

Project Title: City of Duluth Lakewalk HAS MR Soil Borings / Rock Cores

ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL ESTIMATE PRICE
	Mobilization of Rig & 2 Person Crew	Hour	1	483	483
	Mobilization of Rig & 3 Person Crew	Hour	12	586	7032
	Vehicle Trip Charges	Each	15	59	885
	Directed Nondrilling Time (2 person crew)	Hour	0	483	0
	Utility Clearances	Hour	13	133	1729
	Setup on Boring (easy Access)(2 person crew)	Hour	13	483	6279
	Setup for Bedrock Coring (3 person crew)	Hour	13	586	7618
	Auger Rotary Drilling (0 - 50')	Foot	215	38	8170
	Mud Rotary Drilling (0 - 50')	Foot	215	43	9245
	Air Hammer Drilling thru Boulders (0-50')	Hour	13	586	7618
	Steel Casing for Air Hammer (cost plus)	Foot	100	20	2000
	Air Compressor & Field Welder Air Hammer (cost plus)	week	1	1600	1600
	Bedrock Core Drilling	Ft.	130	76	9880
	Split Soon Sampling	Each	130	25	3250
	Shelby Tube / SPT Brass Liner Sampling	Each	13	100	1300
	Borehole Abandonment	Ft.	560	12	6720
	Testing (moisture and visual classification)	LS	130	30	3900
	Atterberg Limits	Each	6	225	1350
	Sieve Analysis	Each	6	150	900
	UCS / Unit Weight of Clay and/or Rock / Brass Liners	Each	26	165	4290
	Triaxial Shear: UU / CU / CD Per Specimen	Each	6	660	3960
	Consolidation Testing up to 32 tsf	Each	1	1025	1025
	Geotechnical Engineering Report (No Retaining Wall Design)	Each	1	10000	10000
				Total	99234

EPC Engineering & Testing
 Chad Lowney, Partner
 (218) 727-1239 office, (218) 341-9142 cell