE		
					-1.0
					-2.0
					-3.0
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m	COMPLETE 82/09/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G30		BOREHOLE No. IB82G030	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.58 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.58 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISBURSED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	USC	DEPTH (ft)
0.0			CLAY (cl) - very soft, dark grey. - soft		0.0
			END OF GRAVITY CORE		
					-1.0
					-2.0
					-3.0
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m	COMPLETE 82/09/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G31		BOREHOLE No. B82G031	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A DSD (mm) A				FINES (%)				USC	DEPTH (m)
			2000	425	600	2000	20	40	60	80		
0.0	31	CLAY (cl) - very soft, dark grey.									cl	0.0
		- soft.										
		- trace of sand.										
		END OF GRAVITY CORE										
1.0												1.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G32		BOREHOLE No. B82G032	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89m (approximately)		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A DSD (mm) A				FINES (%)				USC	DEPTH (m)
			2000	425	600	2000	20	40	60	80		
0.0	32	CLAY (cl) - very soft, dark grey.									cl	0.0
		- soft.										
		END OF GRAVITY CORE										
1.0												1.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G33		BOREHOLE No. IB82G033		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m.		Project No: EBA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -11.89 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 70 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		SAND - assumed principal component, no sample recovery, trace fine grained sand inside sample tube				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH ** m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G34		BOREHOLE No. IB82G034		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.58 m.		Project No: EBA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -11.58 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 70 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		SAND - assumed principal component, no sample recovery				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH ** m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G35		BOREHOLE No. IB82G035	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89m (approximately)		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D S (mm) A				FINES (%)				USC	DEPTH (H)	
				2000	425	60	75	20	40	60	80			
0.0			SAND - assumed principal component, no sample recovery											0.0
			END OF GRAVITY CORE											
														-1.0
														-2.0
														-3.0
1.0														

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m	COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G36		BOREHOLE No. IB82G036	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D S (mm) A				FINES (%)				USC	DEPTH (H)	
				2000	425	60	75	20	40	60	80			
0.0		36	SAND (sm) - silty, fine to medium grained, cohesive											0.0
			END OF GRAVITY CORE											
														-1.0
														-2.0
														-3.0
1.0														

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m	COMPLETE 82/08/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G37		BOREHOLE No. IB82G037	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.19 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.19 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION		USC DEPTH (m)	
		A 250 (mm) A 2000 4500 8500 PLASTIC M.C. LIQUID 20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80			
0.0	37	SAND (sp) - clean, fine grained, brown. SAND AND CLAY - cohesive, dark grey. END OF GRAVITY CORE		0.0	
1.0				-1.0	
				-2.0	
				-3.0	
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m		COMPLETE 02/09/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G38		BOREHOLE No. IB82G038	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m.		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION		USC DEPTH (m)	
		A 250 (mm) A 2000 4500 8500 PLASTIC M.C. LIQUID 20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80			
0.0		SAND - assumed principal component, no sample recovery END OF GRAVITY CORE		0.0	
				-1.0	
				-2.0	
				-3.0	
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m		COMPLETE 02/09/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G39		BOREHOLE No. IB82G039	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m		Project No: EBA / 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION		USC DEPTH (m)	
0.0		SAND - assumed principal component, no sample recovery			
		END OF GRAVITY CORE			
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G40		BOREHOLE No. IB82G040	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.89 m		Project No: EBA / 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.89 (m)	
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION		USC DEPTH (m)	
0.0		CLAY (cl) - trace fine sand, very soft, dark grey.			
		- firm.			
		END OF GRAVITY CORE			
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/08/07	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G41		BOREHOLE No. B82G041			
CALF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 11.90 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A 3000 4500 6000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (ft)
0.0			CLAY (cl) - very soft, dark grey			CL	0.0
	41C		SAND (sm) - some clay and silt, trace shells, cohesive, dark grey			SM	
			END OF GRAVITY CORE				
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/07		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G42		BOREHOLE No. B82G042			
CALF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 11.90 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A 3000 4500 6000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (ft)
0.0			CLAY (cl) - very soft, dark grey			CL	0.0
	42C		- soft				
	42C		SAND (sc) - banded with clay, occasional shells, fine grained, cohesive			SM	
			END OF GRAVITY CORE				
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/07		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G43		BOREHOLE No. B82G043	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 650 (mm) A			FINES (%)			USC	DEPTH (m)
				3000	6000	8000	20	40	60		
0.0			CLAY (cl) - very soft, dark grey								0.0
		43C	- soft								
		43C	CLAY AND SAND (cl) - cohesive, dark grey								
			END OF GRAVITY CORE								
											1.0
											2.0
											3.0
1.0											

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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G44		BOREHOLE No. B82G044	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 650 (mm) A			FINES (%)			USC	DEPTH (m)
				3000	6000	8000	20	40	60		
0.0			CLAY (cl) - very soft, dark grey								0.0
		44B	- trace sand, soft								
			END OF GRAVITY CORE								
											1.0
											2.0
											3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/09/07
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G45		BOREHOLE No. IB82G045	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (ft)
				2000	4300	6000	8000	20	40	60	80		
0.0			CLAY (cl) - very soft, dark grey - soft										0.0
1.0		458	END OF GRAVITY CORE										1.0
2.0													2.0
3.0													3.0

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Calgary, Alberta

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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G46		BOREHOLE No. IB82G046	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m (approximately)		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (ft)
				2000	4300	6000	8000	20	40	60	80		
0.0			CLAY (cl) - trace sand, very soft, dark grey - soft										0.0
1.0		460	END OF GRAVITY CORE										1.0
2.0													2.0
3.0													3.0

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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G47		BOREHOLE No. B82G047			
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.60m		Project No: EBA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.60 (m)			
SAMPLE TYPE		☐ SHELBY TUBE		☒ NO RECOVERY			
		☒ SPLIT SPOON		☐ DISTURBED			
		☐ PISTON		☐ GRAVITY CORE			
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	1000 4500 (mm) 4500 9000 PLASTIC M.C. LIQUID 10 40 60 80	25 40 50 60 20 40 60 80 20 40 60 80	USC	DEPTH (m)
0.0		47C	CLAY (cl) - very soft, dark grey - trace shells, occasional sand or silt lenses, soft to firm			cl	0.0
1.0			END OF GRAVITY CORE				1.0
2.0							2.0
3.0							3.0

EBA Engineering Consultants Ltd.
Calgary, Alberta

COMPLETION DEPTH 0.2 m

COMPLETE 82/08/07

LOGGED BY JC

DWG NO.

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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. 1082G48		BOREHOLE No. 1082G048	
GHLF CANADA RESOURCES INC.		WATER DEPTH - 11.60m		Project 110: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.60 (m)	
SAMPLE TYPE		☒ SHOULDER TUBE		☒ NO RECOVERY	
		☒ SPLIT SPOON		☐ DISTURBED	
		☐ PISTON		☐ GRAVITY CORE	
DEPTH (m)	SAMPLE TYPE	SOIL DESCRIPTION		USC	
		A DSD (mm) A 2000 1500 1000 500 PLASTIC M.C. LIQUID 70 40 60 80		20 100 (mm) 80 20 100 (mm) 80 20 100 (mm) 80	
0.0		CLAY (cl) - silty, very soft, dark grey,			
	490	- soft, mottled dark gray and medium brown			
		END OF GRAVITY CORE			
1.0					

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82649		BOREHOLE No. B826049		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2ND 4500 4500 4500 PLASTIC M.C. LIQUID 10 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	48A	CLAY (cl) - very soft, dark grey - soft			CL	0.0
		END OF GRAVITY CORE				-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/09/07		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82650		BOREHOLE No. B826050		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m (approximately)		Project No: EBA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2ND 4500 4500 4500 PLASTIC M.C. LIQUID 10 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	50B	CLAY (cl) - silty, trace fine sand, soft to firm, medium plasticity, dark grey			CL	0.0
		END OF GRAVITY CORE				-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/09/08		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G51		BOREHOLE No. IB82G051	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m (approximately)		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	USC	DEPTH (ft)
0.0	STC		SAND (sm) - trace to some silt, trace clay, trace shells, occasional gravel particle, fine grained, loose, dark olive grey	SW	0.0
1.0			END OF GRAVITY CORE		-3.0
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m	COMPLETE 82/08/08	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G52		BOREHOLE No. IB82G052	
GULF CANADA RESOURCES INC.		WATER DEPTH - 13.40m (approximately)		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -13.40 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	USC	DEPTH (ft)
0.0			SAND - assumed principal component, no sample recovery		0.0
1.0			END OF GRAVITY CORE		-3.0
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.0 m	COMPLETE 82/08/08	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G53		BOREHOLE No. B82G053	
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.90m		Project No: 1BA / 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.90 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A				# FINES (%)				USC	DEPTH (m)
				2000	425	850	2000	20	40	60	80		
0.0		538	SAND (sp) - trace silt, trace shells, fine grained with a trace of coarse grained, loose, olive brown END OF GRAVITY CORE									SP	0.0
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/08
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G54		BOREHOLE No. B82G054	
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.60m		Project No: 1BA / 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A				# FINES (%)				USC	DEPTH (m)
				2000	425	850	2000	20	40	60	80		
0.0		544	SAND (sp) - trace silt, fine grained, loose, light olive brown END OF GRAVITY CORE									SP	0.0
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m	COMPLETE 82/08/08
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G55		BOREHOLE No. B82G055		
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.60m		Project No: 1BA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.60 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		SAND - assumed principal component, no sample recovery				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.9						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m		COMPLETE 02/09/06		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G56		BOREHOLE No. B82G056		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.20m		Project No: 1BA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.20 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	36A	CLAY (cl) - silty, soft, low to medium plasticity, dark grey				0.0
	36A	SAND (sm) - some silt, fine grained, loose, olive brown				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.9						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 02/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G57		BOREHOLE No. B82G057			
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.20m		Project No: 1BA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.20 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4500 6500 8000 PLASTIC M.C. LIQUID 20 40 60 80	# FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		578	CLAY (cl) - silty, trace sand, soft, dark olive grey			CL	0.0
		579	SAND (sm) - trace silt, fine grained, loose, grey brown			SM	
			END OF GRAVITY CORE				
1.0							-3.0
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G58		BOREHOLE No. B82G058			
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: 1BA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4500 6500 8000 PLASTIC M.C. LIQUID 20 40 60 80	# FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		580	CLAY (cl) - trace silt, trace sand, soft, medium plasticity, dark grey			CL	0.0
		581	SAND (sm) - trace silt, fine grained, loose, dark olive grey			SM	
			END OF GRAVITY CORE				
1.0							-3.0
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
			LOGGED BY KRS		DWC NO.	Page 1 of 1	

