

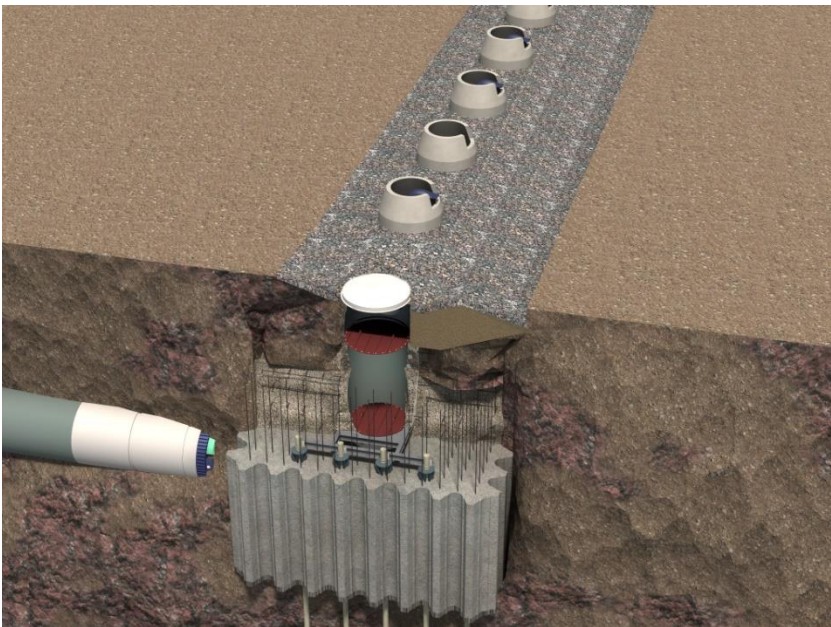
APPENDIX B GEOTECHNICAL REPORTS

B.1: Geotechnical Data Report

Part I: Appendix G, Primary Testing

Annacis Island WWTP New Outfall System

Vancouver Fraser Port Authority
Project and Environmental Review Application



 **metrovancover**
SERVICES AND SOLUTIONS FOR
A LIVABLE REGION

**CDM
Smith**

 **Golder
Associates**

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APPENDIX G

Laboratory Testing Reports



APPENDIX G
Laboratory Testing Reports

Table 7-2: Summary of Index Testing and Results

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-01	1		1.50	2.11	SS							1	97	2		
BH15-01	3		4.57	5.18	SS							0	98	2		
BH15-01	5		7.59	8.20	SS							1	97	2		
BH15-01	7		10.62	11.23	SS							2	94	4		
BH15-01	10		15.24	15.85	SS							0	95	5		
BH15-01	12		18.34	18.95	SS							4	90	6		
BH15-01	14		21.39	22.00	SS							0	92	8		
BH15-01	21		33.02	33.63	SS	32.1	39	24	15							
BH15-01	22		35.08	35.69	SS							80	17	3		
BH15-01	25		39.55	40.16	SS	38.6	28	16	12			6	36	58		
BH15-01	26		41.61	41.78	SS	23.3	16	12	4							
BH15-01	28		44.20	44.35	SC	20.1	52	22	30							
BH15-01B	2		24.99	25.60	SS							80	17	3		
BH15-01B	4		28.04	28.65	SS							67	26	7		
BH15-01B	5		29.57	30.18	SS	29.3	33	17	16							
BH15-02	1		1.55	2.16	SS							0	96	4		
BH15-02	3		4.52	5.13	SS							0	96	4		
BH15-02	6		9.22	9.83	SS							0	97	3		
BH15-02	8		12.01	12.62	SS							0	96	4		
BH15-02	10		15.09	15.70	SS							3	93	4		
BH15-02	13		19.76	20.37	SS							0	94	6		
BH15-02	15		22.25	22.86	SS							59	36	5		



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-02	17		24.99	25.60	SS							94	5	1		
BH15-02	19		28.35	28.96	SS							90	3	7		
BH15-02	20	20b	29.87	30.48	SS	32.3	32	22	10							
BH15-02	23		36.07	36.68	SS							58	36	6		
BH15-03	4		2.74	3.35	SS	37.9	53	27	26							
BH15-03	5		4.27	4.88	SS	38.7	39	23	16							
BH15-03	6		5.79	6.40	SS	40.4										
BH15-03	7		7.32	7.92	SS							0	65	35		
BH15-03	9		10.36	10.97	SS							0	88	12		
BH15-03	11		13.41	14.02	SS							0	95	5		
BH15-03	13		16.46	17.07	SS							0	97	3		
BH15-03	15		19.51	20.12	SS							0	96	4		
BH15-03	17		22.56	23.16	SS							0	94	6		
BH15-03	19		25.60	26.21	SS							1	94	5		
BH15-03	21		28.65	29.26	SS							0	94	6		
BH15-03	22		30.18	30.78	SS							88	10	2	1	1
BH15-03	24		33.22	33.83	SS							67	23	10	8	2
BH15-03	26		36.27	36.88	SS							78	15	7	6	1
BH15-03	28		39.32	39.93	SS							42	53	5	3	2
BH15-03	29		40.84	41.45	SS	31.5	31	19	12							
BH15-03	30		42.37	42.98	TP	29.2	30	21	9							
BH15-03	31		46.33	46.94	SS	37.8	38	19	19							
BH15-03	33		48.46	49.07	SS	29.5	25	16	9			9	22	69	45	24



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-03	37/38		53.80	55.32	SC							14	39	47	39	8
BH15-04	3		3.35	3.96	CS	43.4	41	26	15							
BH15-04	4		3.96	4.57	SS	34.5						0	17	83		
BH15-04	7		8.53	9.14	SS	29.2						0	90	10		
BH15-04	18		25.30	25.91	SS							1	94	5		
BH15-04	27		37.49	38.10	SS	31.6	26	19	7							
BH15-04	28		39.01	39.62	SS	31.4										
BH15-04	29		40.54	41.15	TP	32.1										
BH15-04	30		42.06	42.67	SS	24.0										
BH15-04	31		43.59	44.20	TP	34.3	39	22	17			0	1	99	58	41
BH15-04	32		45.11	45.72	SS	39.8										
BH15-04	33		46.63	47.24	TP	33.3										
BH15-04	34		48.16	48.77	SS	12.2						11	41	48		
BH15-04	35		49.68	49.78	SS	13.0										
BH15-04	37		52.73	52.86	SS	10.1						40	27	33		
BH15-05	1B		2.90	3.05	SS	78.3										
BH15-05	2		3.05	3.66	TP	34.1										
BH15-05	3		3.96	4.57	SS	35.5	NP	NP	NP							
BH15-05	7		10.06	10.67	SS							0	96	4		
BH15-05	18		26.82	27.43	SS							0	93	7		
BH15-05	33		49.68	50.29	SS	36.9						0	2	98	51	47
BH15-05	34		50.90	51.51	TP	32.1	41	18	23							



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-05	35		52.73	53.34	SS	29.9	27	18	9			0	12	88	52	36
BH15-09	2		1.52	2.13	SS							0	98	2		
BH15-09	3		3.05	3.66	SS							0	97	3		
BH15-09	5		6.10	6.71	SS							0	95	5		
BH15-09	7		9.14	9.75	SS							0	95	5		
BH15-09	10		13.69	14.30	SS							2	96	2		
BH15-09	12		16.76	17.37	SS							0	97	3		
BH15-09	14		19.89	20.50	SS							0	97	3		
BH15-09	15		21.34	21.95	SS							0	97	3		
BH15-09	16		22.83	23.44	SS							0	94	6		
BH15-09	18		25.88	26.49	SS							0	95	5		
BH15-09	19		27.36	27.97	SS	31.8	33	21	12							
BH15-09	20		28.98	29.59	SS	29.2										
BH15-09	21		30.35	30.96	SS	29.7										
BH15-09	22		31.98	32.59	SS	27.8	NP	NP	NP							
BH15-09	23		33.45	34.06	SS	26.9										
BH15-09	24		34.95	35.56	SS	27.1										
BH15-09	25		36.47	37.08	SS	29.3	24	19	5							
BH15-09	26		38.00	38.61	SS	31.1										
BH15-09	29		45.82	46.43	SS	30.6										
BH15-09	30		47.24	47.85	SS	33.6	32	21	11							
BH15-09	32		50.29	50.90	SS	36.9										



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TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-09	33		51.82	52.43	SS	26.7										
BH15-09	34		53.34	53.95	SS	38										
BH15-09	35		54.86	55.47	SS	29.6	33	21	12							
BH15-09	36		79.50	80.11	SS							0	83	17		
BH15-10	2		1.60	2.21	SS							7	87	6		
BH15-10	4		4.65	5.34	SS							0	95	5		
BH15-10	6		7.42	8.03	SS							0	95	5		
BH15-10	8		10.67	11.28	SS							4	88	8		
BH15-10	10		13.82	14.43	SS							4	93	3		
BH15-10	12		16.76	17.37	SS							1	95	4		
BH15-10	14		19.71	20.32	SS							0	95	5		
BH15-10	16		22.81	23.42	SS							0	94	6		
BH15-10	18		25.91	26.52	SS							0	92	8		
BH15-10	19		27.38	27.99	SS							0	93	7		
BH15-10	21		30.61	31.22	SS	30.2	32	19	13							
BH15-10	23		35.10	35.71	SS	27.4										
BH15-10	24		36.58	37.19	SS	28.5										
BH15-10	25		38.05	38.66	SS	28.4	22	19	3							
BH15-10	26		39.62	40.23	SS	26.3										
BH15-10	27		41.45	42.06	SS	28.7										
BH15-11	1		2.74	3.35	SS	59.7	64	44	20							
BH15-11	2		4.27	4.88	SS							0	87	13		



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-11	4		7.32	7.92	SS							0	93	7		
BH15-11	6		10.36	10.97	SS							0	91	9		
BH15-11	8		13.41	14.02	SS							0	96	4		
BH15-11	10		16.46	17.07	SS							0	94	6		
BH15-11	12		19.81	20.42	SS							0	94	6		
BH15-11	14		22.56	23.16	SS							0	94	6		
BH15-11	16		25.60	26.21	SS							0	95	5		
BH15-11	19		30.18	30.78	SS							3	90	7	3	4
BH15-11	21		33.22	33.83	SS							0	95	5		
BH15-11	23		36.27	36.88	SS							0	88	12	7	5
BH15-11	25		39.32	39.93	SS							0	92	8		
BH15-11	27		42.37	42.98	SS	29.2	29	18	11							
BH15-11	30		46.94	47.55	SS	29.1										
BH15-11	31		48.46	49.07	SS	29	27	18	9							
BH15-11	32		49.99	50.60	SS	28.8										
BH15-11	34		54.56	55.17	SS	28.4										
BH15-13	3		3.35	3.96	TP	35.3	29	22	7							
BH15-13	4		5.49	6.10	SS	26.6						0	72	28		
BH15-13	7		10.06	10.67	SS	34.2						0	50	50		
BH15-13	14		20.73	21.34	SS							0	94	6		
BH15-13	24		35.97	36.58	SS							0	93	7		
BH15-13	29		43.59	44.20	SS							0	85	15		



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH15-13	32		48.46	49.07	TP	26.0	31	18	13			0	2	98	71	27
BH15-13	33		51.21	51.82	SS	30.3										
BH15-13	34		52.12	52.73	TP	30.2										
BH15-13	35		54.25	54.86	SS	34.9	30	18	12			0	5	95	70	25
BH15-14	3		3.96	4.57	SS							10	80	10		
BH15-14	11		16.15	16.76	SS	27.1						0	96	4		
BH15-14	17		25.30	25.91	SS	30.1						0	37	63		
BH15-14	20		29.87	30.48	SS	24.9						2	79	19		
BH15-14	23		34.44	35.05	SS							0	91	9		
BH15-14	26		39.01	39.62	SS	28.9						0	86	14		
BH15-14	28		42.06	42.67	SS	25.3	21	19	2			0	11	89	62	27
BH15-14	29		43.59	44.20	SS	25.8										
BH15-14	30		45.11	45.72	SS	24.7										
BH15-14	31		46.63	47.24	SS	27.8										
BH15-14	32		48.16	48.77	TP	29.0	24	19	5							
BH15-14	33		49.68	50.29	SS	30.7										
BH15-14	34		51.21	51.82	SS	33.1	25	21	4							
BH15-14	35		52.73	53.34	TP	21.1	24	19	5			17	3	80	59	21
BH15-14	36		54.25	54.86	SS	28.1										
BH16-01	2		3.07	3.68	SS							0	94	6		
BH16-01	4		5.49	6.10	TP	31.9				18.9	2.62					
BH16-01	5		7.82	8.28	SS							0	84	16		



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-01	8		12.19	12.80	SS							0	91	9		
BH16-01	12		18.29	18.90	SS							0	94	6		
BH16-01	16		24.46	25.07	SS							0	94	6		
BH16-01	20		30.48	31.09	SS							0	88	12		
BH16-01	23		35.05	35.66	SS						2.70	0	93	7		
BH16-01	26		39.62	40.23	SS							0	91	9		
BH16-01	29		44.35	44.96	SS							0	51	49		
BH16-01	32		48.77	49.38	SS							0	73	27		
BH16-01	34		51.82	52.43	SS	25.7	29	17	12			0	5	95	71	24
BH16-01	35		53.04	53.64	TP	28.7	34	19	15							
BH16-01	36		54.86	55.47	SS	27						0	9	91	66	25
BH16-01	37		56.39	57.00	SS	30.2										
BH16-01	39		59.44	60.05	SS	27.9	27	16	11							
BH16-01	40		60.96	61.57	TP	26.0				20.6	2.73					
BH16-01	41		62.48	63.09	SS	26.8										
BH16-01	42		64.01	64.62	SS	26	24	17	7			0	2	98	65	33
BH16-01	43		65.53	66.14	SS	25.7										
BH16-01	44		67.06	67.67	SS	27.2										
BH16-01	45		68.58	69.19	SS	27.1	25	17	8							
BH16-01	46		70.10	70.71	TP	28.8				19.5	2.71					
BH16-01	47		73.15	73.76	SS	26.1										
BH16-01	48		76.20	76.81	SS	26.5	24	17	7			0	2	98	73	25



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-01	49		83.82	84.43	SS	28.6	26	18	8							
BH16-01	50		89.92	90.53	SS	35.3	32	20	12							
BH16-02	2		5.43	6.04	SS	57.1	66	35	31							
BH16-02	4		8.50	9.11	SS							0	91	9		
BH16-02	8		14.60	15.21	SS							0	94	6		
BH16-02	12		20.73	21.34	SS							0	93	7		
BH16-02	16		26.82	27.43	SS							0	94	6		
BH16-02	20		32.92	33.53	SS							0	83	17		
BH16-02	24		37.01	39.62	SS							0	93	7		
BH16-02	29		46.63	47.24	SS							0	79	21		
BH16-02	32		51.21	51.82	SS	27.9	23	17	6							
BH16-02	33		52.73	53.34	SS	32.6										
BH16-02	34		54.25	54.86	SS	28.7	24	17	7							
BH16-02	35		54.25	54.86	TP	27.3				21.2						
BH16-02	36		59.44	59.49	TP	28.5	28	19	9							
BH16-03	1	1b	2.44	3.05	SS	92.8	92	54	38							
BH16-03	2		3.58	3.66	TP	36.5				19.4						
BH16-03	3		4.11	4.72	SS	40.8										
BH16-03	5		7.01	7.62	SS							0	95	5		
BH16-03	10		14.63	15.24	SS							0	95	5		
BH16-03	13		19.20	19.81	SS							0	91	9		
BH16-03	16		23.77	24.38	SS							0	96	4		



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-03	21		31.39	32.00	SS							0	40	60		
BH16-03	24		35.92	36.53	SS							0	92	8		
BH16-03	28		42.01	42.62	SS							0	90	10		
BH16-03	31		46.63	47.24	SS							0	92	8		
BH16-03	32		48.16	48.77	SS	34.7										
BH16-03	34		51.31	51.38	TP	30.6	36	23	13							
BH16-03	34		51.38	51.44	TP	28.7	33	19	14		2.70					
BH16-03	35		53.04	53.664	TP	36.4	42	21	21	18.6	2.71					
BH16-03	36		54.25	54.86	SS	29.2	29	15	14							
BH16-03	37		55.91	56.52	SS	34.6										
BH16-03	38		57.28	57.89	SS	17.8	34	16	18							
BH16-03	39		58.83	59.44	SS	37.3										
BH16-03	40		60.35	60.96	SS	34.8	52	21	31							
BH16-03	41		60.96	61.57	TP	30.3	50	25	25							
BH16-03	42		63.40	64.01	SS	34.4										
BH16-03	43		64.92	65.53	SS	26.6	44	22	22			0	3	97	64	33
BH16-03	44		66.45	67.06	SS	29.1										
BH16-03	46		69.49	70.10	SS	36.6										
BH16-03	47		72.54	73.15	SS	25.1	43	22	21			0	2	98	58	40
BH16-03	48		75.59	76.20	SS	30.2										
BH16-03	49		77.11	77.72	SS	30.1	32	22	10			0	2	98	82	16
BH16-04	6		10.97	11.58	SS							0	95	5		



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Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-04	12		20.73	21.34	SS							0	95	5		
BH16-04	18		29.92	30.53	SS							0	95	5		
BH16-04	25		40.54	41.15	SS							0	93	7		
BH16-04	29		46.63	47.24	SS	27.0										
BH16-04	30		48.16	48.77	SS	29.9	27	17	10							
BH16-04	31		49.99	50.60	SS	26.9	25	19	6	19.6						
BH16-04	32		51.21	51.82	SS	27.7	24	21	3			0	3	97	71	26
BH16-04	33		52.73	53.34	SS	28.4										
BH16-04	35		56.08	56.69	SS	27.6	26	21	5							
BH16-04	36		57.54	57.61	TP	29.0				19.7						
BH16-05	1		2.85	3.90	TP	36.6				18.2						
BH16-05	2		5.49	6.10	SS							0	74	26		
BH16-05	8		14.60	15.21	SS							0	94	6		
BH16-05	15		25.30	25.91	SS							0	95	5		
BH16-05	21		34.44	35.05	SS							0	95	5		
BH16-05	23		37.49	38.10	SS	23.8										
BH16-05	24		39.01	39.62	SS	29.4	28	20	8			0	11	89	62	27
BH16-05	25	25A	40.54	40.69	SS	25.5										
BH16-05	25	25B	40.69	41.15	SS	25.8										
BH16-05	26		42.06	42.67	SS	27.5										
BH16-05	27		43.59	44.20	SS	27.6	28	17	11							
BH16-05	29		47.77	47.85	TP	27.9				20.4						



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-05	30		47.85	48.46	SS	27.3										
BH16-05	31		49.68	50.29	SS	25.2	22	17	5							
BH16-05	32		51.21	51.82	SS	29.4										
BH16-05	33		52.73	53.34	SS	26	26	17	9							
BH16-05	34		55.40	55.47	TP	27.2				20.5						
BH16-06	2		3.15	3.76	TP	64.9	73	49	24							
BH16-06	3		4.57	5.18	SS							0	89	11		
BH16-06	4		5.49	6.10	SS							0	94	6		
BH16-06	6		8.53	9.14	SS							0	96	4		
BH16-06	8		11.58	12.19	SS							0	95	5		
BH16-06	10		14.63	15.24	SS							0	78	22		
BH16-06	12		17.68	18.29	SS							0	95	5		
BH16-06	14		20.73	21.34	SS							0	95	5		
BH16-06	16		23.77	24.38	SS							0	97	3		
BH16-06	18		26.82	27.43	SS							0	26	74		
BH16-06	21		31.39	32.00	SS							0	92	8		
BH16-06	23		34.44	35.05	SS							0	95	5		
BH16-06	25		37.49	38.10	SS							0	89	11		
BH16-06	27		40.54	41.15	SS							0	95	5		
BH16-06	29		43.59	44.20	SS							0	90	10		
BH16-06	32		48.16	48.77	SS	29.4										
BH16-06	33	CSR	49.99	50.60	TP	30.8	32	20	12							



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-06	33		50.20	50.25	TP	33.1	33	18	15						64	36
BH16-06	38		59.44	60.05	SS	26.0										
BH16-07	1		2.74	3.35	SS	46.0	41	25	16							
BH16-07	2		3.96	4.57	SS	35.9										
BH16-07	3		5.49	6.10	SS	35.4	NP	NP	NP							
BH16-07	4		7.01	7.62	SS	40.3										
BH16-07	5		8.53	9.14	SS							0	89	11		
BH16-07	7		11.58	12.19	SS							0	91	9		
BH16-07	10		16.15	16.76	SS							0	94	6		
BH16-07	13		20.73	21.34	SS							0	87	13		
BH16-07	16		25.30	25.91	SS							3	91	6		
BH16-07	19		29.87	30.48	SS							0	94	6		
BH16-07	20		31.70	32.31	SS	31.1										
BH16-07	21		32.92	33.53	SS	32.3	NP	NP	NP			0	58	42	37	5
BH16-07	22		34.44	35.05	SS	36.9						0	28	72	60	12
BH16-07	24		37.49	38.10	SS	33.9	28	19	9							
BH16-07	25		39.01	39.62	SS	29.9						0	18	82		
BH16-07	27		42.06	42.67	SS							0	88	12		
BH16-07	30		46.63	47.24	SS							0	84	16		
BH16-07	33		51.21	51.82	SS							0	95	5		
BH16-07	37		63.40	64.01	TP	29.3	30	19	11							
BH16-07	38		69.49	70.10	SS	35.4						0	3	97		



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
BH16-07	39		77.11	77.72	SS	31.3	38	19	19			1	17	82		
BH16-08	3		4.57	5.18	SS							2	95	3		
BH16-08	4		6.10	6.71	SS							0	96	4		
BH16-08	6		9.14	9.75	SS							0	93	7		
BH16-08	8		12.19	12.80	SS							0	95	5		
BH16-08	10		15.24	15.85	SS							3	88	9		
BH16-08	12		18.29	18.90	SS							1	95	4		
BH16-08	13		19.81	20.42	SS							1	92	7		
BH16-08	14		21.34	21.95	SS							0	94	6		
BH16-08	16		24.38	24.99	SS							0	89	11		
BH16-08	17		25.91	26.52	SS	26.7										
BH16-08	18		27.43	28.04	SS	26.4	25	17	8							
BH16-08	19		28.96	29.57	TP	28.2	24	17	7							
BH16-08	20		30.48	31.09	SS	27.1										
BH16-08	21		32.00	32.61	TP	28.5	23	17	6							
BH16-08	22		33.53	34.14	SS	32.6										
BH16-08	24		36.58	37.19	TP	29.2	26	18	8							
BH16-08	25		38.10	38.71	TP	30.0	25	20	5							
BH16-08	26		41.15	41.76	SS	31.3										
BH16-08	27		45.72	46.33	SS	29.8										
BH16-08	28		50.29	50.90	SS	21.0						4	25	71		
BH16-08	29		54.86	55.47	SS	17.2	23	15	8			2	31	67		



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
SH16-01	4		5.33	5.49	GS	36.4						0	56	44		
SH16-01	6		8.53	8.69	GS							0	59	41		
SH16-01	7		10.36	10.52	GS							0	92	8		
SH16-05	10A		31.39	31.55	SC	28.9						0	89	11		
SH16-05	28		67.97	68.12	SC	24.2										
SH16-05	29		69.80	69.95	SC	26.4	56	23	33							
SH16-05	30		71.32	71.48	SC	32.7	70	31	39							
SH16-05	31		74.07	74.22	SC	28.7										
SH16-05	32		76.96	77.11	SC	22.2	35	22	13							
SH16-05	33		78.64	78.79	SC	32.4										
SH16-05	34		80.77	80.92	SC	26.5										
SH16-05	35		82.60	82.75	SC	15.4	25	17	8							
SH16-05	36		84.58	84.73	SC	28.1										
SH16-05	37		86.72	86.87	SC	28.2										
SH16-05	38		88.24	88.39	SC	25.3										
SH16-06	1		3.35	3.51	SC							0	99	1		
SH16-06	3		9.45	9.60	SC							0	84	16		
SH16-06	4		12.04	12.19	SC							0	98	2		
SH16-06	6		18.29	18.44	SC							0	99	1		
SH16-06	8		24.57	24.69	SC							0	99	1		
SH16-06	10		29.57	29.72	SC	27.5	NP	NP	NP			0	23	77		
SH16-06	11		32.31	32.46	SC							6	68	26		



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
SH16-06	12		34.90	35.05	SC							0	97	3		
SH16-06	13		37.19	37.34	SC							0	96	4		
SH16-06	15		42.98	43.13	SC	30.0	28	22	6							
SH16-06	16		46.33	46.48	SC							0	3	97		
SH16-06	17		49.38	49.53	SC							0	3	97		
SH16-06	18		52.43	52.58	SC	25.8										
SH16-06	19		54.25	54.41	SC	32.1										
SH16-06	20		55.93	56.08	SC	27.7	26	20	6							
SH16-06	21		57.45	57.61	SC	26.3										
SH16-06	22		58.98	59.13	SC	69.4	28	22	6							
SH16-06	23		60.50	60.66	SC	28.2										
SH16-06	24		62.03	62.18	SC	29.6										
SH16-06	25		63.70	63.86	SC	32.8										
SH16-06	26		65.07	65.23	SC	30.8										
SH16-06	27		66.29	66.45	SC	37.7	37	23	14							
SH16-06	28		67.51	67.67	SC	35.7										
SH16-06	29		69.19	69.34	SC	29.5										
SH16-06	30		70.71	70.87	SC	35.6										
SH16-06	31		72.69	72.85	SC	24.3	28	16	12							
SH16-06	32		73.76	73.91	SC	14.1										
SH16-06	33		76.20	76.35	SC	9.4						4	37	59		
SH16-06	34		78.03	78.18	SC	11.6										



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
SH16-06	35		79.55	79.71	SC	12.5										
SH16-06	36		81.38	81.53	SC	14.4	21	14	7							
SH16-06	37		83.36	83.52	SC	15.4										
SH16-06	38		85.65	85.80	SC	26.2										
SH16-06	39		88.39	88.54	SC							0	84	16		
SH16-07	1		3.35	3.51	SC	36.9	NP	NP	NP							
SH16-07	2		6.71	6.86	SC							0	63	37		
SH16-07	4		12.04	12.19	SC							0	96	4		
SH16-07	5		15.54	15.70	SC							0	97	3		
SH16-07	7		21.95	22.10	SC							0	98	2		
SH16-07	8		23.77	23.93	SC							0	97	3		
SH16-07	10		26.82	26.97	SC							0	99	1		
SH16-07	13		31.55	31.70	SC							0	99	1		
SH16-07	14		32.92	33.07	SC							0	97	3		
SH16-07	15		34.29	34.44	SC							0	98	2		
SH16-07	17		37.49	37.64	SC							0	97	3		
SH16-07	19		39.62	39.78	SC	23.3	NP	NP	NP							
SH16-07	20		41.00	41.15	SC	30.9										
SH16-07	21		42.06	42.21	SC	32.6										
SH16-07	22		43.59	43.74	SC	26.7	28	19	9							
SH16-07	23		45.11	45.26	SC	25.8										
SH16-07	24		46.63	46.79	SC	26.9	28	20	8							



APPENDIX G
Laboratory Testing Reports

TEST HOLE	SAMPLE NUMBER	SPECIMEN ID	SAMPLE INTERVAL (m)		SAMPLE TYPE	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	UNIT WEIGHT (kN/m ³)	SPECIFIC GRAVITY	GRAIN SIZE PERCENT BY WEIGHT			HYDROMETER	
			TOP	BOTTOM								GRAVEL	SAND	FINES	SILT	CLAY
SH16-07	25		49.23	49.38	SC	27.5										
SH16-07	26		52.43	52.58	SC	31.9										
SH16-07	27		55.47	55.63	SC	29.7	26	17	9							
SH16-07	28		57.76	57.91	SC	26.0										
SH16-07	29		60.66	60.81	SC	24.3	22	17	5							
SH16-07	30		63.70	63.86	SC	27.1										
SH16-07	31		67.67	67.82	SC	28.0										
SH16-07	32		70.87	71.02	SC	27.7	28	20	8							
SH16-07	33		73.46	73.61	SC	30.2										
SH16-07	34		76.20	76.35	SC	35.9										
SH16-07	35		79.86	80.01	SC	37.7										
SH16-07	36		81.84	81.99	SC	40.3	48	29	19							
SH16-07	37		84.73	84.89	SC	34.6										
SH16-07	38		85.95	86.11	SC	21.0										
SH16-07	39		88.09	88.24	SC	17.7	19	16	3							

Note: Refer to Appendix A for Abbreviations associated with sample types



APPENDIX G
Laboratory Testing Reports

Table 7-3: Summary of High End Testing

TEST HOLE	SAMPLE NUMBER	SAMPLE INTERVAL (m)		SAMPLE TYPE	ONE-DIMENSIONAL CONSOLIDATION COMPLETED	UNCONFINED COMPRESSIVE STRENGTH	SWELLING TEST	CYCLIC SIMPLE SHEAR TESTING	MONOTONIC SIMPLE SHEAR TESTING
		TOP	BOTTOM						
BH15-03	30	42.53	42.57	TP					x
BH15-03	30	42.47	42.50	TP				x	
BH15-03	30	42.60	42.63	TP				x	
BH15-04	31	43.59	44.20	TP	x				
BH15-05	34	50.90	51.51	TP	x	x			
BH15-09	27	40.66	40.69	TP					x
BH15-13	32	48.46	49.07	TP	x	x			
BH16-01	35	53.47	53.56	TP				x	
BH16-02	36	59.44	59.49	TP					x
BH16-03	34	51.38	51.44	TP				x	
BH16-03	34	51.31	51.38	TP				x	
BH16-03	35	53.24	53.29	TP					x
BH16-03	35	53.29	53.34	TP				x	
BH16-03	41	61.17	61.22	TP				x	
BH16-04	31	50.41	50.48	SS					x
BH16-06	33	49.99	50.60	TP	x		x		
BH16-06	33	50.20	50.25	TP				x	x
BH16-07	37	63.60	63.65	TP					x
BH16-08	19	28.96	29.57	TP	x				
BH16-08	19	29.00	29.60	TP				x	
BH16-08	19	29.20	29.25	TP					x
BH16-08	21	32.0	32.6	TP			x		
BH16-08	24	36.6	37.2	TP				x	
BH16-08	24	36.58	37.19	TP	x				
BH16-08	25	38.1	38.7	TP	x				

Note: Refer to Appendix A for Abbreviations associated with sample types

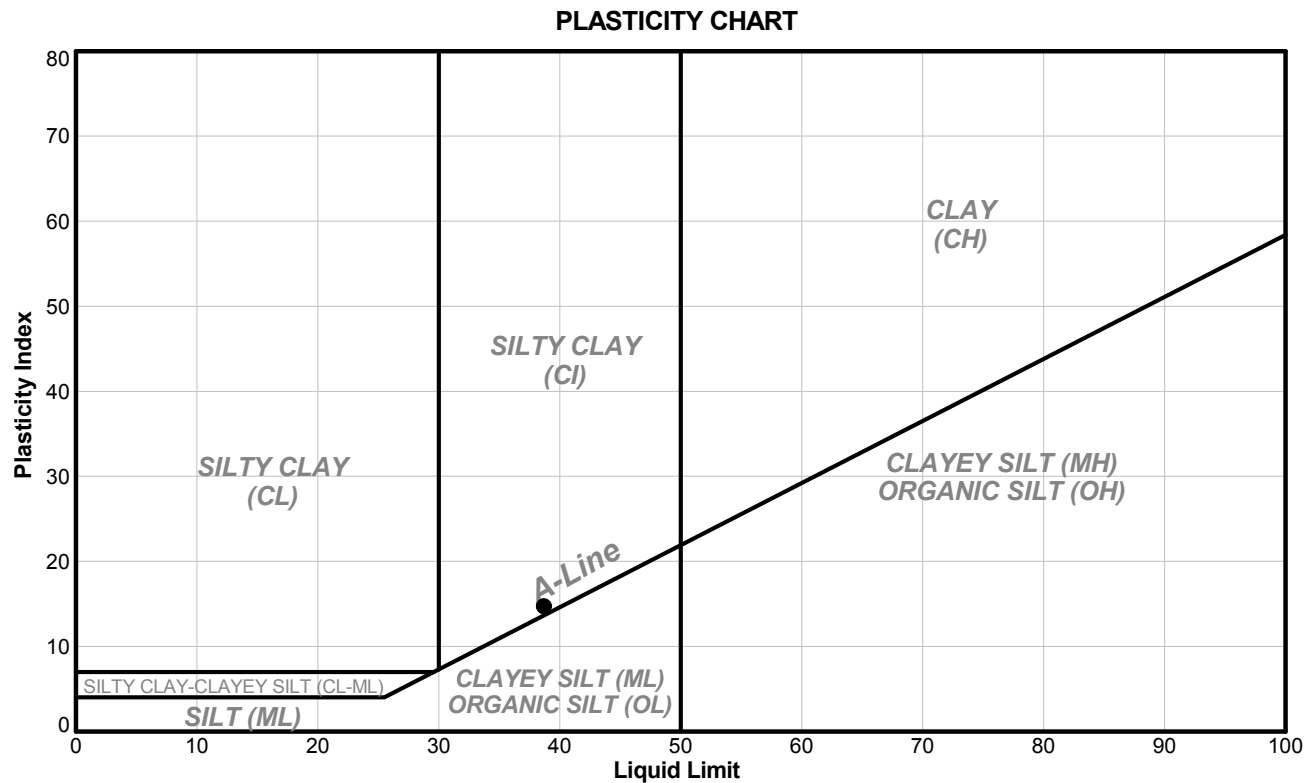
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Atterberg Limits Testing

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 33.02 to 33.63
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-01	21	33.02	33.63	ND	39	24	15.0	32.1	0.5

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM/CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 33.02 to 33.63
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	39
Plastic Limit	24
Plasticity Index	15
Natural Water Content (%)	32.1
Liquidity Index	0.5

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



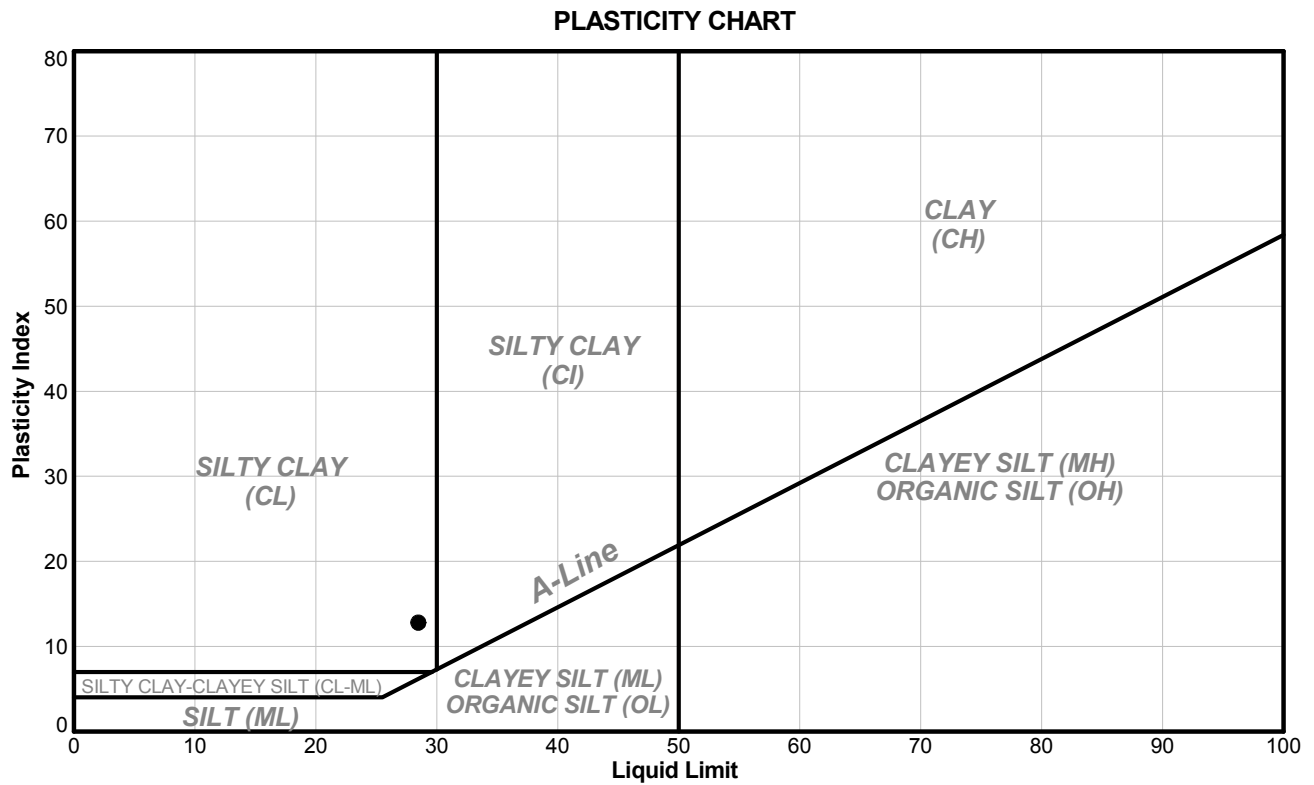
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM/CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 39.55 to 40.16
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-01	25	39.55	40.16	73	28	16	12.0	38.6	1.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	11/19/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 39.55 to 40.16
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	73
Liquid Limit	28
Plastic Limit	16
Plasticity Index	12
Natural Water Content (%)	38.6
Liquidity Index	1.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



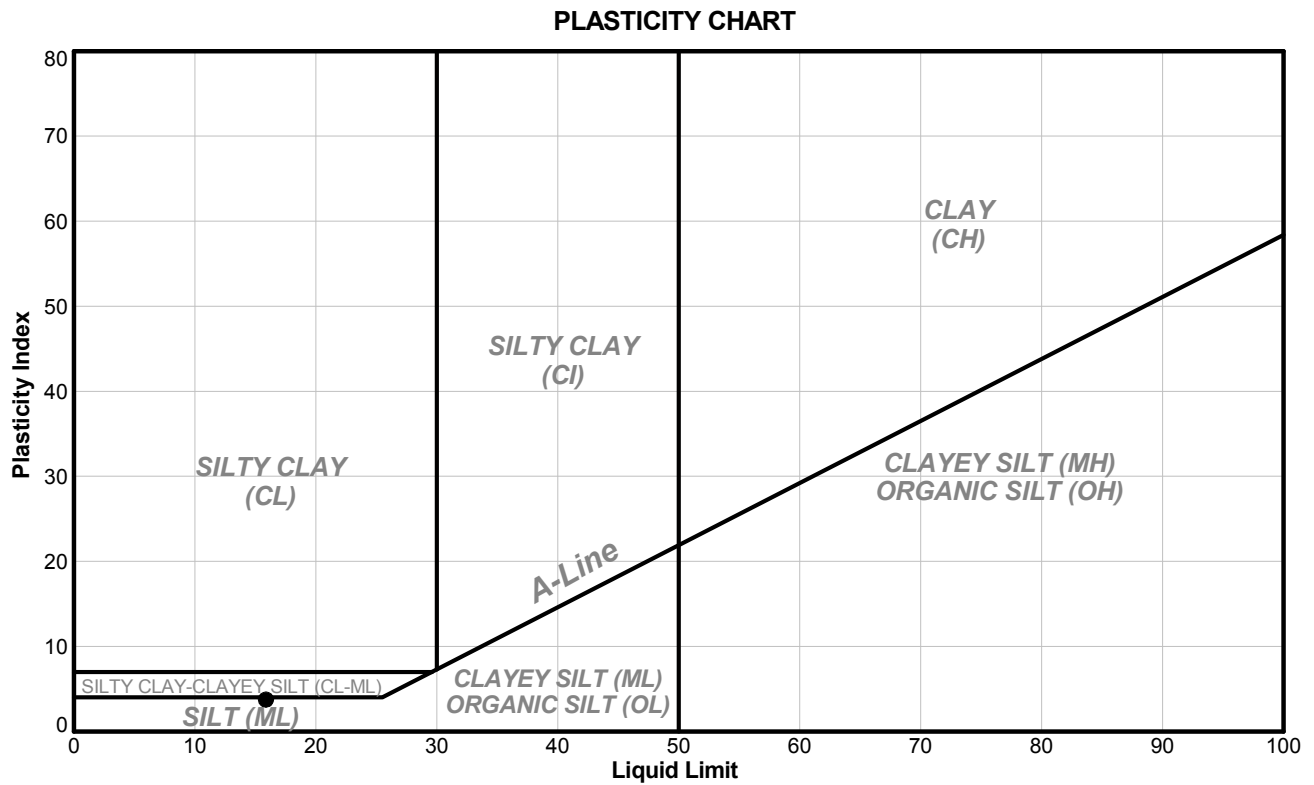
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	11/19/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 26
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 41.61 to 41.78
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-01	26	41.61	41.78	ND	16	12	4.0	23.3	2.8

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	11/19/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 26
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 41.61 to 41.78
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	16
Plastic Limit	12
Plasticity Index	4
Natural Water Content (%)	23.3
Liquidity Index	2.8