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82059		BOREHOLE No. IB82059	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: IBA # 101-3688	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 600 (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4500	6000	8000	20	40	60	80		
0.0			CLAY (cl) - some silt, trace sand, soft, medium plasticity, olive gray									cl	0.0
0.8			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

COMPLETION DEPTH 0.1 m COMPLETE 02/08/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82060		BOREHOLE No. IB82060	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: IBA # 101-3688	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 600 (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4500	6000	8000	20	40	60	80		
0.0			CLAY (cl) - some silt, some sand, soft to firm, medium plasticity, dark olive grey, block inclusions - sand lenses, clayey, block									cl	0.0
0.8			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

COMPLETION DEPTH 0.2 m COMPLETE 02/08/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G61		BOREHOLE No. B82G61		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.20m		Project No: 1BA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.20 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.50 (mm) A 20 40 60 80 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	81C	CLAY (cl) - silty, some sand, soft, dark olive grey			CL	0.0
		- sand lenses with trace gravel				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G62		BOREHOLE No. B82G62		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.20m		Project No: 1BA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.20 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.50 (mm) A 20 40 60 80 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	82D	CLAY (cl) - some silt, trace sand, soft, low plasticity, dark grey			CL	0.0
	82D	SAND (sm) - silty, clayey, loose, olive grey			SM	
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G63		BOREHOLE No. IB82G063		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: IBA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	AD50 (mm) A 3000 4500 6000 8000	PLASTIC M.C. LIQUID	USC	DEPTH (m)
0.0	63C	CLAY (cl) - silty, trace sand, soft, low plasticity, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/08/10		
		LOGGED BY KRS		DWC NO.		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G64		BOREHOLE No. IB82G064		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.30m		Project No: IBA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.30 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	AD50 (mm) A 3000 4500 6000 8000	PLASTIC M.C. LIQUID	USC	DEPTH (m)
0.0	64B	CLAY (cl) - silty, soft, low plasticity, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
		LOGGED BY KRS		DWC NO.		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G65		BOREHOLE No. IB82G65		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.30m (approximately)		Project No: 1BA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -11.30 (m)		
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A 3000 4000 5000 6000 PLASTIC M.C. LIQUID	20 40 60 80 FINES (%) SAND (%) GRAVEL (%)	USC	DEPTH (m)
0.0	85	CLAY (cl) - silty, soft, low plasticity, olive gray				0.0
		END OF GRAVITY CORE				1.0
						2.0
						3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/09/10		
		LOGGED BY JPR		DWC NO.		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G66		BOREHOLE No. IB82G66		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: 1BA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -12.80 (m)		
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A 3000 4000 5000 6000 PLASTIC M.C. LIQUID	20 40 60 80 FINES (%) SAND (%) GRAVEL (%)	USC	DEPTH (m)
0.0	86	SAND (sm) - trace silt, fine grained, loose, olive brown				0.0
		END OF GRAVITY CORE				1.0
						2.0
						3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
		LOGGED BY KBS		DWC NO.		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G67		BOREHOLE No. B82G067		
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: 1BA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 200 400 600 800 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	87A	CLAY (cl) - silty, trace sands, soft, low plasticity, dark olive grey			CL	0.0
	87A	SILT (ml) - firm, low to non-plastic, dark grey			ML	
		END OF GRAVITY CORE				
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/10	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G68		BOREHOLE No. B82G068		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.00m		Project No: 1BA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.00 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 200 400 600 800 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	88A	CLAY (cl) - silty, trace sand, soft, low plasticity, dark grey			CL	0.0
	88A	SAND (sm) - trace sil, fine grained, loose, grey			SM	
		END OF GRAVITY CORE				
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/10	
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G69		BOREHOLE No. IB82G069		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.30m		Project No. 1BA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.30 (m)		
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	BSC	CLAY (cl) - silty, trace sand, soft, low plasticity, dark olive gray			cl	0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
		LOGGED BY KES		DWC NO.		

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G70		BOREHOLE No. IB82G070		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.00m		Project No. 1BA # 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.00 (m)		
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	FOC	CLAY (cl) - silty, trace sand, soft, low plasticity, dark olive gray			cl	0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
		LOGGED BY KES		DWC NO.		

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G71		BOREHOLE No. IB82G071	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.00m		Project No: 1BA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.00 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4300	8500	20	40	60		
0.0		718	CLAY (cl) - silty, some fine sand, soft, low plasticity, dark gray and olive								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G72		BOREHOLE No. IB82G072	
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.00m		Project No: 1BA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.00 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4300	8500	20	40	60		
0.0		720	CLAY (cl) - silty, trace sand, soft, low plasticity, dark olive grey								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G73		BOREHOLE No. IB82G073			
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.00m		Project No: IBA / 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.00 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 0.00 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		730	CLAY (cl) - silty, trace sand, soft, low plasticity, dark gray			CL	0.0
		730	SAND (sm) - trace silt, fine grained, loose, dark olive gray			SM	
			END OF GRAVITY CORE				
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G74		BOREHOLE No. IB82G074			
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.00m		Project No: IBA / 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.00 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 0.00 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		74A	CLAY (cl) - silty, some sand, soft, low plasticity, dark olive gray			CL	0.0
			SAND (sm) - trace silt, fine grained, loose, gray			SM	
			END OF GRAVITY CORE				
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G77		BOREHOLE No. IB82G077			
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.30m		Project No: 1BA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.30 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4500 8500 8500 PLASTIC M.C. LIQUID 30 40 60 80		FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	77C	CLAY (cl) - silty, soft, low plasticity, dark olive grey				CL	0.0
		END OF GRAVITY CORE					-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G78		BOREHOLE No. IB82G078			
GULF CANADA RESOURCES INC.		WATER DEPTH - 8.50m		Project No: 1BA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -8.50 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4500 8500 8500 PLASTIC M.C. LIQUID 30 40 60 80		FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	78A	CLAY (cl) - silty, trace sand, soft, low plasticity, olive grey				CL	0.0
	78A	SAND (sm) - trace silt and organics, fine grained, loose, brown to grey				SM	-1.0
		END OF GRAVITY CORE					-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G081		BOREHOLE No. B82G081			
GULF CANADA RESOURCES INC.		WATER DEPTH - 8.50m		Project No: 1BA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -8.50 (m)			
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A. D50 (mm) A 3000 4500 6000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (S) 20 40 60 80 GRAVEL (G) 20 40 60 80	USC	DEPTH (m)
0.0	B1A		CLAY (cl) - silty, trace sand, soft to firm, medium plasticity, dark olive grey				0.0
			END OF GRAVITY CORE				1.0
							2.0
							3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 02/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82G082		BOREHOLE No. B82G082			
GULF CANADA RESOURCES INC.		WATER DEPTH - 8.50m		Project No: 1BA # 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -8.50 (m)			
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A. D50 (mm) A 3000 4500 6000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (S) 20 40 60 80 GRAVEL (G) 20 40 60 80	USC	DEPTH (m)
0.0	B2A		CLAY (cl) - silty, soft to firm, low plasticity, dark olive grey				0.0
			END OF GRAVITY CORE				1.0
							2.0
							3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 02/09/10		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. 1882687		BOREHOLE No. 18826087	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	USC	DEPTH (m)
0.0			SAND - assumed principal component, no sample recovery		0.0
			END OF GRAVITY CORE		
					-1.0
					-2.0
					-3.0
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH ** m	COMPLETE 82/08/10	
			LOGGED BY JC	DWG NO.	Page 1 of 1

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. 1882688		BOREHOLE No. 18826088	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.50m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.50 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	USC	DEPTH (m)
0.0			SAND - assumed principal component, no sample recovery		0.0
			END OF GRAVITY CORE		
					-1.0
					-2.0
					-3.0
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH ** m	COMPLETE 82/08/10	
			LOGGED BY JC	DWG NO.	Page 1 of 1