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



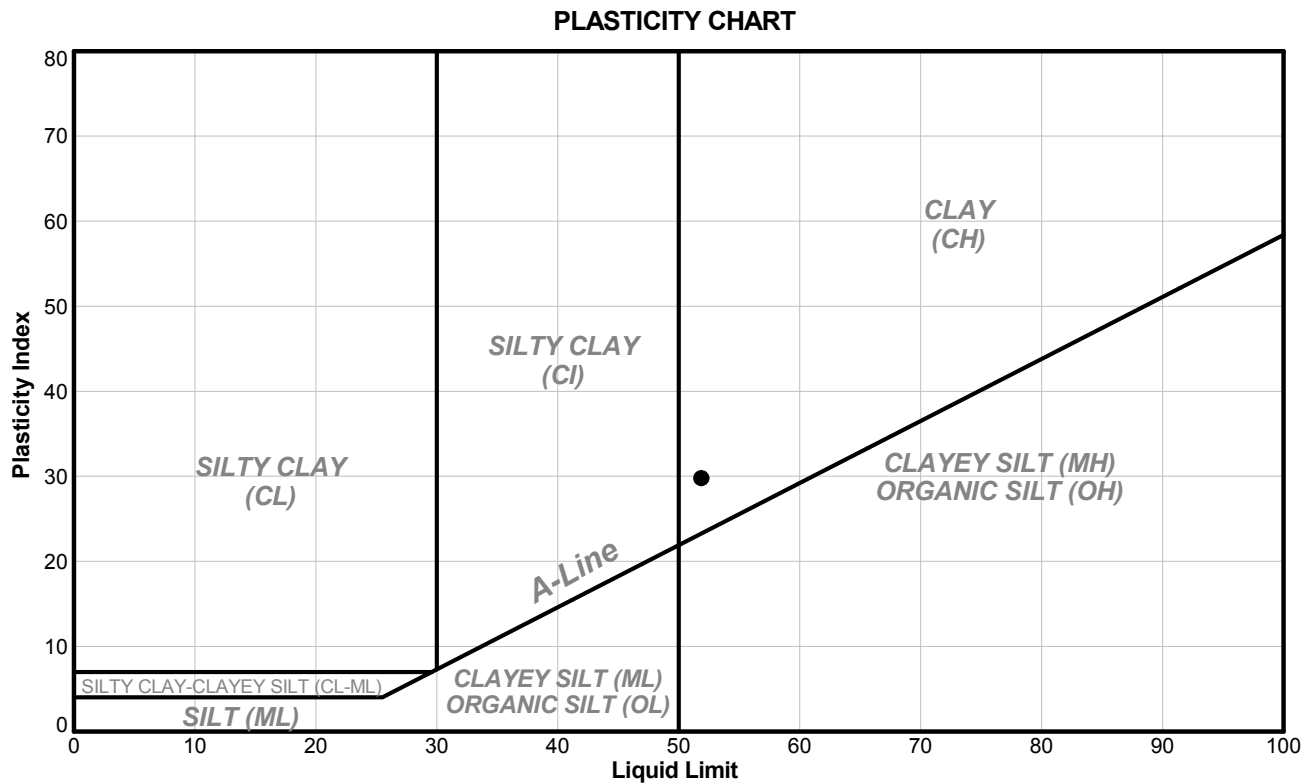
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	11/19/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Service: GINT_GAL_NATIONAL LIMITS Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) jgchang_201917

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: CS03
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 44.20 to 44.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-01	CS03	44.20	44.35	ND	52	22	30.0	20.1	-0.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	11/19/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: CS03
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 44.20 to 44.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	52
Plastic Limit	22
Plasticity Index	30
Natural Water Content (%)	20.1
Liquidity Index	-0.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



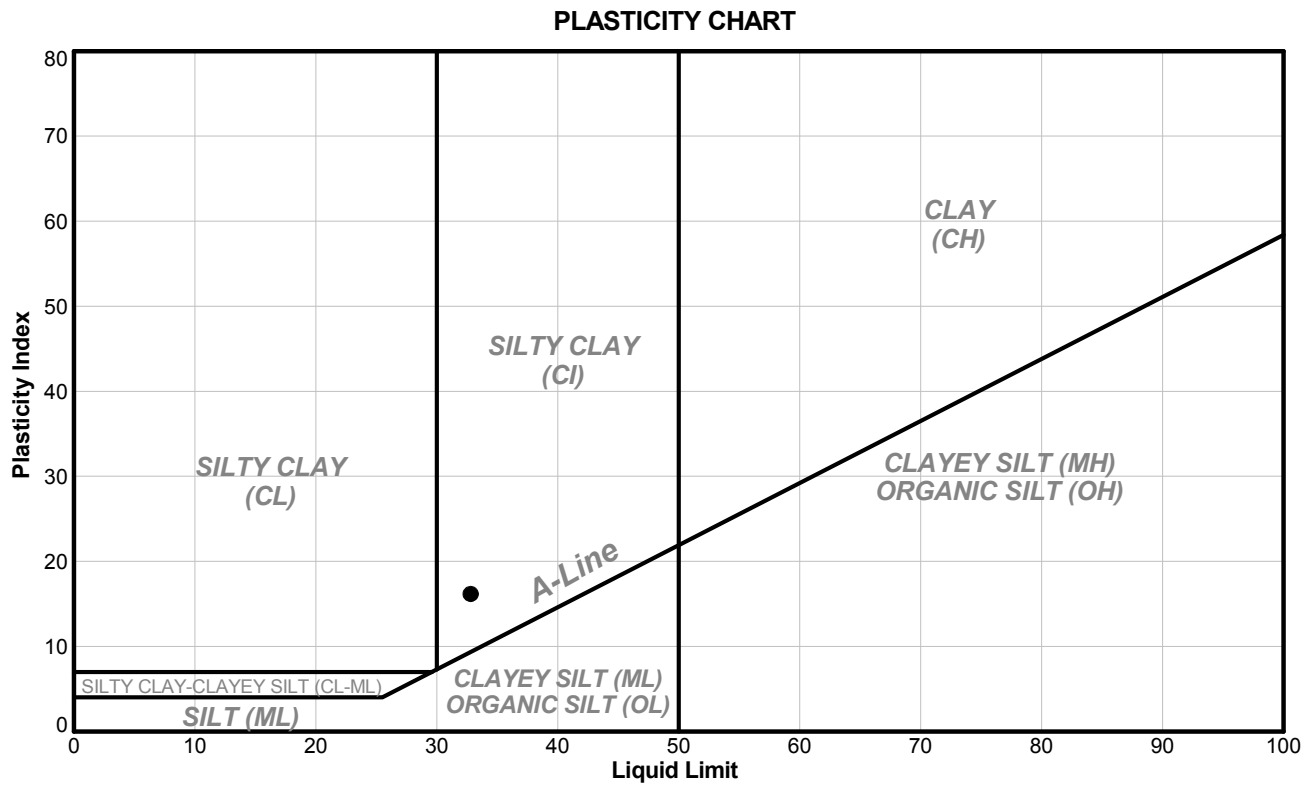
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	11/19/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01B
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 5
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.57 to 30.18
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-01B	5	29.57	30.18	ND	33	17	16.0	29.3	0.8

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

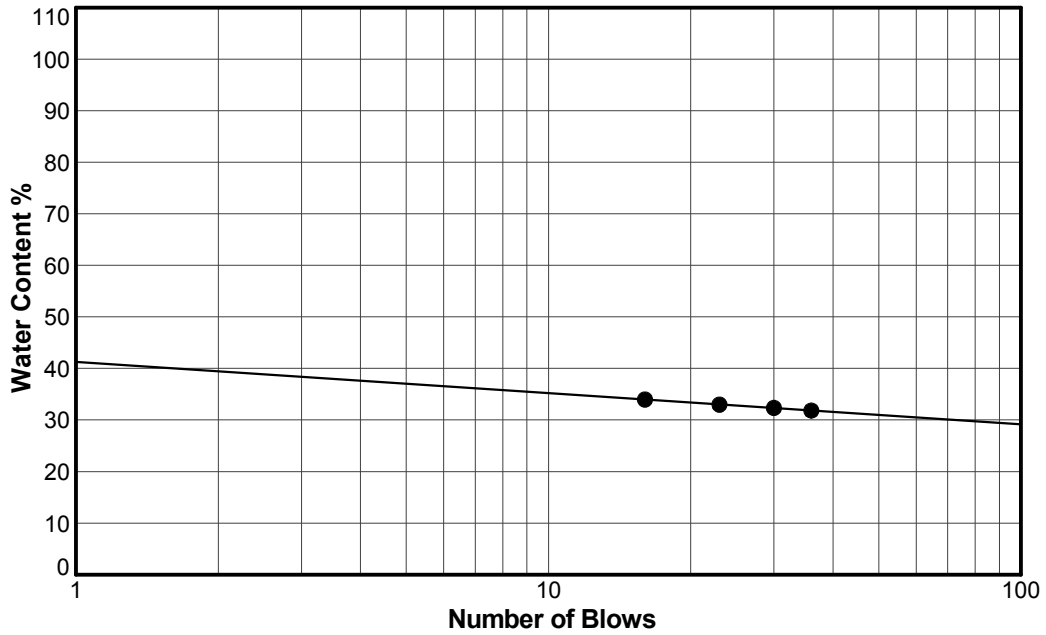
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-01B
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 5
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.57 to 30.18
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	33
Plastic Limit	17
Plasticity Index	16
Natural Water Content (%)	29.3
Liquidity Index	0.8

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



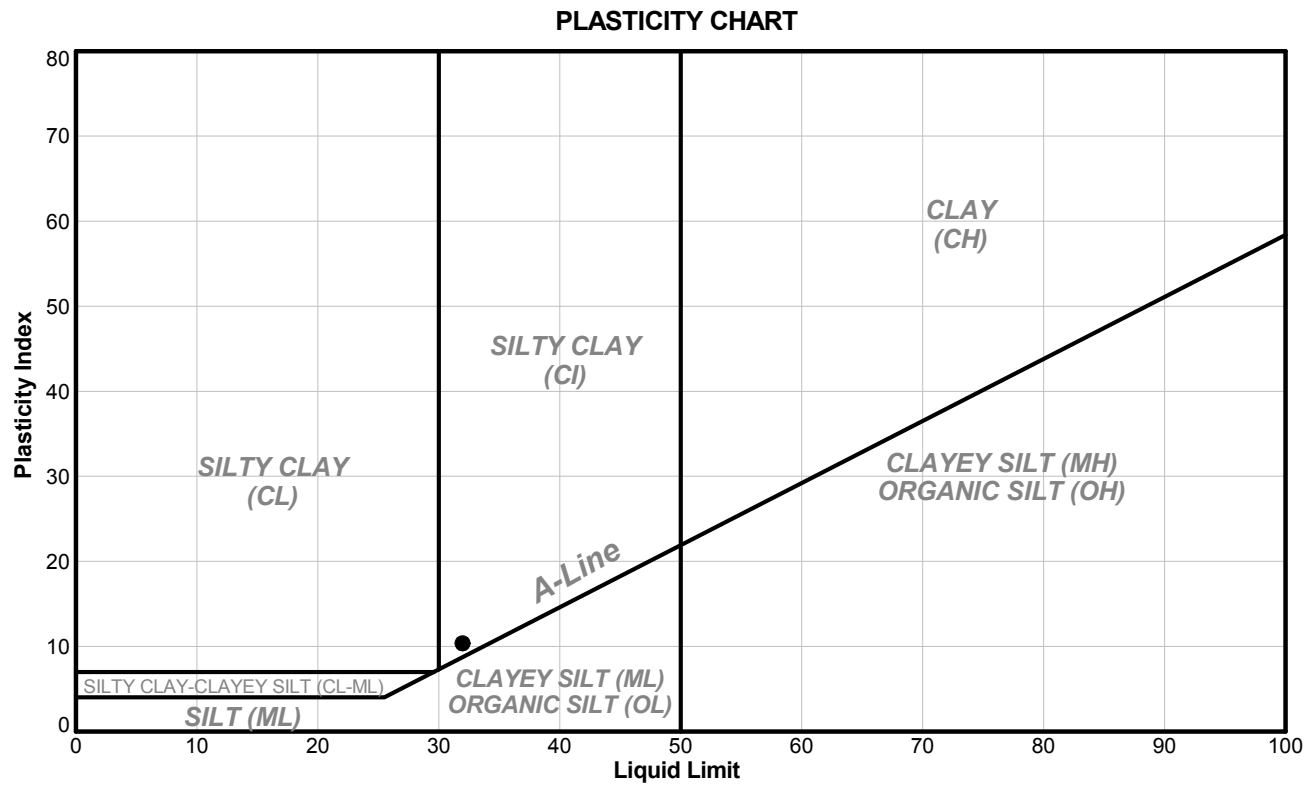
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 20 Specimen: 20b
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.96 to 30.48
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-02	20b	29.96	30.48	ND	32	22	10.0	32.3	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM/CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

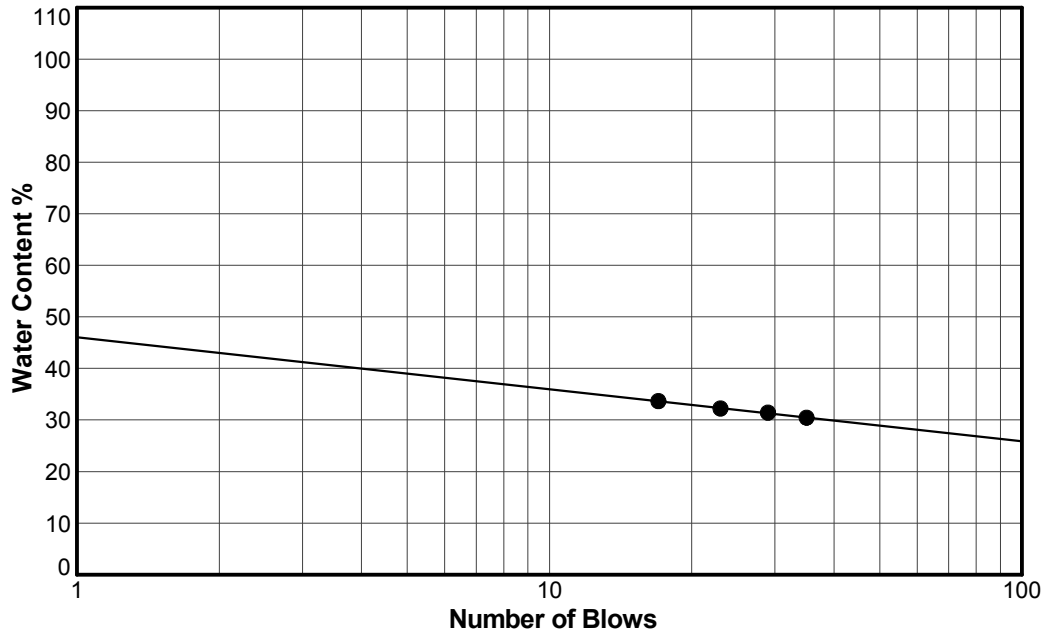
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2010\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 20 Specimen: 20b
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.96 to 30.48
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	32
Plastic Limit	22
Plasticity Index	10
Natural Water Content (%)	32.3
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



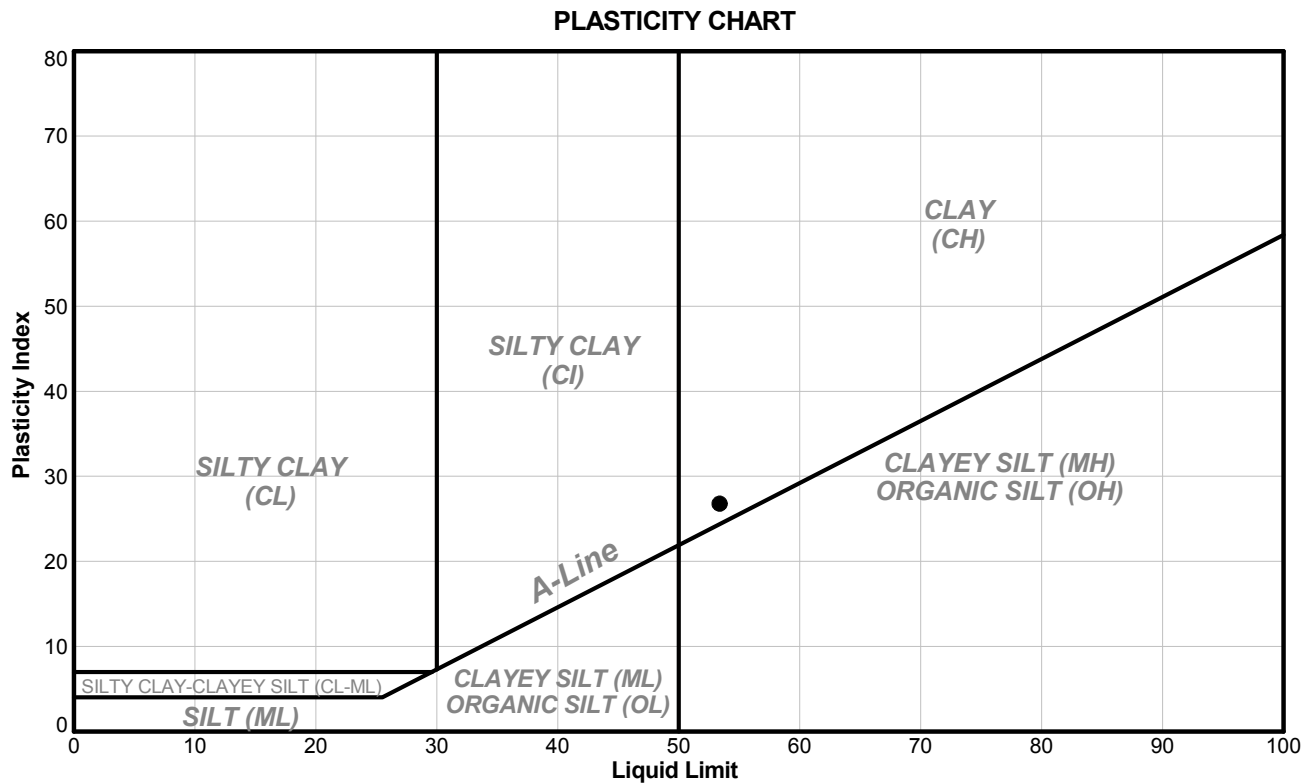
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MM/CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 4
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.74 to 3.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-03	4	2.74	3.35	ND	53	27	26.0	37.9	0.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 4
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.74 to 3.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	53
Plastic Limit	27
Plasticity Index	26
Natural Water Content (%)	37.9
Liquidity Index	0.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



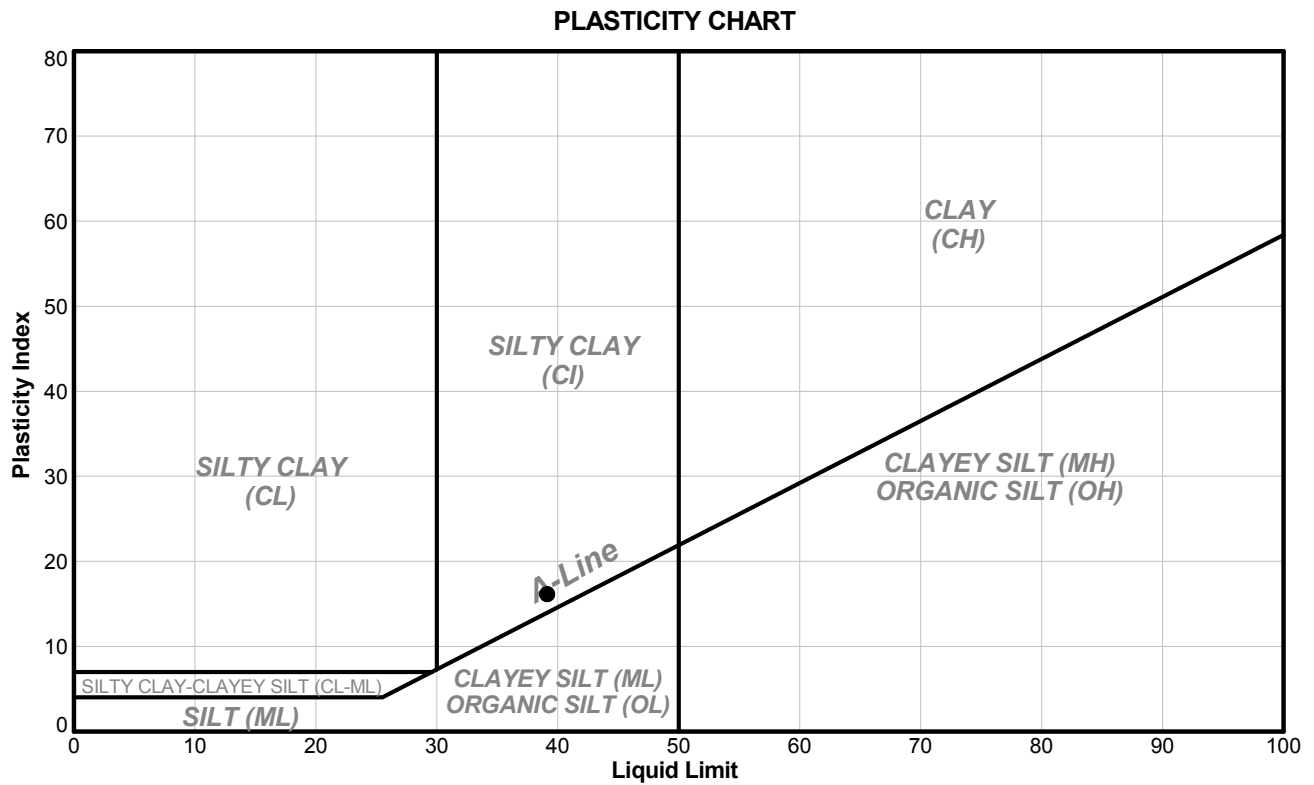
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 5
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 4.27 to 4.88
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-03	5	4.27	4.88	ND	39	23	16.0	38.7	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

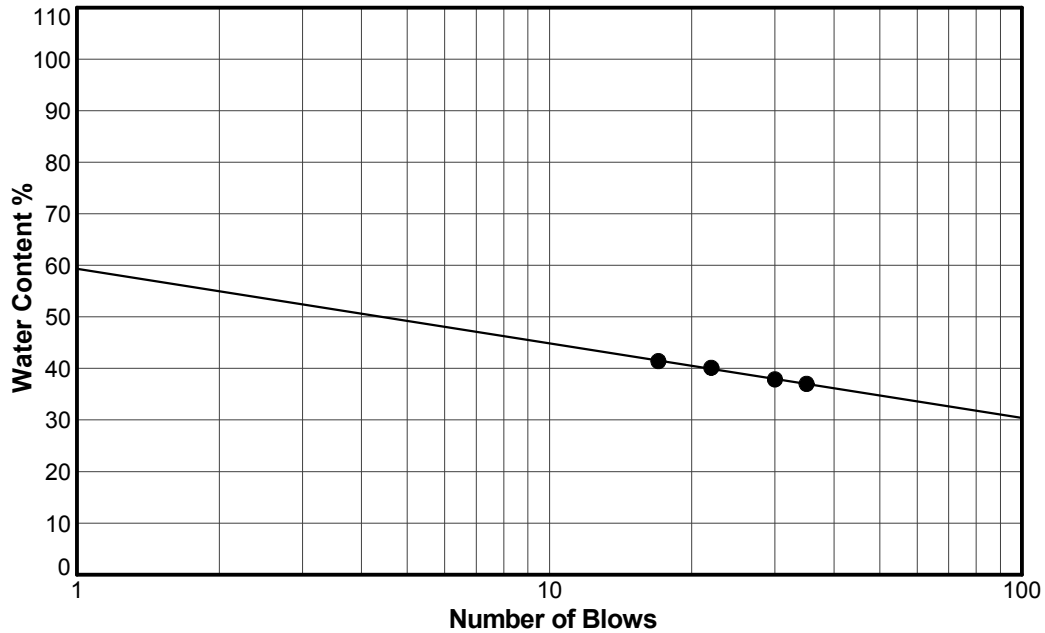
KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 5
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 4.27 to 4.88
Project No.: 1525010 Phase: 2000		Lab Schedule No.:
Other Remarks: N/A		
Test Method: A-Multi Point		Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	39
Plastic Limit	23
Plasticity Index	16
Natural Water Content (%)	38.7
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

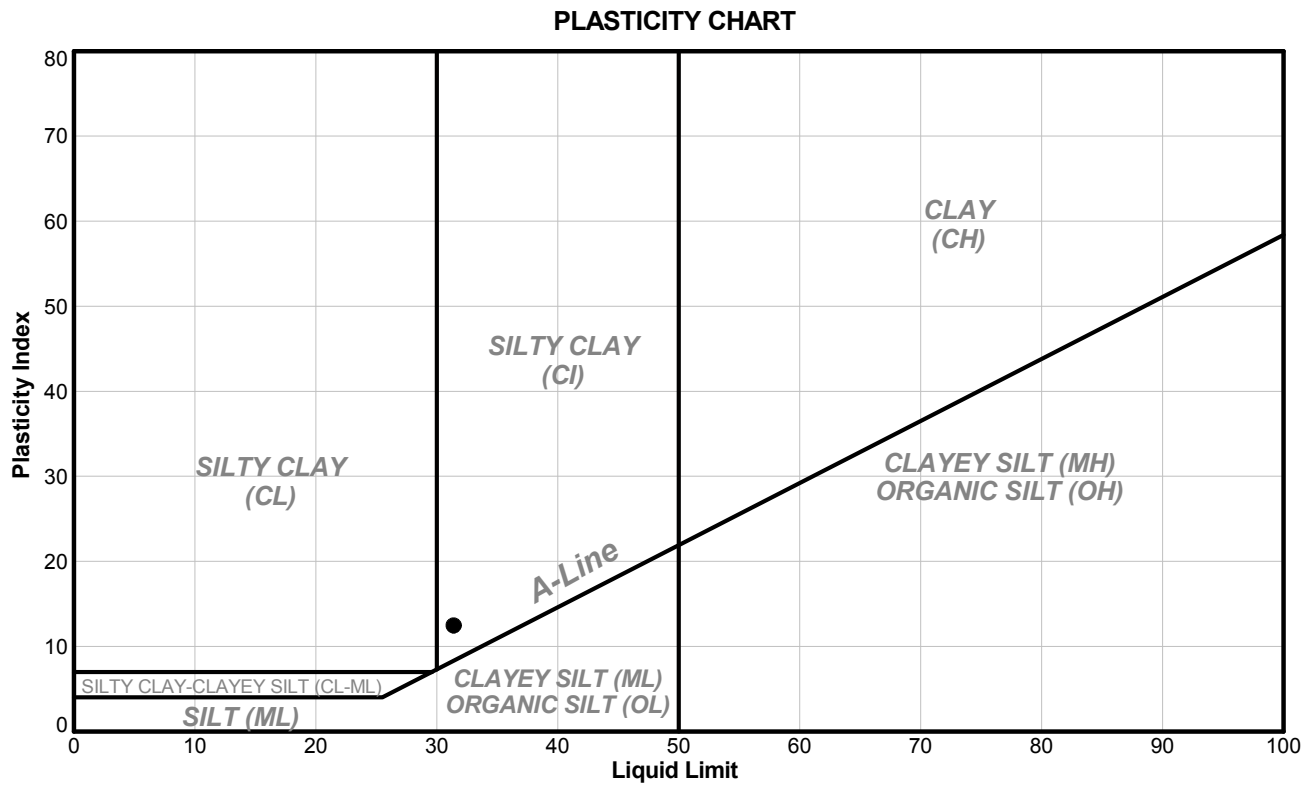
KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 40.84 to 41.45
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-03	29	40.84	41.45	ND	31	19	12.0	31.5	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2019/17

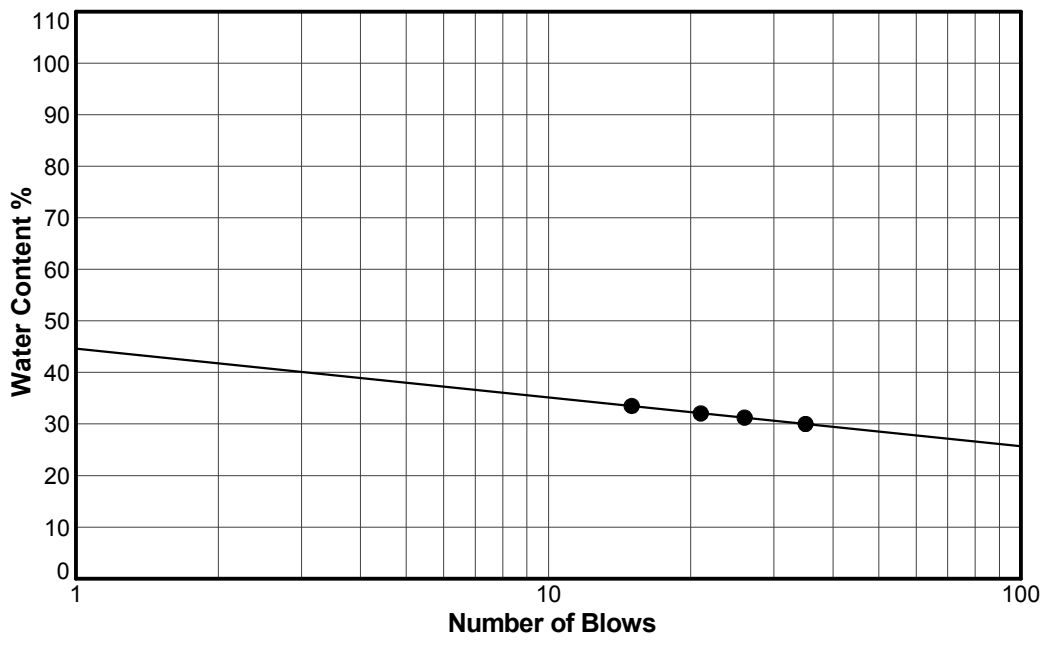
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 40.84 to 41.45
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	31
Plastic Limit	19
Plasticity Index	12
Natural Water Content (%)	31.5
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

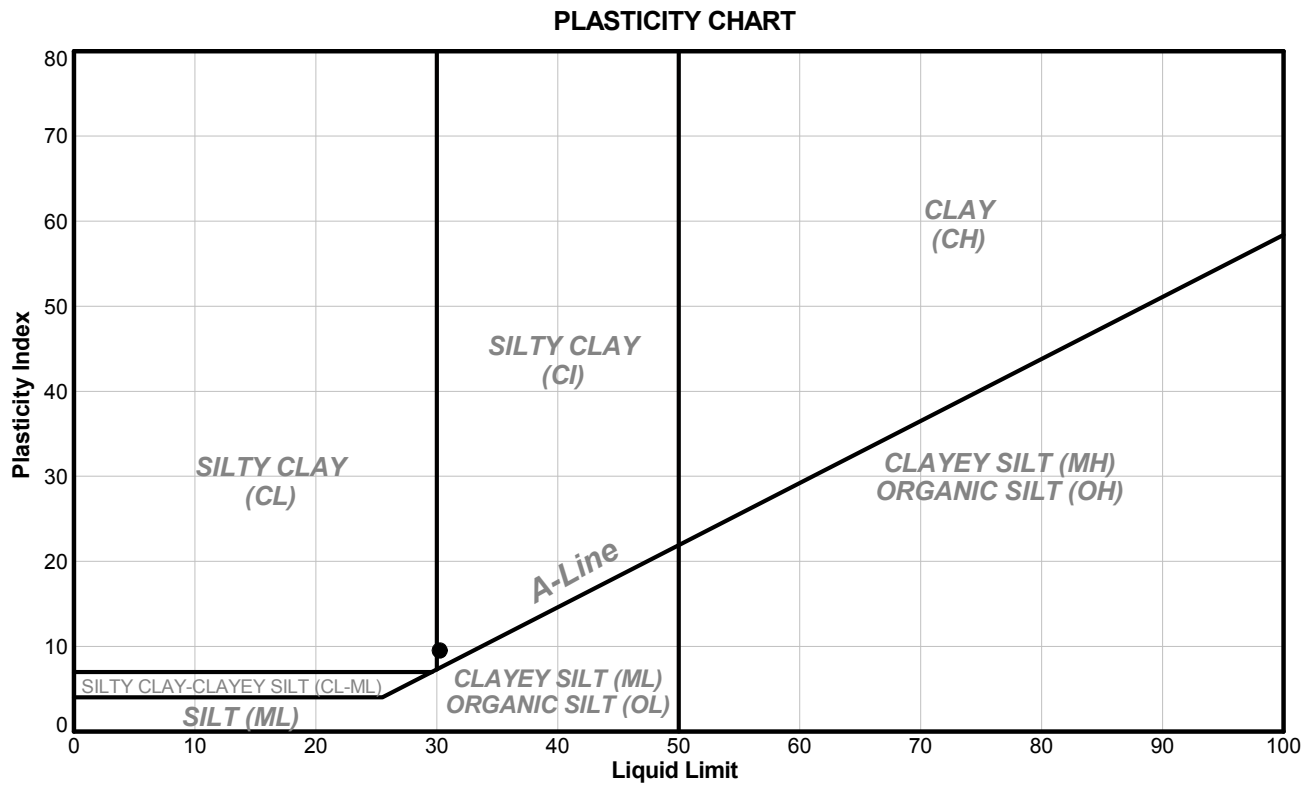
KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH15-03	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 30	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 42.37 to 42.98	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-03	30	42.37	42.98	ND	30	21	9.0	29.2	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	10/31/2015	LH	11/2/2015
Tech	Date	Checked	Date

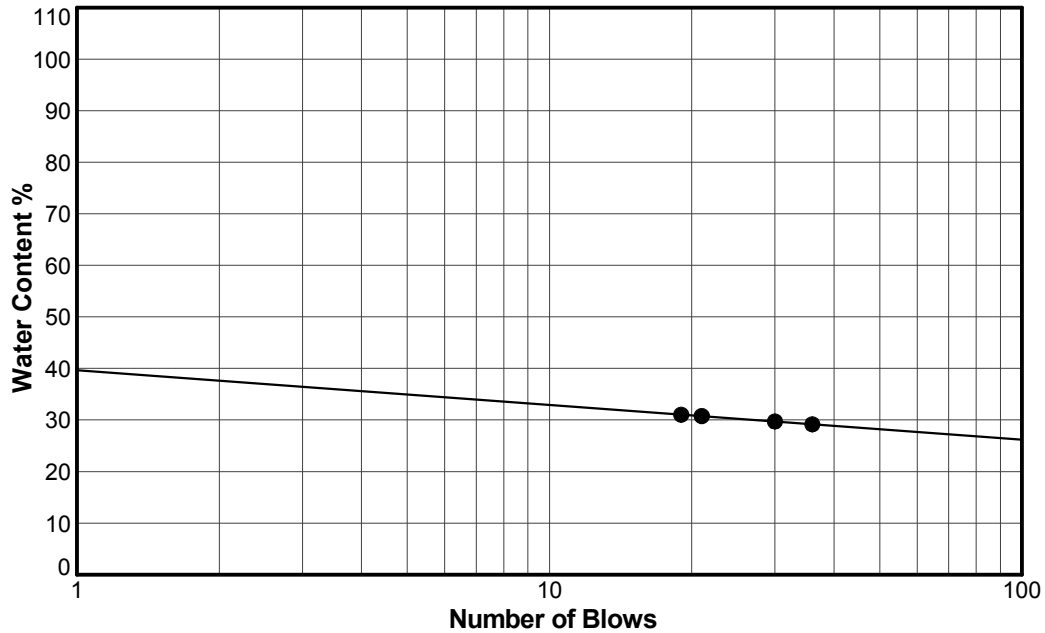
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 42.37 to 42.98
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	30
Plastic Limit	21
Plasticity Index	9
Natural Water Content (%)	29.2
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



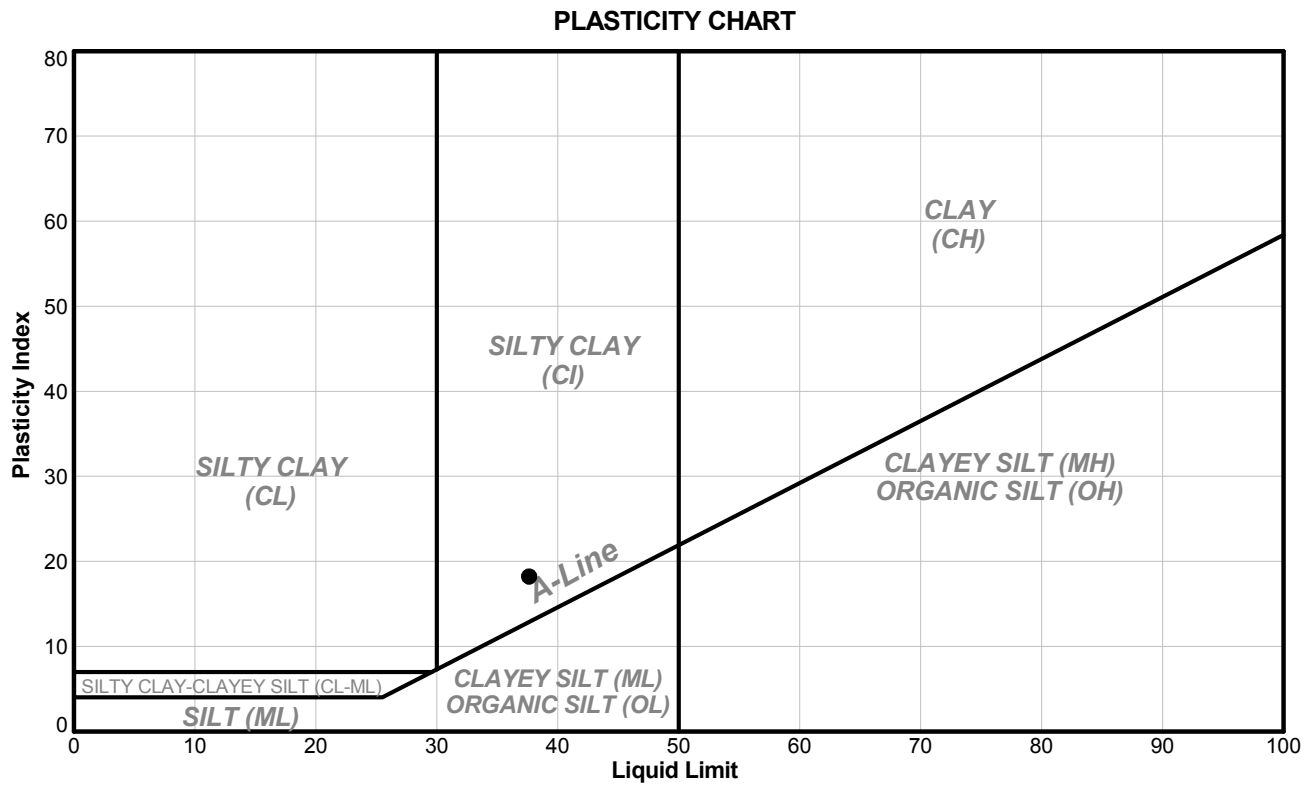
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CS/MM	10/31/2015	LH	11/2/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH15-03	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 31	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 46.33 to 46.94	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-03	31	46.33	46.94	ND	38	19	19.0	37.8	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

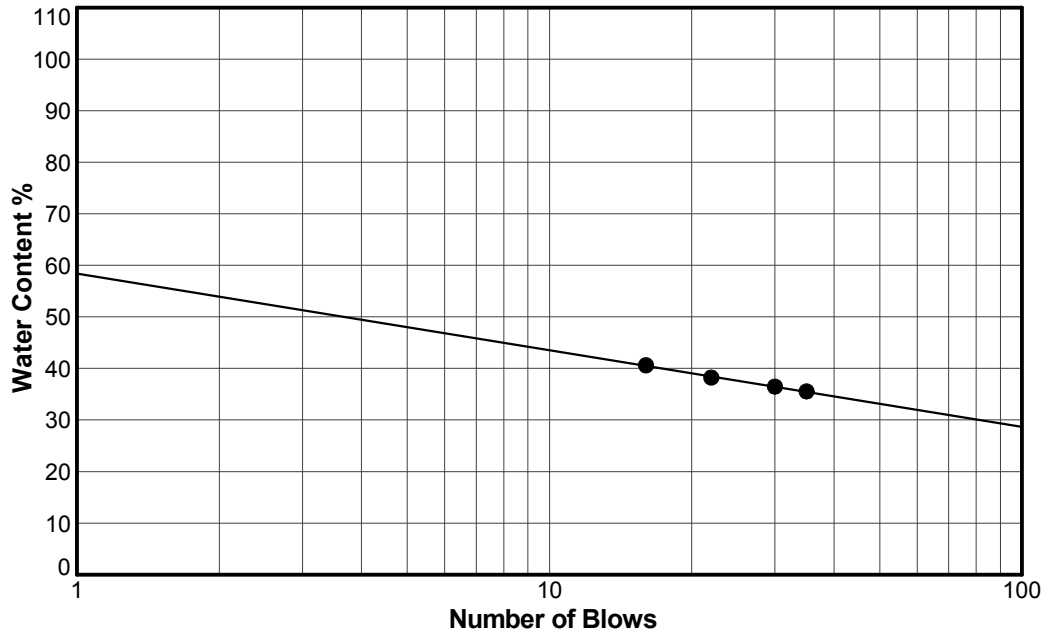
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 46.33 to 46.94
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	38
Plastic Limit	19
Plasticity Index	19
Natural Water Content (%)	37.8
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

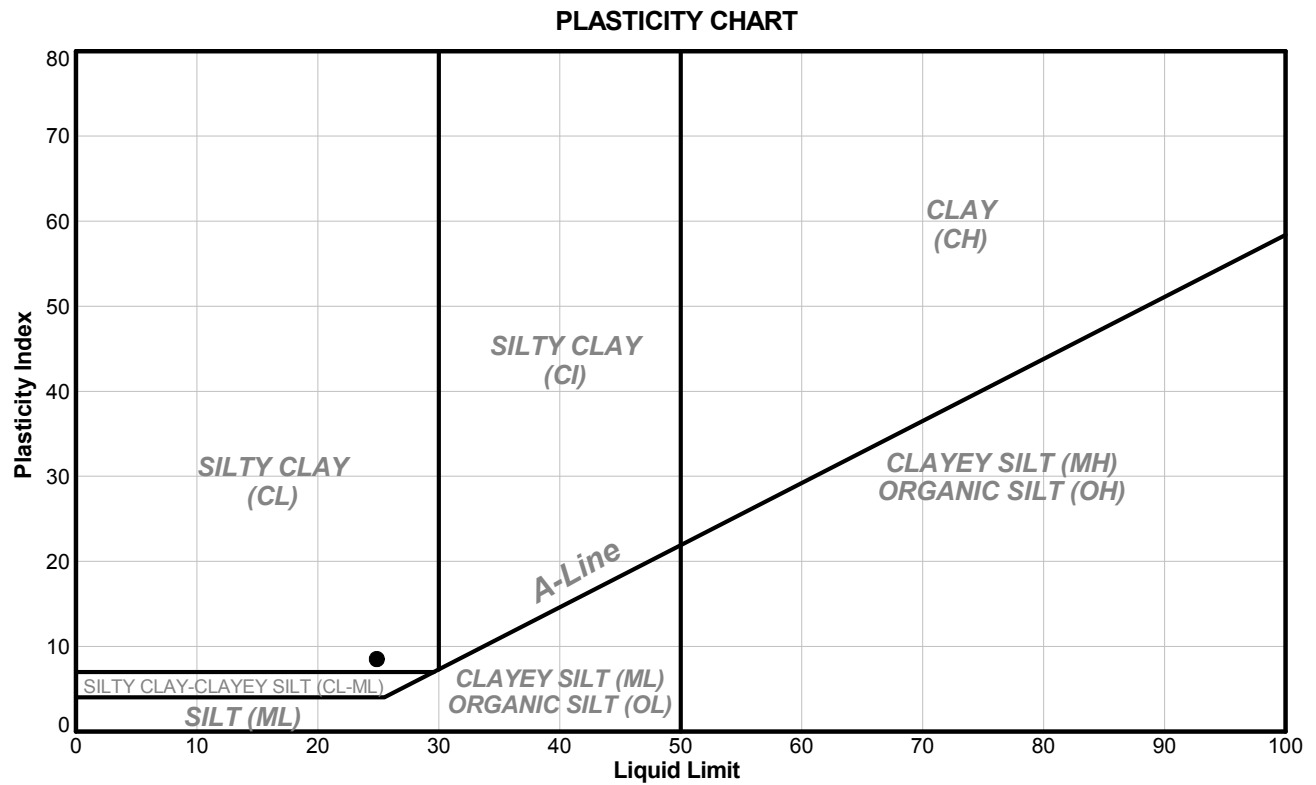
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 48.46 to 49.07
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-03	33	48.46	49.07	83	25	16	9.0	29.5	1.5

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

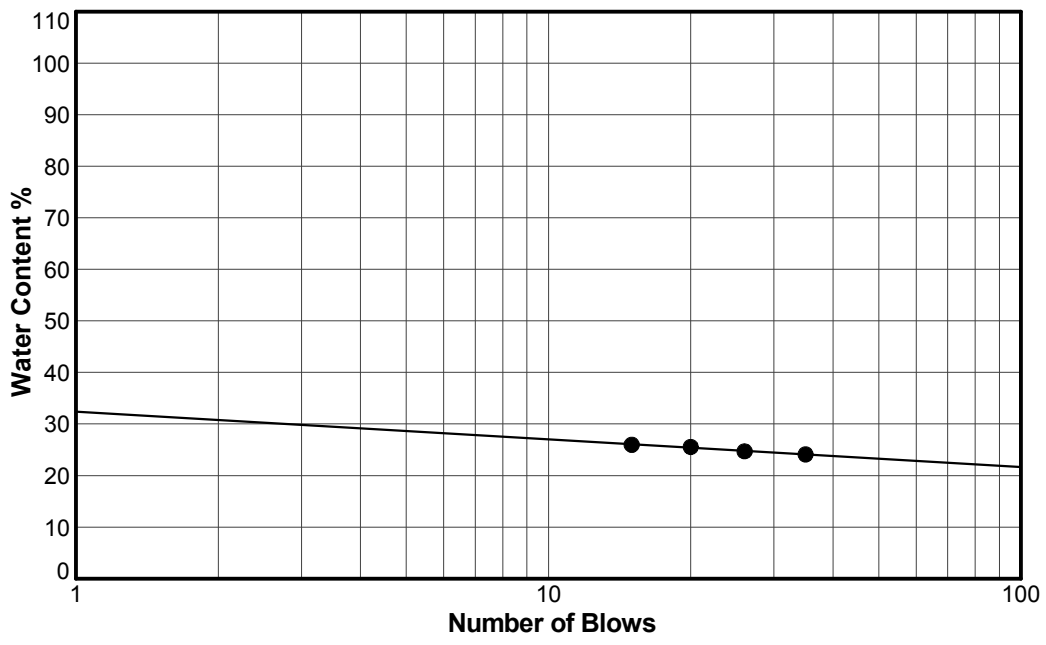
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 48.46 to 49.07
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	83
Liquid Limit	25
Plastic Limit	16
Plasticity Index	9
Natural Water Content (%)	29.5
Liquidity Index	1.5

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

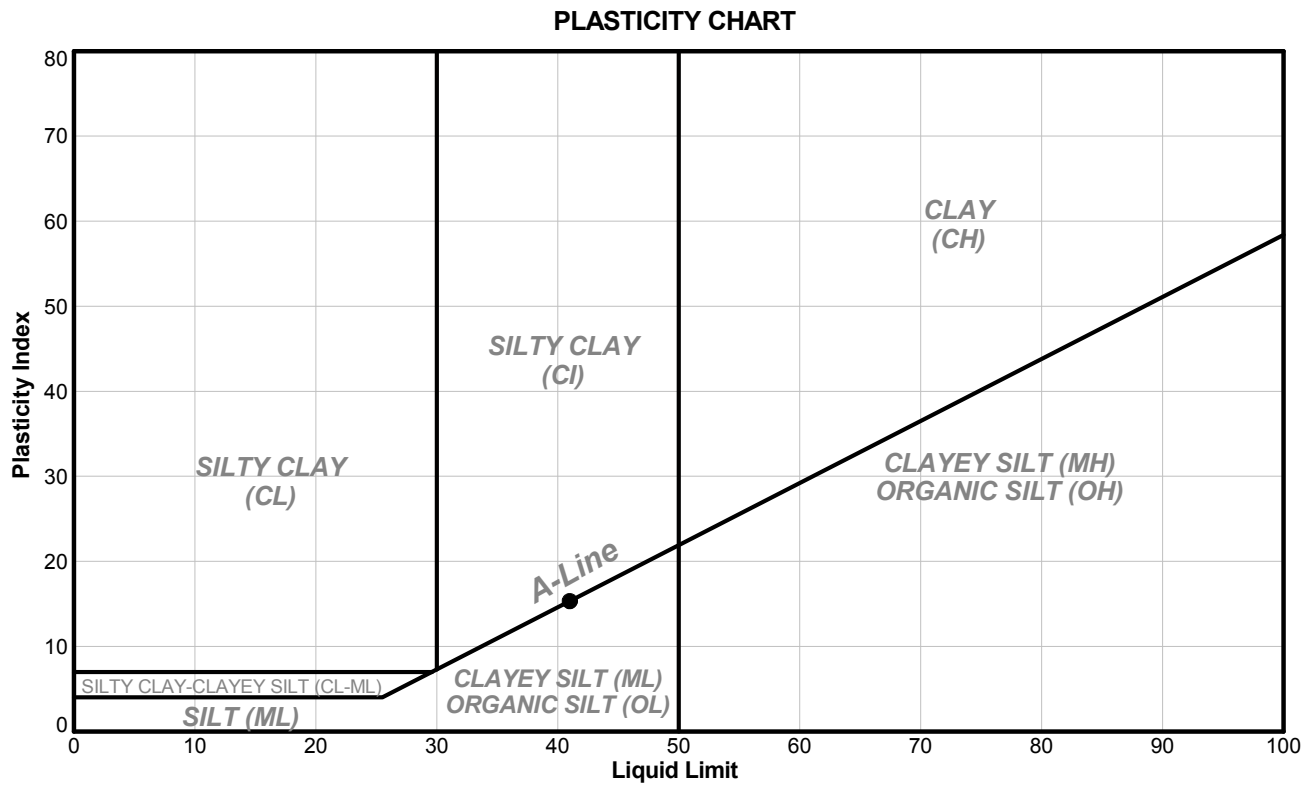
KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-04	
Project: Annacis Outfall	Sample No.: 3	
Location: Annacis Island	Depth Interval (m): 3.35 to 3.96	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-04	3	3.35	3.96	ND	41	26	15.0	43.4	1.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	8/14/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGL) MILLER 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-04	
Project: Annacis Outfall	Sample No.: 3	
Location: Annacis Island	Depth Interval (m): 3.35 to 3.96	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	41
Plastic Limit	26
Plasticity Index	15
Natural Water Content (%)	43.4
Liquidity Index	1.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



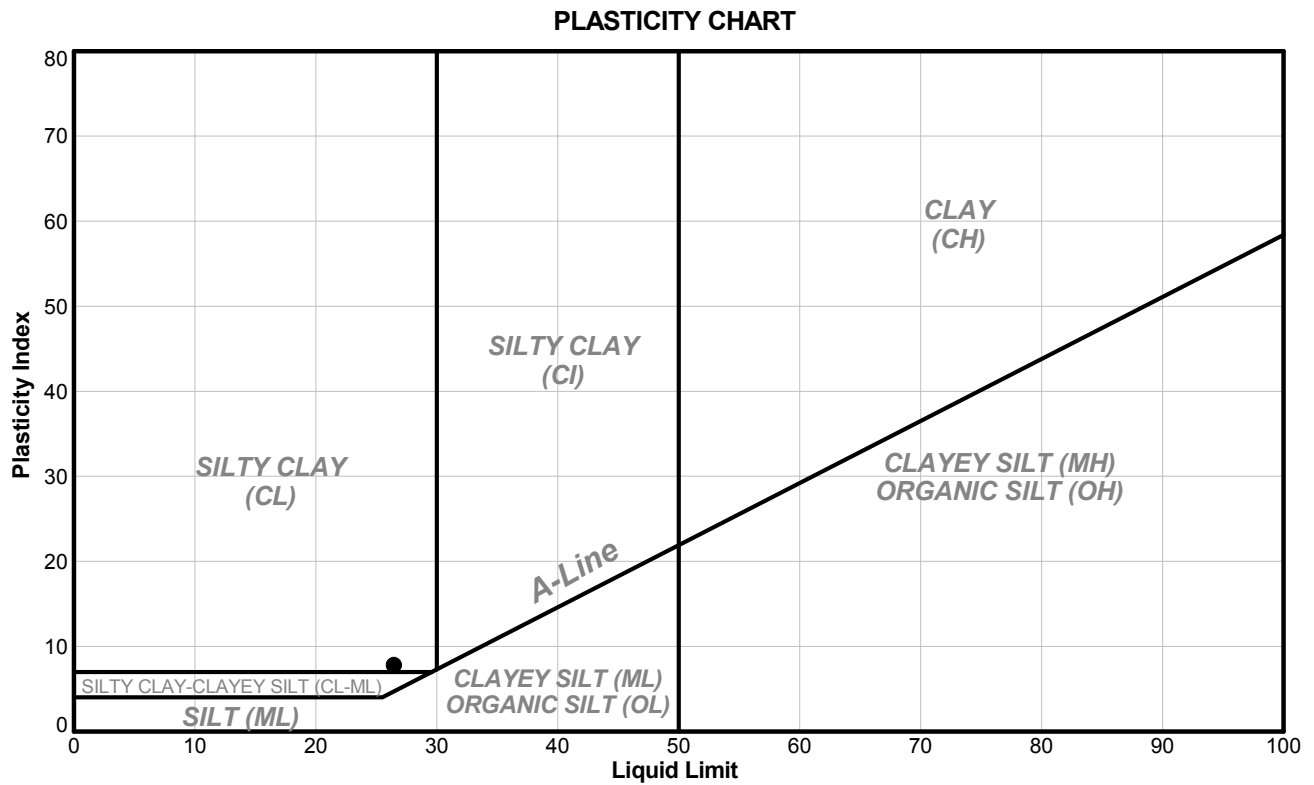
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	8/14/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch		Borehole ID: BH15-04
Project: Annacis Outfall		Sample No.: 27
Location: Annacis Island		Depth Interval (m): 37.49 to 38.10
Project No.: 1532895 Phase: 1000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-04	27	37.49	38.10	ND	26	19	7.0	31.6	1.8

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	8/14/2015	LP	8/19/2015
Tech	Date	Checked	Date

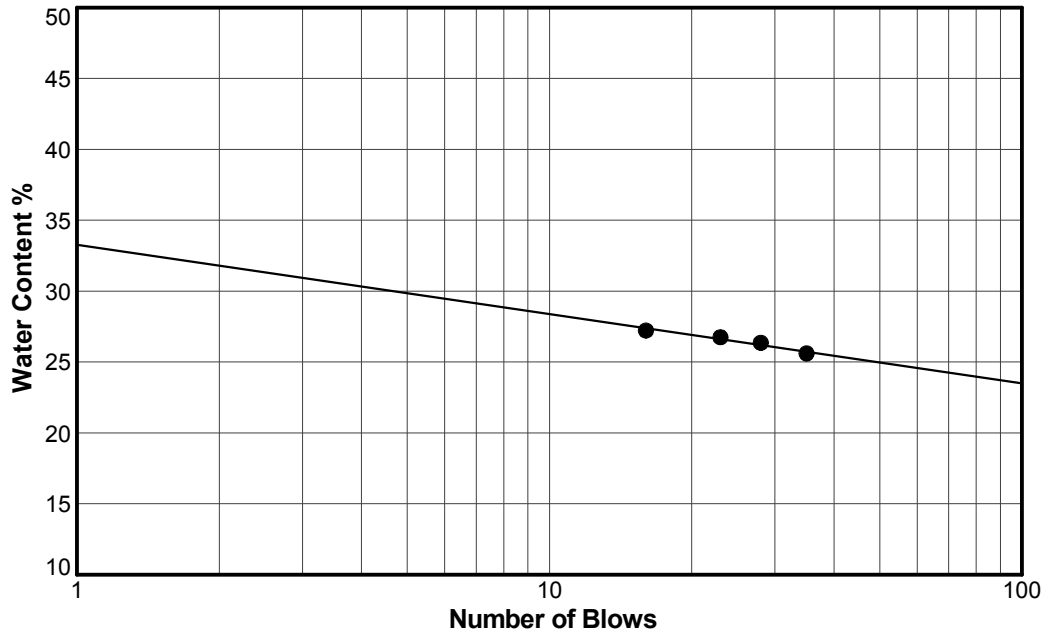
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-04	
Project: Annacis Outfall	Sample No.: 27	
Location: Annacis Island	Depth Interval (m): 37.49 to 38.10	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	19
Plasticity Index	7
Natural Water Content (%)	31.6
Liquidity Index	1.8

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



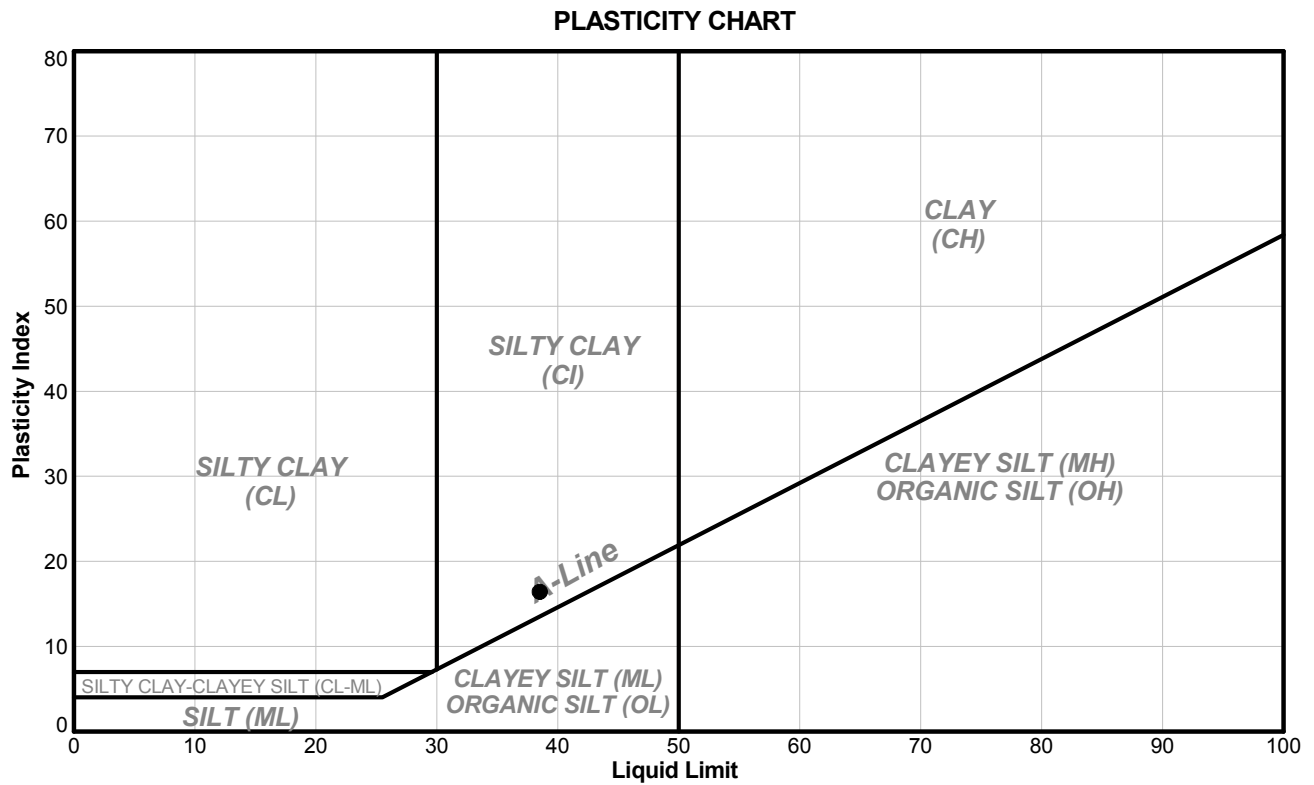
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	8/14/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-04	
Project: Annacis Outfall	Sample No.: 31	
Location: Annacis Island	Depth Interval (m): 43.59 to 44.20	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-04	31	43.59	44.20	100	39	22	17.0	34.3	0.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OARZ	9/1/2015	LH	9/9/2015
Tech	Date	Checked	Date

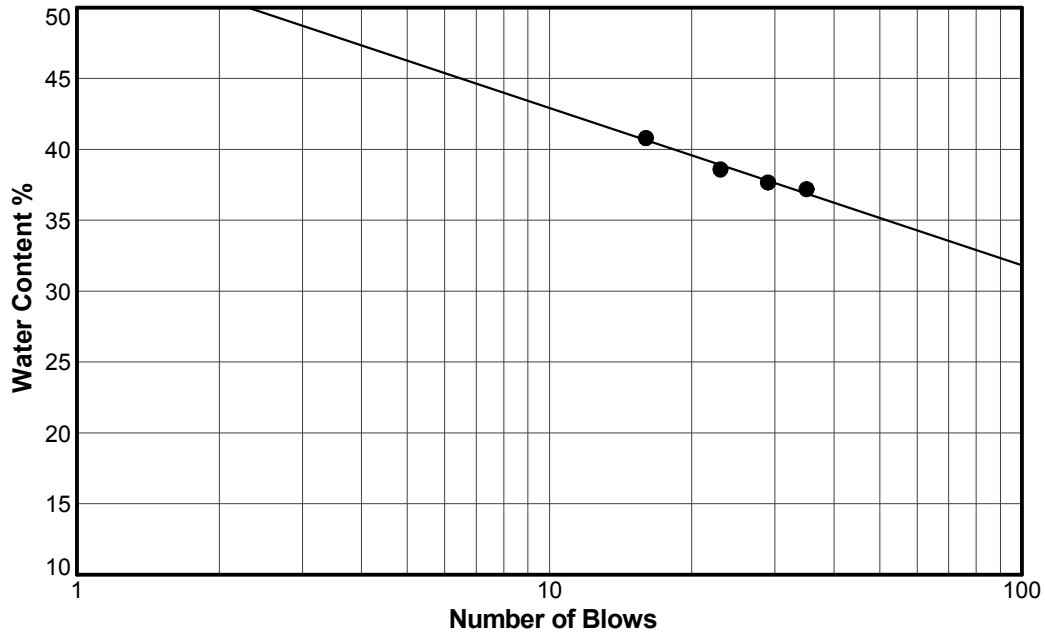
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGL) MILLER 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-04	
Project: Annacis Outfall	Sample No.: 31	
Location: Annacis Island	Depth Interval (m): 43.59 to 44.20	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	39
Plastic Limit	22
Plasticity Index	17
Natural Water Content (%)	34.3
Liquidity Index	0.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

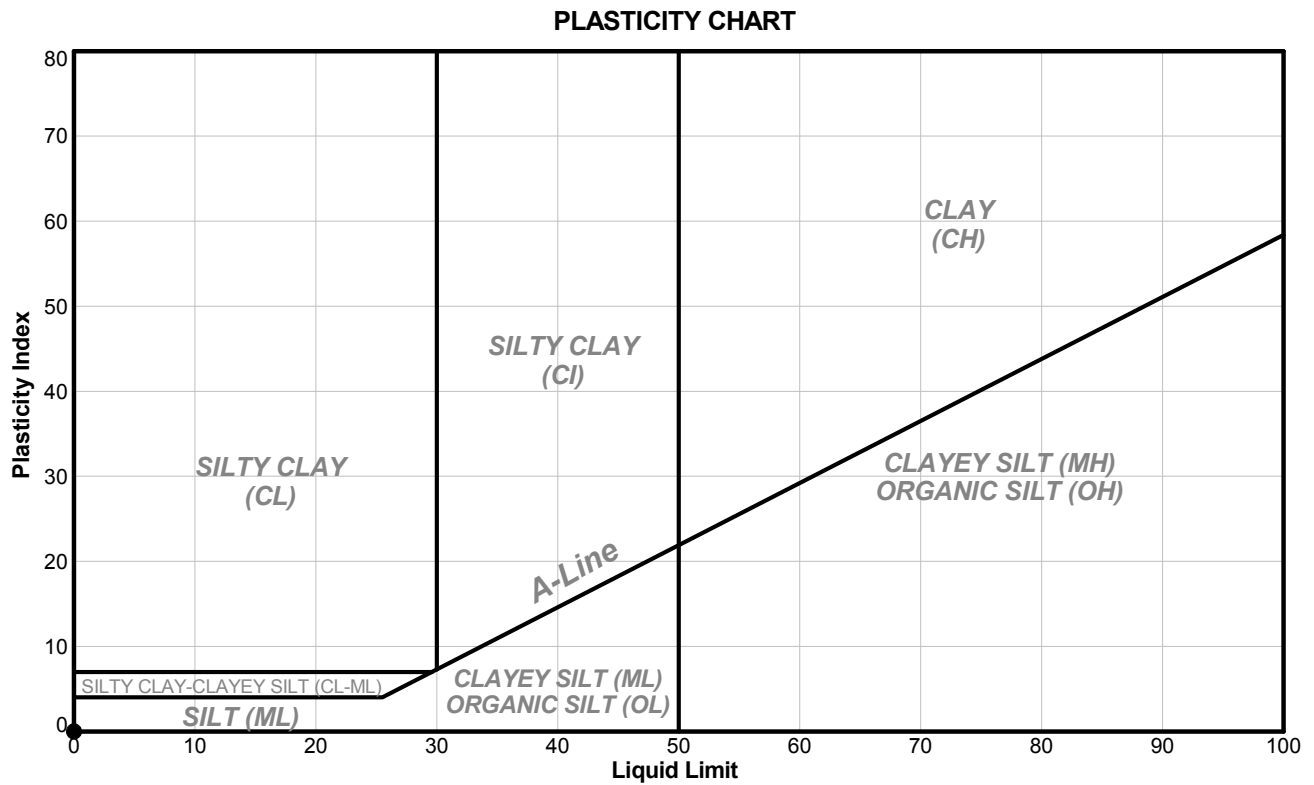
OARZ	9/1/2015	LH	9/9/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: OutputForm: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-05	
Project: Annacis Outfall	Sample No.: 3	
Location: Annacis Island	Depth Interval (m): 3.96 to 4.57	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-05	3	3.96	4.57	ND	NP	NP	NP	35.5	NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS	8/17/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Miller: 9/23/15

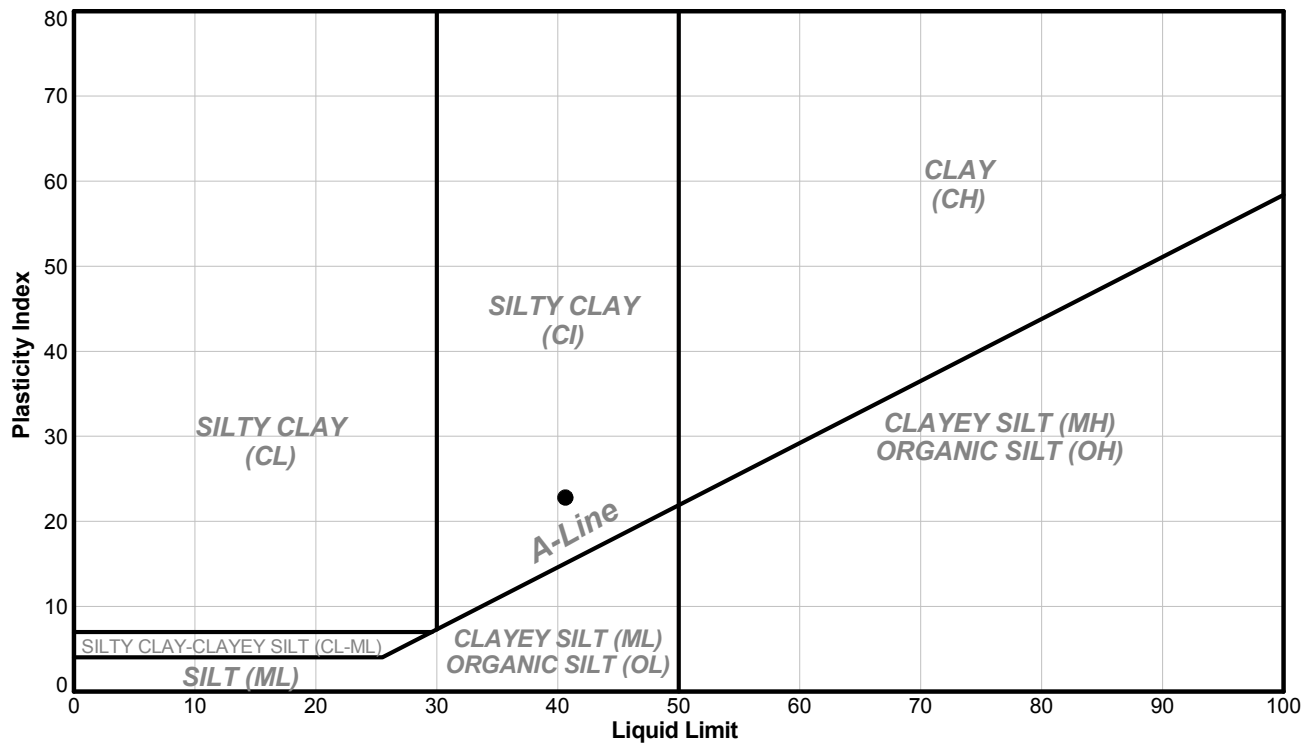
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-05	
Project: Annacis Outfall	Sample No.: 34	
Location: Annacis Island	Depth Interval (m): 50.90 to 51.51	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Wet

PLASTICITY CHART



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-05	34	50.90	51.51	ND	41	18	23.0	32.1	0.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	8/25/2015	LH	9/9/2015
Tech	Date	Checked	Date

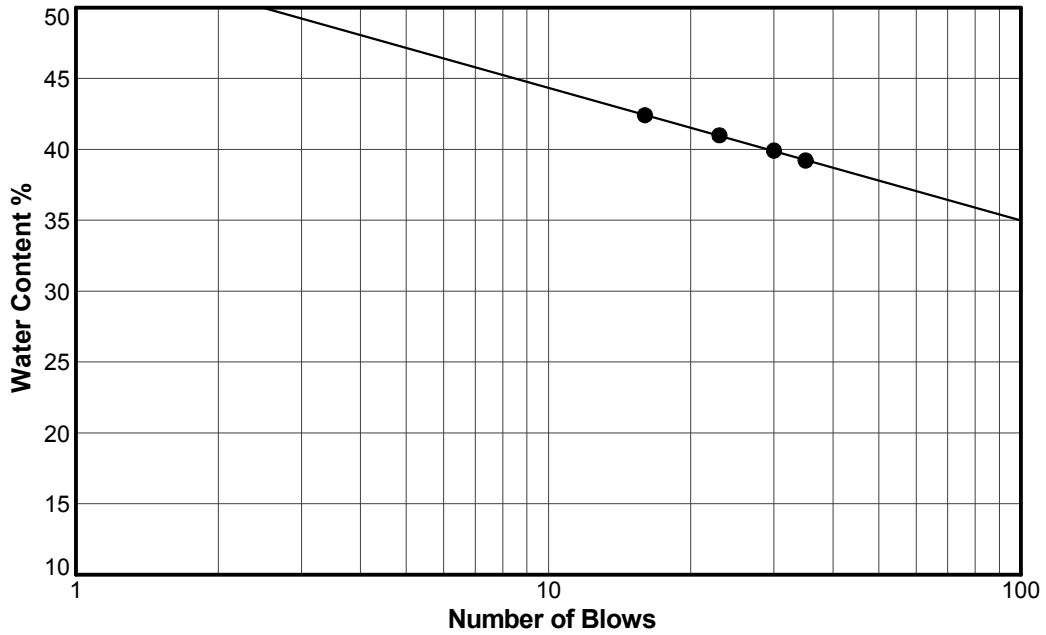
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-05	
Project: Annacis Outfall	Sample No.: 34	
Location: Annacis Island	Depth Interval (m): 50.90 to 51.51	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	41
Plastic Limit	18
Plasticity Index	23
Natural Water Content (%)	32.1
Liquidity Index	0.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

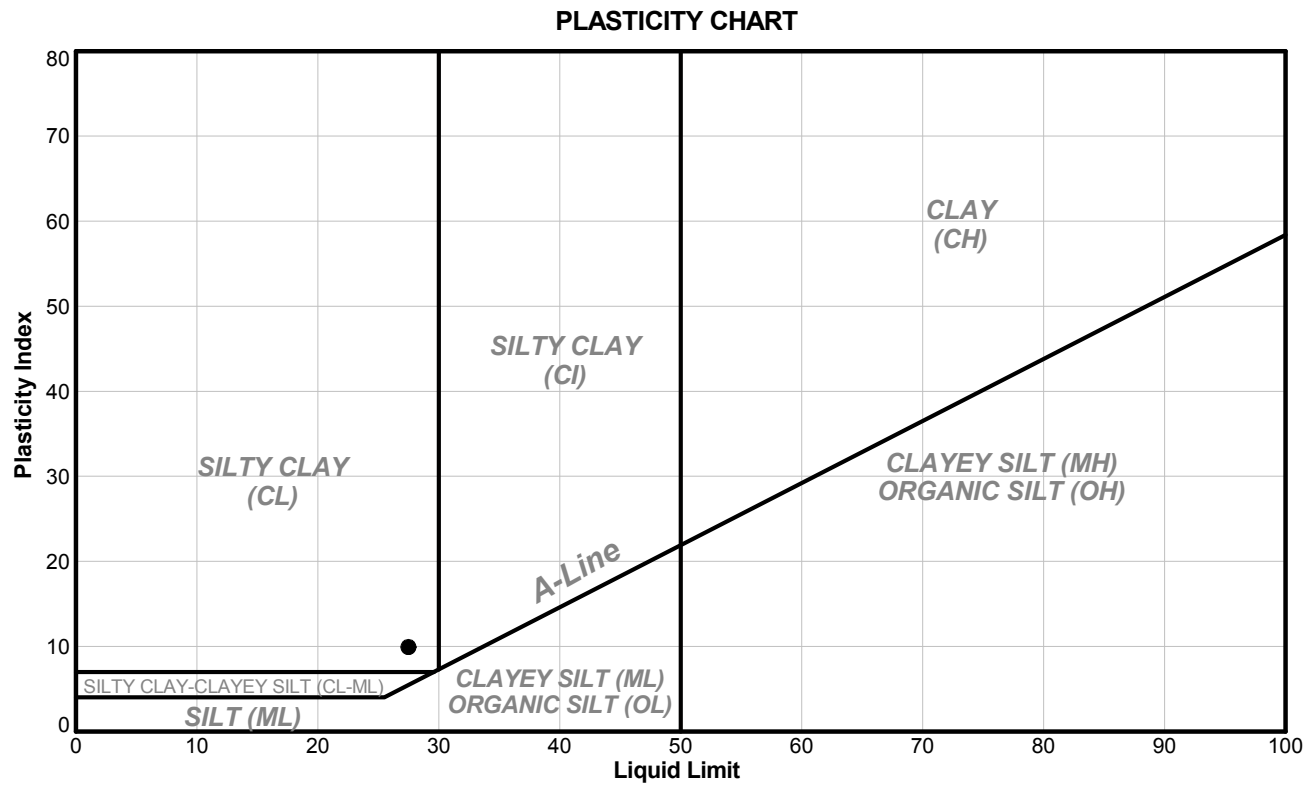
OA/DC	8/25/2015	LH	9/9/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-05	
Project: Annacis Outfall	Sample No.: 35	
Location: Annacis Island	Depth Interval (m): 52.73 to 53.34	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-05	35	52.73	53.34	100	27	18	9.0	29.9	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	8/17/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) \M\Miller_9/23/15

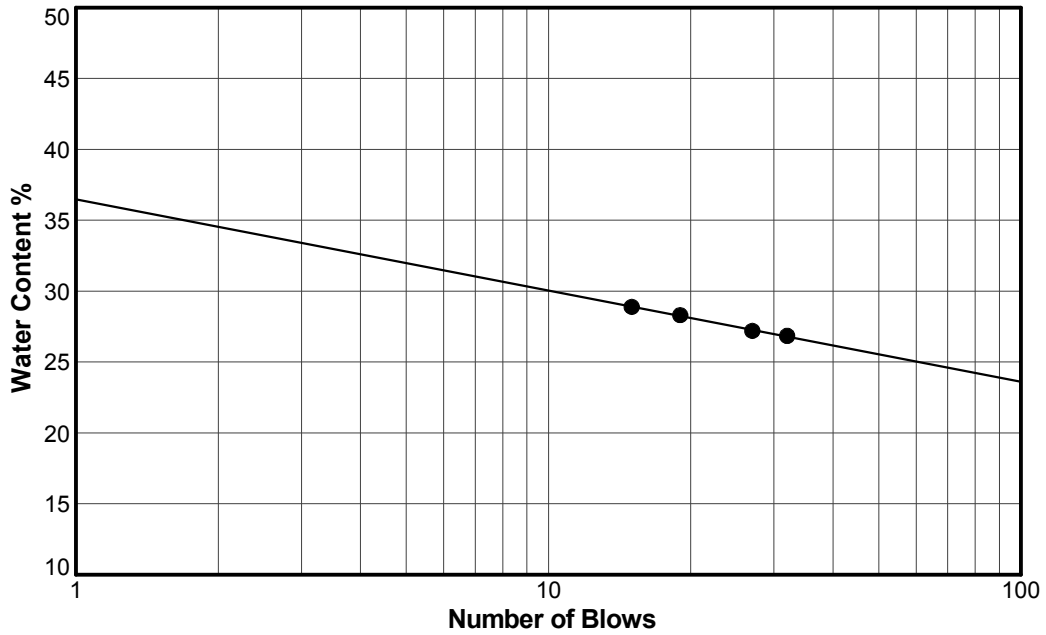
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-05	
Project: Annacis Outfall	Sample No.: 35	
Location: Annacis Island	Depth Interval (m): 52.73 to 53.34	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	27
Plastic Limit	18
Plasticity Index	9
Natural Water Content (%)	29.9
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



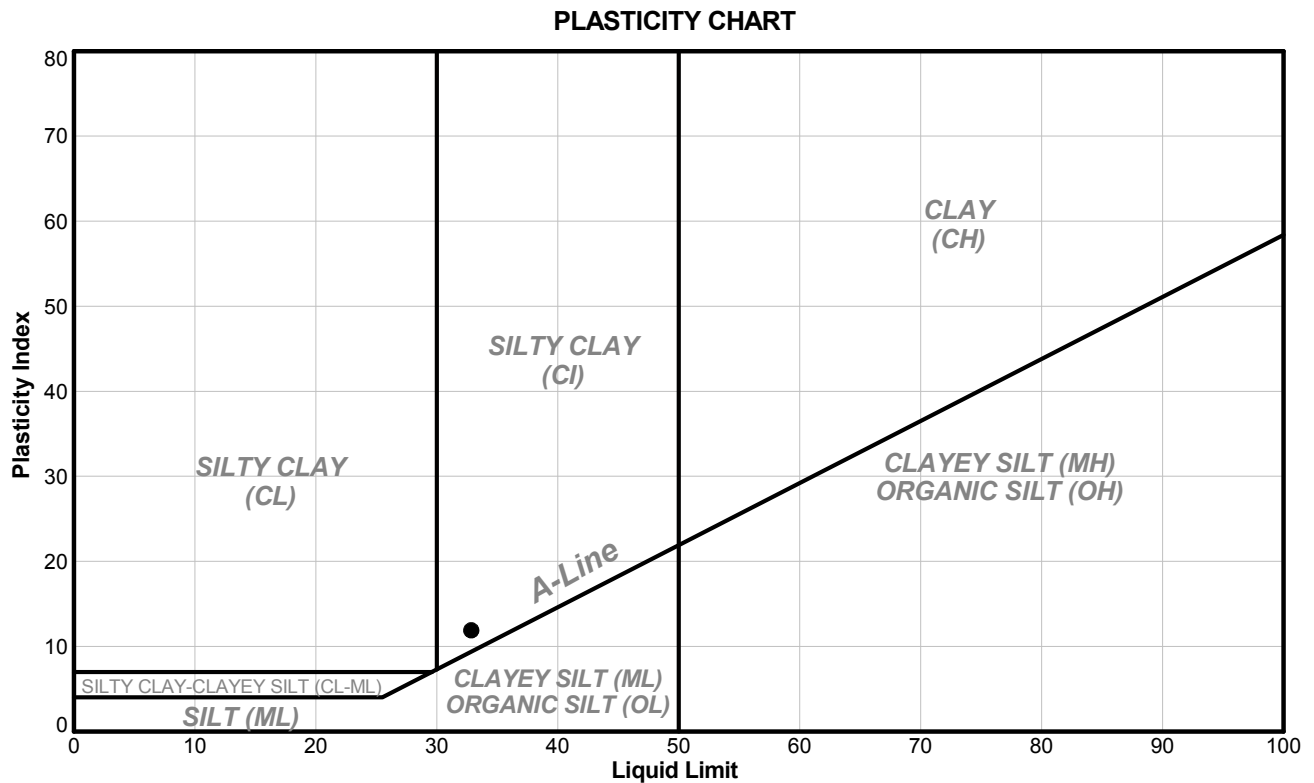
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	8/17/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 19
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 27.36 to 27.97
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-09	19	27.36	27.97	ND	33	21	12.0	31.8	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM/CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

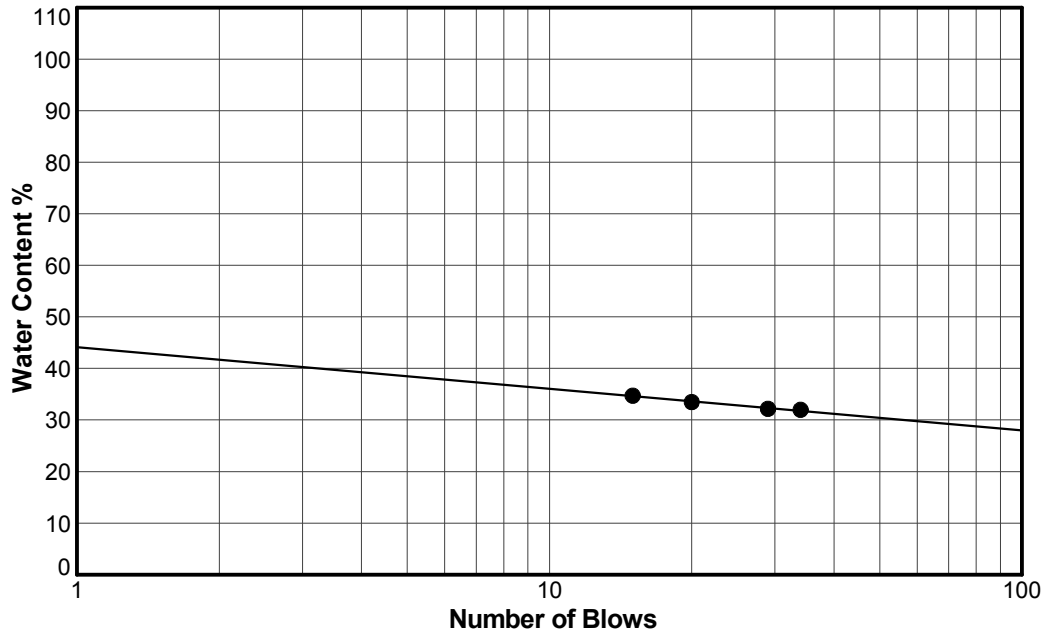
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 19
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 27.36 to 27.97
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	33
Plastic Limit	21
Plasticity Index	12
Natural Water Content (%)	31.8
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

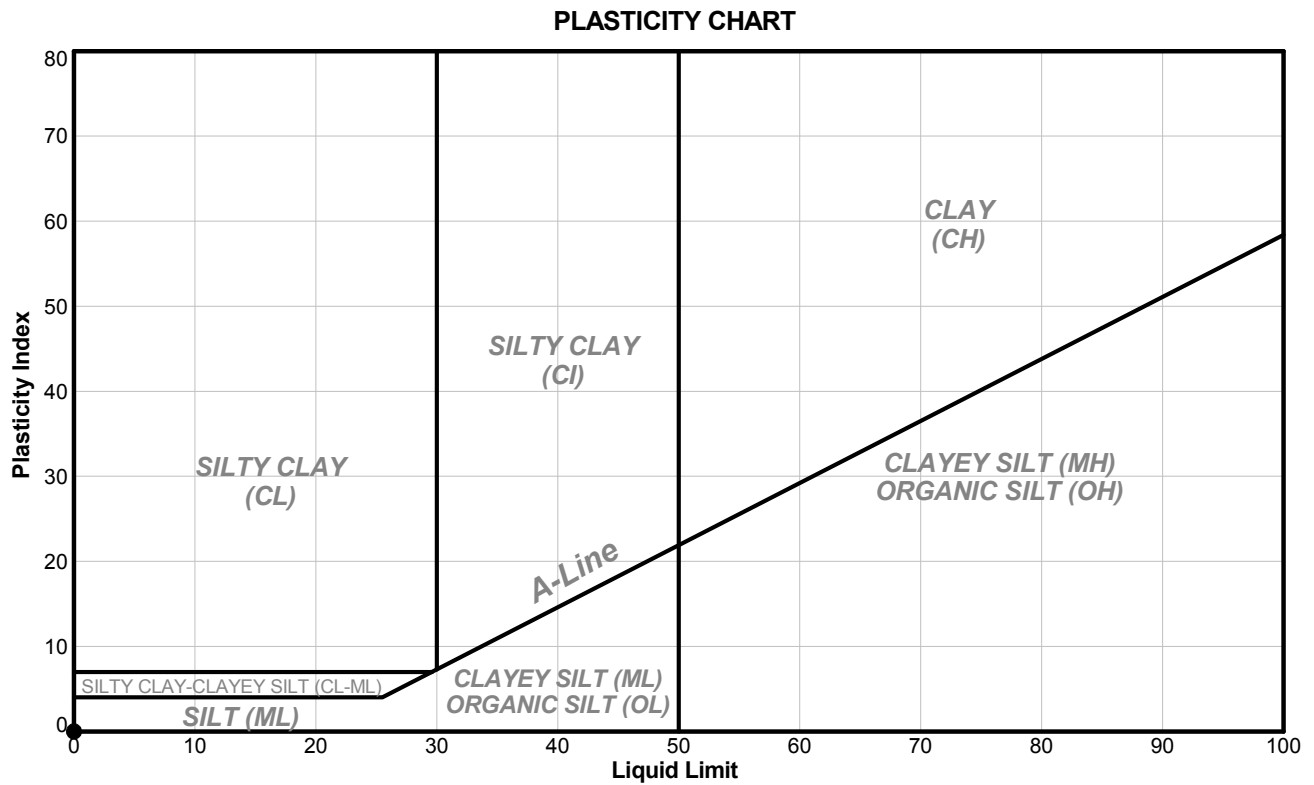
MM/CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 22 Specimen: b
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 31.98 to 32.59
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: PL>LL, sample was very hard to groove and could not achieve 25 blows.