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G89		BOREHOLE No. IB82G089	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A				FINES (%)				USC	DEPTH (m)
			3000	4500	6500	8500	20	40	60	80		
0.0		SAND (sp) - little fines, fine grained, olive										0.0
	88A	- gravelly lens, particles up to 25 mm size									SP	
	88A	CLAY (cl) - sandy, trace pebbles up to 10 mm size									CL	
		END OF GRAVITY CORE										
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/09/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G90		BOREHOLE No. IB82G090	
GULF CANADA RESOURCES INC.		WATER DEPTH - 13.10m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -13.10 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A				FINES (%)				USC	DEPTH (m)
			3000	4500	6500	8500	20	40	60	80		
0.0		CLAY (cl) - some sand, trace sand pockets up to 10 mm diameter, olive grey										0.0
	80B	END OF GRAVITY CORE										
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/09/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G91		BOREHOLE No. IB82G091	
GULF CANADA RESOURCES INC.		WATER DEPTH - 13.10m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -13.10 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 950 (mm) A				FINES (%)				USC	DEPTH (m)
				3000	4500	6000	7500	20	40	60	80		
0.0		918	CLAY (cl) - some sand to sandy, a 10 mm sand seam, olive gray										0.0
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G92		BOREHOLE No. IB82G092	
GULF CANADA RESOURCES INC.		WATER DEPTH - 13.40m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -13.40 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 950 (mm) A				FINES (%)				USC	DEPTH (m)
				3000	4500	6000	7500	20	40	60	80		
0.0		928	CLAY AND SAND (cl) - mottled olive grey										0.0
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82693		BOREHOLE No. B82693	
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.6m		Project No: EBA # 101-3688	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 500 (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	4000	6000	20	40	60		
0.0			CLAY (cl) - trace sand, trace organics, occasional shell, dark grey								0.0
0.3			END OF GRAVITY CORE								
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/09/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. B82694		BOREHOLE No. B82694	
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.60m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 500 (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	4000	6000	20	40	60		
0.0			SAND (sc) - clayey, occasional sand pocket up to 10 mm diameter, dark grey								0.0
0.4			END OF GRAVITY CORE								
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/09/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G95		BOREHOLE No. IB82G095	
GULF CANADA RESOURCES INC.		WATER DEPTH - 13.70m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -13.70 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.D.50 (mm) A			FINES (%)			USC	DEPTH (ft)
				2500	4500	6000	20	40	60		
0.0			SAND - assumed principal component, no sample recovery								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH •• m	COMPLETE 82/09/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G96		BOREHOLE No. IB82G096	
GULF CANADA RESOURCES INC.		WATER DEPTH - 12.80m		Project No: EBA # 101-3686	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -12.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.D.50 (mm) A			FINES (%)			USC	DEPTH (ft)
				2500	4500	6000	20	40	60		
0.0			SAND - assumed principal component, no sample recovery								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH •• m	COMPLETE 82/09/10
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G099		BOREHOLE No. IB82G099			
GULF CANADA RESOURCES INC.		WATER DEPTH - 13.4m		Project No: EBA / 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -13.40 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 250 (mm) A 2000 4550 8300 8300 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%)	USC	DEPTH (ft)
0.0			GRAVEL - assumed principal component, no sample recovery, sample tube bent				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH ** m		COMPLETE 82/09/10		
			LOGGED BY DCC		DWC NO.		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G100		BOREHOLE No. IB82G100			
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.00m		Project No: EBA / 101-3686			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.00 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 250 (mm) A 2000 4550 8300 8300 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%)	USC	DEPTH (ft)
0.0			CLAY (cl) - sandy, trace organics, firm, dark grey				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
			LOGGED BY DCC		DWC NO.		
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ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G101		BOREHOLE No. IB82G101		
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.00m		Project No: EBA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -14.00 (m)		
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A ₂₀₀ (mm) A ₆₀₀ (mm) A ₂₀₀₀ (mm) PLASTIC M.C. LIQUID 20 40 60 80	# FINES (% #) 20 40 60 80 SAND (% #) 20 40 60 80 GRAVEL (% #) 20 40 60 80	USC	DEPTH (m)
0.0	101	CLAY (cl) - sandy, some fine sand pockets trace subrounded and fractured gravel sizes to 30 mm (ice rafted)			CL	0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
		LOGGED BY DCC		DWC NO. Page 1 of 1		

ISSERK BORROW SITE		ORIGINAL BOREHOLE NO. IB82G102		BOREHOLE No. IB82G102		
GULF CANADA RESOURCES INC.		WATER DEPTH - 11.90m		Project No: EBA / 101-3686		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -11.90 (m)		
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A ₂₀₀ (mm) A ₆₀₀ (mm) A ₂₀₀₀ (mm) PLASTIC M.C. LIQUID 20 40 60 80	# FINES (% #) 20 40 60 80 SAND (% #) 20 40 60 80 GRAVEL (% #) 20 40 60 80	USC	DEPTH (m)
0.0	102	CLAY (cl) - sandy, trace non-fibrous organics, dark gray			CL	0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/09/10		
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ISSUE/ BORROW SITE		ORIGINAL BOREHOLE NO. B82G103	BOREHOLE No. B82G103
GULF CANADA RESOURCES INC.		WATER DEPTH - 14.00m	Project No: EBA # 101-3688
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -14.00 (m)
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION
0.0			SAND - assumed principal component, no sample recovery
			END OF GRAVITY CORE
1.0			
2.0			
3.0			
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82001		BOREHOLE No. SUGC001		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.5m		Project No: EBA / 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.50 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2000 4500 6000 8000 PLASTIC M.C. LIQUID 70 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	1C	SAND (sm) -silty, some clay, fine grained, uniformly graded, dark grey			SM	0.0
		END OF GRAVITY CORE				-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/13		
		LOGGED BY JFR		DWC NO.		
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82002		BOREHOLE No. SUGC002		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.8m		Project No: EBA / 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.80 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2000 4500 6000 8000 PLASTIC M.C. LIQUID 70 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	2A	CLAY - trace of fine grained sand, very soft, dark grey				0.0
		END OF GRAVITY CORE				-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/13		
		LOGGED BY JFR		DWC NO.		
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U682003		BOREHOLE No. SUGC003			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)			
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (ft)
0.0			CLAY - trace fine grained sand, very soft, dark grey				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/13		
			LOGGED BY JPR		DWC NO.		
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U682004		BOREHOLE No. SUGC004			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)			
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (ft)
0.0			SAND (sm) - silty, some clay and shell fragments, fine grained, subangular, slightly cohesive, dark grey				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/13		
			LOGGED BY JPR		DWC NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82905		BOREHOLE No. SUGC005	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.8m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 600 (mm) A 400 (mm) A 200 (mm)			FINES (%)			USC	DEPTH (m)	
				PLASTIC	MC	LIQUID	20	40	60			20
0.0		80	SAND (sm) - silty, some clay, fine gravel grained, slightly cohesive, dark grey - some shell fragments								SM	0.0
			END OF GRAVITY CORE									
1.0												1.0
												2.0
												3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/13
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82908		BOREHOLE No. SUGC006	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 600 (mm) A 400 (mm) A 200 (mm)			FINES (%)			USC	DEPTH (m)	
				PLASTIC	MC	LIQUID	20	40	60			20
0.0		881	SAND (sm) - some silt and clay, slightly cohesive, dark grey								SM	0.0
		882	- increasing silt and clay								SM	
			END OF GRAVITY CORE									
1.0												1.0
												2.0
												3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/13
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82607		BOREHOLE No. SUGC007	
GULF CANADA RESOURCES INC.		WATER DEPTH - 15.8m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -15.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm)				FINES (%)				USC	DEPTH (m)
			3000	4500	6000	8000	20	40	60	80		
0.0	7A	CLAY - very soft, dark grey, band of sand with trace of shale										0.0
		END OF GRAVITY CORE										
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/13
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82608		BOREHOLE No. SUGC008	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.20 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm)				FINES (%)				USC	DEPTH (m)
			3000	4500	6000	8000	20	40	60	80		
0.0	8A1	CLAY - some fine grained sand, very soft, dark grey										0.0
	8A2	SAND (sm) - silty, some clay, trace of shell fragments									SM	
		END OF GRAVITY CORE										
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/13
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82911		BOREHOLE No. SUGC011	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.4m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 24.40 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISBURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 050 (mm) A				FINES (%)				USC	DEPTH (m)
			2000	4500	6500	8000	20	40	60	80		
0.0		CLAY - soft, high plasticity, dark grey										0.0
1.1A		SAND (sm) - silty, some clay, fine grained, uniformly graded									SM	
		END OF GRAVITY CORE										
												1.0
												2.0
												3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/14
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82912		BOREHOLE No. SUGC012	
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 22.60 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISBURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 050 (mm) A				FINES (%)				USC	DEPTH (m)
			2000	4500	6500	8000	20	40	60	80		
0.0		CLAY - soft, high plasticity										0.0
1.2A		SAND (sm) - some silt, fine grained, uniformly graded - 20 mm clayey band									SM	
		END OF GRAVITY CORE										
												1.0
												2.0
												3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m	COMPLETE 82/08/14
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82014		BOREHOLE No. SUGC014	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.1m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.00 (m) A 0.00 (m) A 0.00 (m) A 0.00 (m)				W 0.00 (m) W 0.00 (m) W 0.00 (m) W 0.00 (m)				USC	DEPTH (m)
			PLASTIC	M.C.	LIQUID		PLASTIC	M.C.	LIQUID			
0.0		SAND (sm) - silty, clayey, some 5mm sand lenses										0.0
1.4		- trace organics, increasing silt and clay, soft, dark grey										1.0
		END OF GRAVITY CORE										2.0
												3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.4 m		COMPLETE 02/08/14	
		LOGGED BY FWM		DWC NO.	

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82013		BOREHOLE No. SUGC013	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.4m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.40 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.00 (m) A 0.00 (m) A 0.00 (m) A 0.00 (m)				W 0.00 (m) W 0.00 (m) W 0.00 (m) W 0.00 (m)				USC	DEPTH (m)
			PLASTIC	M.C.	LIQUID		PLASTIC	M.C.	LIQUID			
0.0		CLAY										0.0
1.3		SAND (sm) - silty, clayey, fine grained, uniformly graded, dark olive gray										1.0
		END OF GRAVITY CORE										2.0
												3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m		COMPLETE 02/08/14	
		LOGGED BY FWM		DWC NO.	