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-09	b	31.98	32.59	ND	NP	NP	NP		NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

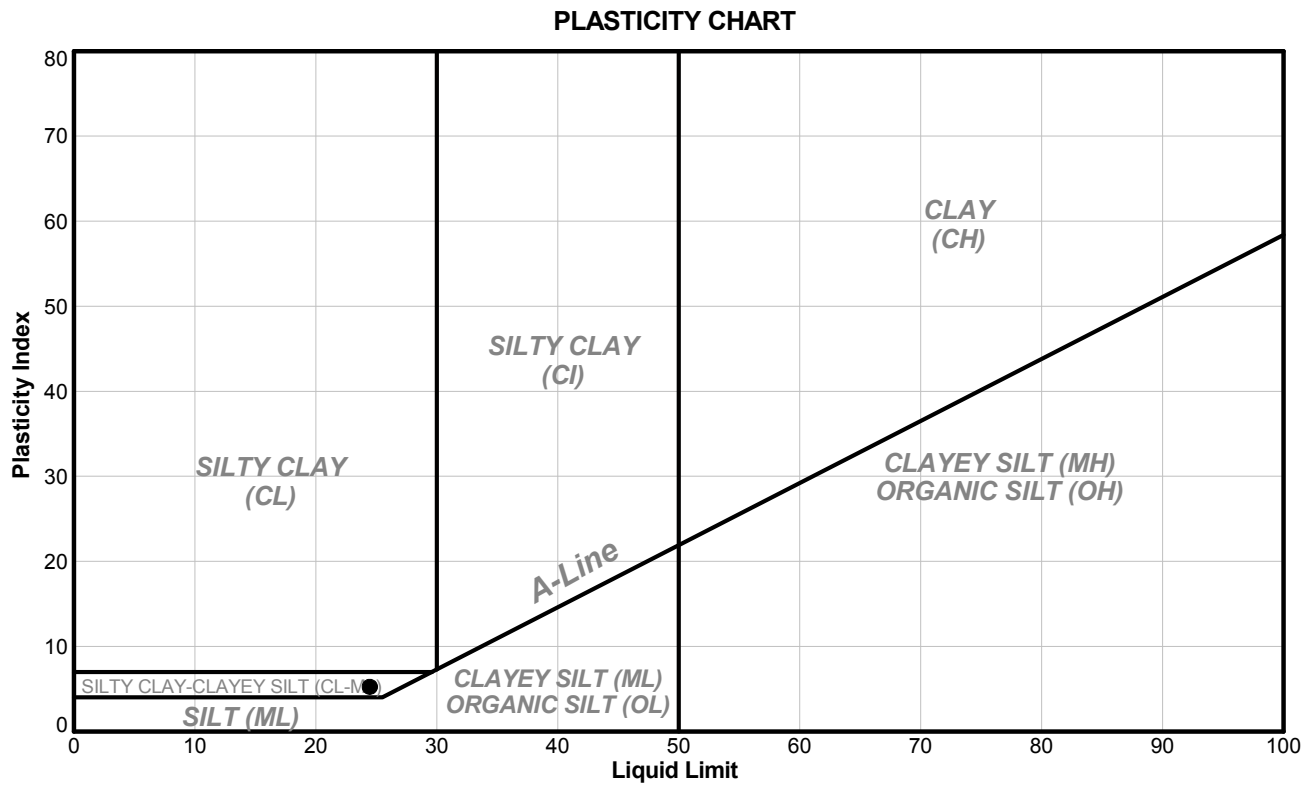
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2010\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 36.47 to 37.08
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-09	25	36.47	37.08	ND	24	19	5.0	29.3	2.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2010\17

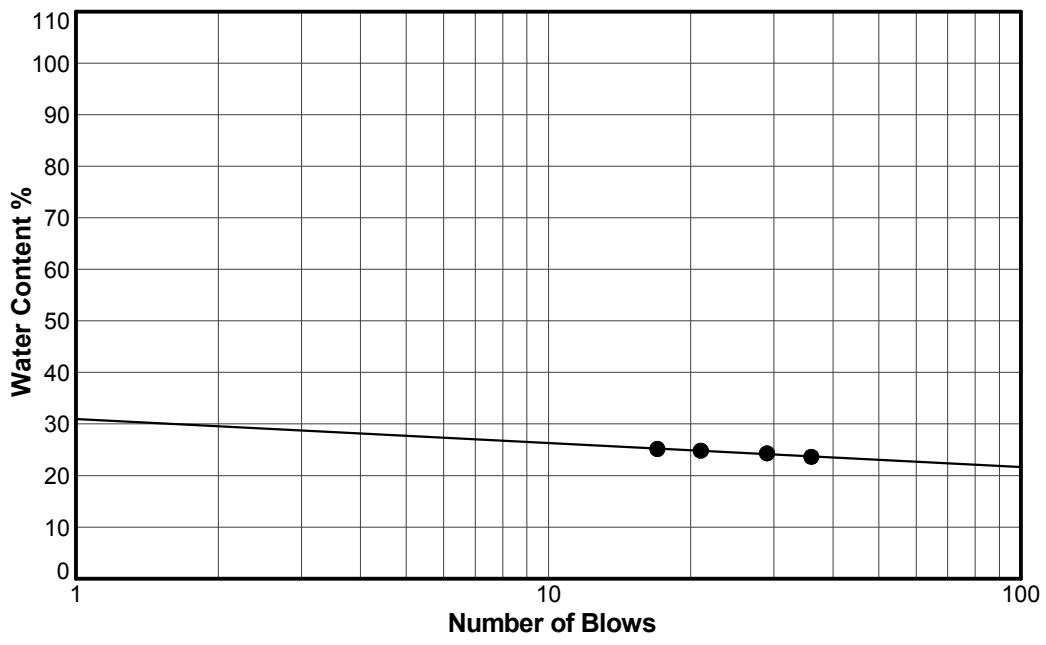
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 36.47 to 37.08
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	24
Plastic Limit	19
Plasticity Index	5
Natural Water Content (%)	29.3
Liquidity Index	2.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

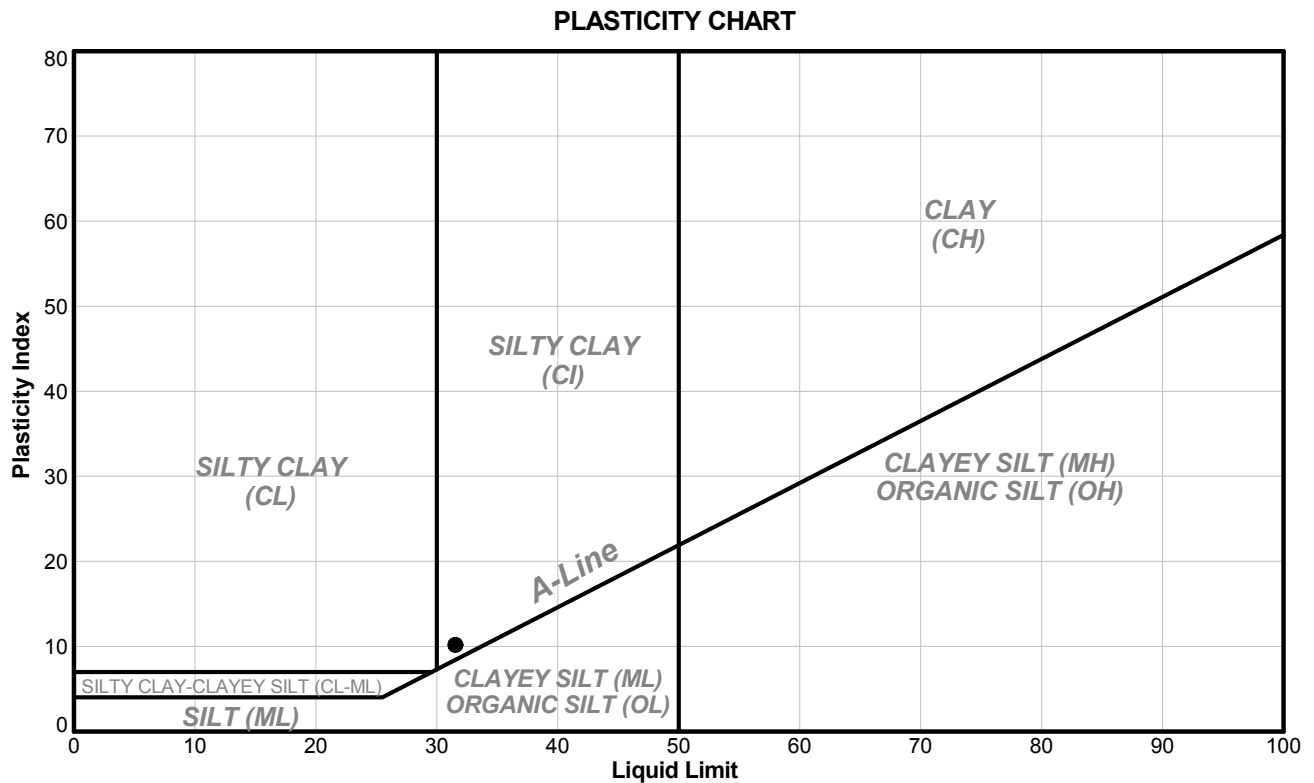
MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 47.24 to 47.85
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-09	30	47.24	47.85	ND	32	21	11.0	33.6	1.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyong_2019/17

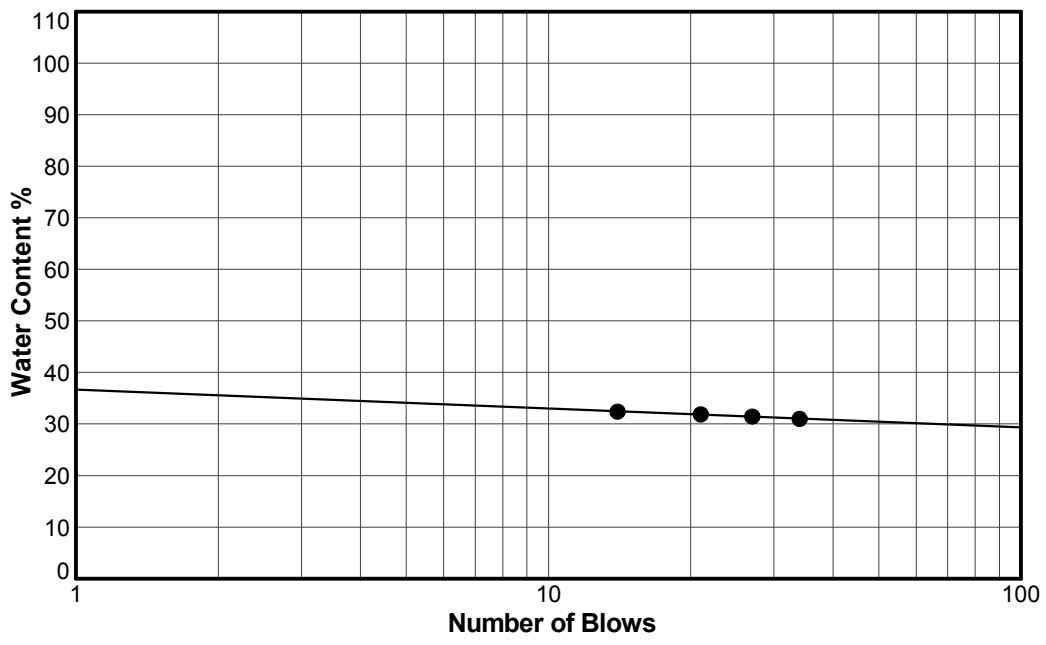
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 47.24 to 47.85
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	32
Plastic Limit	21
Plasticity Index	11
Natural Water Content (%)	33.6
Liquidity Index	1.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



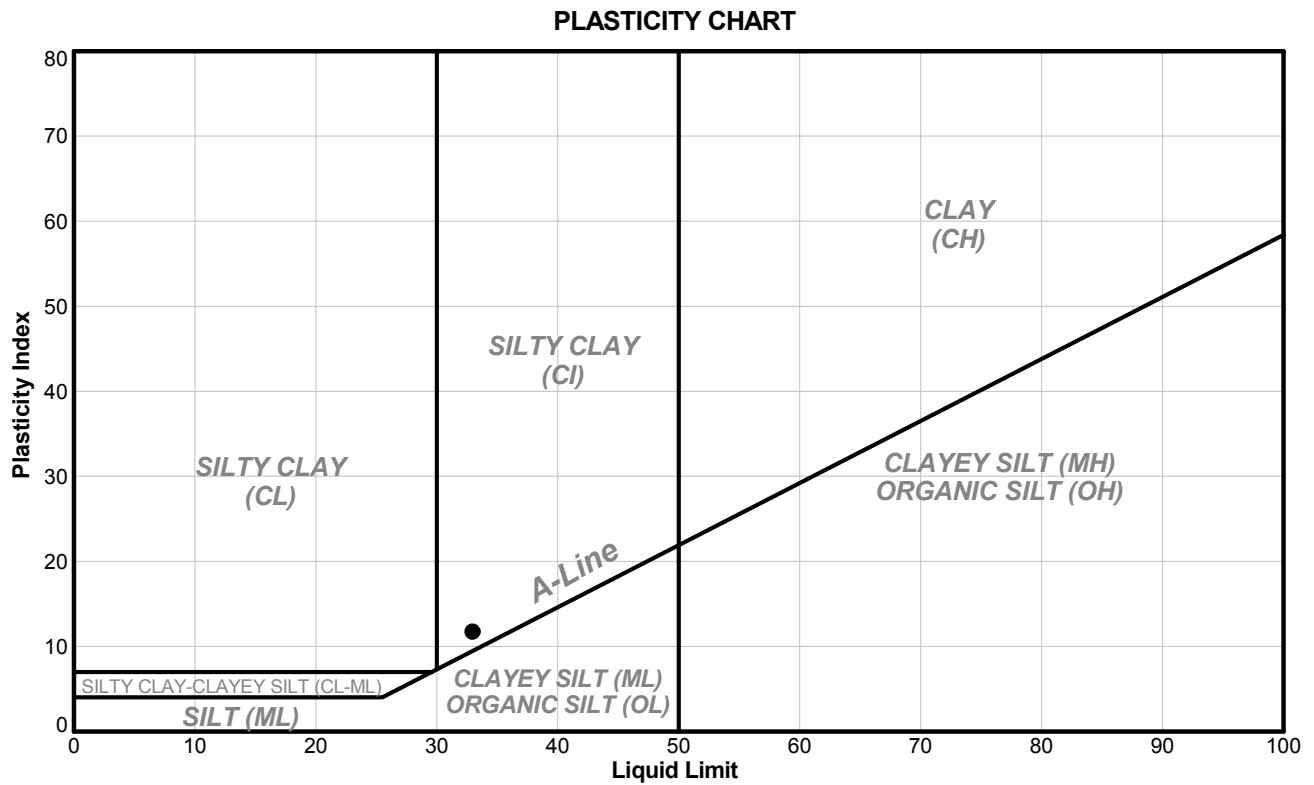
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.86 to 55.47
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-09	35	54.86	55.47	ND	33	21	12.0	29.6	0.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

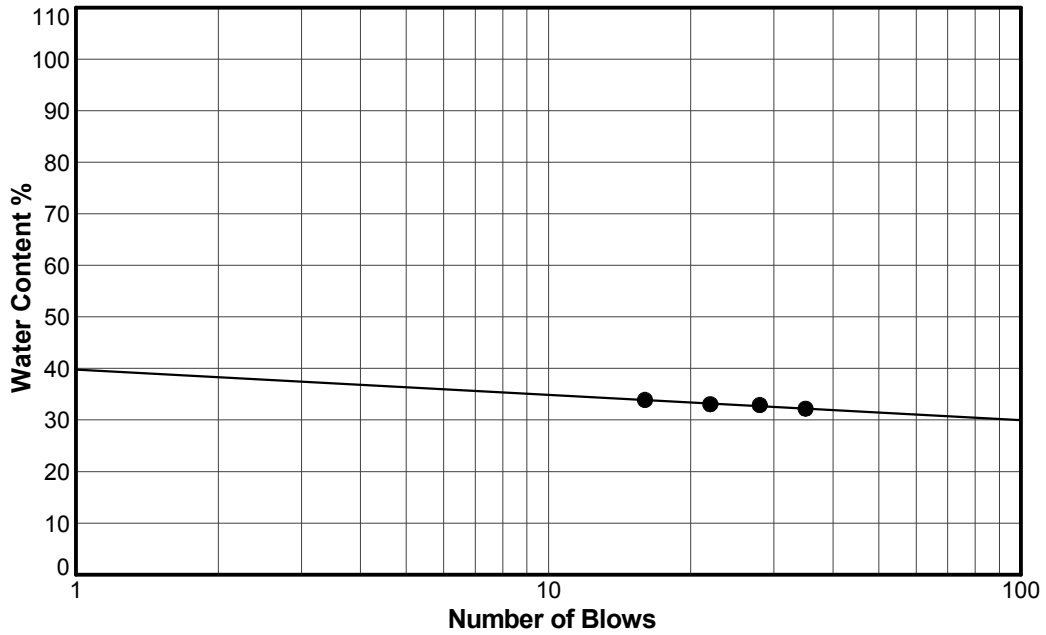
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-09
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.86 to 55.47
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	33
Plastic Limit	21
Plasticity Index	12
Natural Water Content (%)	29.6
Liquidity Index	0.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

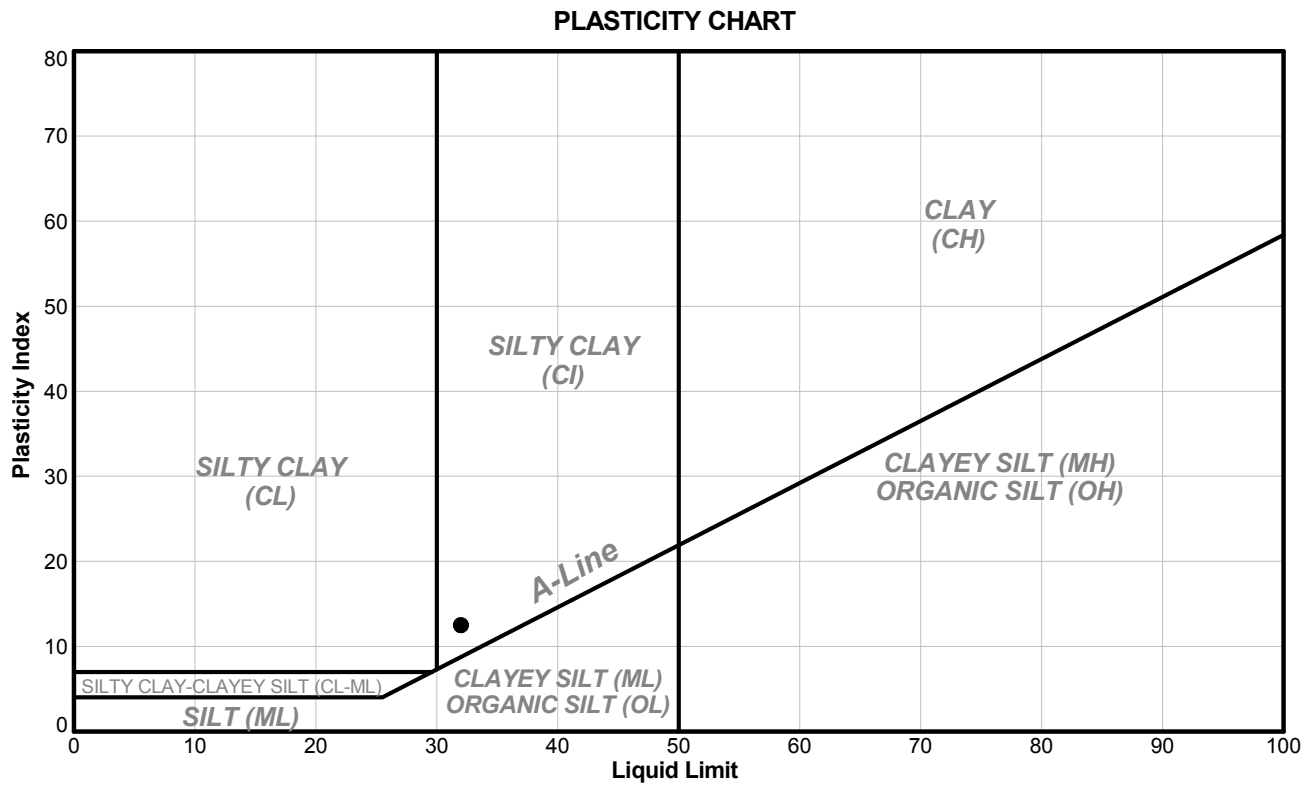
MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-10
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 30.61 to 31.22
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-10	21	30.61	31.22	ND	32	19	13.0	30.2	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

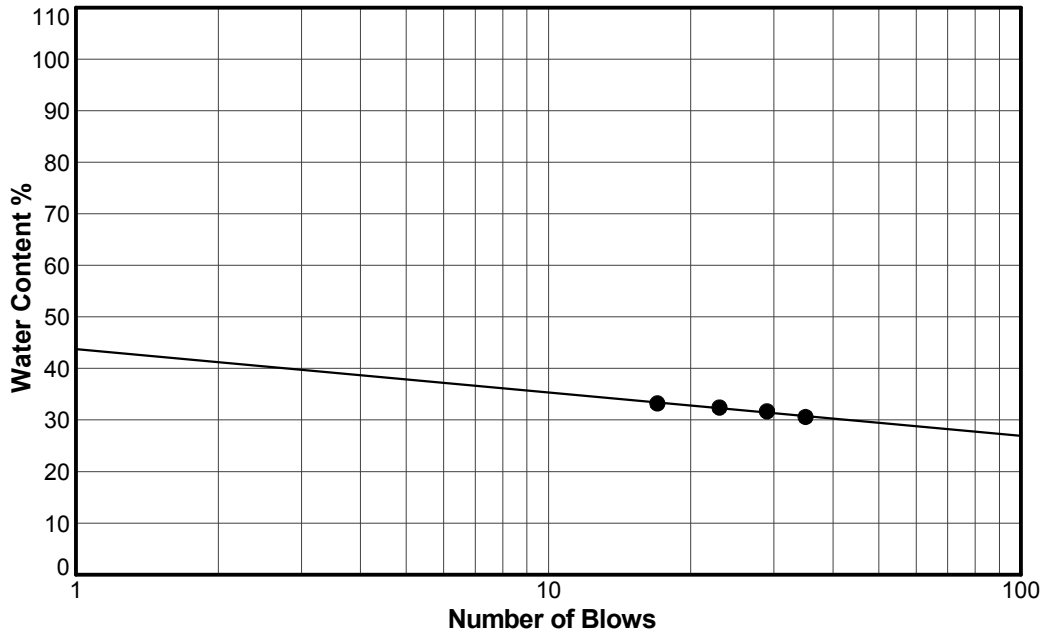
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-10
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 30.61 to 31.22
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	32
Plastic Limit	19
Plasticity Index	13
Natural Water Content (%)	30.2
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

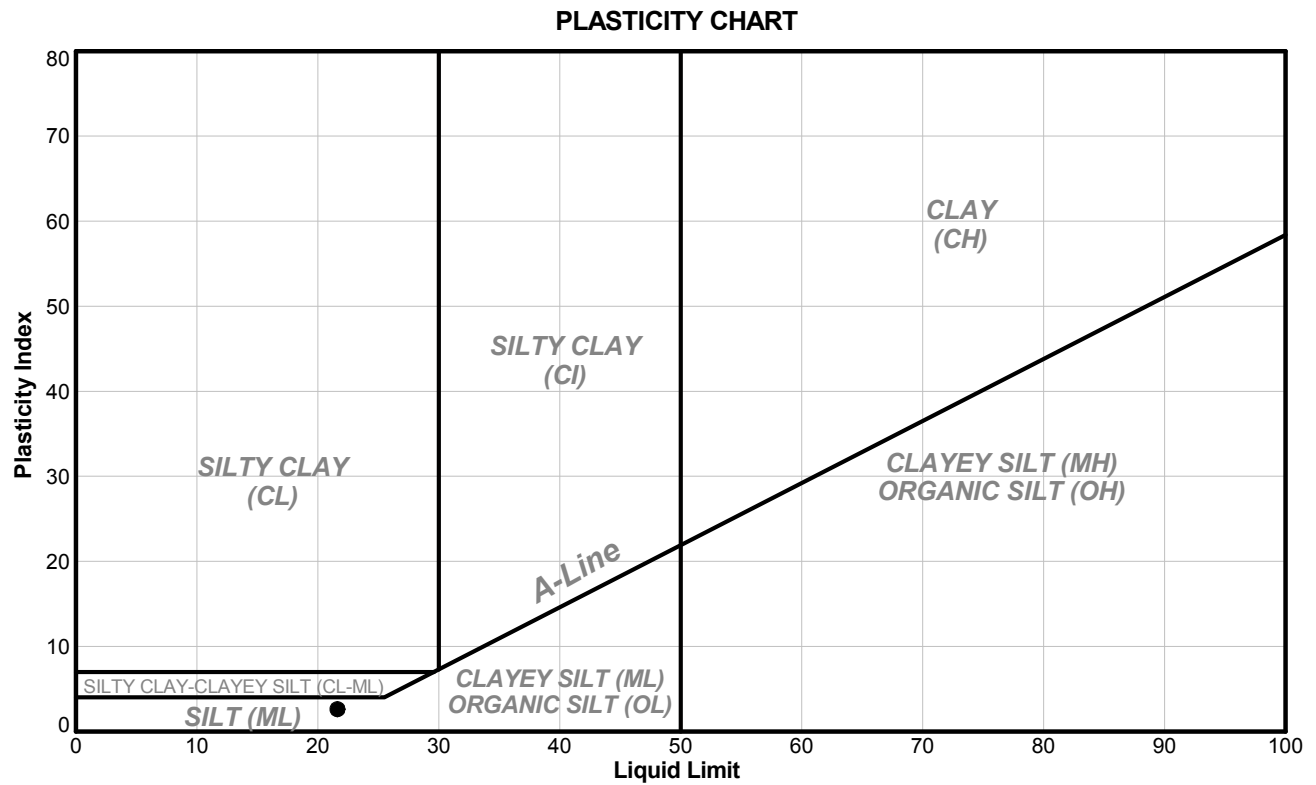
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH15-10	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 25	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 38.05 to 38.66	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-10	25	38.05	38.66	ND	22	19	3.0	28.4	3.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-10
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 38.05 to 38.66
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	22
Plastic Limit	19
Plasticity Index	3
Natural Water Content (%)	28.4
Liquidity Index	3.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



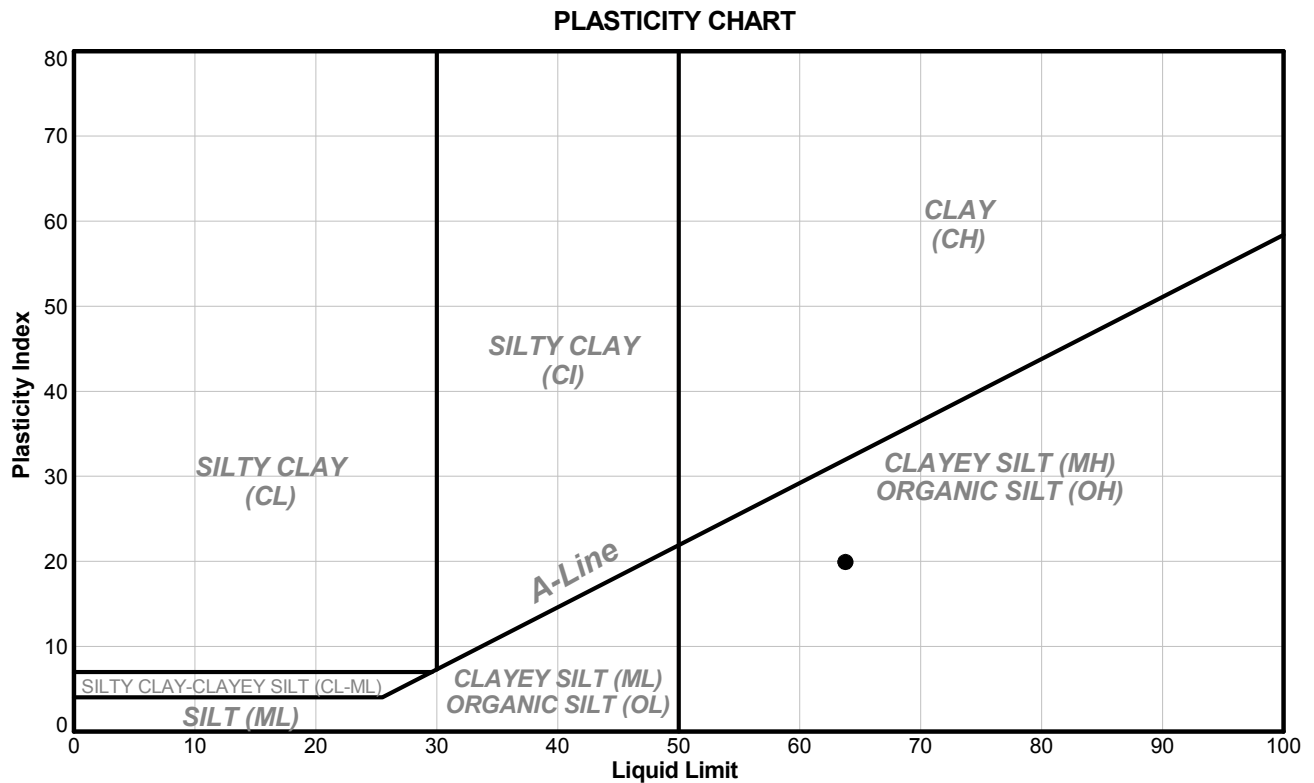
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

MM	11/2/2015	LH	11/4/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH15-11	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 1	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 2.74 to 3.35	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-11	1	2.74	3.35	ND	64	44	20.0	59.7	0.8

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-11
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 1
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.74 to 3.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	64
Plastic Limit	44
Plasticity Index	20
Natural Water Content (%)	59.7
Liquidity Index	0.8

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



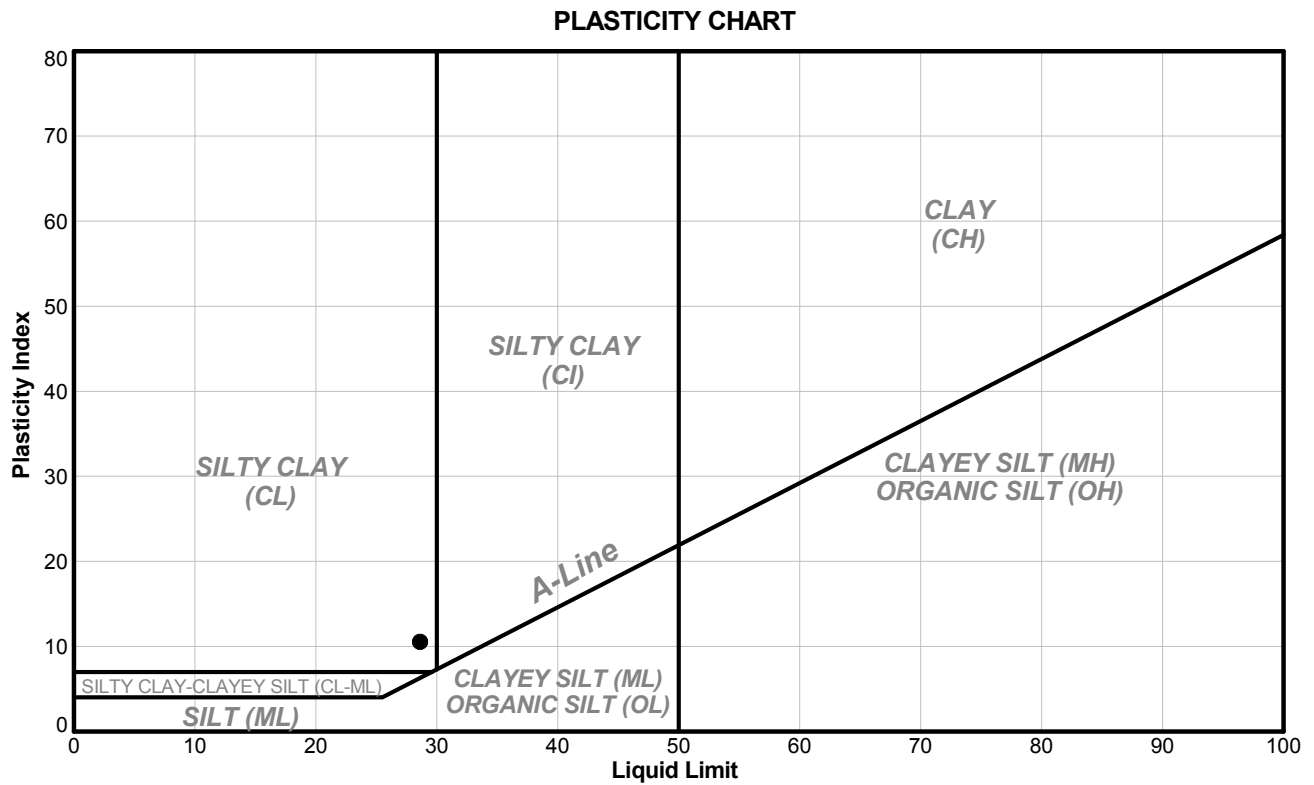
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_20/9/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-11
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 42.37 to 42.98
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-11	27	42.37	42.98	ND	29	18	11.0	29.2	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-11
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 42.37 to 42.98
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	29
Plastic Limit	18
Plasticity Index	11
Natural Water Content (%)	29.2
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



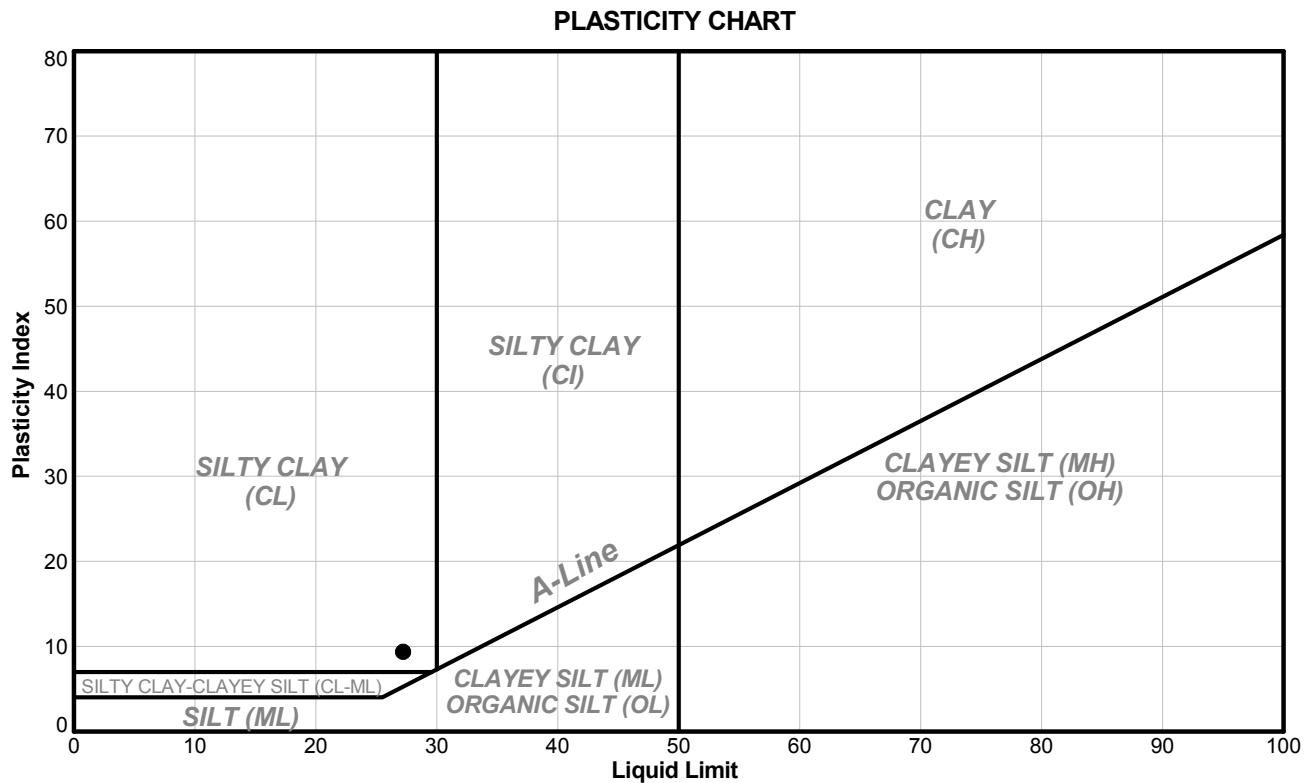
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KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-11
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 48.46 to 49.07
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-11	31	48.46	49.07	ND	27	18	9.0	29.0	1.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

KG/DC	11/13/2015	LH	11/20/2015
Tech	Date	Checked	Date

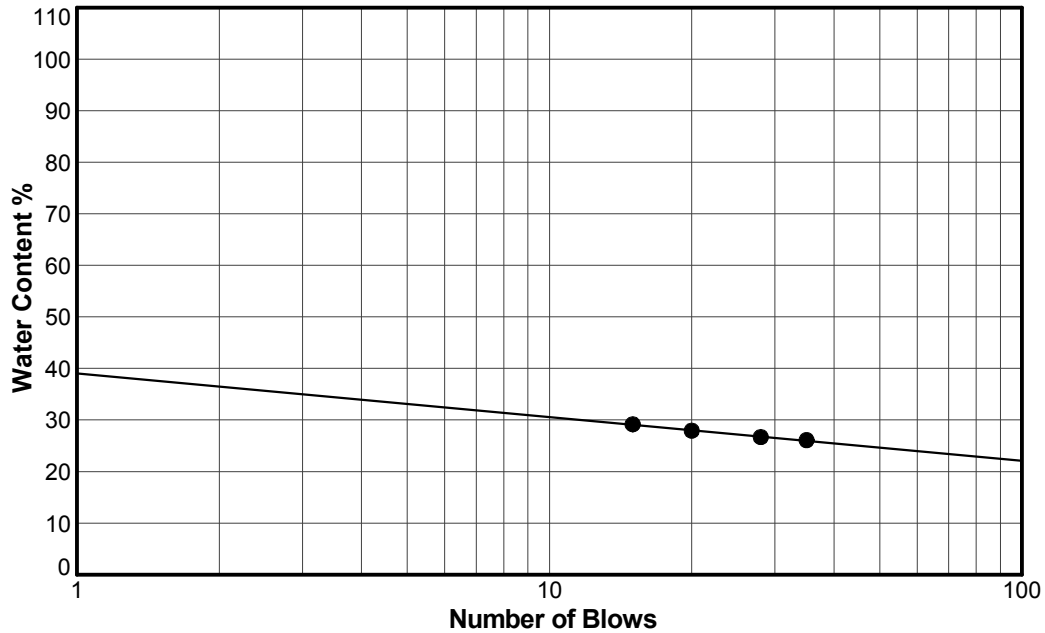
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH15-11
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 48.46 to 49.07
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	27
Plastic Limit	18
Plasticity Index	9
Natural Water Content (%)	29.0
Liquidity Index	1.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

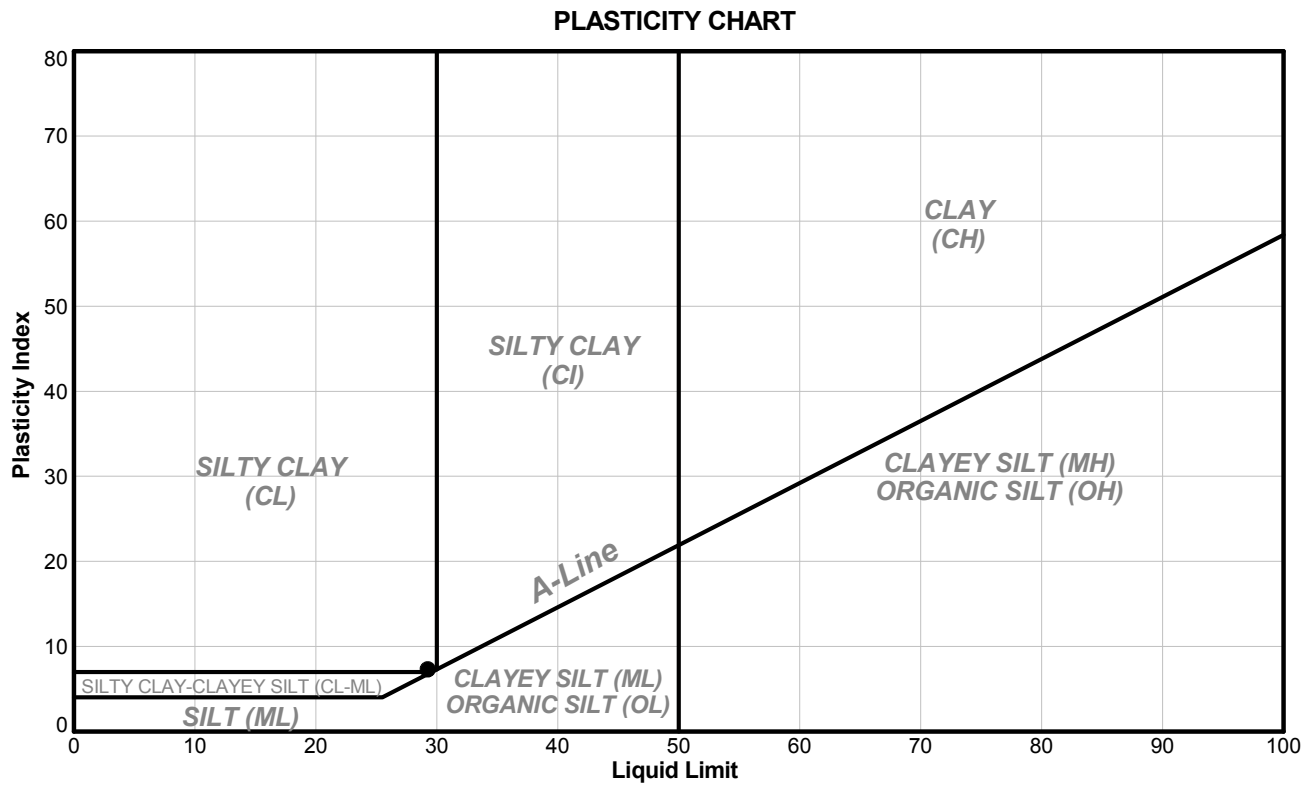
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Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG LIMITS (REPORT)_jgyseng_201017