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SOUTH UKALEK BORROW SITE		ORIGINAL BOREHOLE NO. U882G15		BOREHOLE No. SUGC015		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.1m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	PERCENT (%) 20 40 60 80 SAND (S) S GRAVEL (G) G	USC	DEPTH (m)
0.0		CLAY - some sand, soft, high plasticity, dark olive gray				0.0
1.5		SAND (sm) - clayey, fine grained, uniformly graded, dark olive gray			SM	
		END OF GRAVITY CORE				
1.0						1.0
						2.0
						3.0
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/14		
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SOUTH UKALEK BORROW SITE		ORIGINAL BOREHOLE NO. U882G16		BOREHOLE No. SUGC016		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.9m (approximately)		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.50 (m)		
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	PERCENT (%) 20 40 60 80 SAND (S) S GRAVEL (G) G	USC	DEPTH (m)
0.0	18A	CLAY - trace of fine grained sand, increasing with depth, soft, dark grey				0.0
		END OF GRAVITY CORE				
1.0						1.0
						2.0
						3.0
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m		COMPLETE 82/08/14		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2G19	BOREHOLE No. SUGC019			
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m	Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -23.20 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 1000 500 200 PLASTIC M.C. LIQUID 70 40 30 20	# FINES (%) 20 40 60 80 SAND (S) 20 40 60 80 GRAVEL (G) 20 40 60 80	USC	DEPTH (m)
0.0	18A	SAND (sp-sm) - trace silt, fine grained, medium olive brown			SP	0.0
	18A	- silty, trace clay, thinly laminated, slightly cohesive, dark olive grey			SM	
		END OF GRAVITY CORE				
1.0						1.0
2.0						2.0
3.0						3.0
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/14			
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2G20	BOREHOLE No. SUGC020			
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.3m	Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -22.30 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 1000 500 200 PLASTIC M.C. LIQUID 70 40 30 20	# FINES (%) 20 40 60 80 SAND (S) 20 40 60 80 GRAVEL (G) 20 40 60 80	USC	DEPTH (m)
0.0	20A	SAND (sp-sm) - some silt, fine grained, dark olive grey			SP-SM	0.0
	20A	- silty, trace clay, laminated, slightly cohesive, dark olive grey				
		END OF GRAVITY CORE				
1.0						1.0
2.0						2.0
3.0						3.0
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/14			
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2G21		BOREHOLE No. SUGC021	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.50 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (m)
				2000	425	850	2000	20	40	60	80		
0.0			CLAY - sandy, soft, medium olive brown										0.0
		21A	SAND (sm) - silty, fine grained, laminated, thin bands of black silt slightly cohesive									SM	
			- some clay, trace shell fragments, dark olive grey										
			END OF GRAVITY CORE										
1.0													1.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2G22		BOREHOLE No. SUGC022	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.50 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (m)
				2000	425	850	2000	20	40	60	80		
0.0			CLAY - sandy, soft, dark olive grey										0.0
		22A	SAND (sp-sm) - some silt, trace clay, fine grained, uniformly graded, dark olive grey									SP-SM	
		22B										SM	
			END OF GRAVITY CORE										
1.0													1.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882023		BOREHOLE No. SUGC023	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.20 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	1000	500	20	40	60		
0.0		23A	CLAY - sandy, dark olive brown								0.0
		23A	SAND (sm) - trace silt, trace shell fragments, black								
			- some silt, fine grained, uniformly graded, dark olive grey								
			END OF GRAVITY CORE								
1.0											-1.0
											-2.0
											-3.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882024		BOREHOLE No. SUGC024	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.20 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	1000	500	20	40	60		
0.0		24A	CLAY - sandy, soft, dark grey								0.0
		24A	SAND (sm) - silty, trace clay, fine grained, laminated, slightly cohesive, dark grey, thin bands of black silt with shell fragments								
			END OF GRAVITY CORE								
1.0											-1.0
											-2.0
											-3.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82625		BOREHOLE No. SUGC025		
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.50 (m)		
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISBURSED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80			USC
0.0	25A	CLAY - sandy, soft, dark olive grey				0.0
	25B	SAND (sm) - some silt, trace clay, laminated, slightly cohesive dark olive grey - black sand lenses				SM
		END OF GRAVITY CORE				
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/14			
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82626		BOREHOLE No. SUGC026		
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.8m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.80 (m)		
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISBURSED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80			USC
0.0	26C	CLAY - some sand, soft, dark olive grey				0.0
	26C	SAND (sm) - some silt, trace clay, dark olive grey				SM
		END OF GRAVITY CORE				
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/14			
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882G27	BOREHOLE No. SUGC027		
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.8m	Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -23.80 (m)		
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	USC	DEPTH (m)
0.0			CLAY - sandy, soft, dark olive grey		0.0
27B			SAND AND SILT (sm) - trace clay, fine grained, slightly cohesive, dark olive grey	SM	
27A			END OF GRAVITY CORE		
1.0					1.0
					2.0
					3.0
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m	COMPLETE 82/08/14	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882G28	BOREHOLE No. SUGC028		
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m	Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -25.30 (m)		
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	USC	DEPTH (m)
0.0			CLAY - sandy, trace organics (wood), soft, medium olive brown		0.0
28A			SAND - silty, trace clay, trace shell fragments, cohesive, dark olive grey		
			- black sand lenses		
			END OF GRAVITY CORE		
1.0					1.0
					2.0
					3.0
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m	COMPLETE 82/08/14	
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G31		BOREHOLE No. SUGC031	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.5m		Project No: EBA # 101-3650	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.50 (m)	
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A				FINES (%)				USC	DEPTH (m)
				3000	4500	6000	8000	20	40	60	80		
0.0			CLAY - soft, black silt bands, dark olive grey										0.0
		31C										SM	
			SAND (sm) - some silt, trace clay, dark olive grey, pockets of black sand										
			END OF GRAVITY CORE										
1.0													1.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G32		BOREHOLE No. SUGC032	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.2m		Project No: EBA # 101-3650	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.20 (m)	
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A				FINES (%)				USC	DEPTH (m)
				3000	4500	6000	8000	20	40	60	80		
0.0			CLAY - sandy, soft, dark olive grey										0.0
		32A										SM	
		32A	SAND (sm) - some silt, trace clay, fine medium grained, dark olive grey										
			END OF GRAVITY CORE										
1.0													1.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2633		BOREHOLE No. SUGC033	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.9m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.90 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (m)
			2000	4000	8000	20	40	60		
0.0	33A	CLAY - sandy, soft, dark grey								0.0
	33A	SAND (sp-sm) - trace silt, fine grained, dark olive grey								
		END OF GRAVITY CORE								
1.0										1.0
2.0										2.0
3.0										3.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2634		BOREHOLE No. SUGC034	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.6m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (m)
			2000	4000	8000	20	40	60		
0.0	34A	CLAY - sandy, soft, dark olive grey								0.0
	34A	SAND (sm) - silty, trace clay, dark olive grey								
		END OF GRAVITY CORE								
1.0										1.0
2.0										2.0
3.0										3.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U882635		BOREHOLE No. SUGC035	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A DSD (mm) A				FINES (%)				USC	DEPTH (m)
			2000	425	600	850	20	40	60	80		
0.0		CLAY - sandy, soft, dark olive grey										0.0
	35A	SAND (sm) - some silt, trace clay, trace shell fragments, laminated, slightly cohesive, dark olive grey, black sand bands									SH	
		END OF GRAVITY CORE										
1.0												1.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U882636		BOREHOLE No. SUGC036	
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A DSD (mm) A				FINES (%)				USC	DEPTH (m)
			2000	425	600	850	20	40	60	80		
0.0		CLAY - sandy, soft, dark olive grey										0.0
	36A	SAND - silty, trace clay, fine grained, dark olive grey										
		END OF GRAVITY CORE										
1.0												1.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82037		BOREHOLE No. SUGC037	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.6m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.80 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A DSD (mm) A				FINES (%)				USC	DEPTH (m)
			3000	4500	6000	8000	20	40	60	80		
0.0		CLAY - sandy, soft, dark olive grey										0.0
	57A	SAND (sm) - some silt, fine grained, dark olive grey									SM	
		END OF GRAVITY CORE										
1.0												1.0
2.0												2.0
3.0												3.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82038		BOREHOLE No. SUGC038	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.8m (approximately)		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.80 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A DSD (mm) A				FINES (%)				USC	DEPTH (m)
			3000	4500	6000	8000	20	40	60	80		
0.0	38A	SAND (sm) - some silt (decreasing with depth), fine to medium grained, uniformly graded, dark olive grey									SM	0.0
		END OF GRAVITY CORE										
1.0												1.0
2.0												2.0
3.0												3.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBR2639		BOREHOLE No. SUGC039	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 150 (mm) A				W/FINES (%)				USC	DEPTH (m)
				2000	4500	1000	2000	20	40	60	80		
0.0		33A	SAND (sm) - silty, dense, fine to medium grained, uniformly graded, dark olive grey									SM	0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBR2640		BOREHOLE No. SUGC040	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.0m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.00 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 150 (mm) A				W/FINES (%)				USC	DEPTH (m)
				2000	4500	1000	2000	20	40	60	80		
0.0		400	SAND (sm) - silty, fine to medium grained uniformly graded, dark olive grey									SM	0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 02/08/15
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82041		BOREHOLE No. SUGC041		
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.30 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2000 6350 8500 8500 PLASTIC M.C. LIQUID 20 40 60 80	PERCENT FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	41A	SAND - clayey, soft, fine grained, uniformly graded, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 02/08/15		
		LOGGED BY FWM		DWC NO.		

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82042		BOREHOLE No. SUGC042		
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.0m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.50 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A 2000 6350 8500 8500 PLASTIC M.C. LIQUID 20 40 60 80	PERCENT FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0	42A	SAND - clayey, fine grained, uniformly graded, slightly cohesive, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 02/08/15		
		LOGGED BY FWM		DWC NO.		

SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G43		BOREHOLE No. SUGC043	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.9m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.90 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	4000	8000	20	40	60		
0.0			CLAY - sandy, soft, low plasticity.								0.0
		43A	SAND AND SILT (mm) - some clay, fine grained, uniformly graded							SM	
			END OF GRAVITY CORE								
1.0											1.0
2.0											2.0
3.0											3.0

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COMPLETION DEPTH 0.2 m COMPLETE 82/08/15

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G44		BOREHOLE No. SUGC044	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.9m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.90 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	4000	8000	20	40	60		
0.0			CLAY - trace of sand, very soft								0.0
		44A	SAND (sm) - silty, fine to medium grained, uniformly graded, dark olive grey							SM	
			END OF GRAVITY CORE								
1.0											1.0
2.0											2.0
3.0											3.0

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COMPLETION DEPTH 0.1 m COMPLETE 82/08/15

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82045		BOREHOLE No. SUGC045	
GULF CANADA RESOURCES INC.		WATER DEPTH - 27.1m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -27.10 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.P.S. (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	425	600	20	40	60		
0.0		15A	CLAY - some sand, soft								0.0
			SAND - trace silt and clay, fine grained, dark olive gray								
			END OF CRAWLY CORE								
1.0											-3.0

COMPLETION DEPTH 0.1 m COMPLETE 82/08/15
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82046		BOREHOLE No. SUGC046	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.8m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.80 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.P.S. (mm) A			FINES (%)			USC	DEPTH (ft)
				2000	425	600	20	40	60		
0.0		16A	CLAY - soft, low plasticity, dark olive gray								0.0
			SAND - trace of silt, fine grained, uniformly graded								
			END OF CRAWLY CORE								
1.0											-3.0

COMPLETION DEPTH 0.1 m COMPLETE 82/08/15
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2047		BOREHOLE No. SUGC047	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.5m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.50 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				W P/WES (%)				USC	DEPTH (m)
				3000	1500	800	400	20	40	60	80		
0.0			CLAY - soft, low plasticity, dark olive gray										0.0
0.7			SAND(sm) - some silt and clay, fine to medium grained, uniformly graded, dark olive brown, lenses of cleaner sand									SM	
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBB2048		BOREHOLE No. SUGC048	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.5m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.50 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				W P/WES (%)				USC	DEPTH (m)
				3000	1500	800	400	20	40	60	80		
0.0			CLAY - trace sand, soft, low plasticity										0.0
			SAND (sp-sin) - trace silt and clay, fine grained, uniformly graded dark olive grey									SP-SI	
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82949		BOREHOLE No. SUGC049	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.8m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.80 (m)	
SAMPLE TYPE ☒ SHOTBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A			IN FINES (0.075 mm)				USC	DEPTH (m)
				3000	4000	5000	6000	20	40	60		
0.0			CLAY - sandy, soft, low plasticity, dark olive gray									0.0
		48A										
			SAND - some silt and clay, fine grained, uniformly graded, cohesive, dark olive gray									
			END OF GRAVITY CORE									
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m	COMPLETE 82/08/15
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UB82950		BOREHOLE No. SUGC050	
GULF CANADA RESOURCES INC.		WATER DEPTH - 27.4m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -27.40 (m)	
SAMPLE TYPE ☒ SHOTBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A			IN FINES (0.075 mm)				USC	DEPTH (m)
				3000	4000	5000	6000	20	40	60		
0.0			CLAY - sandy, very soft, low plasticity, dark olive gray									0.0
		50A										
			SAND - clayey, fine grained, uniformly graded, dark olive gray, lenses of cleaner sand, some organic lenses									
			END OF GRAVITY CORE									
												-1.0
												-2.0
												-3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/15
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR2551		BOREHOLE No. SUG0051	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.8m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 600 (mm) A			FINES (%)			USC	DEPTH (m)
			PLASTIC	M.C.	LIQUID	20	40	60		
0.0	518	CLAY - sandy, soft, low plasticity, dark olive gray								0.0
		SAND - clayey, silty, fine grained, uniformly graded, decreasing fines with depth								
		END OF GRAVITY CORE								
1.0										1.0
2.0										2.0
3.0										3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.4 m	COMPLETE 82/08/15
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR2552		BOREHOLE No. SUG0052	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.8m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 600 (mm) A			FINES (%)			USC	DEPTH (m)
			PLASTIC	M.C.	LIQUID	20	40	60		
0.0		CLAY - sandy, soft, low plasticity,								0.0
	520	SAND (sm) - some silt, fine to medium grained, trace coarse sand, uniformly graded, cohesive								
		END OF GRAVITY CORE								
1.0										1.0
2.0										2.0
3.0										3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/15
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82653		BOREHOLE No. SUGC053	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.6m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.60 (m)	
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4000	5000	6000	20	40	60	80		
0.0			CLAY SAND AND CLAY - silty, soft to firm										0.0
		EBA											
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 82/08/15	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82654		BOREHOLE No. SUGC054	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.8m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.80 (m)	
SAMPLE TYPE ☒ SHOULDER TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D50 (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4000	5000	6000	20	40	60	80		
0.0			CLAY AND SAND - salt, low plasticity, dark olive grey										0.0
		EAC											
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m		COMPLETE 82/08/15	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. US82655		BOREHOLE No. SUGC055			
GULF CANADA RESOURCES INC.		WATER DEPTH - 27.1m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -27.10 (m)			
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.P.S.D (mm) A 2000 4500 8500 8500 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, trace sand, very soft, medium plasticity				0.0
		558					
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.3 m		COMPLETE 82/08/15		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. US826105		BOREHOLE No. SUGC105			
GULF CANADA RESOURCES INC.		WATER DEPTH - 27.7m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -27.70 (m)			
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.P.S.D (mm) A 2000 4500 8500 8500 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - very soft, low to medium plasticity, dark olive gray				0.0
			SAND - some sil, fine grained, uniform grading, dark olive gray				
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/19		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB829106	BOREHOLE No. SUGC106	
GULF CANADA RESOURCES INC.		WATER DEPTH - 27.7m (approximately)	Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -27.70 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE				

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				# FINES (%)				USC	DEPTH (m)
				3000	4330	6353	8500	20	40	60	80		
0.0			CLAY - silty, very soft, low to medium plasticity, dark olive grey										0.0
			SAND - trace silt, fine grained, uniformly graded, dark olive grey										
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/08/19
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB829107	BOREHOLE No. SUGC107	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.0m	Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -25.00 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE				

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				# FINES (%)				USC	DEPTH (m)
				3000	4330	6353	8500	20	40	60	80		
0.0			CLAY										0.0
			CLAY AND SAND - soft, low plasticity, dark olive grey										
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 02/08/19
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820108		BOREHOLE No. SUGC108			
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 25.30 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 1000 500 200 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - sandy, trace silt, grayish brown				0.0
			SAND - silty, dark olive gray				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/19		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820109		BOREHOLE No. SUGC109			
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 25.30 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 1000 500 200 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY				0.0
			SAND - trace to some silt, dark gray				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/19		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBS20110		BOREHOLE No. SUGC110			
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m (approximately)		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.30 (m)			
SAMPLE TYPE ☐ SHLEBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A DSD (mm) A 3000 1500 750 3000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (ft)
0.0			SAND - trace of silt and shells, fine grained, dark gray				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH ** m		COMPLETE 82/08/19		
			LOGGED BY JFR		DWG NO.		

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBS20111		BOREHOLE No. SUGC111			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)			
SAMPLE TYPE ☐ SHLEBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A DSD (mm) A 3000 1500 750 3000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (ft)
0.0			CLAY - soft, remoulded, dark olive brown SAND - trace to some silt, trace shell fragments, fine grained, dark olive gray				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/19		
			LOGGED BY JB		DWG NO.		