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch		Borehole ID: BH15-13
Project: Annacis Outfall		Sample No.: 3
Location: Annacis Island		Depth Interval (m): 3.35 to 3.96
Project No.: 1532895 Phase: 1000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-13	3	3.35	3.96	ND	29	22	7.0	35.3	1.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OARZ	8/26/2015	LH	9/9/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Miller: 9/23/15

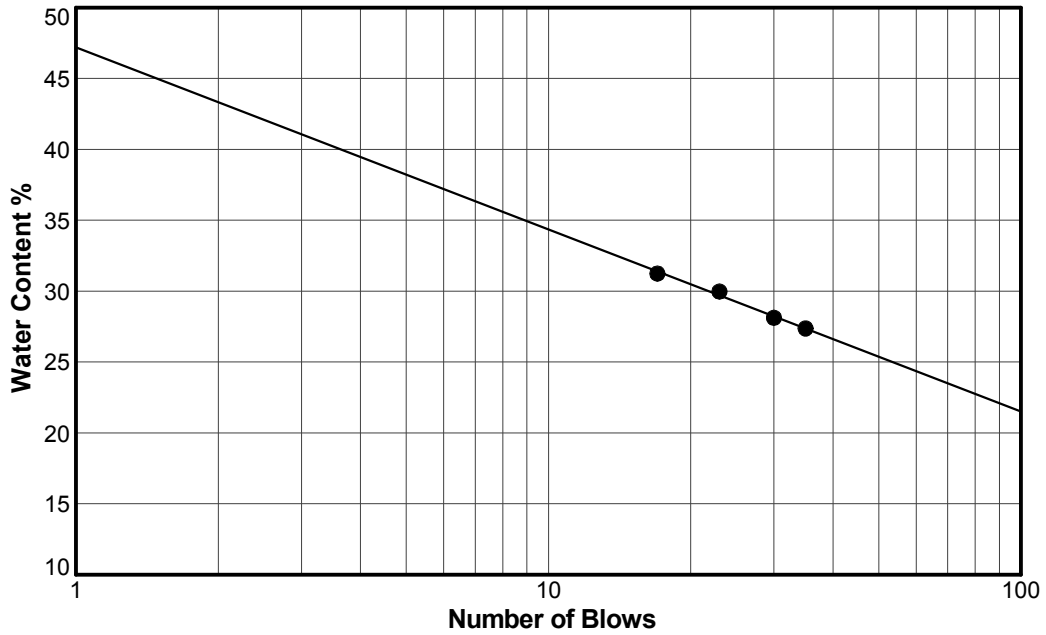
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-13	
Project: Annacis Outfall	Sample No.: 3	
Location: Annacis Island	Depth Interval (m): 3.35 to 3.96	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	29
Plastic Limit	22
Plasticity Index	7
Natural Water Content (%)	35.3
Liquidity Index	1.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OARZ	8/26/2015	LH	9/9/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

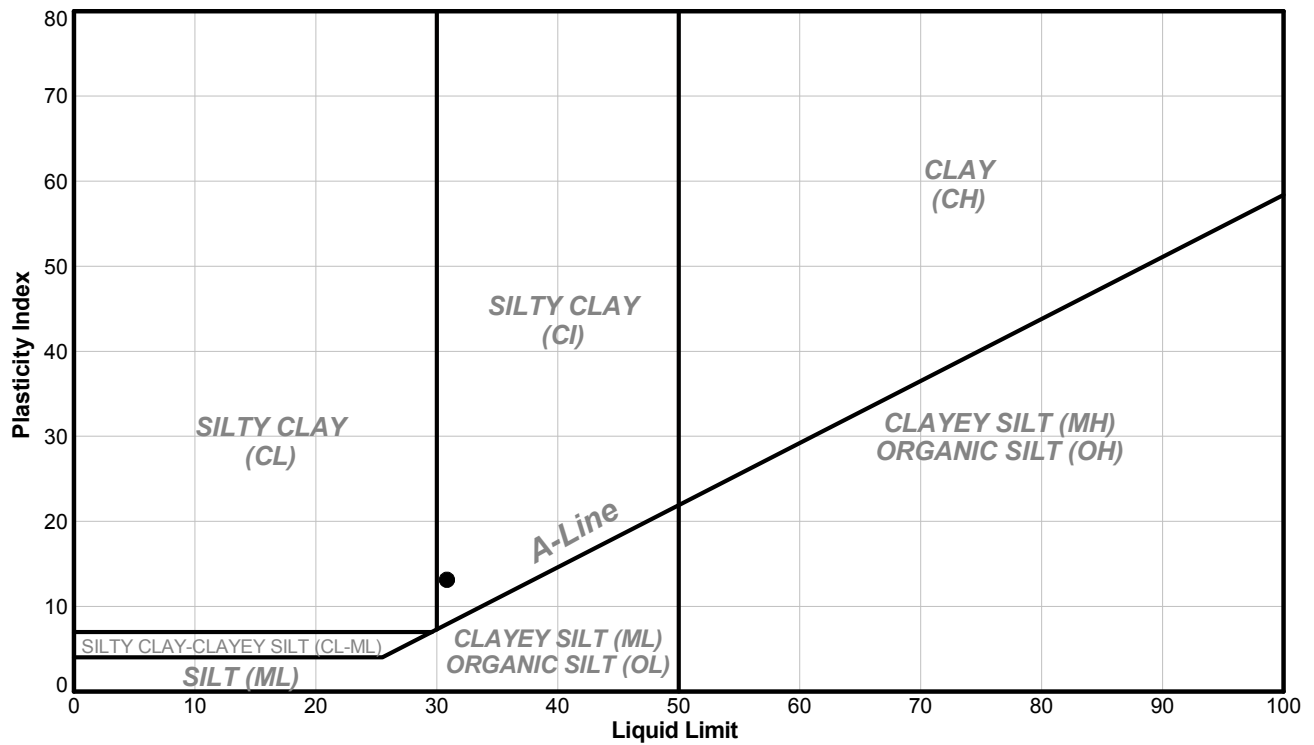
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-13	
Project: Annacis Outfall	Sample No.: 32	
Location: Annacis Island	Depth Interval (m): 48.46 to 49.07	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Wet

PLASTICITY CHART



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-13	32	48.46	49.07	100	31	18	13.0	26.0	0.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OADC	8/25/2015	LH	9/9/2015
Tech	Date	Checked	Date

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-13	
Project: Annacis Outfall	Sample No.: 32	
Location: Annacis Island	Depth Interval (m): 48.46 to 49.07	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	31
Plastic Limit	18
Plasticity Index	13
Natural Water Content (%)	26.0
Liquidity Index	0.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	8/25/2015	LH	9/9/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

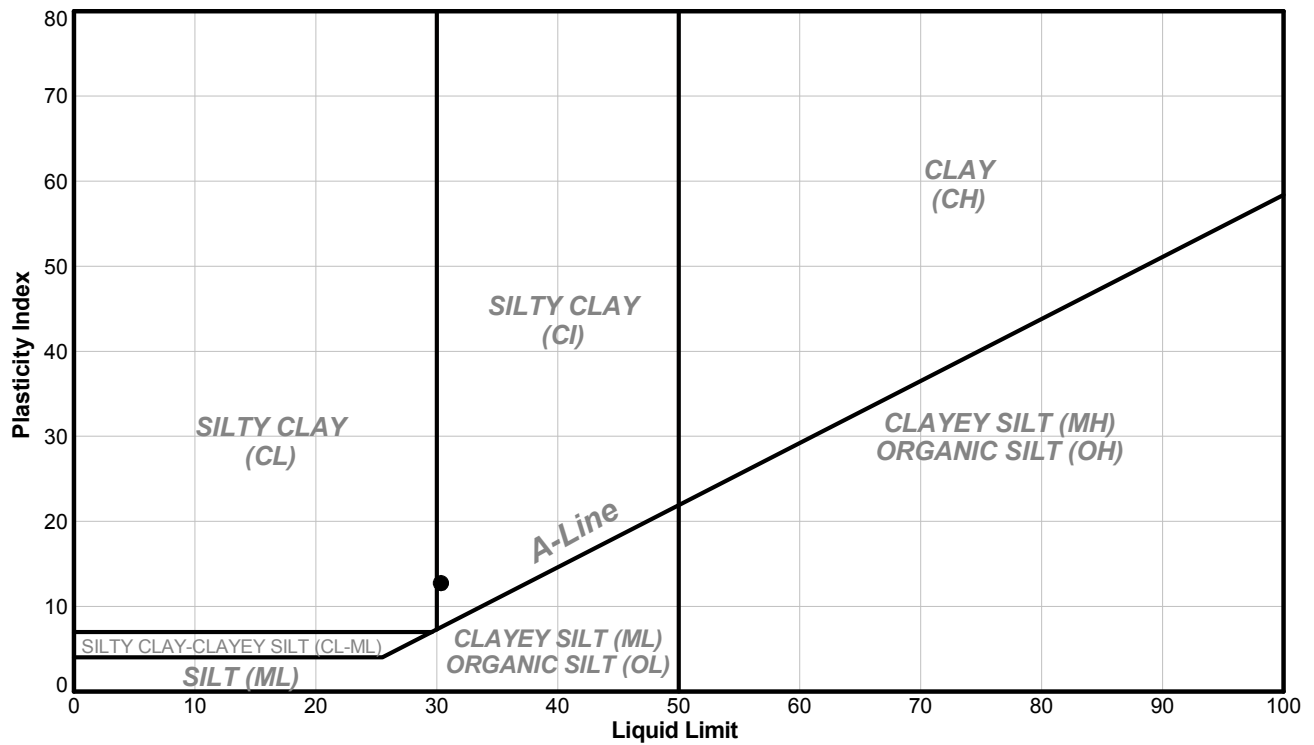
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-13	
Project: Annacis Outfall	Sample No.: 35	
Location: Annacis Island	Depth Interval (m): 54.25 to 54.86	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Air Dried

PLASTICITY CHART



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-13	35	54.25	54.86	100	30	18	12.0	34.9	1.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

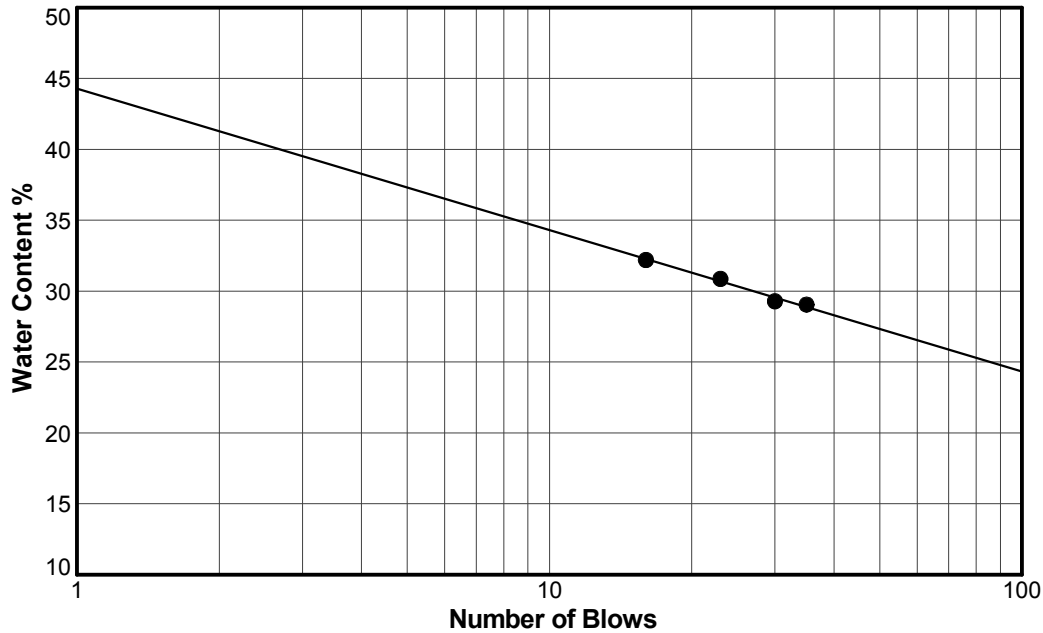
OA	9/22/2015	LP	9/23/2015
Tech	Date	Checked	Date

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-13	
Project: Annacis Outfall	Sample No.: 35	
Location: Annacis Island	Depth Interval (m): 54.25 to 54.86	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	30
Plastic Limit	18
Plasticity Index	12
Natural Water Content (%)	34.9
Liquidity Index	1.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



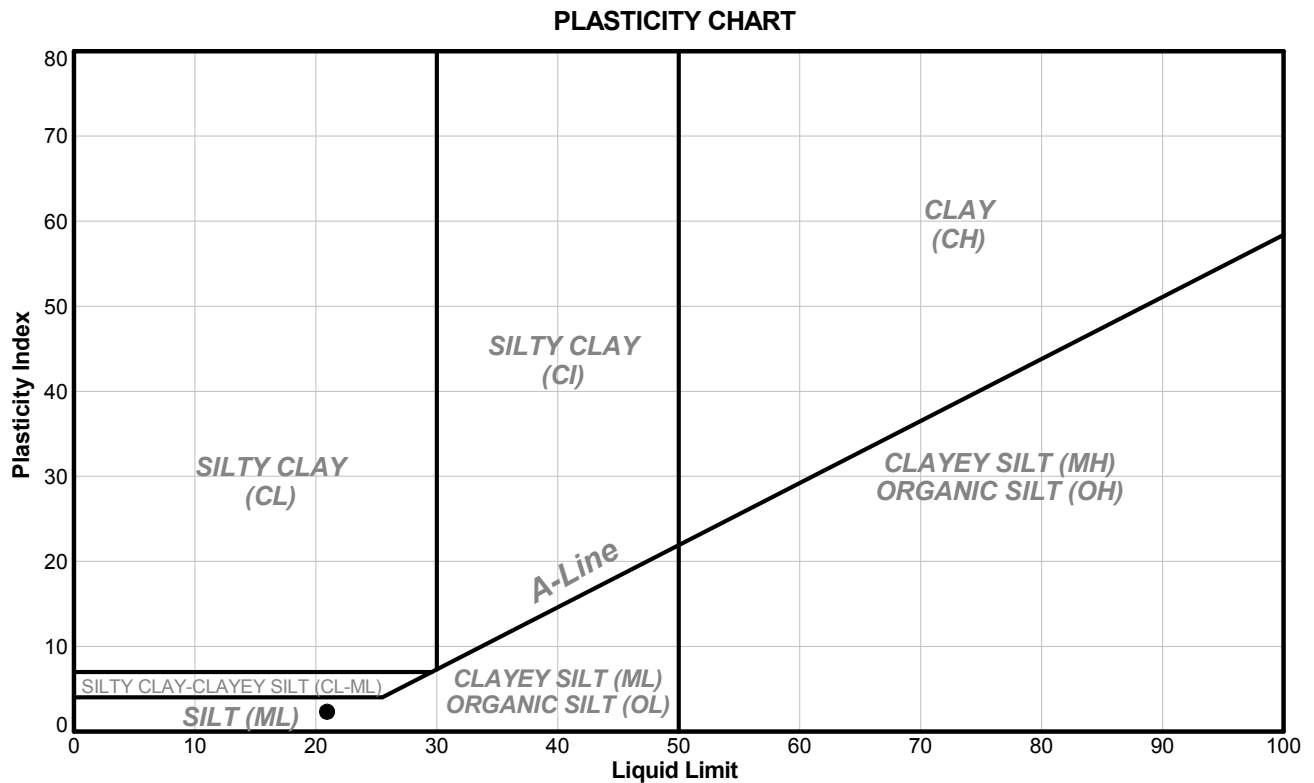
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	9/22/2015	LP	9/23/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 28	
Location: Annacis Island	Depth Interval (m): 42.06 to 42.67	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-14	28	42.06	42.67	100	21	19	2.0	25.3	3.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SC/MM	8/14/2015	LP	8/19/2015
Tech	Date	Checked	Date

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch		Borehole ID: BH15-14
Project: Annacis Outfall		Sample No.: 28
Location: Annacis Island		Depth Interval (m): 42.06 to 42.67
Project No.: 1532895 Phase: 1000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	21
Plastic Limit	19
Plasticity Index	2
Natural Water Content (%)	25.3
Liquidity Index	3.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



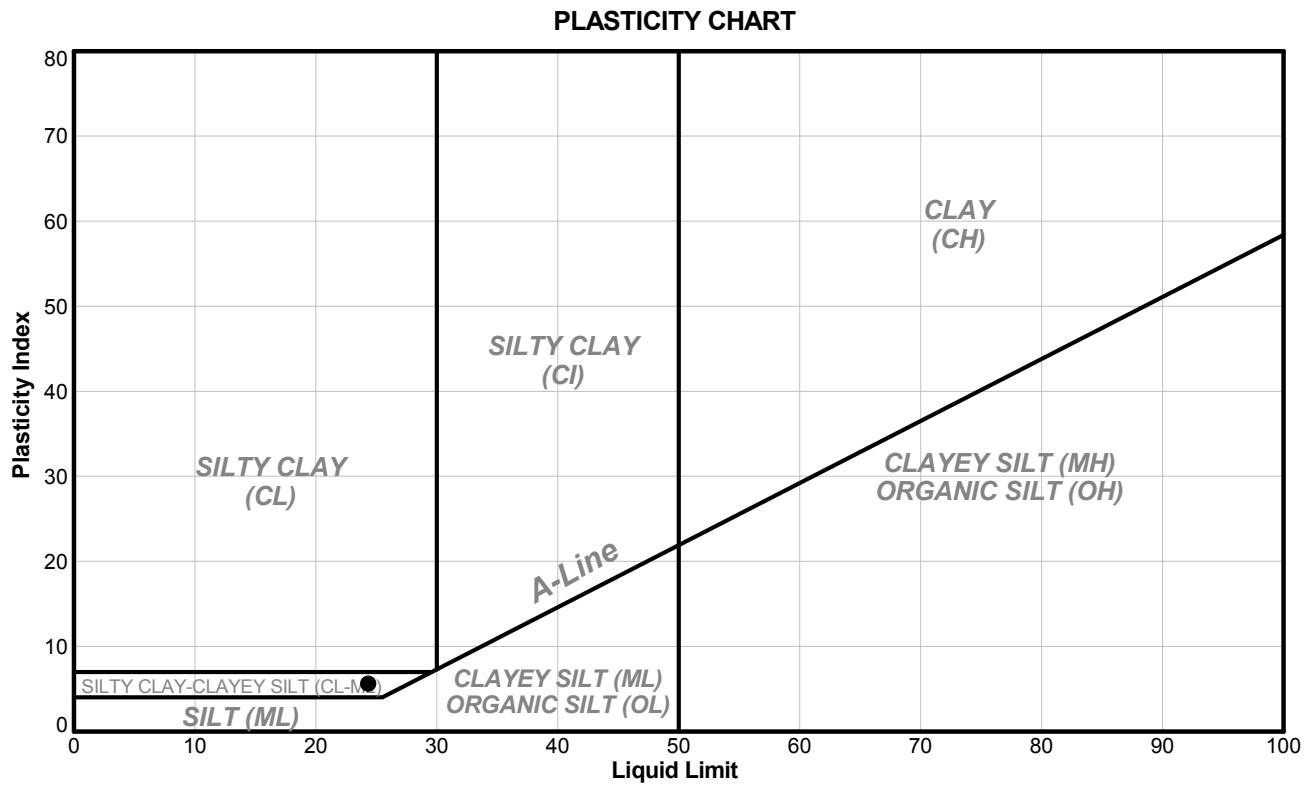
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SC/MM	8/14/2015	LP	8/19/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 32	
Location: Annacis Island	Depth Interval (m): 48.16 to 48.77	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-14	32	48.16	48.77	ND	24	19	5.0	29.0	2.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	9/10/2015	LH	9/11/2015
Tech	Date	Checked	Date

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 32	
Location: Annacis Island	Depth Interval (m): 48.16 to 48.77	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	
Other Remarks: N/A		
Test Method: A-Multi Point		Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	24
Plastic Limit	19
Plasticity Index	5
Natural Water Content (%)	29.0
Liquidity Index	2.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



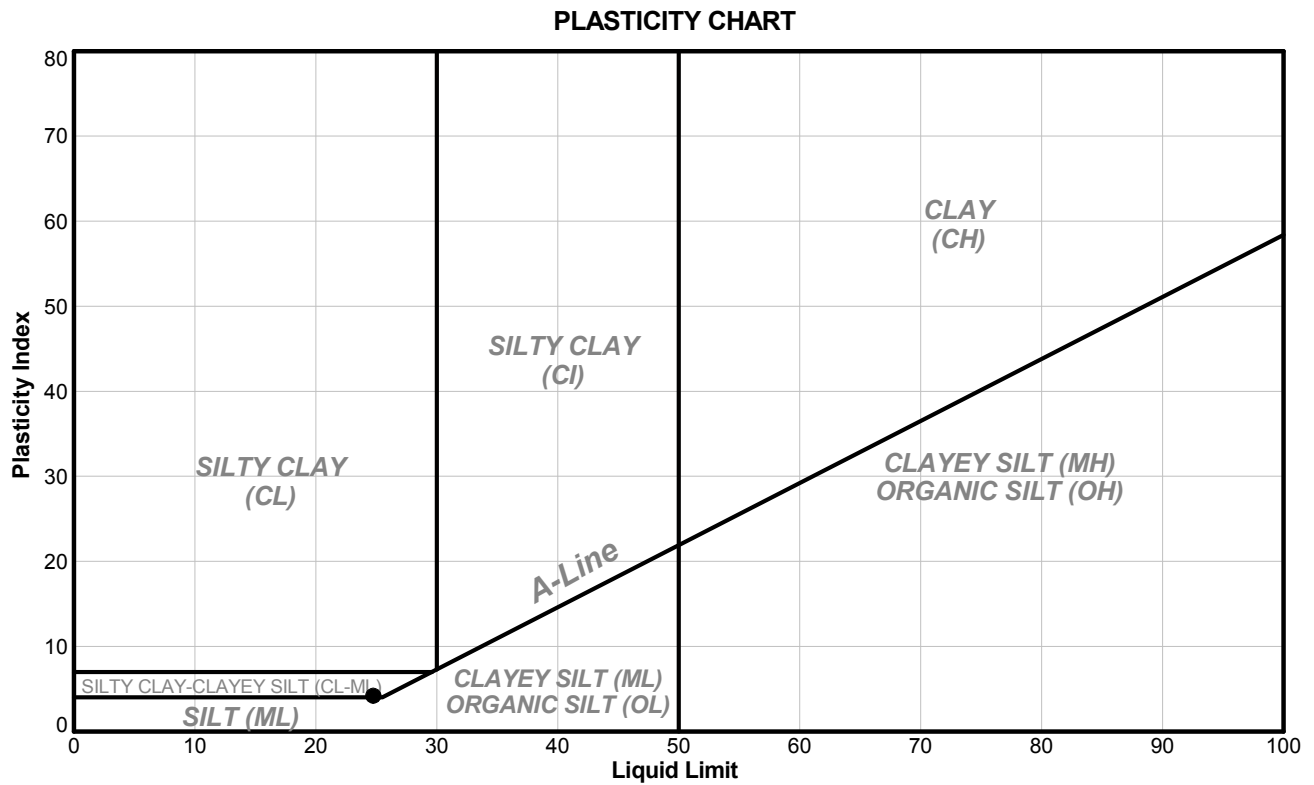
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	9/10/2015	LH	9/11/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 34	
Location: Annacis Island	Depth Interval (m): 51.21 to 51.82	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-14	34	51.21	51.82	ND	25	21	4.0	33.1	3.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	9/10/2015	LH	9/11/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Miller 9/23/15

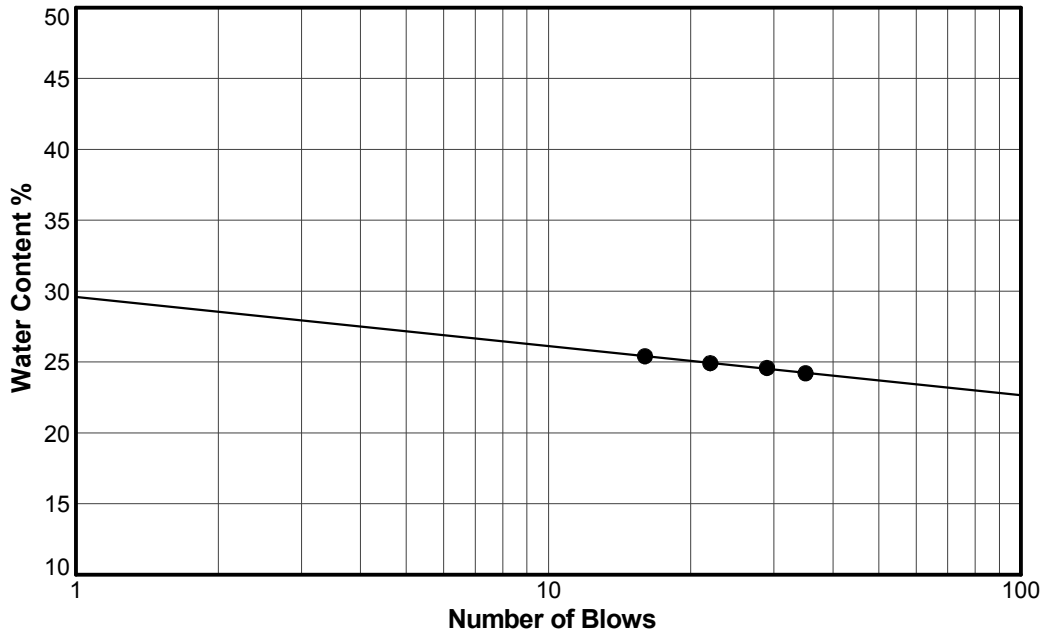
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 34	
Location: Annacis Island	Depth Interval (m): 51.21 to 51.82	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	25
Plastic Limit	21
Plasticity Index	4
Natural Water Content (%)	33.1
Liquidity Index	3.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

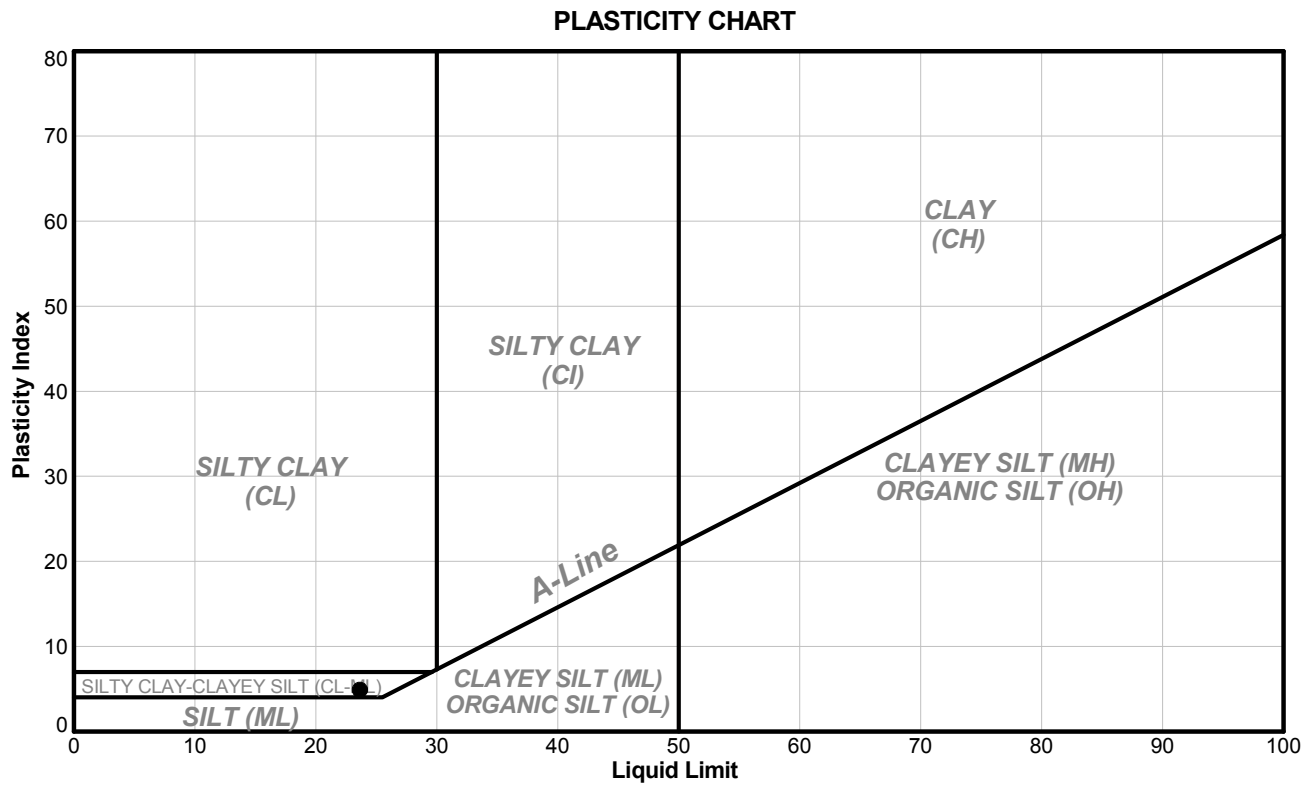
OA	9/10/2015	LH	9/11/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: OutputForm: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 35	
Location: Annacis Island	Depth Interval (m): 52.73 to 53.34	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH15-14	35	52.73	53.34	83	24	19	5.0	21.1	0.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OARZ	9/8/2015	LH	9/11/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: Black & Veatch	Borehole ID: BH15-14	
Project: Annacis Outfall	Sample No.: 35	
Location: Annacis Island	Depth Interval (m): 52.73 to 53.34	
Project No.: 1532895 Phase: 1000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	83
Liquid Limit	24
Plastic Limit	19
Plasticity Index	5
Natural Water Content (%)	21.1
Liquidity Index	0.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



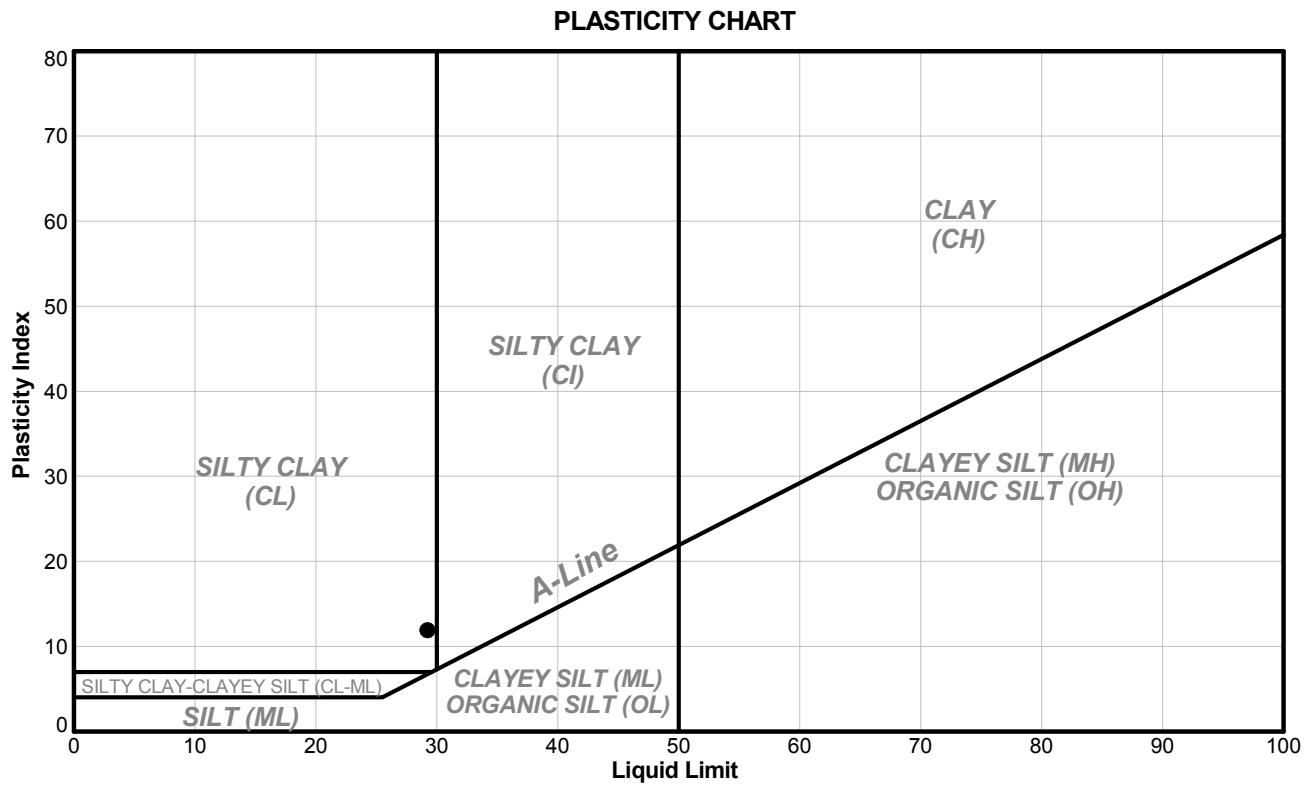
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OARZ	9/8/2015	LH	9/11/2015
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) M\Miller 9/23/15

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.82 to 52.43
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	34	51.82	52.43	100	29	17	12.0	25.7	0.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

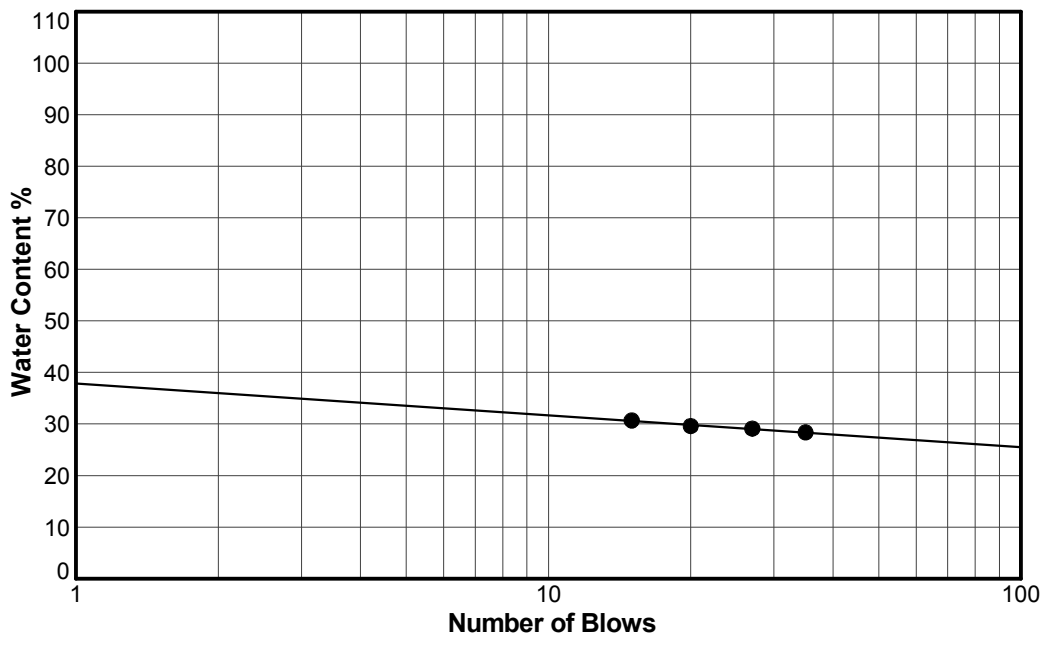
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.82 to 52.43
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	29
Plastic Limit	17
Plasticity Index	12
Natural Water Content (%)	25.7
Liquidity Index	0.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

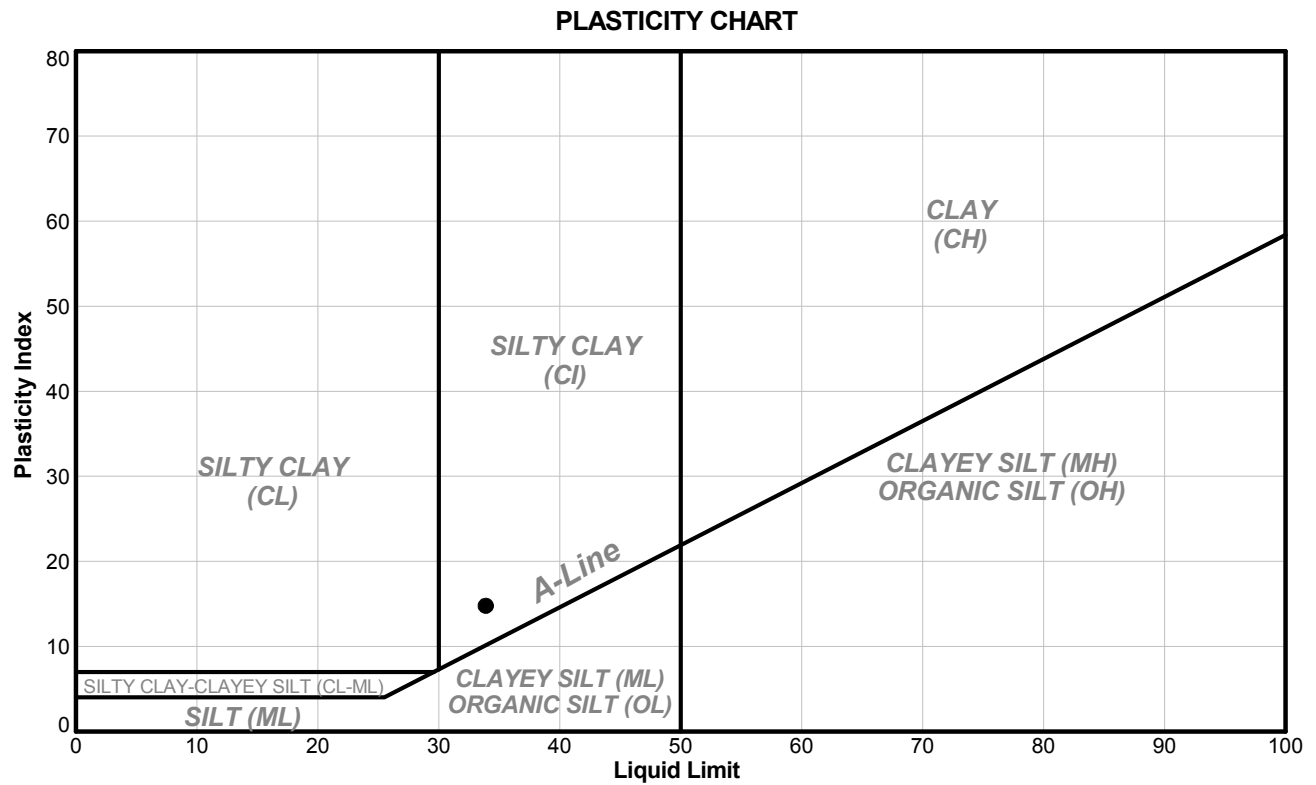
SJ/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 53.47 to 53.56
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	DSS	53.47	53.56	ND	34	19	15.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/SJ	6/1/2016	LH	6/2/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2016\17

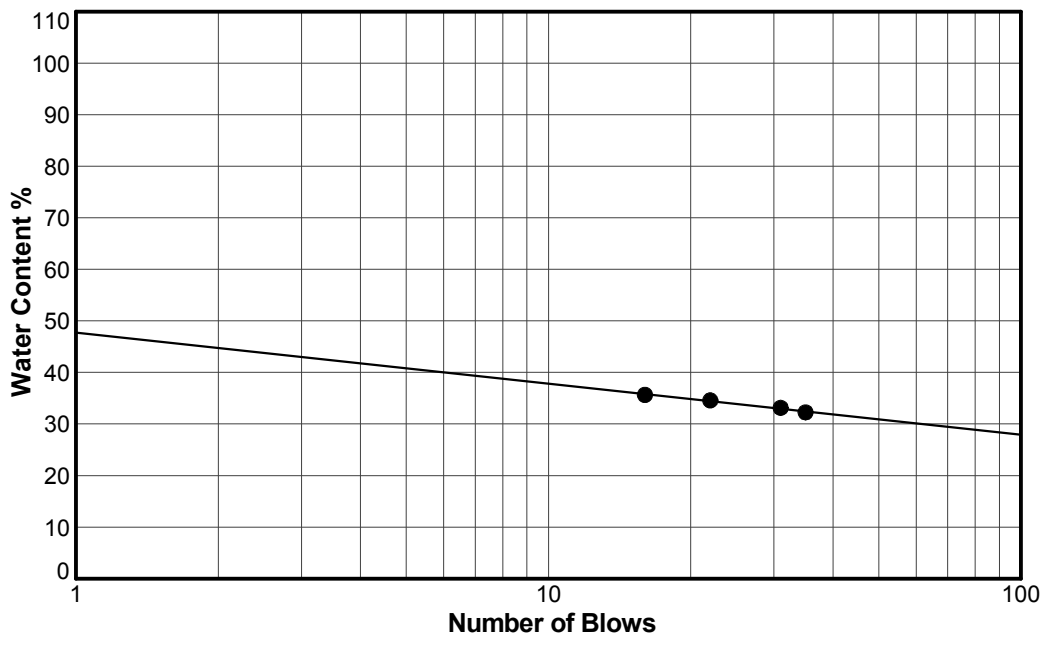
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 53.47 to 53.56
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	34
Plastic Limit	19
Plasticity Index	15
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

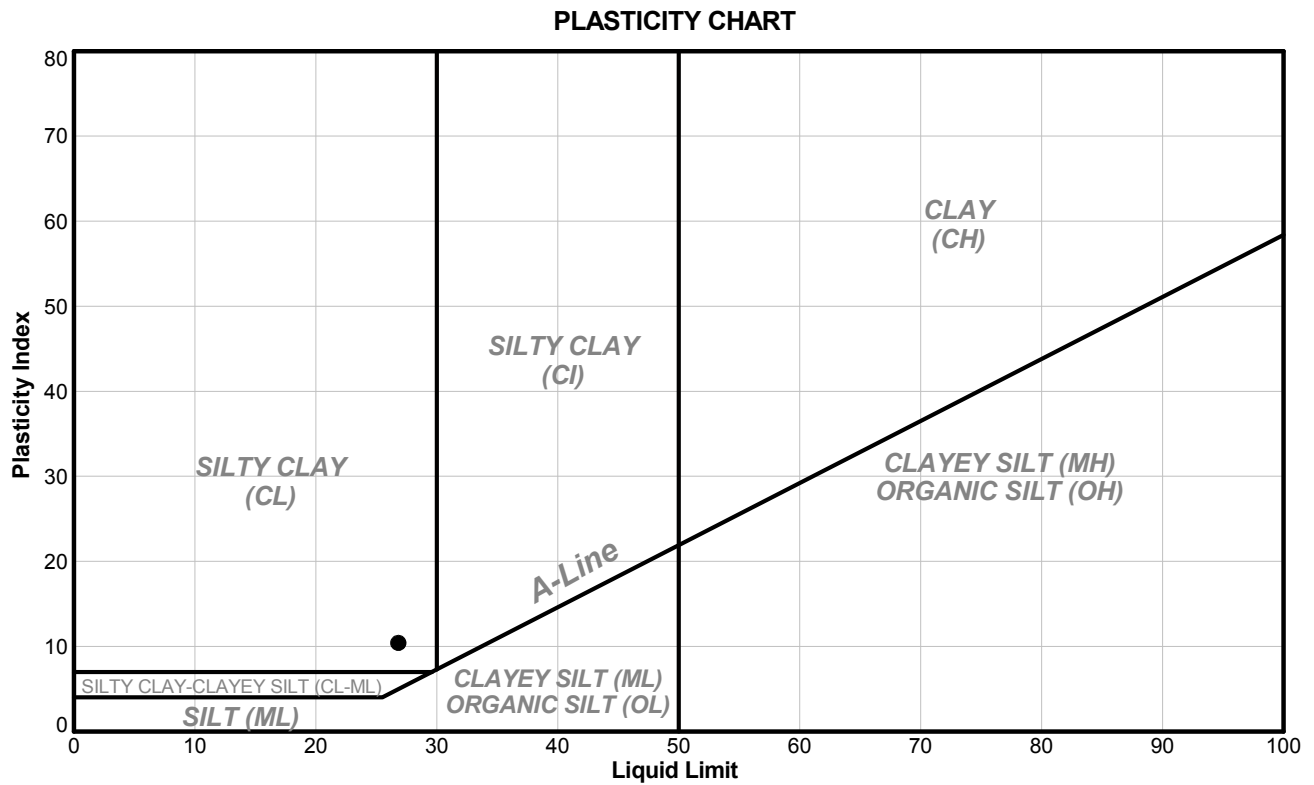
RRT/SJ	6/1/2016	LH	6/2/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 39
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 59.44 to 60.05
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	39	59.44	60.05	ND	27	16	11.0	27.9	1.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2016\17

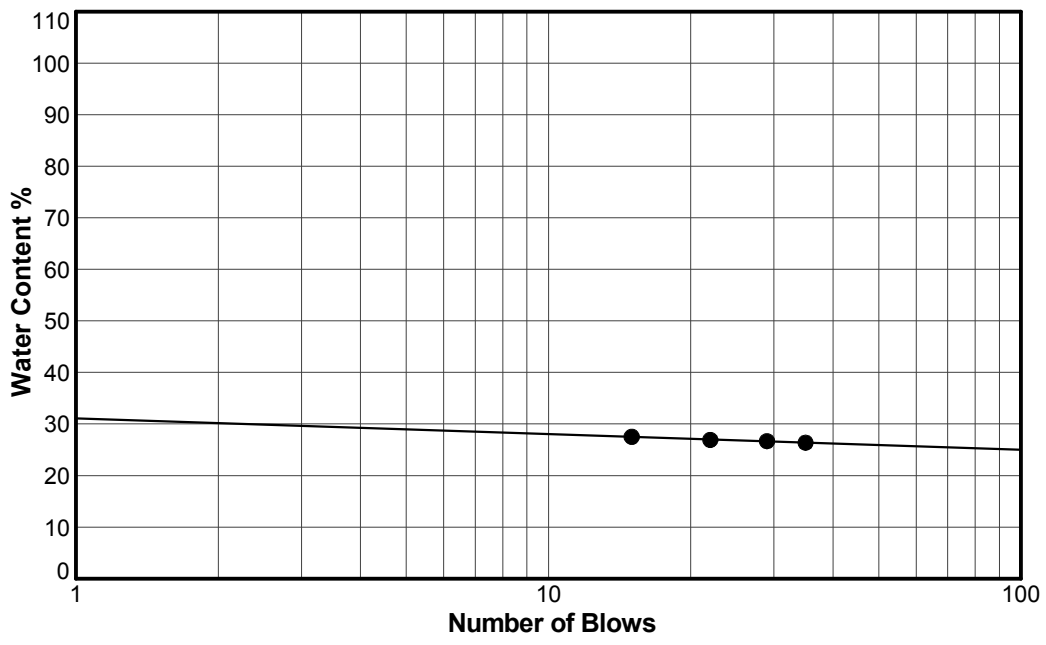
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 39
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 59.44 to 60.05
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	27
Plastic Limit	16
Plasticity Index	11
Natural Water Content (%)	27.9
Liquidity Index	1.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



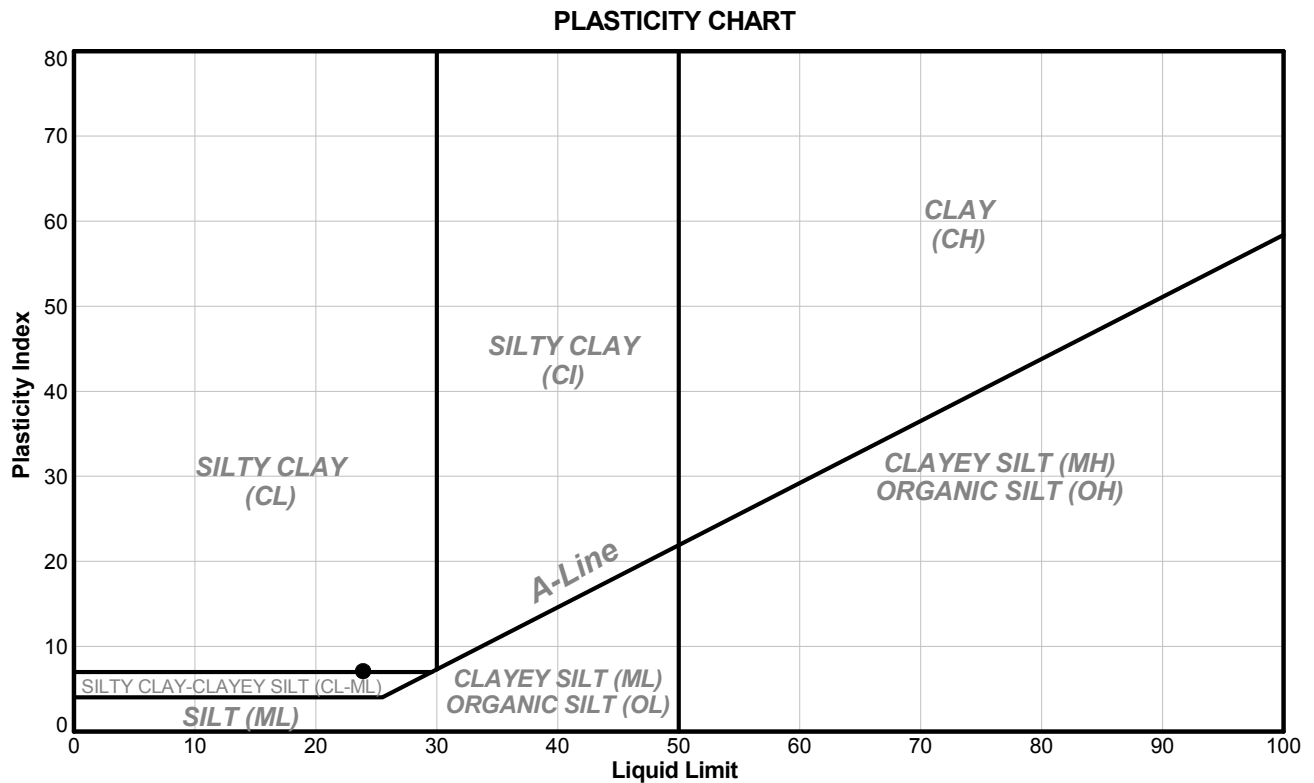
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 42
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 64.01 to 64.62
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	42	64.01	64.62	100	24	17	7.0	26.0	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OADC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2016/7

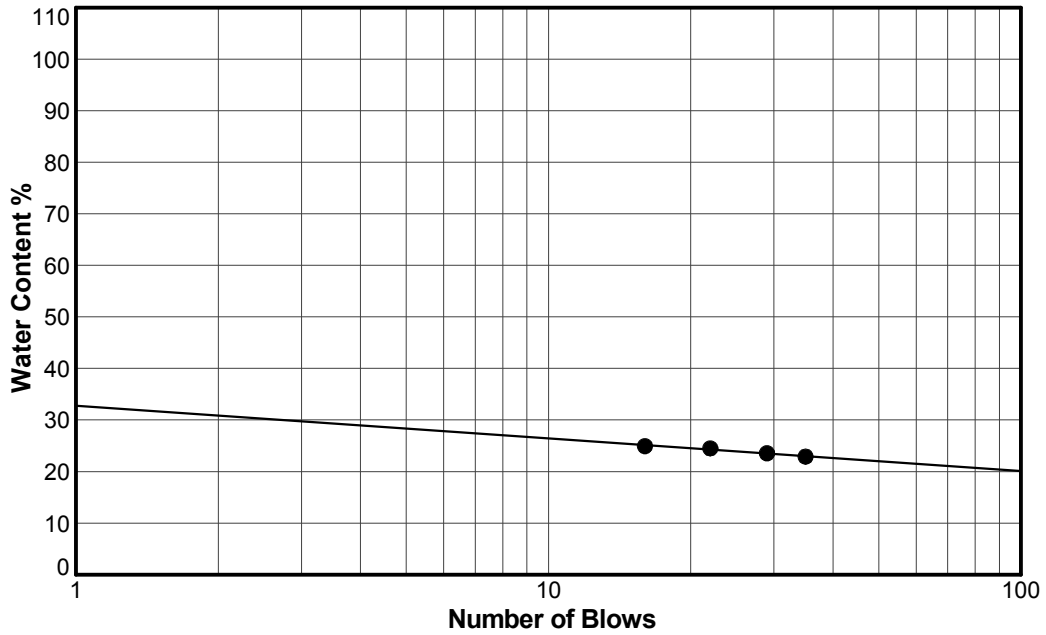
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 42
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 64.01 to 64.62
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	24
Plastic Limit	17
Plasticity Index	7
Natural Water Content (%)	26.0
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



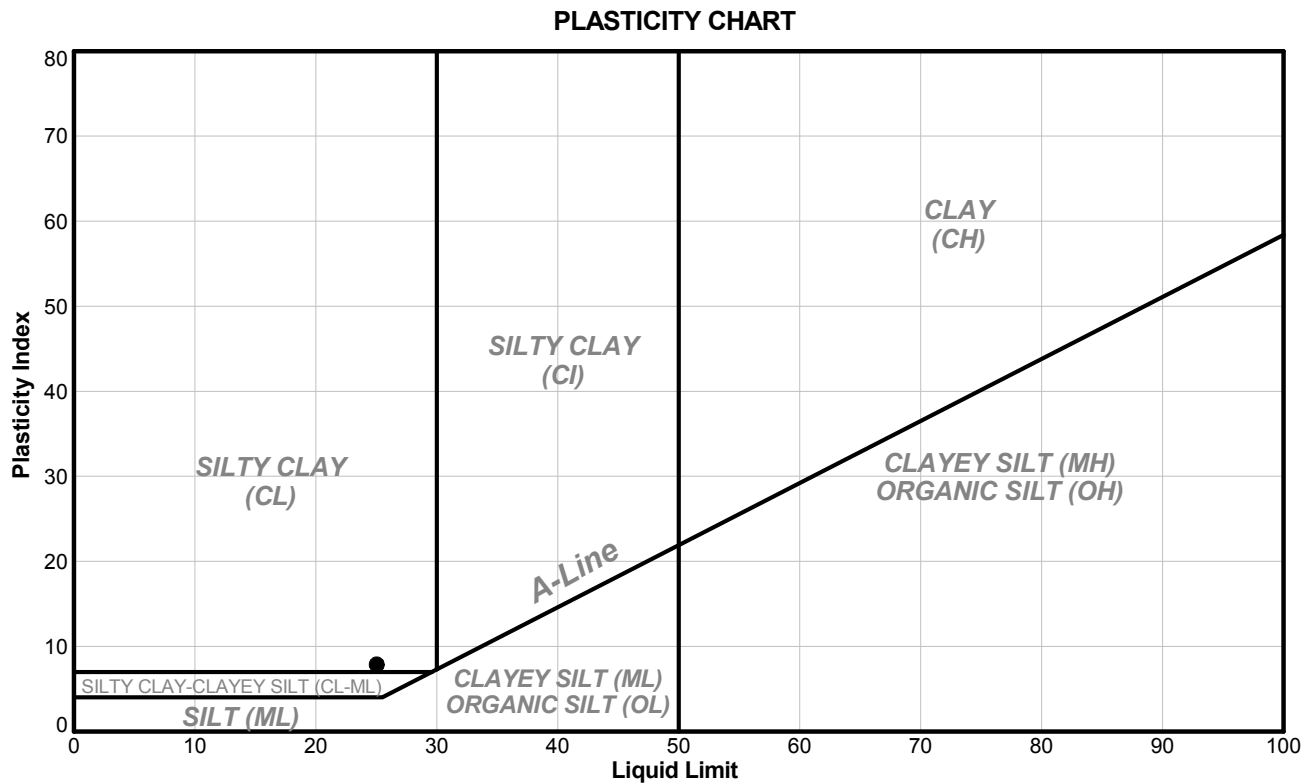
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 45
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 68.58 to 69.19
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	45	68.58	69.19	ND	25	17	8.0	27.1	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2016/7

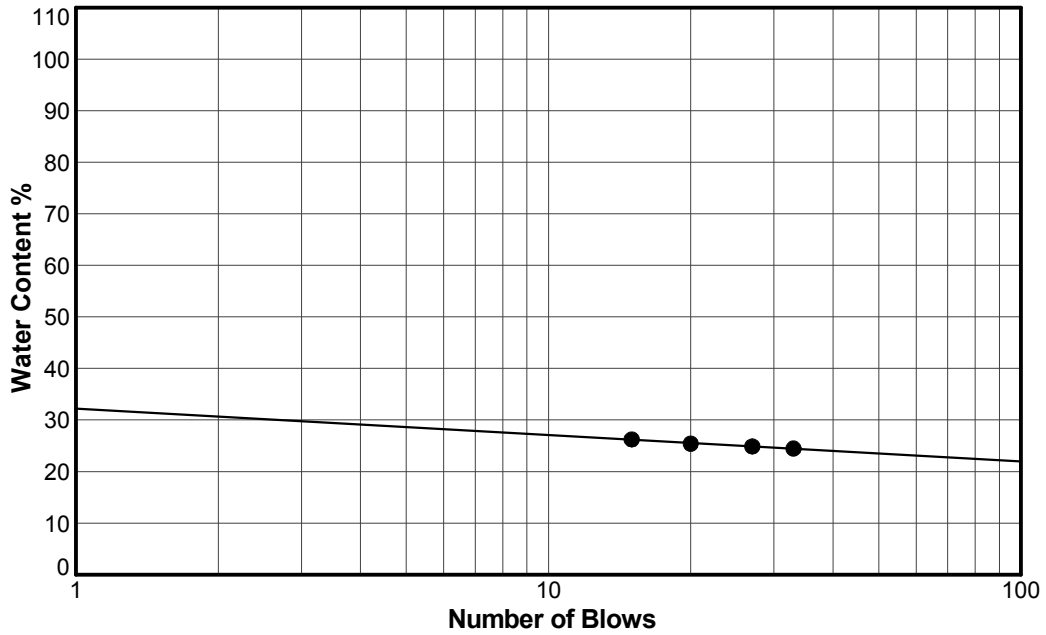
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 45
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 68.58 to 69.19
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	25
Plastic Limit	17
Plasticity Index	8
Natural Water Content (%)	27.1
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



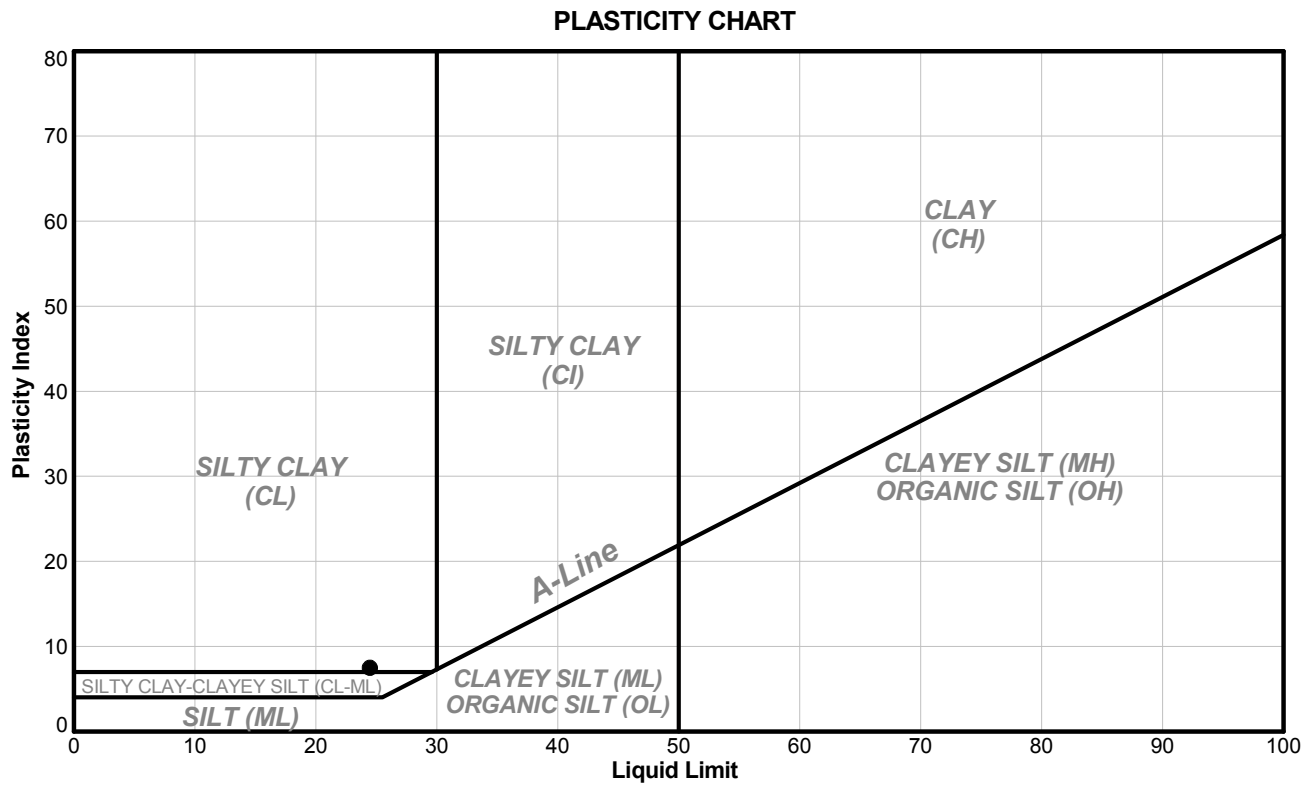
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 48
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 76.20 to 76.81
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	48	76.20	76.81	100	24	17	7.0	26.5	1.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OADC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

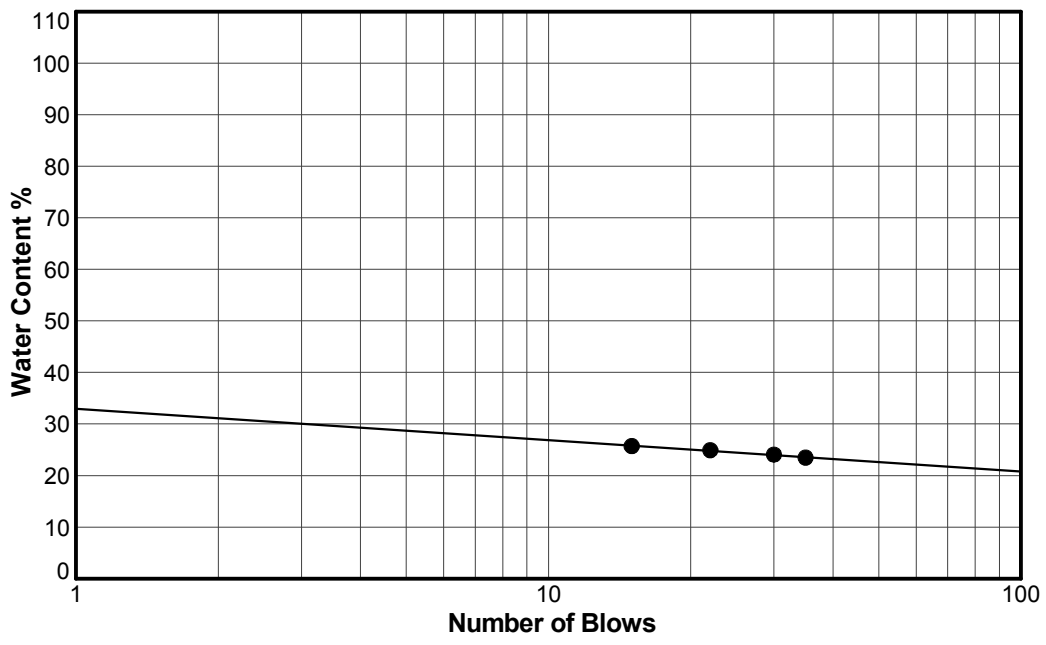
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 48
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 76.20 to 76.81
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	24
Plastic Limit	17
Plasticity Index	7
Natural Water Content (%)	26.5
Liquidity Index	1.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



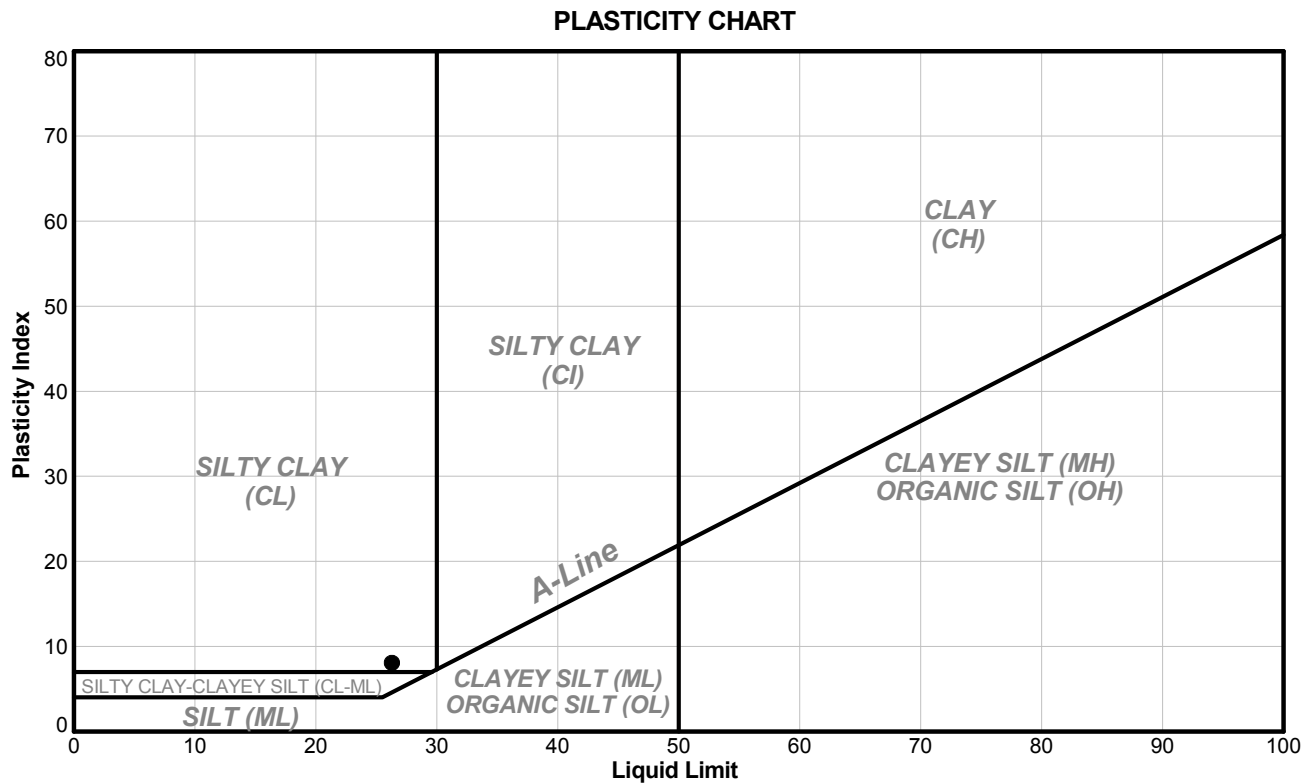
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH16-01	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 49	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 83.82 to 84.43	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	49	83.82	84.43	ND	26	18	8.0	28.6	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/OA	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2016/7

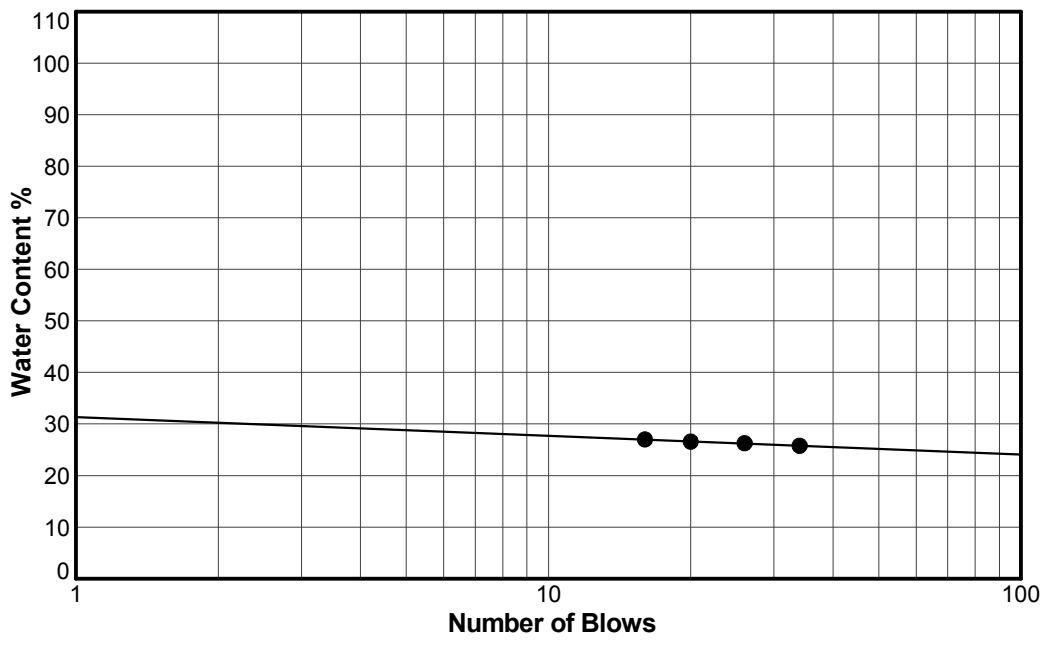
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 49
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 83.82 to 84.43
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	18
Plasticity Index	8
Natural Water Content (%)	28.6
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



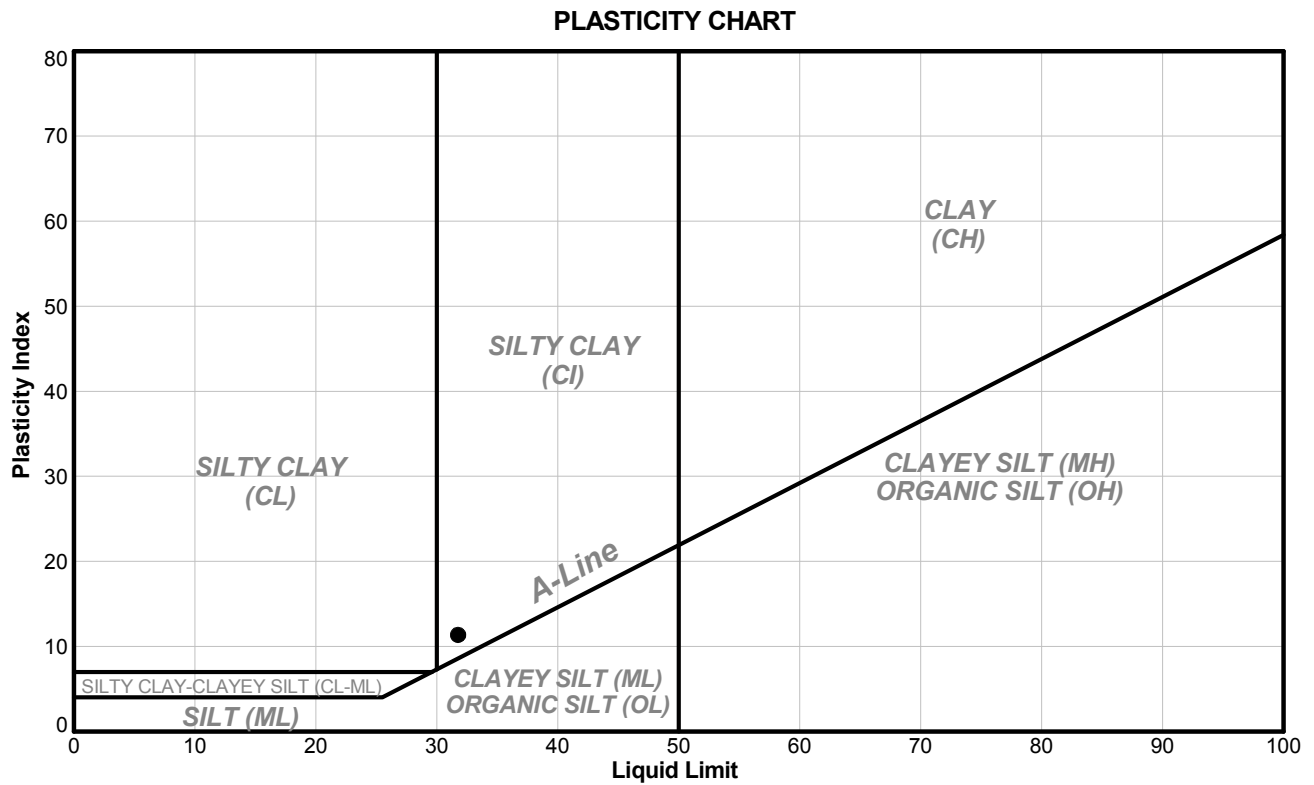
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/OA	5/2/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 50
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 89.92 to 90.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-01	50	89.92	90.53	ND	32	20	12.0	35.3	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OADC	5/3/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) I:\jyoung_2016\7

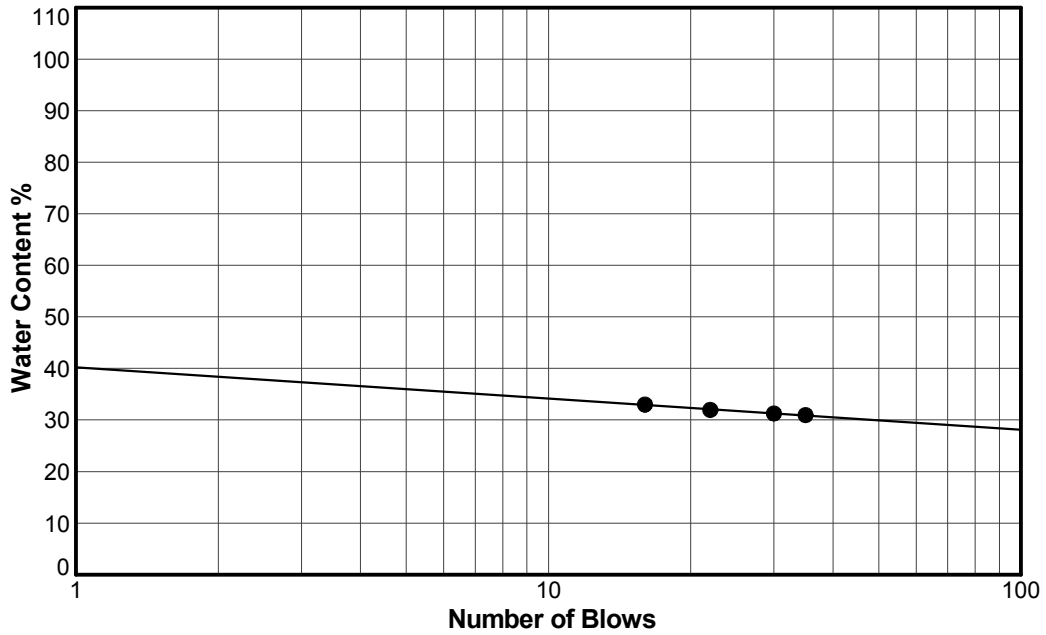
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-01
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 50
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 89.92 to 90.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	32
Plastic Limit	20
Plasticity Index	12
Natural Water Content (%)	35.3
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



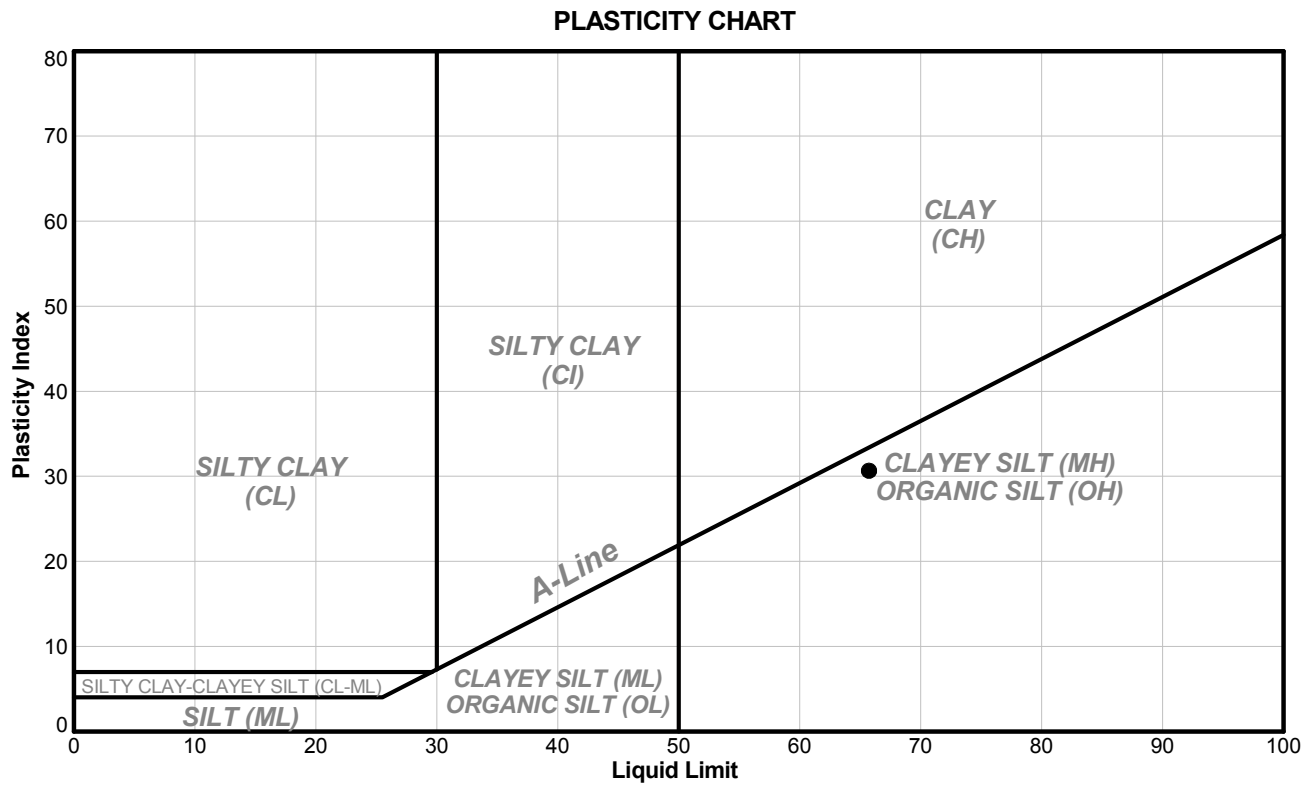
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/3/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 2
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 5.43 to 6.04
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-02	2	5.43	6.04	ND	66	35	31.0	57.1	0.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

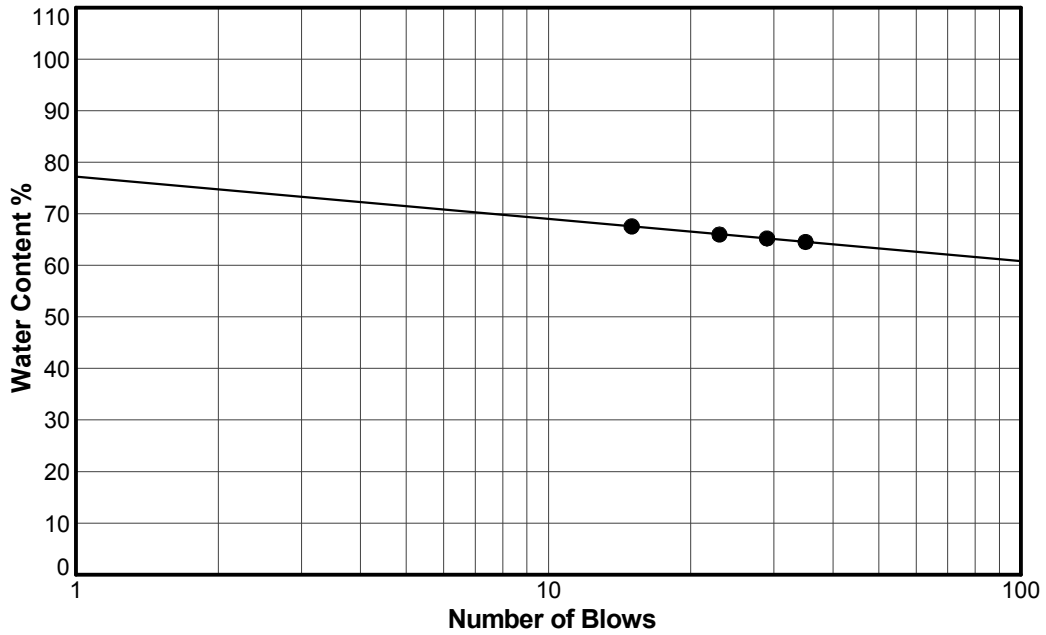
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 2
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 5.43 to 6.04
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	66
Plastic Limit	35
Plasticity Index	31
Natural Water Content (%)	57.1
Liquidity Index	0.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



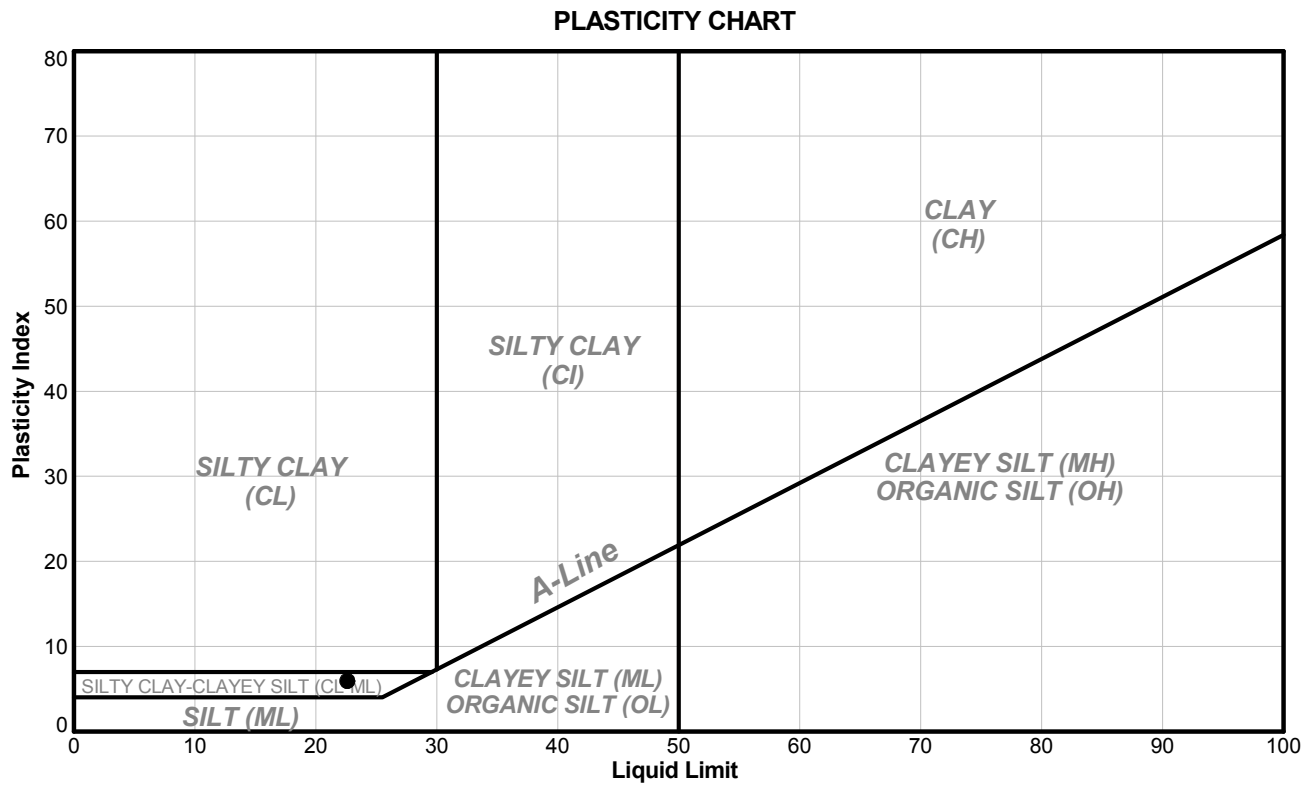
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SJ/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH16-02	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 32	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 51.21 to 51.82	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-02	32	51.21	51.82	ND	23	17	6.0	27.9	1.8

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/3/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.21 to 51.82
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	23
Plastic Limit	17
Plasticity Index	6
Natural Water Content (%)	27.9
Liquidity Index	1.8