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR20112		BOREHOLE No. SUGC112	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m (approximately)		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D ₅₀ (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4536	6355	8000	20	40	60	80		
0.0			CLAY - silty, very soft, low to medium plasticity, dark olive gray SAND - silty, fine grained, uniformly graded										0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/20
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR20113		BOREHOLE No. SUGC113	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.6m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A D ₅₀ (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4536	6355	8000	20	40	60	80		
0.0			CLAY - silty, trace sand, very soft, low plasticity, dark olive gray										0.0
			SAND - clayey, fine grained, uniformly graded, dark olive gray										
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/20
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U682G114		BOREHOLE No. SUGC114			
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.0m		Project No: EBA / 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.00 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 1000 4500 8500 PLASTIC M.C. LIQUID 20 40 60 80	# FINES (%) # 20 40 60 80 SAND (%) # 20 40 60 80 GRAVEL (%) # 20 40 60 80	USC	DEPTH (ft)
0.0			CLAY - silty, very soft, low plasticity, olive brown SAND - silty (decreasing with depth), fine grained, uniformly graded				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 02/08/20		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U682G115		BOREHOLE No. SUGC115			
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.9m		Project No: EBA / 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.90 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 1000 4500 8500 PLASTIC M.C. LIQUID 20 40 60 80	# FINES (%) # 20 40 60 80 SAND (%) # 20 40 60 80 GRAVEL (%) # 20 40 60 80	USC	DEPTH (ft)
0.0			CLAY - silty, very soft, low to medium plasticity				0.0
			SAND - some silt, fine grained, uniformly graded, dark olive grey				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 02/08/20		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820118		BOREHOLE No. SUGC118	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.7m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.70 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) &			FINES (%)			USC	DEPTH (m)
				3000	1500	750	20	40	60		
0.0			CLAY - silty, very soft, low to medium plasticity, dark olive gray								0.0
			SAND - silty, fine grained, uniformly graded								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/20
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820119		BOREHOLE No. SUGC119	
GULF CANADA RESOURCES INC.		WATER DEPTH - 20.4m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -20.40 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) &			FINES (%)			USC	DEPTH (m)
				3000	1500	750	20	40	60		
0.0			SAND - silty, fine grained, uniformly graded, dark olive gray								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.0 m	COMPLETE 82/08/20
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB20120		BOREHOLE No. SUGC120	
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.60 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.D.P. (mm) A				W. FINES (%) B				USC	DEPTH (H)
				2000	425	600	850	20	40	60	80		
0.0			CLAY SAND - silty, fine grained, uniformly graded, dense, dark olive grey										0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/08/20	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB20121		BOREHOLE No. SUGC121	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.4m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.40 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.D.P. (mm) A				W. FINES (%) B				USC	DEPTH (H)
				2000	425	600	850	20	40	60	80		
0.0			CLAY AND SAND - silty, very soft, low plasticity, dark olive grey										0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m		COMPLETE 82/08/20	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882G122		BOREHOLE No. SUGC122	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.4m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.40 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 250 (mm) A			FINES (%)			USC	DEPTH (ft)
				2500	4300	8500	20	40	60		
0.0			CLAY - silty, very soft, low to medium plasticity, dark olive gray								0.0
			SAND - some silt, fine grained, uniformly graded, olive gray								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/08/20
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882G123		BOREHOLE No. SUGC123	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.4m (approximately)		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.40 (m)	
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 250 (mm) A			FINES (%)			USC	DEPTH (ft)
				2500	4300	8500	20	40	60		
0.0			CLAY - silty, very soft, low to medium plasticity, dark olive gray								0.0
			SAND - some silt to silty, fine grained, uniformly graded, dark olive gray								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/08/20
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U8820124		BOREHOLE No. SUGC124		
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.60 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	ADDED (mm) A 3000 4500 6000 8000 PLASTIC 20 40 60 80 MC 20 40 60 80 LIQUID 20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (H)
0.0			CLAY - sandy, trace silt, very soft, dark gray - silty, black			0.0
			END OF GRAVITY CORE			
						-1.0
						-2.0
						-3.0
1.8						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/21	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U8820125		BOREHOLE No. SUGC125		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.0m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.00 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	ADDED (mm) A 3000 4500 6000 8000 PLASTIC 20 40 60 80 MC 20 40 60 80 LIQUID 20 40 60 80 FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (H)
0.0			CLAY - silty, sandy, very soft, dark grey SAND - silty, fine grained, dark grey			0.0
			END OF GRAVITY CORE			
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/21	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882G126		BOREHOLE No. SUGC126			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA # 101-3658			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	# FINES (%) # 20 40 60 80 # SAND (%) # 20 40 60 80 # GRAVEL (%) # 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, some sand, very soft, dark grey				0.0
			SAND - silty, fine grained, dark grey				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/21		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U882G127		BOREHOLE No. SUGC127			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.7m		Project No: EBA # 101-3658			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.70 (m)			
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	# FINES (%) # 20 40 60 80 # SAND (%) # 20 40 60 80 # GRAVEL (%) # 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, some sand, very soft, low plasticity, dark olive grey				0.0
			- lens of fine grained sand with some silt				
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.3 m		COMPLETE 82/08/22		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR20128		BOREHOLE No. SUGC128	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.7m (approximately)		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -24.70 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A DSD (mm) A			FINES (%)			USC	DEPTH (ft)
				3000	4.75	60	20	40	60		
0.0			CLAY - silty, very soft								0.0
			SAND - silty, fine grained, uniformly graded, dark olive grey								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 02/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR20129		BOREHOLE No. SUGC129	
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.4m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEA BED		ELEVATION -24.40 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A DSD (mm) A			FINES (%)			USC	DEPTH (ft)
				3000	4.75	60	20	40	60		
0.0			CLAY - very soft, low plasticity, dark olive gray								0.0
			- sand lens, silty, fine grained								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 02/08/22
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U6820130	BOREHOLE No. SUGC130
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.4m	Project No: EBA # 101-3650
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -24.40 (m)
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (ft)
				3000	4300	6000	20	40	60		
0.0			CLAY - silty, very soft								0.0
			SAND - silty, fine grained, uniformly graded								
			END OF GRAVITY CORE								
1.0											1.0

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Calgary, Alberta

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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U6820131	BOREHOLE No. SUGC131
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m	Project No: EBA # 101-3650
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -23.50 (m)
SAMPLE TYPE ☒ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A			FINES (%)			USC	DEPTH (ft)
				3000	4300	6000	20	40	60		
0.0			CLAY								0.0
			SAND - silty, fine grained, uniformly graded, dark olive grey								
			END OF GRAVITY CORE								
1.0											1.0

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB20134		BOREHOLE No. <u>SUGC134</u>	
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.9m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 22.90 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 500 (mm) A			FINES (%)			USC	DEPTH (m)
				3000	1500	500	20	40	60		
0.0			SAND - some silt and clay, fine grained, uniformly graded								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBB20135		BOREHOLE No. <u>SUGC135</u>	
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 23.50 (m)	
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 500 (mm) A			FINES (%)			USC	DEPTH (m)
				3000	1500	500	20	40	60		
0.0			CLAY - silty, very soft								0.0
			SAND - silty, clayey, fine grained, uniformly graded, dark olive grey								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820136		BOREHOLE No. SUGC136			
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m (approximately)		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.50 (m)			
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY SAND - clayey, fine grained, uniformly graded				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM		DWC NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820137		BOREHOLE No. SUGC137			
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.20 (m)			
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 3000 4500 6000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, very soft, low to medium plasticity				0.0
			SAND - clayey, fine grained, uniformly graded				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM		DWC NO.		
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U682G138		BOREHOLE No. SUGC138			
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.9m		Project No: EBA / 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.90 (m)			
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 3000 2500 2000 1500 1000 PLASTIC MC LIQUID 70 40 30 20 10	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, soft to firm, low to medium plasticity				0.0
			CLAY AND SAND - soft				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM		DWC NO.		
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U682G139		BOREHOLE No. SUGC139			
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.0m		Project No: EBA / 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.00 (m)			
SAMPLE TYPE ☒ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 3000 2500 2000 1500 1000 PLASTIC MC LIQUID 70 40 30 20 10	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, some sand, soft, low plasticity, dark olive grey				0.0
			SAND - clayey, fine grained, uniformly graded				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM		DWC NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G142		BOREHOLE No. SUGC142			
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.3m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.30 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPIKE SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 250 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	W PIES (mm) W 20 40 60 80 SAND (mm) SAND (mm) 20 40 60 80 GRAVEL (mm) GRAVEL (mm) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - some silt to silty, fine grained, uniformly graded, dark olive grey				0.0
			END OF GRAVITY CORE				1.0
							2.0
							3.0
1.8							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM MMW		DWG NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G143		BOREHOLE No. SUGC143			
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.4m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.40 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPIKE SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 250 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	W PIES (mm) W 20 40 60 80 SAND (mm) SAND (mm) 20 40 60 80 GRAVEL (mm) GRAVEL (mm) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, trace sand, very soft, low to medium plasticity, dark olive grey				0.0
			END OF GRAVITY CORE				1.0
							2.0
							3.0
1.8							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.3 m		COMPLETE 82/08/22		
			LOGGED BY FWM MMW		DWG NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G144	BOREHOLE No. SUGC144
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m	Project No: EBA # 101-3659
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -25.30 (m)
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPUT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.D.P. (mm) A			PIES (C) M			USC	DEPTH (m)
				3000	4500	6000	20	40	60		
0.0			CLAY - silty, trace sand, very soft, low plasticity, dark olive grey								0.0
			SAND - clayey, fine grained, uniformly graded								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G145	BOREHOLE No. SUGC145
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.7m	Project No: EBA # 101-3659
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -24.70 (m)
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPUT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A.D.P. (mm) A			PIES (C) M			USC	DEPTH (m)
				3000	4500	6000	20	40	60		
0.0			CLAY - silty, very soft, low to medium plasticity								0.0
			SAND - clayey, fine grained, uniformly graded, slightly cohesive								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U8820146	BOREHOLE No. SUGC146
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m	Project No: EBA / 101-3659
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -23.60 (m)
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 650 (mm) A			IN FINES (C) M			USC	DEPTH (m)
				3000	4500	6000	20	40	60		
0.0			CLAY SAND - some silt to silty, fine grained, uniformly graded								0.0
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/22
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U8820147	BOREHOLE No. SUGC147
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.8m	Project No: EBA / 101-3659
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -23.60 (m)
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE			

DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 650 (mm) A			IN FINES (C) M			USC	DEPTH (m)
				3000	4500	6000	20	40	60		
0.0			SILT - clayey, trace sand, low plasticity								0.0
			SAND - some silt, fine grained, uniformly graded, dark olive gray								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBS20148		BOREHOLE No. SUGC148			
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.5m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.50 (m)			
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINES (2) M 20 40 60 80 SAND (2) M 20 40 60 80 GRAVEL (2) M	USC	DEPTH (m)
0.0			CLAY - sandy, soft, low plasticity, dark olive grey				0.0
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM MYW		DWC NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBS20149		BOREHOLE No. SUGC149			
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.20 (m)			
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINES (2) M 20 40 60 80 SAND (2) M 20 40 60 80 GRAVEL (2) M	USC	DEPTH (m)
0.0			CLAY - silty, some sand, soft, low plasticity SAND - some silt to silty, fine grained, uniformly graded				0.0
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
			LOGGED BY FWM MYW		DWC NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U8820150		BOREHOLE No. SUGC150		
GULF CANADA RESOURCES INC.		WATER DEPTH - 23.2m (approximately)		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -23.20 (m)		
SAMPLE TYPE ☐ SHELLY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 500 (mm) A 500 450 400 350 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINE SAND CO 20 40 60 80 SAND CO 20 40 60 80 GRAVEL CO 20 40 60 80	USC	DEPTH (m)
0.0		CLAY - silty, trace sand, soft to firm, low plasticity				0.0
		SAND - trace to some silt, fine grained, uniformly graded				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 02/08/22		
		LOGGED BY FMM MWW		DWG NO.		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U8820151		BOREHOLE No. SUGC151		
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.30 (m)		
SAMPLE TYPE ☐ SHELLY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 500 (mm) A 500 450 400 350 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINE SAND CO 20 40 60 80 SAND CO 20 40 60 80 GRAVEL CO 20 40 60 80	USC	DEPTH (m)
0.0		CLAY - silty, some sand, low plasticity, dark olive gray				0.0
		SAND - clayey, fine grained, uniformly graded				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m		COMPLETE 02/08/22		
		LOGGED BY FMM MWW		DWG NO.		
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBB20152	BOREHOLE No. SUGC152	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.3m (approximately)	Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -25.30 (m)	
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE				

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	ADDP (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4500	6000	8000	20	40	60	80		
0.0			CLAY - silty, some sand, very soft, low plasticity										0.0
			SAND - trace to some clay, fine grained, uniformly graded, dense, dark olive grey										
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/22
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. UBB20153	BOREHOLE No. SUGC153	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.7m	Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -24.70 (m)	
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPUR SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE				

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	ADDP (mm) A				FINES (%)				USC	DEPTH (ft)
				3000	4500	6000	8000	20	40	60	80		
0.0			CLAY SAND - some silt, fine grained, uniformly graded, dark olive grey										0.0
			END OF GRAVITY CORE										
1.0													1.0
2.0													2.0
3.0													3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR20154	BOREHOLE No. SUGC154		
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m	Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -24.40 (m)		
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	USC	DEPTH (m)
0.0			CLAY - silty, very soft		0.0
			SAND - silty, fine grained, uniformly graded, slightly cohesive		
			END OF GRAVITY CORE		
					-1.0
					-2.0
					-3.0
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22	
			LOGGED BY FWM MYW	DWG NO.	Page 1 of 1

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UBR20155	BOREHOLE No. SUGC155		
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.0m	Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -25.00 (m)		
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	USC	DEPTH (m)
0.0			CLAY - silty, very soft, medium plasticity, dark olive grey		0.0
			SAND - clayey, fine grained, uniformly graded, dark olive grey		
			END OF GRAVITY CORE		
					-1.0
					-2.0
					-3.0
1.0					
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m	COMPLETE 82/08/22	
			LOGGED BY FWM MYW	DWG NO.	Page 1 of 1

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G158		BOREHOLE No. SUGC158	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.0m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.00 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				PIES (mm)				USC	DEPTH (m)
				2000	4000	6000	8000	20	40	60	80		
0.0			CLAY - sandy, soft, remoulded, dark greyish brown - increasing silt and sand										0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													-3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G159		BOREHOLE No. SUGC159	
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.8m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.80 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A D50 (mm) A				PIES (mm)				USC	DEPTH (m)
				2000	4000	6000	8000	20	40	60	80		
0.0			CLAY - sandy, remoulded, dark olive grey CLAY AND SAND - silty, dark olive grey										0.0
			END OF GRAVITY CORE										
													-1.0
													-2.0
													-3.0
1.0													-3.0

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820160		BOREHOLE No. SUGC160			
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.6m		Project No: EBA / 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.60 (m)			
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A 3000 2000 1000 500 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - sandy, soft, olive grey				0.0
			SAND AND CLAY - grayish brown				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820161		BOREHOLE No. SUGC161			
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m		Project No: EBA / 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.60 (m)			
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 650 (mm) A 3000 2000 1000 500 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - sandy, very soft, remoulded, olive to brownish grey				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/22		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820162		BOREHOLE No. SUGC162	
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.60 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A				FINES (%)				USC	DEPTH (m)
			2000	4000	6000	8000	20	40	60	80		
0.0		CLAY - sandy, very soft, olive to brownish grey										0.0
		END OF GRAVITY CORE										1.0
												2.0
												3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.4 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820163		BOREHOLE No. SUGC163	
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.6m (approximately)		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.60 (m)	
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A				FINES (%)				USC	DEPTH (m)
			2000	4000	6000	8000	20	40	60	80		
0.0		CLAY - silty, trace fine sand, dark grey										0.0
		END OF GRAVITY CORE										1.0
												2.0
												3.0
1.0												

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.3 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820164		BOREHOLE No. SUGC164			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m		Project No: EBA # 101-3650			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)			
SAMPLE TYPE ☐ SHREY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	3000 4000 5000 6000 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINE SAND COARSE SAND GRAVEL 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, trace sand, very soft to soft, dark grey				0.0
			SAND - silty, fine grained, dark olive grey				
			CLAY - sandy, trace silt, very soft, dark grey				
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.3 m		COMPLETE 02/08/22		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820165		BOREHOLE No. SUGC165			
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.1m (approximately)		Project No: EBA # 101-3650			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.10 (m)			
SAMPLE TYPE ☐ SHREY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	3000 4000 5000 6000 PLASTIC M.C. LIQUID 20 40 60 80	20 40 60 80 FINE SAND COARSE SAND GRAVEL 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - sandy (increasing with depth), trace silt, very soft, dark grey				0.0
			END OF GRAVITY CORE				-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.3 m		COMPLETE 02/08/22		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6829168		BOREHOLE No. SUGC168	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.0m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.00 (m)	
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4000	6000	20	40	60		
0.0			CLAY - trace sand, very soft								0.0
			SAND - silty, dark olive gray								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6829169		BOREHOLE No. SUGC169	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.9m		Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.90 (m)	
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE					

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A			FINES (%)			USC	DEPTH (m)
				2000	4000	6000	20	40	60		
0.0			CLAY - trace fine sand, very soft, dark gray brown								0.0
			SAND - clayey, dark gray to black								
			END OF GRAVITY CORE								
											-1.0
											-2.0
											-3.0
1.0											

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m	COMPLETE 82/08/22
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SOUTH UKALERIK BORROW SITE		ORIGINAL BOREHOLE NO. U0820170		BOREHOLE No. SUGC170	
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.9m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.90 (m)	
SAMPLE TYPE		☐ SHIELDY TUBE		☒ NO RECOVERY	
		☒ SPUR SPOON		☐ DISTURBED	
		☐ PISTON		☐ GRAVITY CORE	
DEPTH (m)	SAMPLE TYPE	SOIL DESCRIPTION		USC	
0.0		CLAY - sandy (increasing with depth), silty, low plasticity			
		SAND - trace to some silt and clay, slightly cohesive			
		END OF GRAVITY CORE			
1.0					
2.0					
3.0					

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U8826171		BOREHOLE No. SUGC171	
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.0m		Project No: EBA / 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 25.00 (m)	
SAMPLE TYPE		SHELBY TUBE		NO RECOVERY	
		SPLIT SPOON		DISCHARGED	
		PISTON		GRAVITY CORE	
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	2000 4000 6000 8000 PLASTIC N.C. LIQUID	20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960 980 1000 1020 1040 1060 1080 1100 1120 1140 1160 1180 1200 1220 1240 1260 1280 1300 1320 1340 1360 1380 1400 1420 1440 1460 1480 1500 1520 1540 1560 1580 1600 1620 1640 1660 1680 1700 1720 1740 1760 1780 1800 1820 1840 1860 1880 1900 1920 1940 1960 1980 2000 2020 2040 2060 2080 2100 2120 2140 2160 2180 2200 2220 2240 2260 2280 2300 2320 2340 2360 2380 2400 2420 2440 2460 2480 2500 2520 2540 2560 2580 2600 2620 2640 2660 2680 2700 2720 2740 2760 2780 2800 2820 2840 2860 2880 2900 2920 2940 2960 2980 3000 3020 3040 3060 3080 3100 3120 3140 3160 3180 3200 3220 3240 3260 3280 3300 3320 3340 3360 3380 3400 3420 3440 3460 3480 3500 3520 3540 3560 3580 3600 3620 3640 3660 3680 3700 3720 3740 3760 3780 3800 3820 3840 3860 3880 3900 3920 3940 3960 3980 4000 4020 4040 4060 4080 4100 4120 4140 4160 4180 4200 4220 4240 4260 4280 4300 4320 4340 4360 4380 4400 4420 4440 4460 4480 4500 4520 4540 4560 4580 4600 4620 4640 4660 4680 4700 4720 4740 4760 4780 4800 4820 4840 4860 4880 4900 4920 4940 4960 4980 5000 5020 5040 5060 5080 5100 5120 5140 5160 5180 5200 5220 5240 5260 5280 5300 5320 5340 5360 5380 5400 5420 5440 5460 5480 5500 5520 5540 5560 5580 5600 5620 5640 5660 5680 5700 5720 5740 5760 5780 5800 5820 5840 5860 5880 5900 5920 5940 5960 5980 6000 6020 6040 6060 6080 6100 6120 6140 6160 6180 6200 6220 6240 6260 6280 6300 6320 6340 6360 6380 6400 6420 6440 6460 6480 6500 6520 6540 6560 6580 6600 6620 6640 6660 6680 6700 6720 6740 6760 6780 6800 6820 6840 6860 6880 6900 6920 6940 6960 6980 7000 7020 7040 7060 7080 7100 7120 7140 7160 7180 7200 7220 7240 7260 7280 7300 7320 7340 7360 7380 7400 7420 7440 7460 7480 7500 7520 7540 7560 7580 7600 7620 7640 7660 7680 7700 7720 7740 7760 7780 7800 7820 7840 7860 7880 7900 7920 7940 7960 7980 8000 8020 8040 8060 8080 8100 8120 8140 8160 8180 8200 8220