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



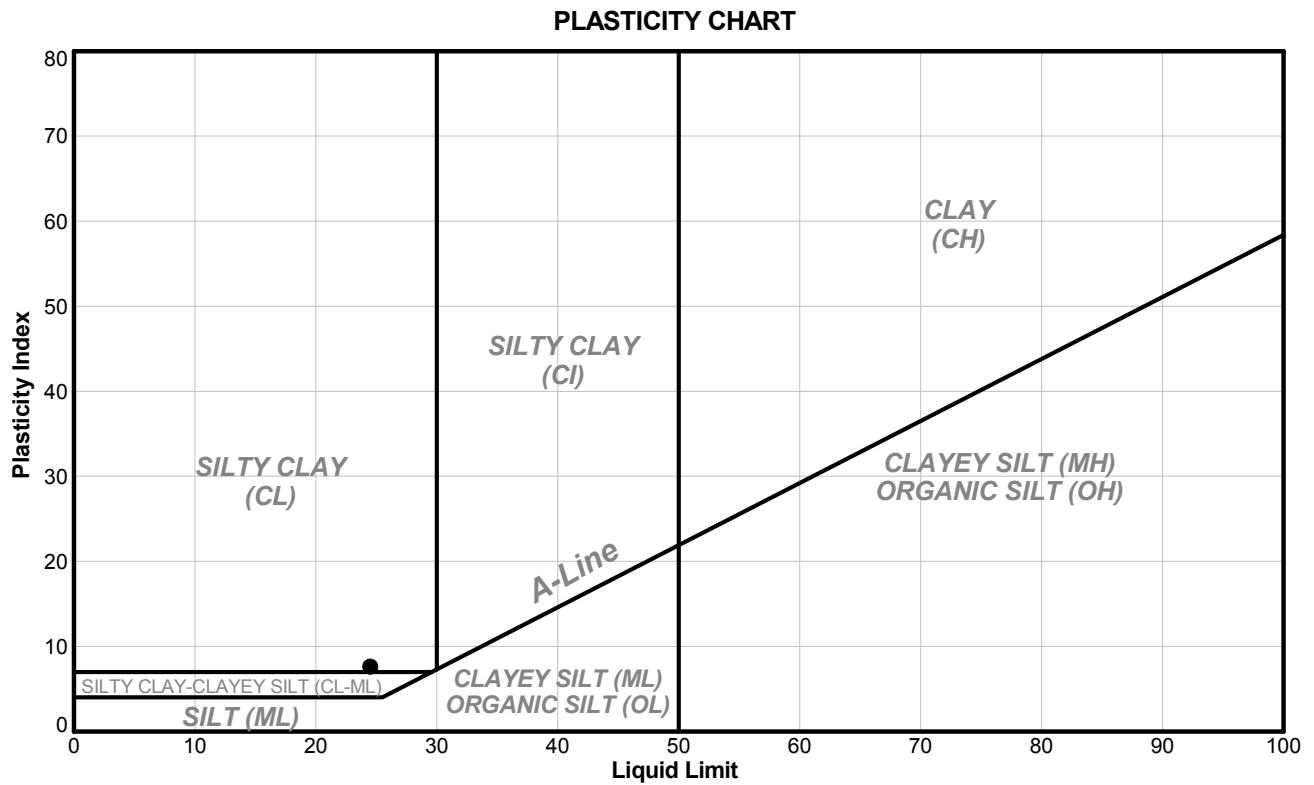
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OADC	5/3/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Service: GINT_GAL_NATIONALIM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH16-02	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 34	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 54.25 to 54.86	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-02	34	54.25	54.86	ND	24	17	7.0	28.7	1.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/3/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

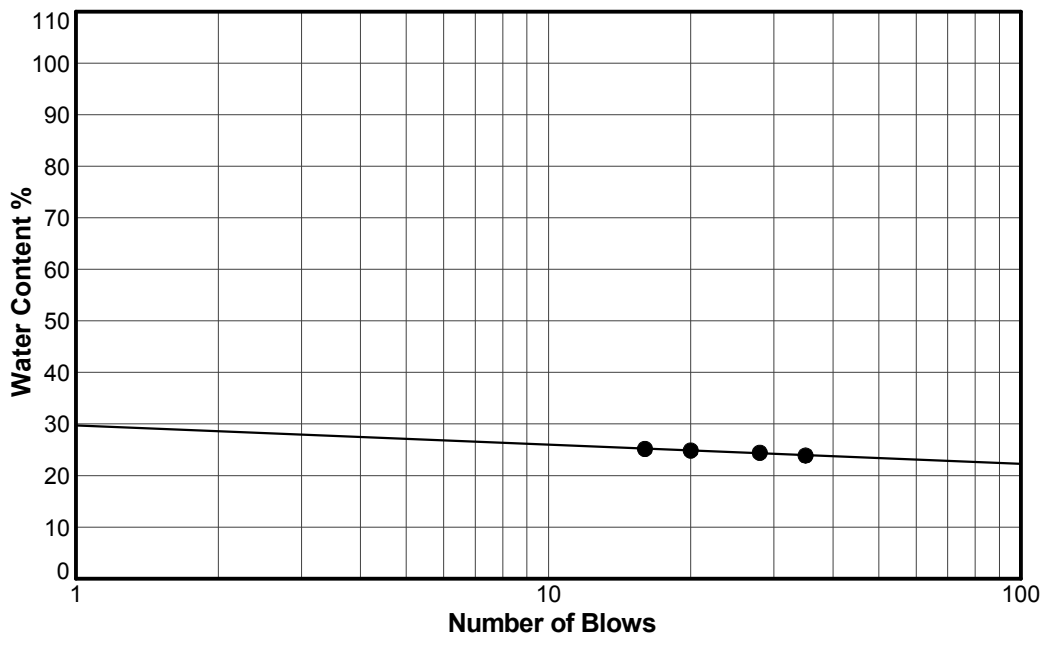
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.25 to 54.86
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	24
Plastic Limit	17
Plasticity Index	7
Natural Water Content (%)	28.7
Liquidity Index	1.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



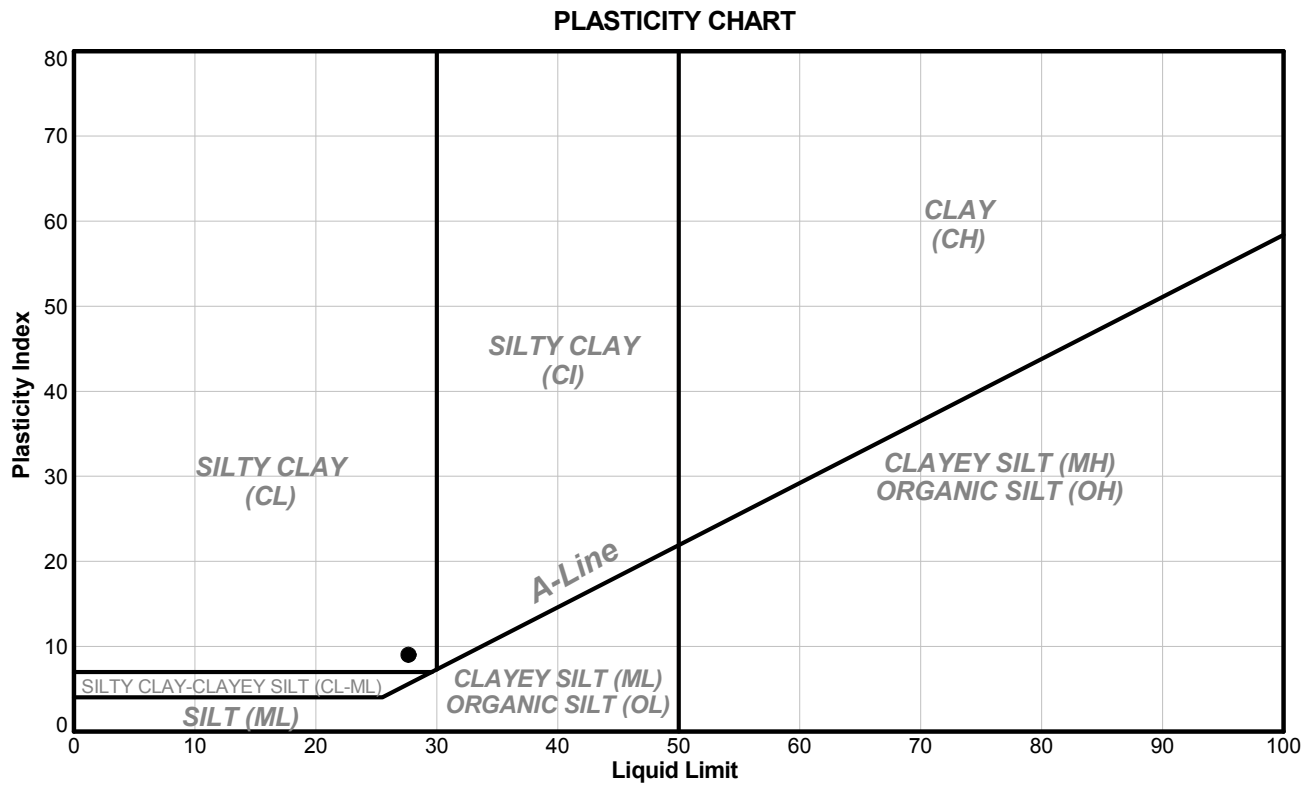
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/3/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID:OutputForm:LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 59.44 to 59.49
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-02	DSS	59.44	59.49	ND	28	19	9.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT	6/8/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

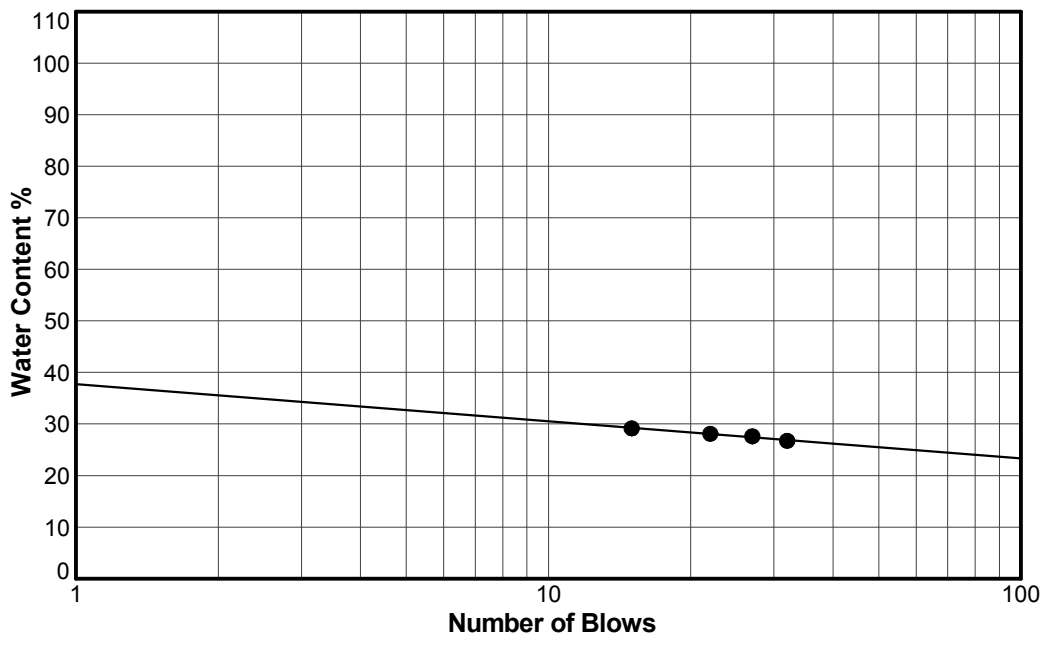
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Client: CDM Smith Canada ULC		Borehole ID: BH16-02
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 59.44 to 59.49
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	19
Plasticity Index	9
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

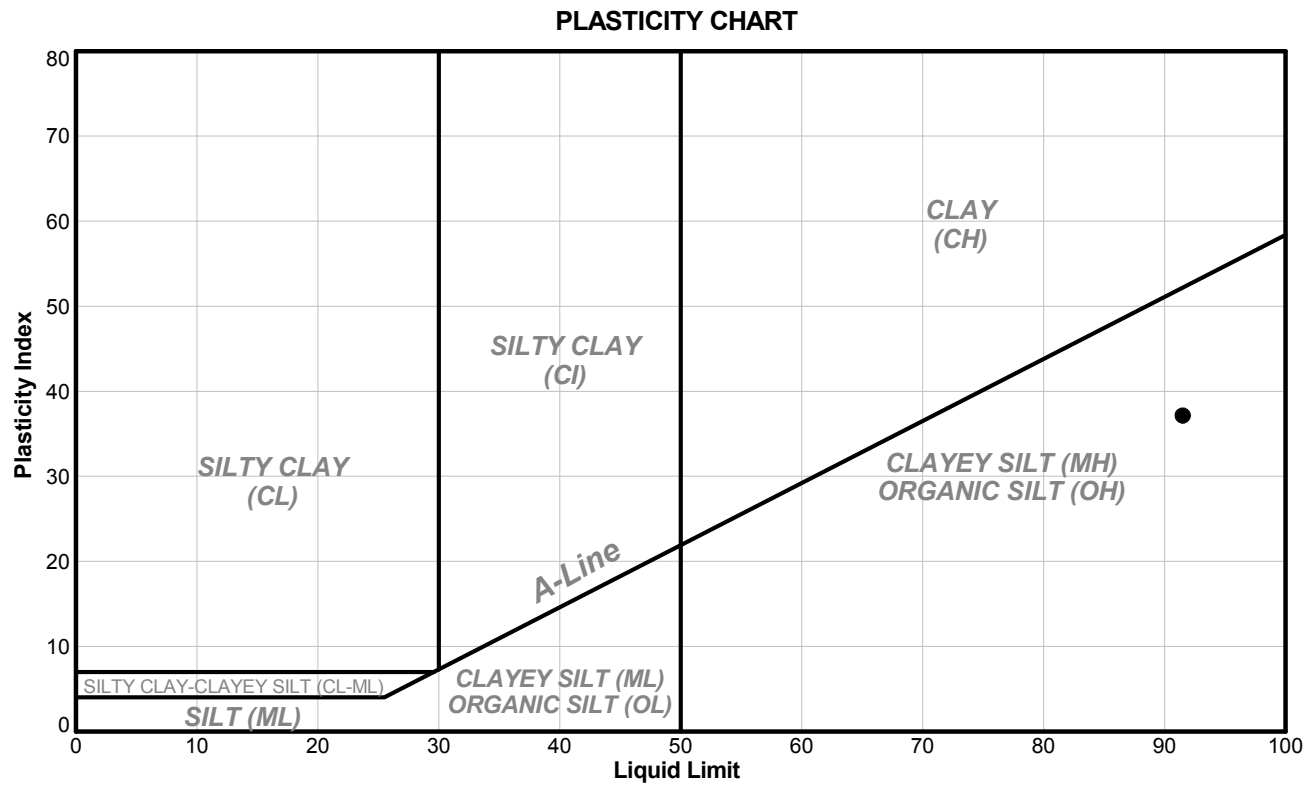
RRT	6/8/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 1 Specimen: 1B
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.92 to 3.05
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	1B	2.92	3.05	ND	92	54	38.0	92.8	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/5/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

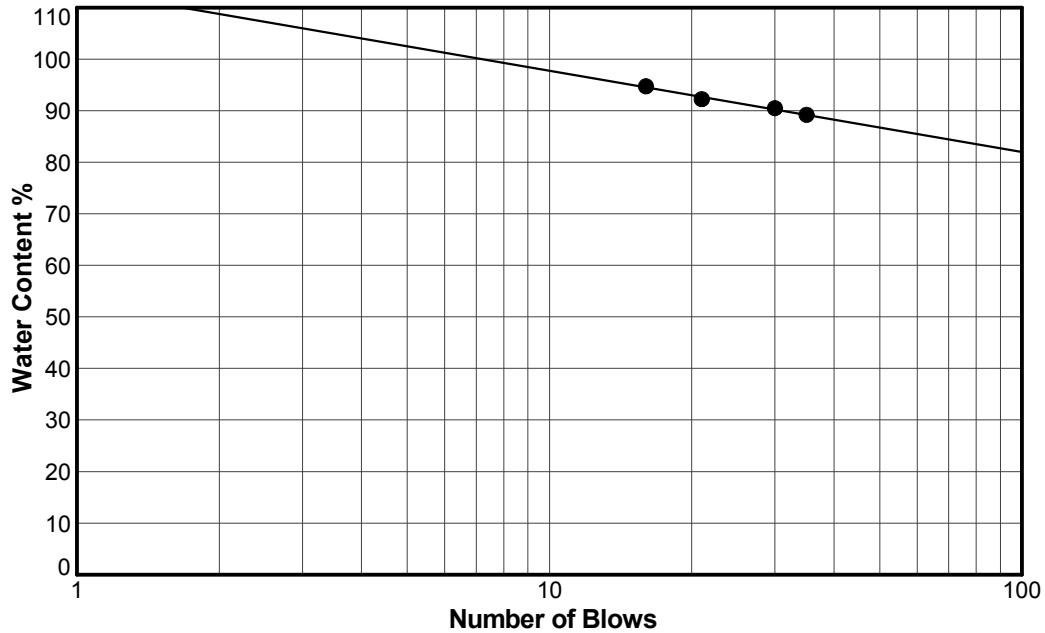
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 1 Specimen: 1B
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.92 to 3.05
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	92
Plastic Limit	54
Plasticity Index	38
Natural Water Content (%)	92.8
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

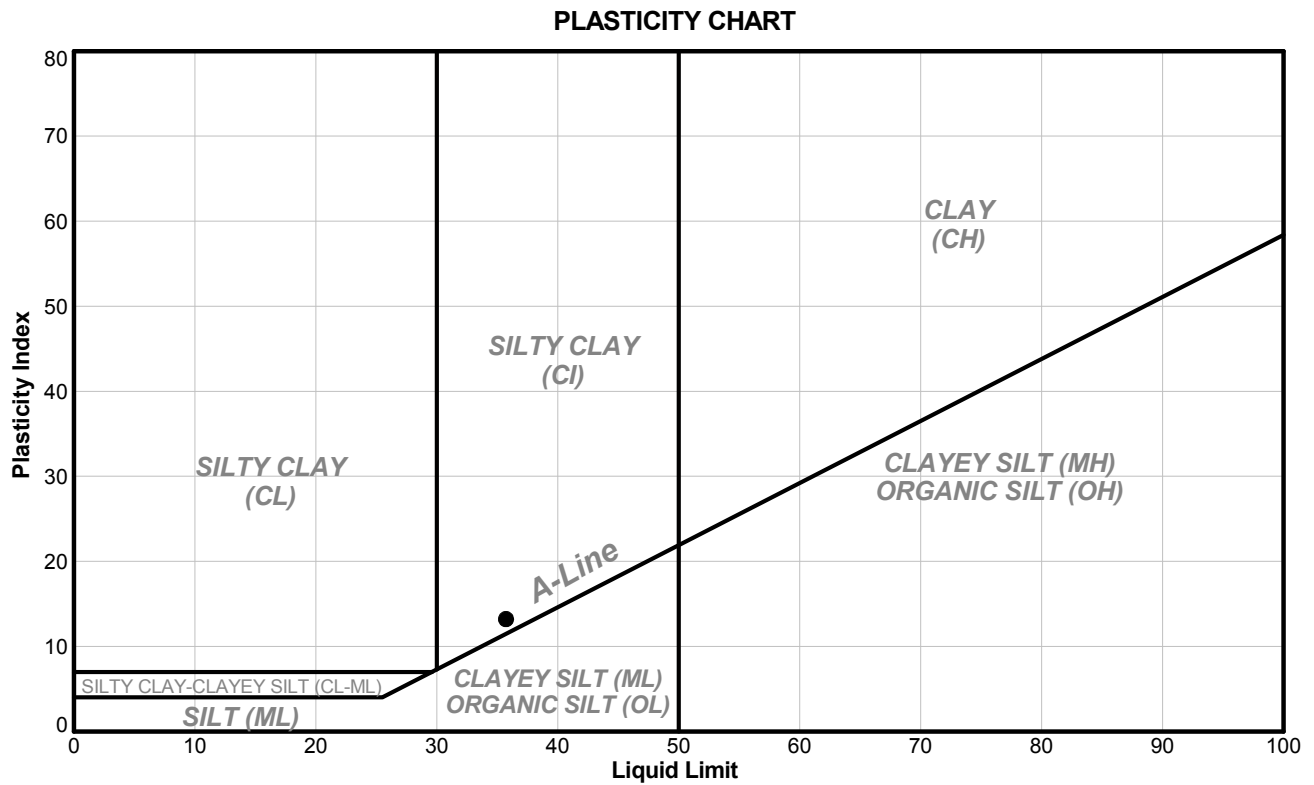
OA/DC	5/5/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.31 to 51.38
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	DSS	51.31	51.38	ND	36	23	13.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT	6/3/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG CASAGRANDE (SINGLE) J:\jyoung_2016\17

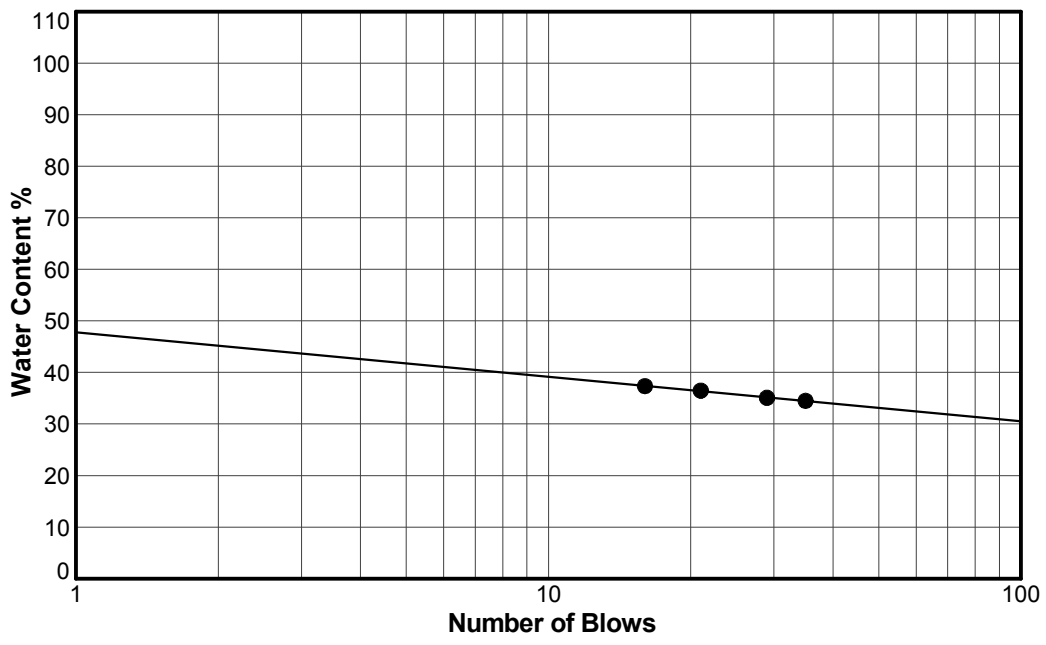
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Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.31 to 51.38
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	36
Plastic Limit	23
Plasticity Index	13
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

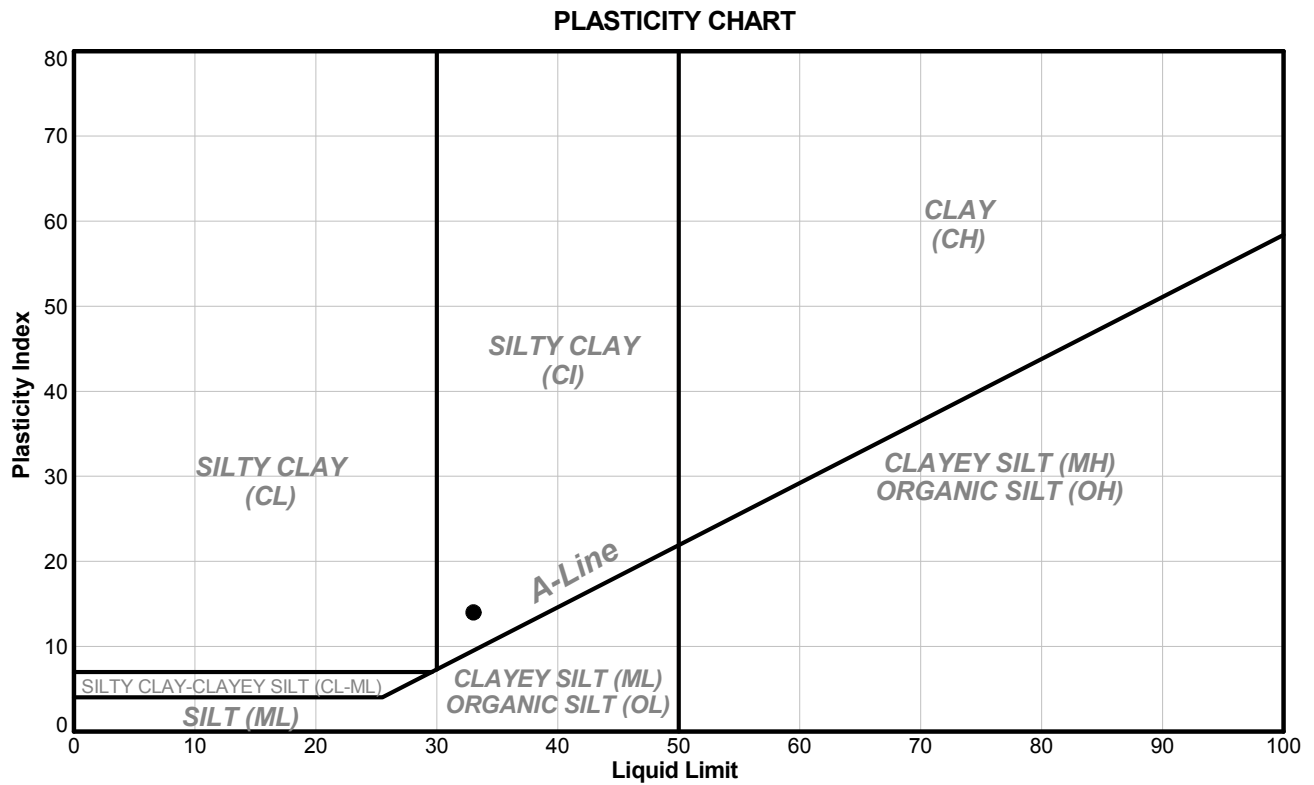
RRT	6/3/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.38 to 51.44
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	DSS	51.38	51.44	ND	33	19	14.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/SJ	6/1/2016	LH	6/2/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

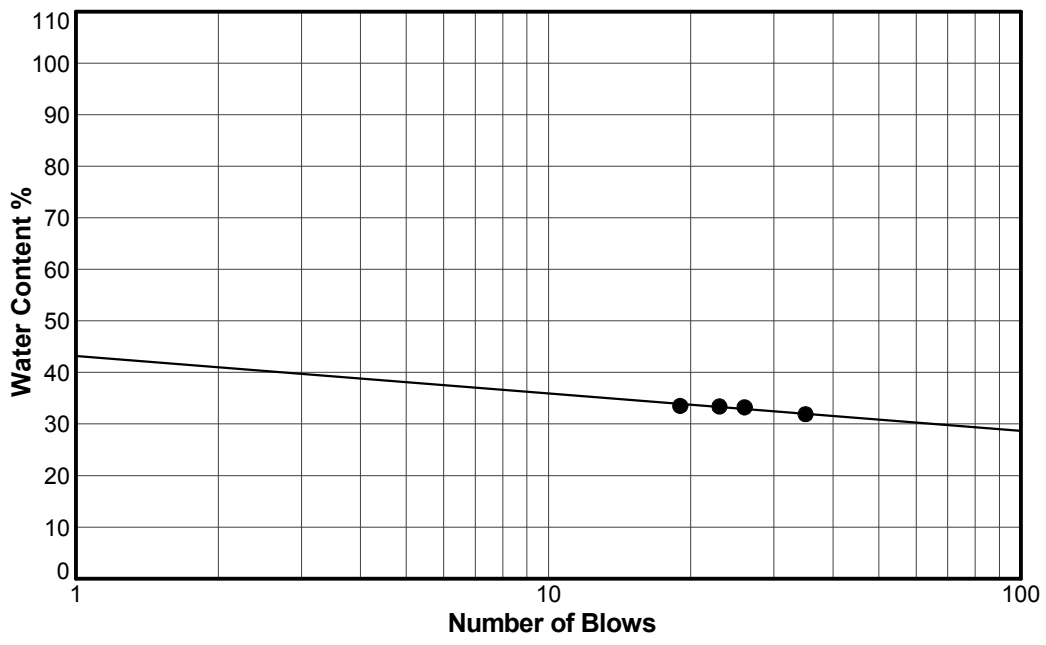
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 34 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.38 to 51.44
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	33
Plastic Limit	19
Plasticity Index	14
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

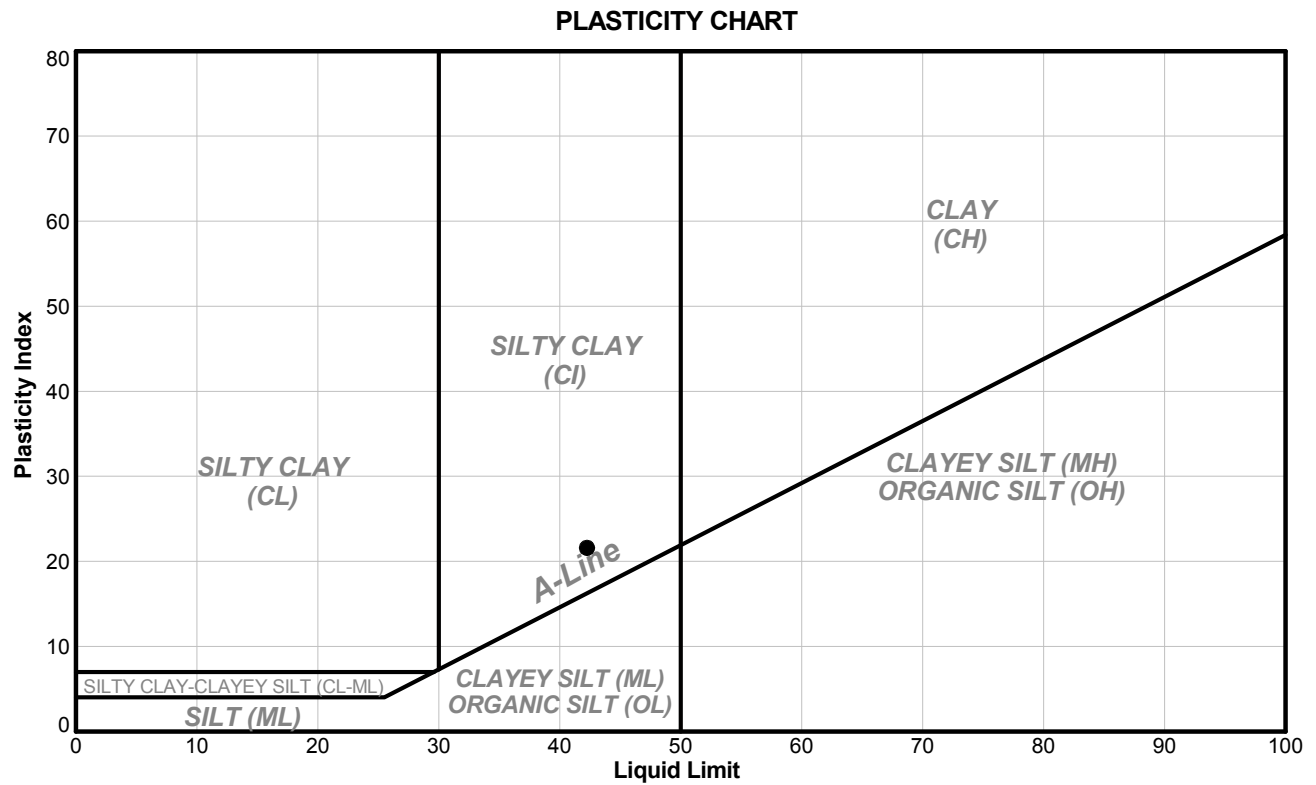
RRT/SJ	6/1/2016	LH	6/2/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 53.29 to 53.34
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	DSS	53.29	53.34	ND	42	21	21.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/SJ	6/1/2016	LH	6/2/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 53.29 to 53.34
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	42
Plastic Limit	21
Plasticity Index	21
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



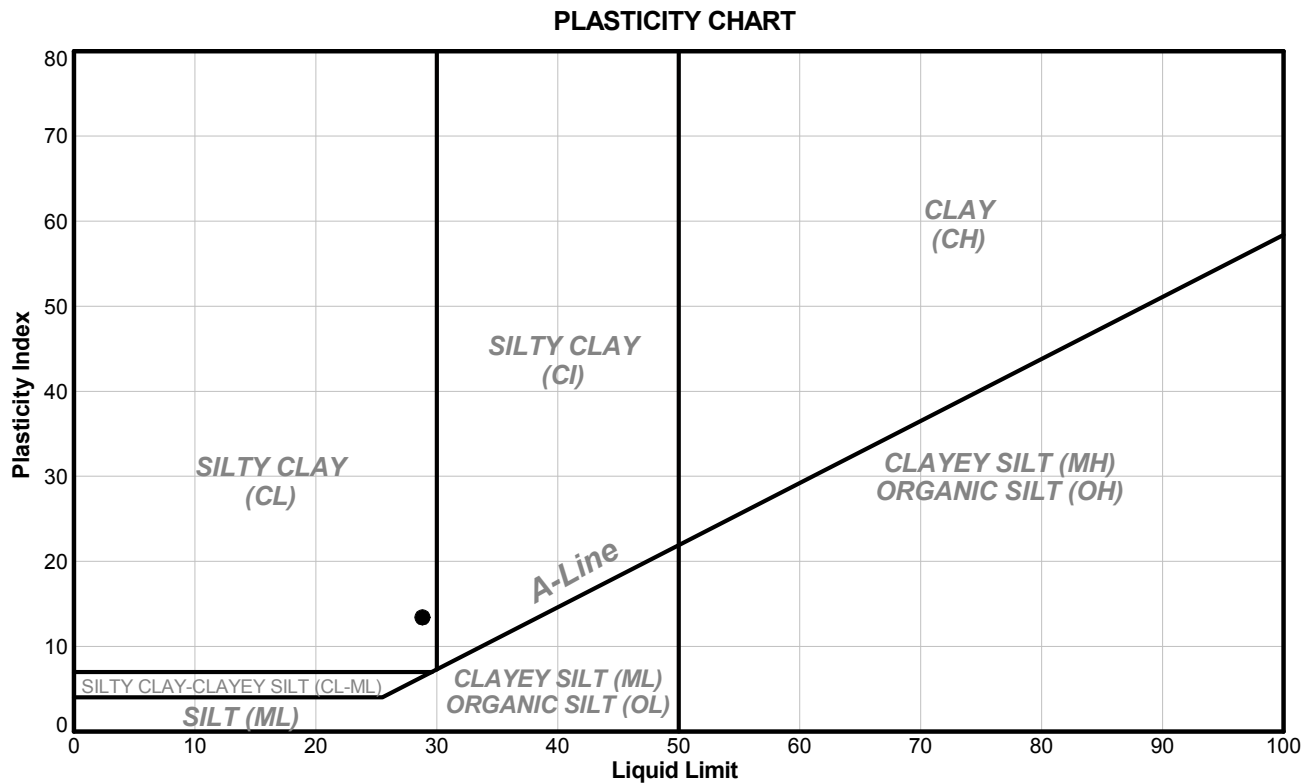
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/SJ	6/1/2016	LH	6/2/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.25 to 54.86
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	36	54.25	54.86	ND	29	15	14.0	29.2	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2016\17

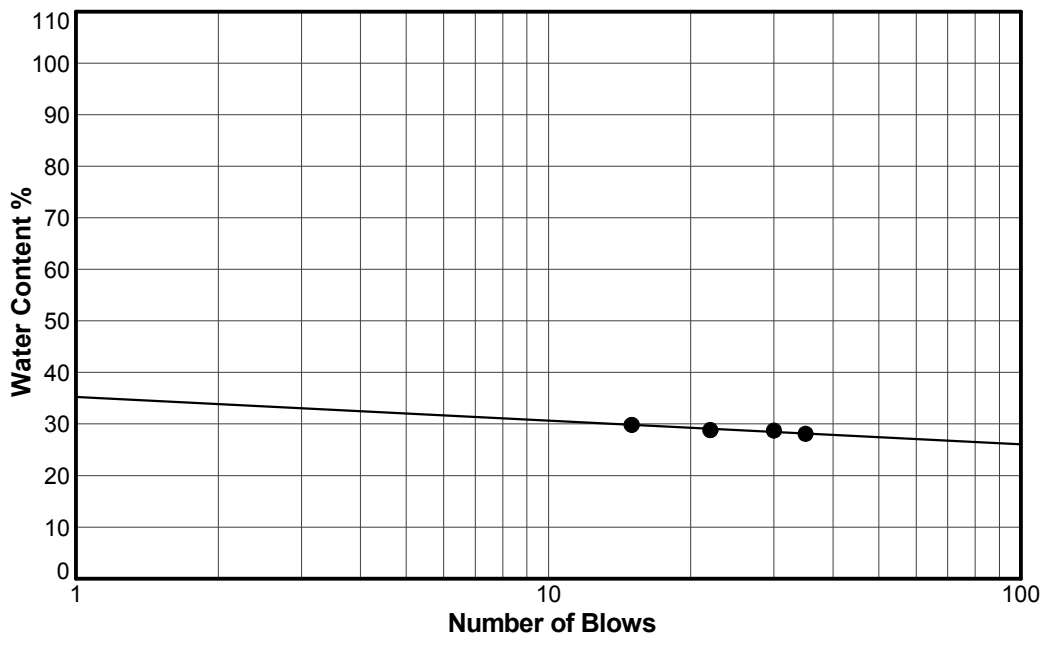
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.25 to 54.86
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	29
Plastic Limit	15
Plasticity Index	14
Natural Water Content (%)	29.2
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

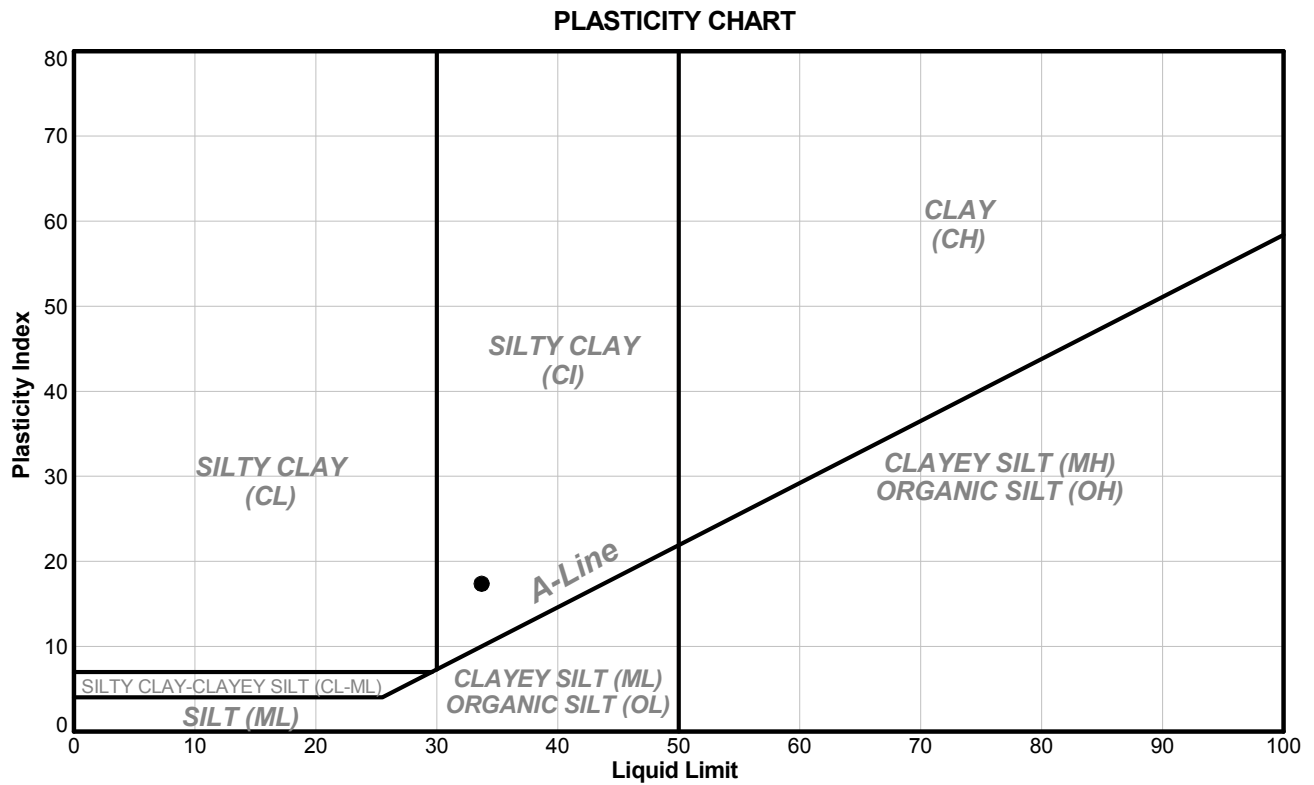
OA/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 38
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 57.28 to 57.89
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	38	57.28	57.89	ND	34	16	18.0	17.8	0.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

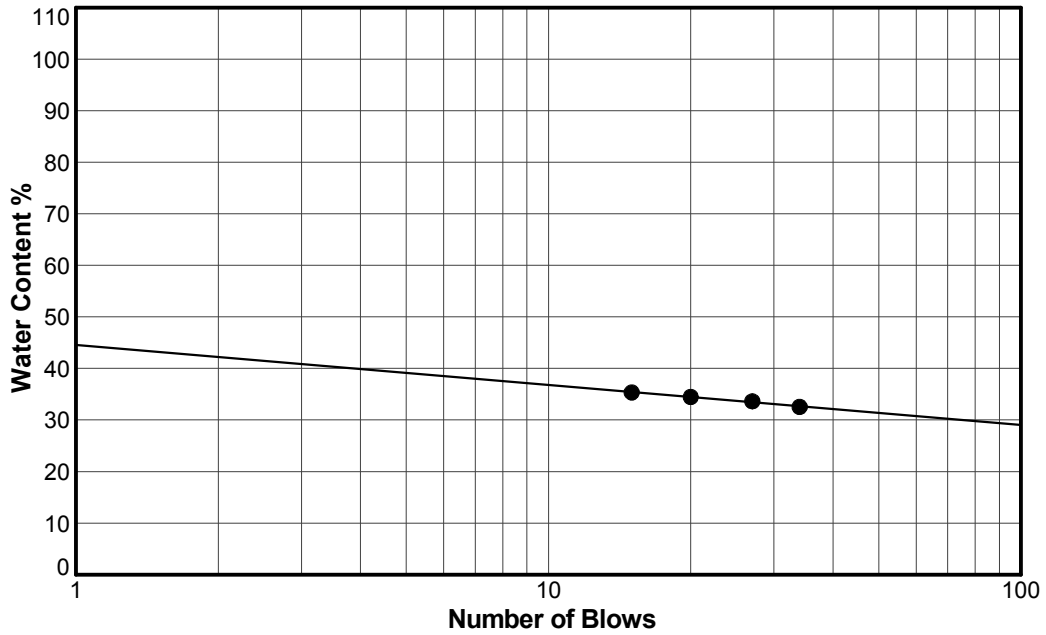
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 38
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 57.28 to 57.89
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	34
Plastic Limit	16
Plasticity Index	18
Natural Water Content (%)	17.8
Liquidity Index	0.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