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G172		BOREHOLE No. SUGC172		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.7m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.70 (m)		
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 0.00 (mm) A 3000 2500 2000 1500 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (X) Silt (X) 20 40 60 80 GRAVEL (X)	USC	DEPTH (m)
0.0		CLAY - silty, trace sand, low to medium plasticity				0.0
		CLAY AND SAND - low plasticity, dark olive grey				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/23	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G173		BOREHOLE No. SUGC173		
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.7m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.70 (m)		
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 0.00 (mm) A 3000 2500 2000 1500 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (X) Silt (X) 20 40 60 80 GRAVEL (X)	USC	DEPTH (m)
0.0		SAND AND CLAY - slightly cohesive, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m		COMPLETE 82/08/23	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820174		BOREHOLE No. SUGC174		
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.4m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.40 (m)		
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 600 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		CLAY - sandy (increasing with depth), silty, low plasticity, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/08/23		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820175		BOREHOLE No. SUGC175		
GULF CANADA RESOURCES INC.		WATER DEPTH - 24.4m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -24.40 (m)		
SAMPLE TYPE ☐ SHELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 600 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		CLAY - silty, some sand, very soft, low plasticity, dark olive grey				0.0
		SAND - clayey, fine grained, uniformly graded, slightly cohesive, dark olive grey				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.1 m		COMPLETE 82/08/23		
		LOGGED BY FMM MWV		DWC NO. Page 1 of 1		

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820176		BOREHOLE No. SUGC176			
GULF CANADA RESOURCES INC.		WATER DEPTH - 22.9m		Project No: EBA / 101-3650			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.90 (m)			
SAMPLE TYPE ☒ SHELLY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A 2000 1000 500 200 PLASTIC M.C. LIQUID 20 40 60 80	WATERS (20 W) 20 40 60 80 SAND (20 S) 20 40 60 80 GRAVEL (20 G) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, some sand (increasing with depth), very soft, low plasticity				0.0
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m	COMPLETE 02/08/23			
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820177		BOREHOLE No. SUGC177			
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.4m		Project No: EBA / 101-3650			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -22.40 (m)			
SAMPLE TYPE ☒ SHELLY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 100 (mm) A 2000 1000 500 200 PLASTIC M.C. LIQUID 20 40 60 80	WATERS (20 W) 20 40 60 80 SAND (20 S) 20 40 60 80 GRAVEL (20 G) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - silty, sandy (increasing with depth), very soft, low plasticity				0.0
			SAND - silty, some clay, slightly cohesive				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.2 m	COMPLETE 02/08/23			
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820178		BOREHOLE No. SUGC178		
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.9m		Project No: EBA / 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 25.90 (m)		
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.00 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		CLAY - some sand, soft SAND - silty, trace clay, fine grained, uniformly graded				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/23	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820179		BOREHOLE No. SUGC179		
GULF CANADA RESOURCES INC.		WATER DEPTH - 25.9m (approximately)		Project No: EBA / 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION - 25.90 (m)		
SAMPLE TYPE ☐ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO	SOIL DESCRIPTION	A 0.00 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0		CLAY - silty, very soft, olive brown SAND - some silt and clay, slightly cohesive, dark olive grey				0.0
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/23	
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G180		BOREHOLE No. SUGC180			
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.9m (approximately)		Project No. BA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -25.90 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D ₅₀ (mm) A 2000 2500 3000 3500 PLASTIC M.C. LIQUID 20 40 60 80		PERCENT (%) 20 40 60 80 SAND Silt CLAY 20 40 60 80 GRAVEL COARSE SAND FINE SAND SILT CLAY	USC	DEPTH (m)
0.0		SAND - silty, trace to some clay, fine grained, uniformly graded, slightly cohesive					0.0
		END OF GRAVITY CORE					
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/23		
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SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB82G181		BOREHOLE No. SUGC181			
GULF CANADA RESOURCES INC.		WATER DEPTH - 21.3m		Project No. EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -21.30 (m)			
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A D ₅₀ (mm) A 2000 2500 3000 3500 PLASTIC M.C. LIQUID 20 40 60 80		PERCENT (%) 20 40 60 80 SAND Silt CLAY 20 40 60 80 GRAVEL COARSE SAND FINE SAND SILT CLAY	USC	DEPTH (m)
0.0		CLAY SAND - silty (decreasing with depth), fine grained, uniformly graded, slightly cohesive					0.0
		END OF GRAVITY CORE					
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/08/24		
			LOGGED BY FWM		DWC NO. Page 1 of 1		

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820182	BOREHOLE No. SUGC182	
GULF CANADA RESOURCES INC.		WATER DEPTH - 28.7m	Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -28.70 (m)	
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE				

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A				FINES (mm)				USC	DEPTH (m)		
				2000	1000	500	250	20	40	60	80			20	40
0.0			CLAY - sandy, some silt, very soft, dark olive brown												0.0
			- lens of fine grained sand												
		182	END OF GRAVITY CORE												
															-1.0
															-2.0
															-3.0
1.0															

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/09/03
LOGGED BY KRS MHW	DWG NO.	Page 1 of 1	

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. U6820183	BOREHOLE No. SUGC183	
GULF CANADA RESOURCES INC.		WATER DEPTH - 28.7m	Project No: EBA # 101-3659	
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED	ELEVATION -28.70 (m)	
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE				

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SOIL DESCRIPTION	A 200 (mm) A				FINES (mm)				USC	DEPTH (m)		
				2000	1000	500	250	20	40	60	80			20	40
0.0			CLAY - sandy, trace silt, soft, dark olive gray												0.0
			SAND - trace silt, fine to medium grained, gray												
			END OF GRAVITY CORE												
															-1.0
															-2.0
															-3.0
1.0															

EBA Engineering Consultants Ltd. Calgary, Alberta		COMPLETION DEPTH 0.2 m	COMPLETE 82/09/03
LOGGED BY KRS MHW	DWG NO.	Page 1 of 1	

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820184		BOREHOLE No. SUGC184		
GULF CANADA RESOURCES INC.		WATER DEPTH - 28.7m (approximately)		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -28.70 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 500 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	IN FINE (mm) 20 40 60 80 SAND (mm) 20 40 60 80 GRAVEL (mm) 20 40 60 80	USC	DEPTH (m)
0.0	104	CLAY - sandy, trace silt, soft, dark olive gray				0.0
		SAND - fine grained, medium dense, dark olive brown				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 02/09/03	
			LOGGED BY KES MWW		DWG NO. Page 1 of 1	

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB820185		BOREHOLE No. SUGC185		
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.5m		Project No: EBA # 101-3659		
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.50 (m)		
SAMPLE TYPE ☒ SHIELBY TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE						
DEPTH (m)	SAMPLE NO.	SOIL DESCRIPTION	A 500 (mm) A 3000 4500 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	IN FINE (mm) 20 40 60 80 SAND (mm) 20 40 60 80 GRAVEL (mm) 20 40 60 80	USC	DEPTH (m)
0.0	185	CLAY - sandy, trace silt, soft, dark olive gray				0.0
		SAND - fine to medium grained, dense, dark gray				
		END OF GRAVITY CORE				
						-1.0
						-2.0
						-3.0
1.0						
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 02/09/03	
			LOGGED BY KES MWW		DWG NO. Page 1 of 1	

SOUTH UKALERK BORROW SITE		ORIGINAL BOREHOLE NO. UB829186		BOREHOLE No. SUGC186			
GULF CANADA RESOURCES INC.		WATER DEPTH - 26.5m (approximately)		Project No: EBA # 101-3659			
DRILL SHIP - M.V. FRANK BRODERICK		DEPTHS ARE REFERENCED TO SEABED		ELEVATION -26.50 (m)			
SAMPLE TYPE ☐ SHIELD TUBE ☒ NO RECOVERY ☒ SPLIT SPOON ☐ DISTURBED ☐ PISTON ☐ GRAVITY CORE							
DEPTH (m)	SAMPLE TYPE	SAMPLE NO.	SOIL DESCRIPTION	A 200 (mm) A 2000 4000 6000 8000 PLASTIC M.C. LIQUID 20 40 60 80	FINES (%) 20 40 60 80 SAND (%) 20 40 60 80 GRAVEL (%) 20 40 60 80	USC	DEPTH (m)
0.0			CLAY - sandy, trace silt, soft, dark grey				0.0
		186	SAND - fine grained, dense, dark olive grey				
			END OF GRAVITY CORE				
							-1.0
							-2.0
							-3.0
1.0							
EBA Engineering Consultants Ltd. Calgary, Alberta			COMPLETION DEPTH 0.1 m		COMPLETE 82/09/03		
			LOGGED BY KRS MW		DWC NO.		
					Page 1 of 1		