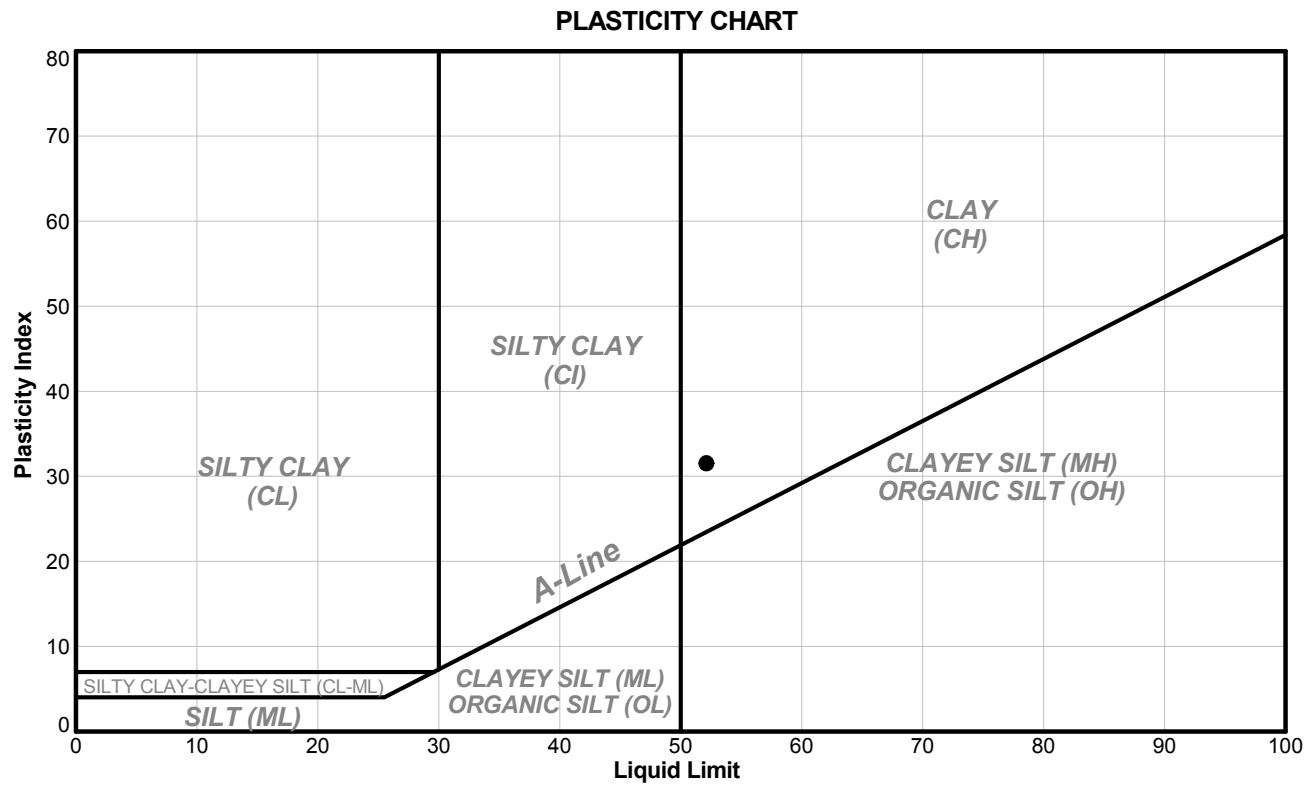
SJ/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 40
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 60.35 to 60.96
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	40	60.35	60.96	ND	52	21	31.0	34.8	0.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

O/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

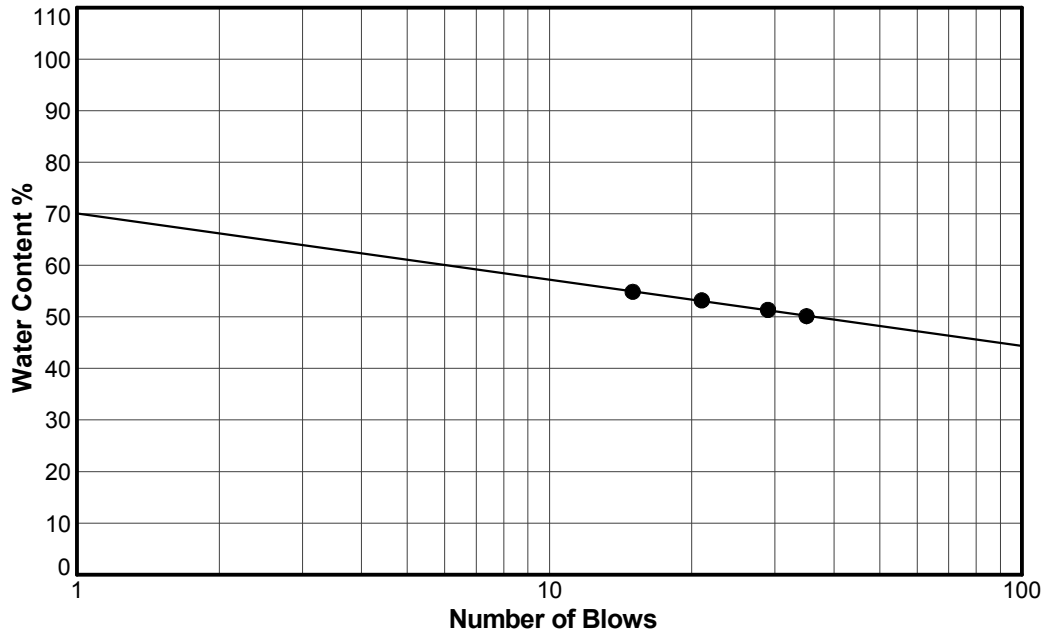
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 40
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 60.35 to 60.96
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	52
Plastic Limit	21
Plasticity Index	31
Natural Water Content (%)	34.8
Liquidity Index	0.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

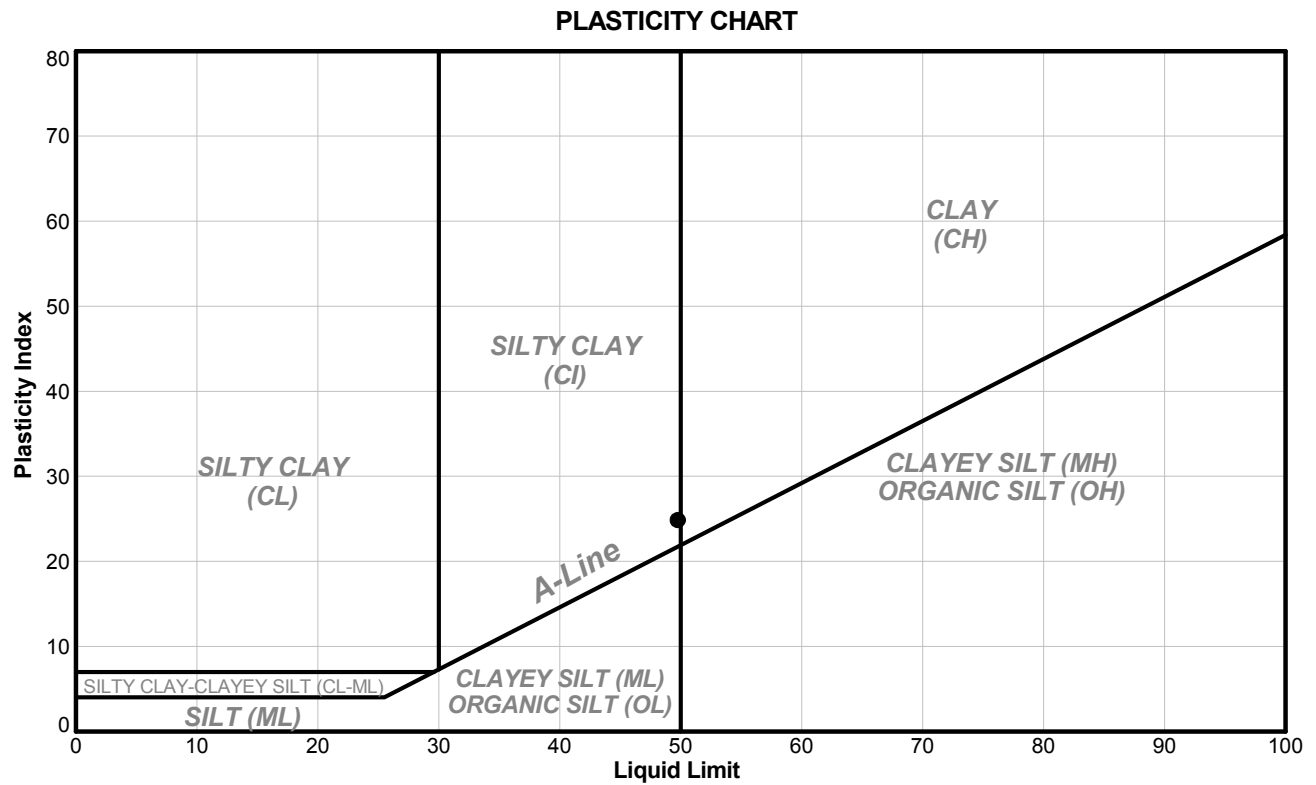
National IM Services\GINT_GAL_NATIONAL\Unique Project ID: Output\Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 41 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 61.17 to 61.22
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	DSS	61.17	61.22	ND	50	25	25.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

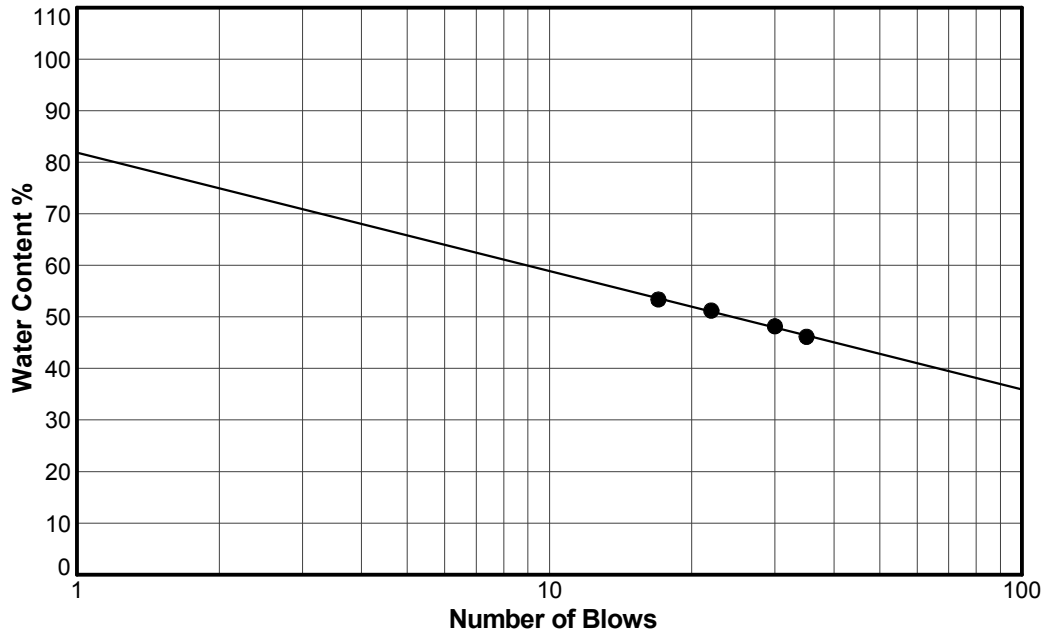
RRT	6/3/2016	LH	6/8/2016
Tech	Date	Checked	Date

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 41 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 61.17 to 61.22
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	50
Plastic Limit	25
Plasticity Index	25
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



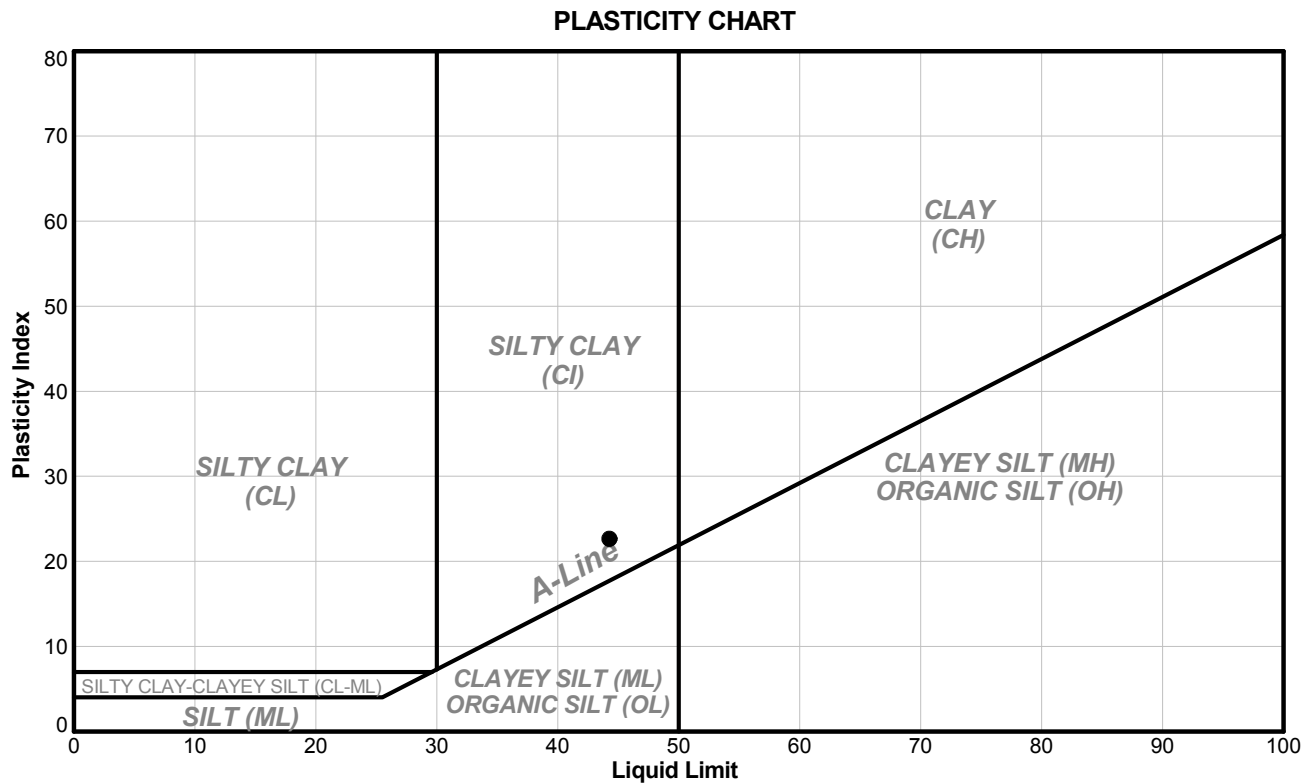
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT	6/3/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 43
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 64.92 to 65.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	43	64.92	65.53	100	44	22	22.0	26.6	0.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/7

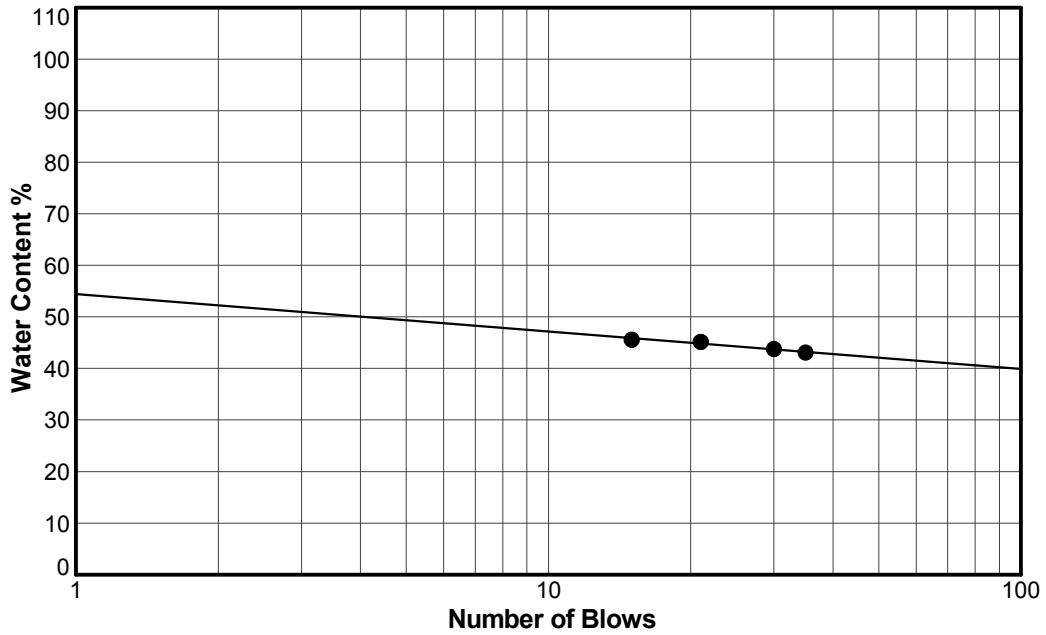
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 43
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 64.92 to 65.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	44
Plastic Limit	22
Plasticity Index	22
Natural Water Content (%)	26.6
Liquidity Index	0.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

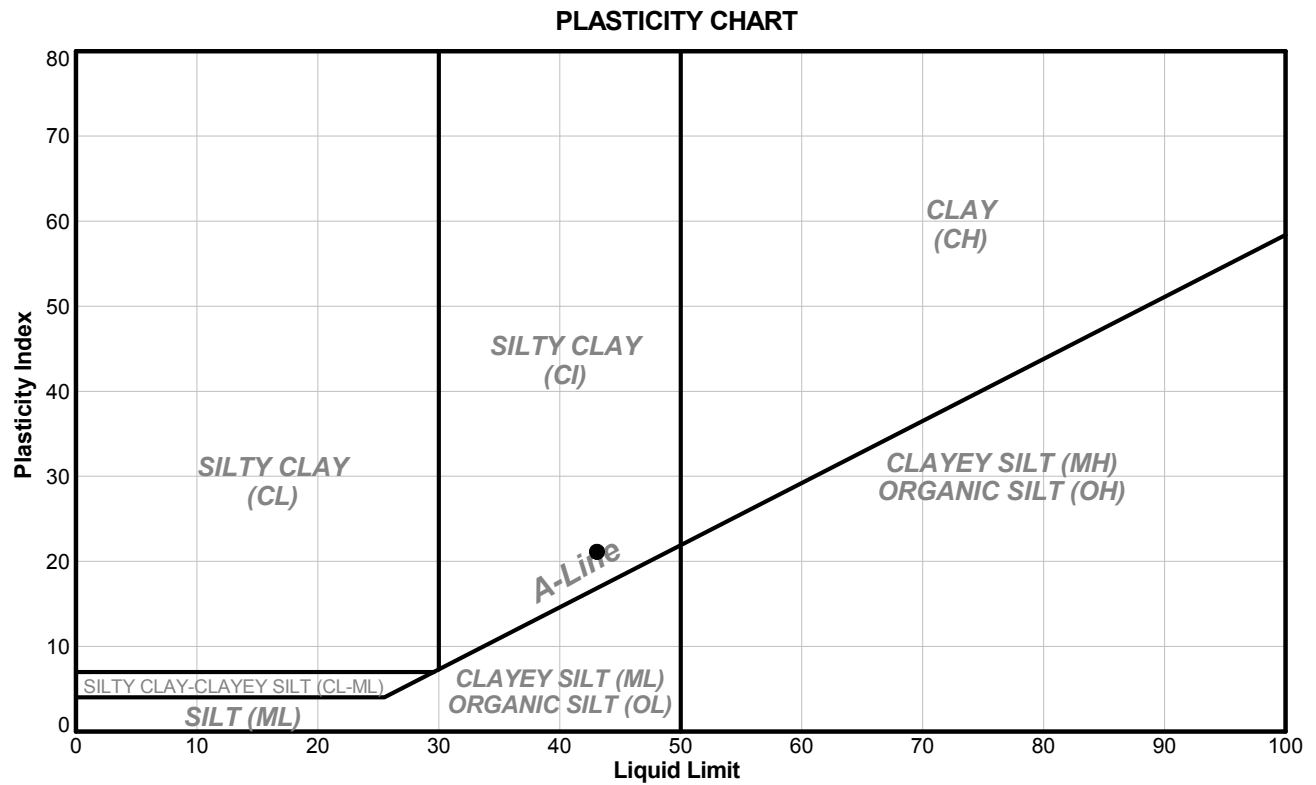
OA/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 47
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 72.54 to 73.15
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	47	72.54	73.15	100	43	22	21.0	25.1	0.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

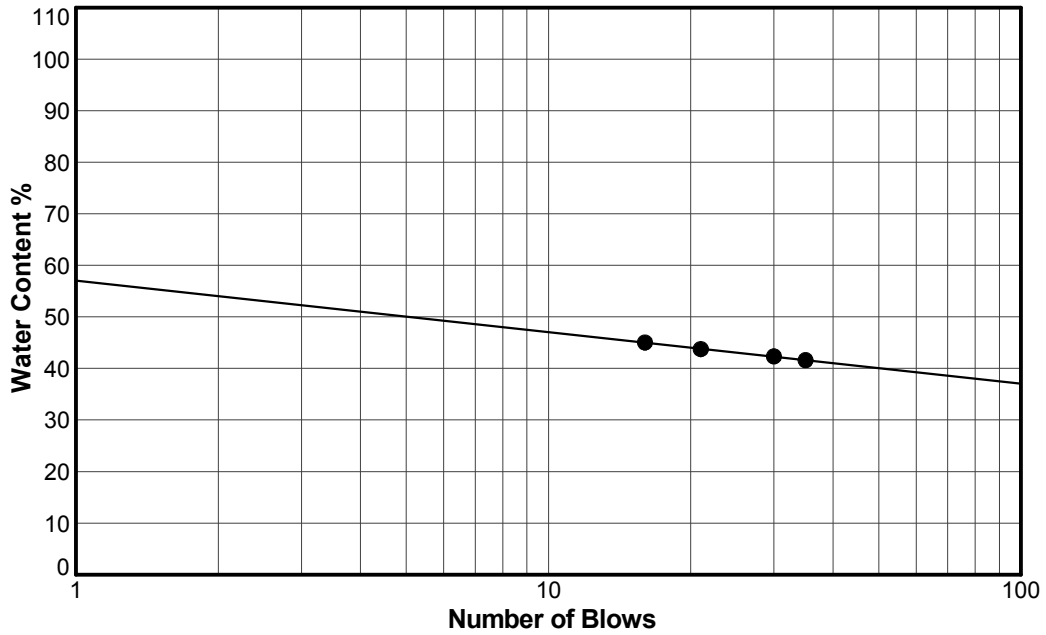
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 47
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 72.54 to 73.15
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	43
Plastic Limit	22
Plasticity Index	21
Natural Water Content (%)	25.1
Liquidity Index	0.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



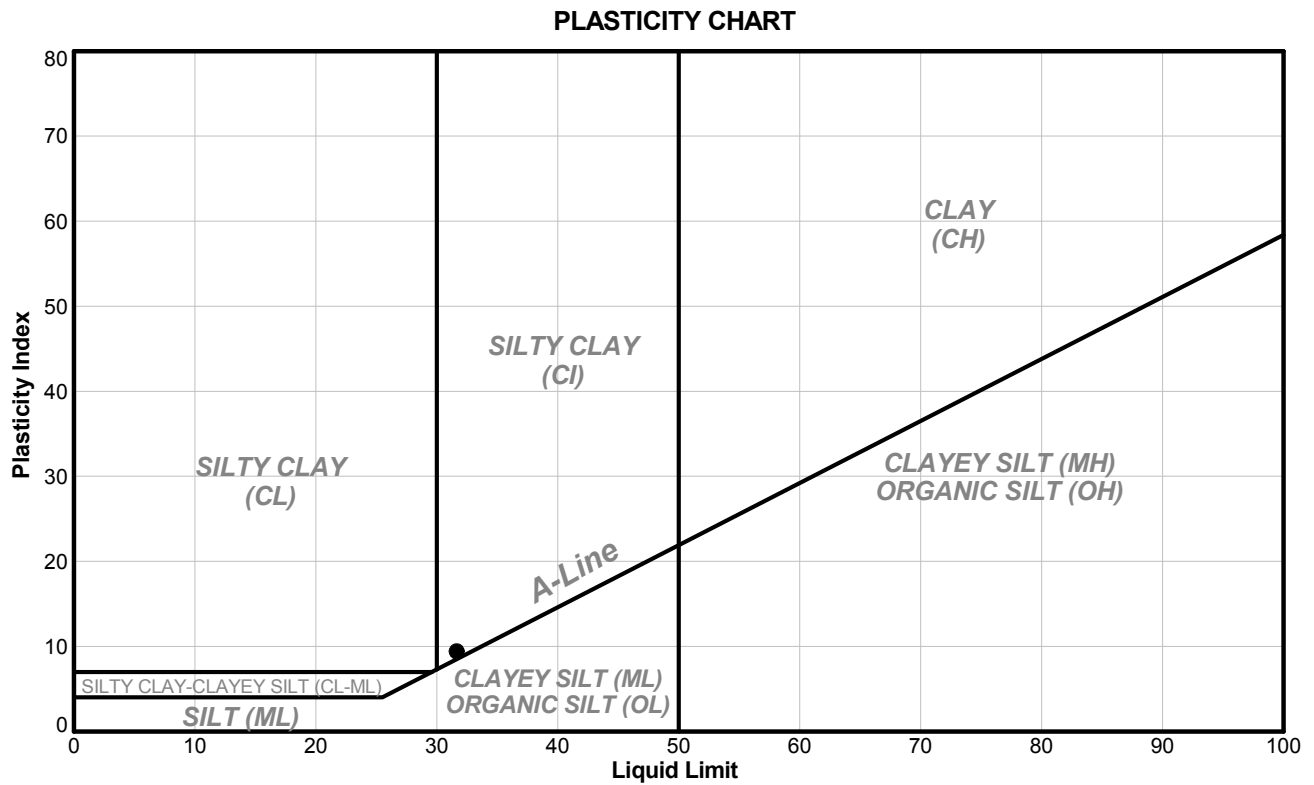
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/4/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 49
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 77.11 to 77.72
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-03	49	77.11	77.72	100	32	22	10.0	30.1	0.8

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/5/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/7

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-03
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 49
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 77.11 to 77.72
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	32
Plastic Limit	22
Plasticity Index	10
Natural Water Content (%)	30.1
Liquidity Index	0.8

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



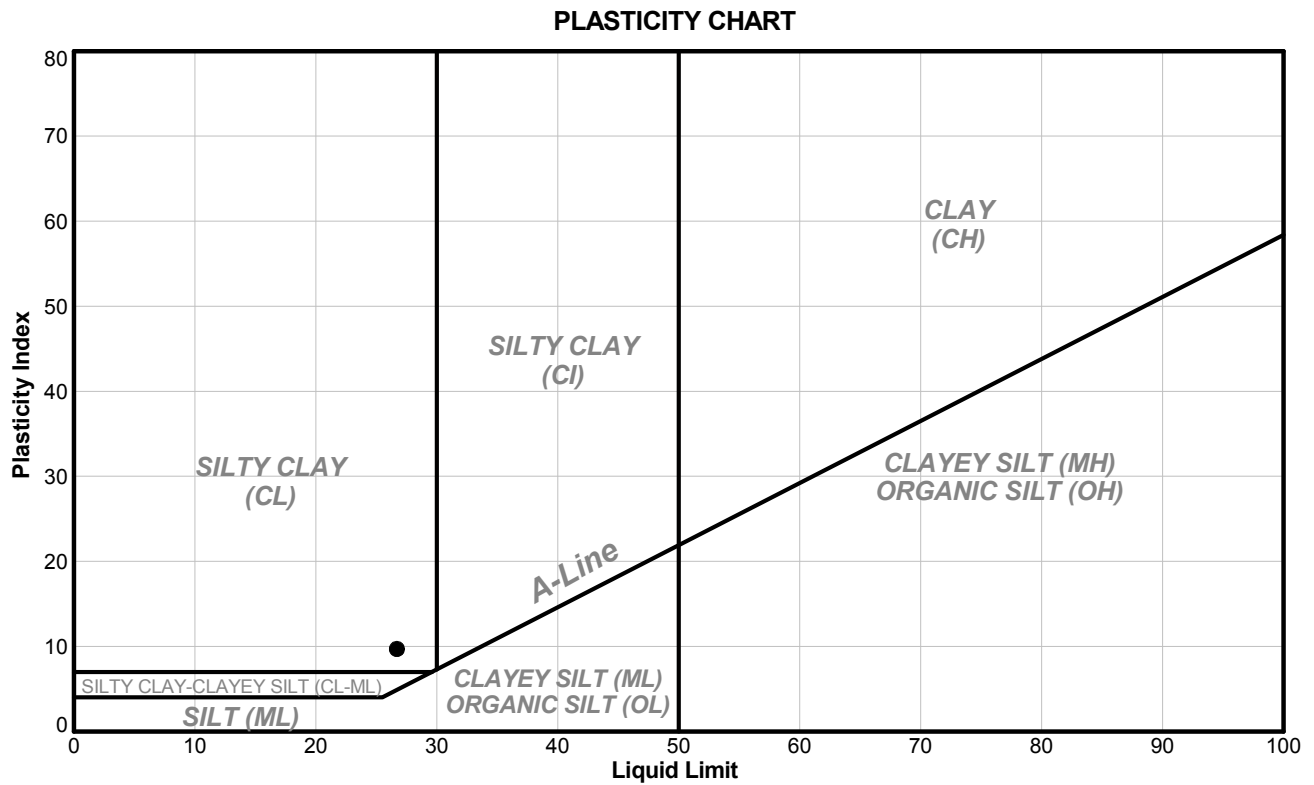
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	5/5/2016	LH	5/10/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 48.16 to 48.77
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-04	30	48.16	48.77	ND	27	17	10.0	29.9	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

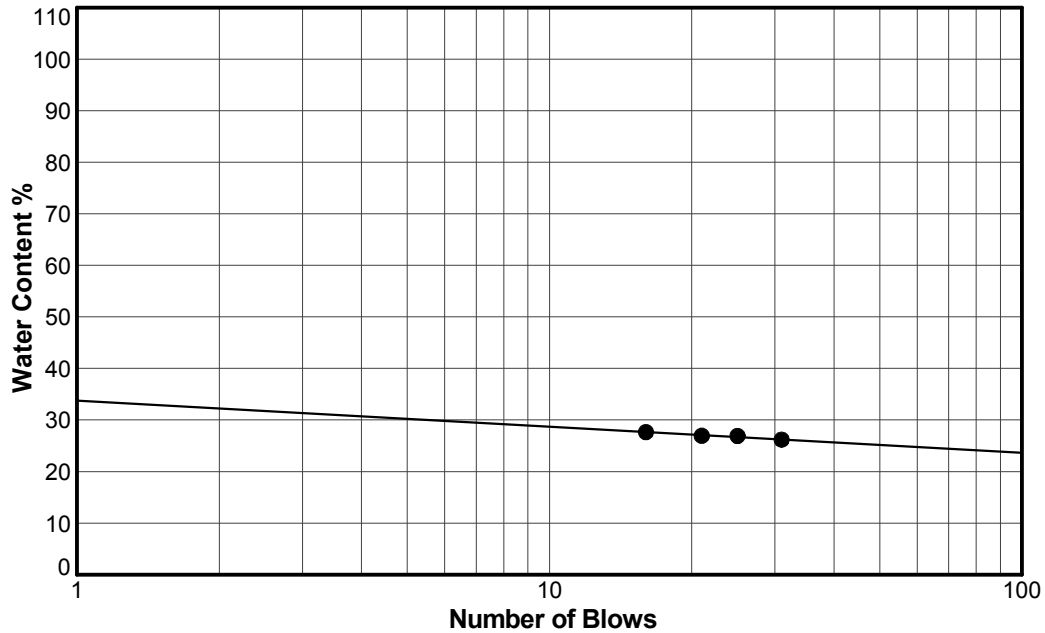
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 48.16 to 48.77
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	27
Plastic Limit	17
Plasticity Index	10
Natural Water Content (%)	29.9
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

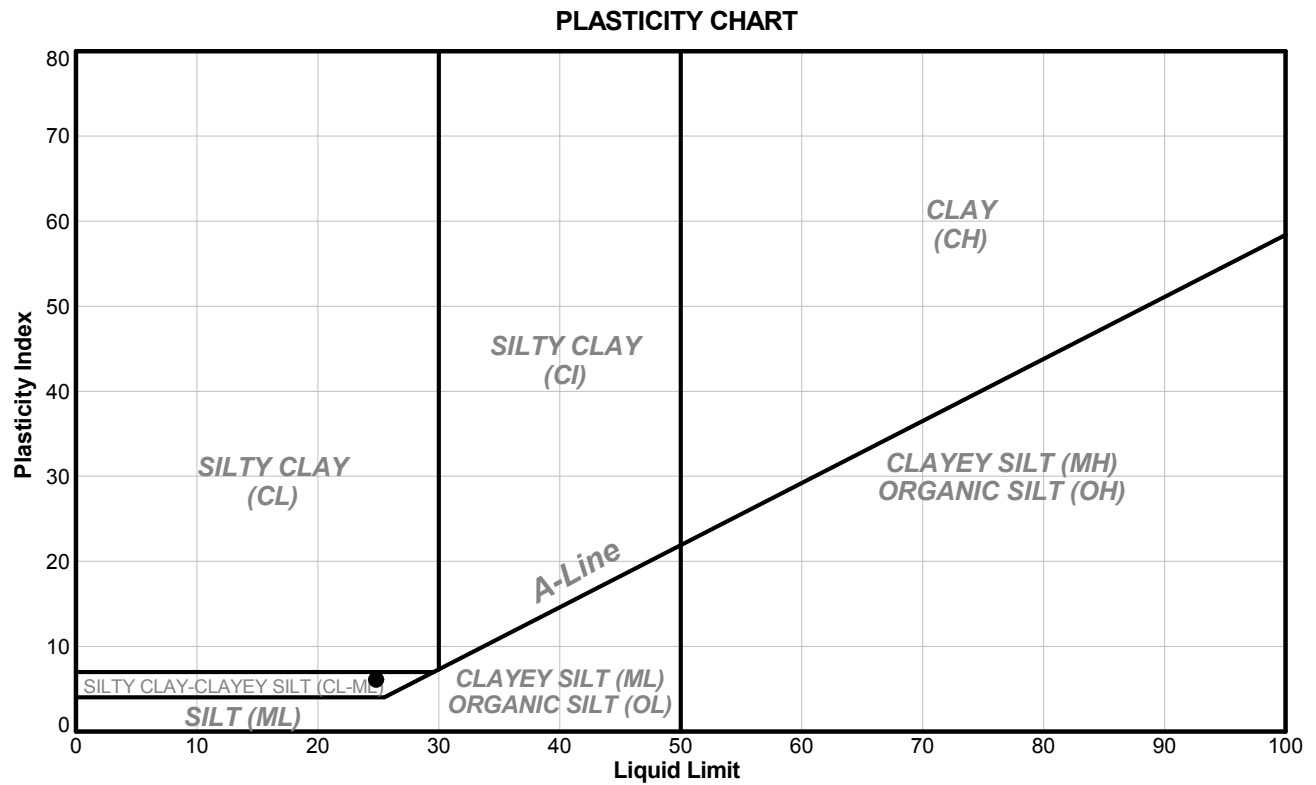
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Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 50.41 to 50.49
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-04	DSS	50.41	50.49	ND	25	19	6.0		

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT	6/6/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2016\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31 Specimen: DSS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 50.41 to 50.49
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	25
Plastic Limit	19
Plasticity Index	6
Natural Water Content (%)	
Liquidity Index	

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

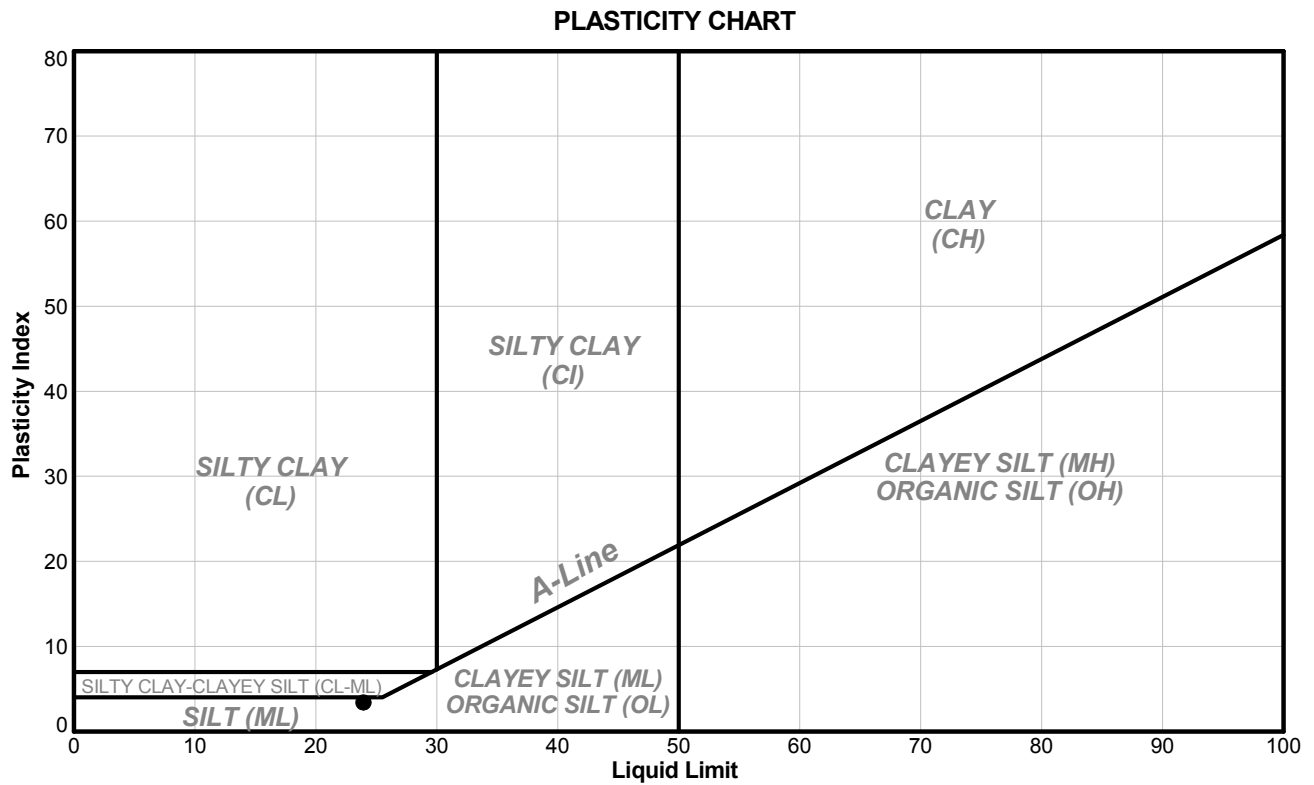
RRT	6/6/2016	LH	6/8/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.21 to 51.82
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-04	32	51.21	51.82	100	24	21	3.0	27.7	2.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/OA	5/27/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

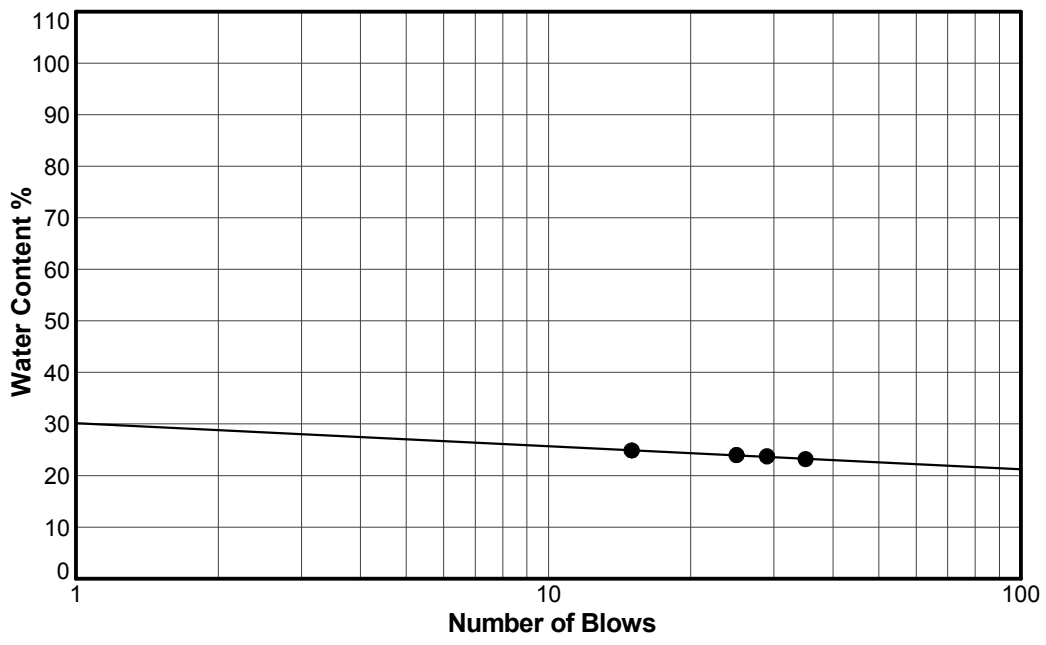
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 51.21 to 51.82
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	24
Plastic Limit	21
Plasticity Index	3
Natural Water Content (%)	27.7
Liquidity Index	2.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/OA	5/27/2016	LH	5/27/2016
Tech	Date	Checked	Date

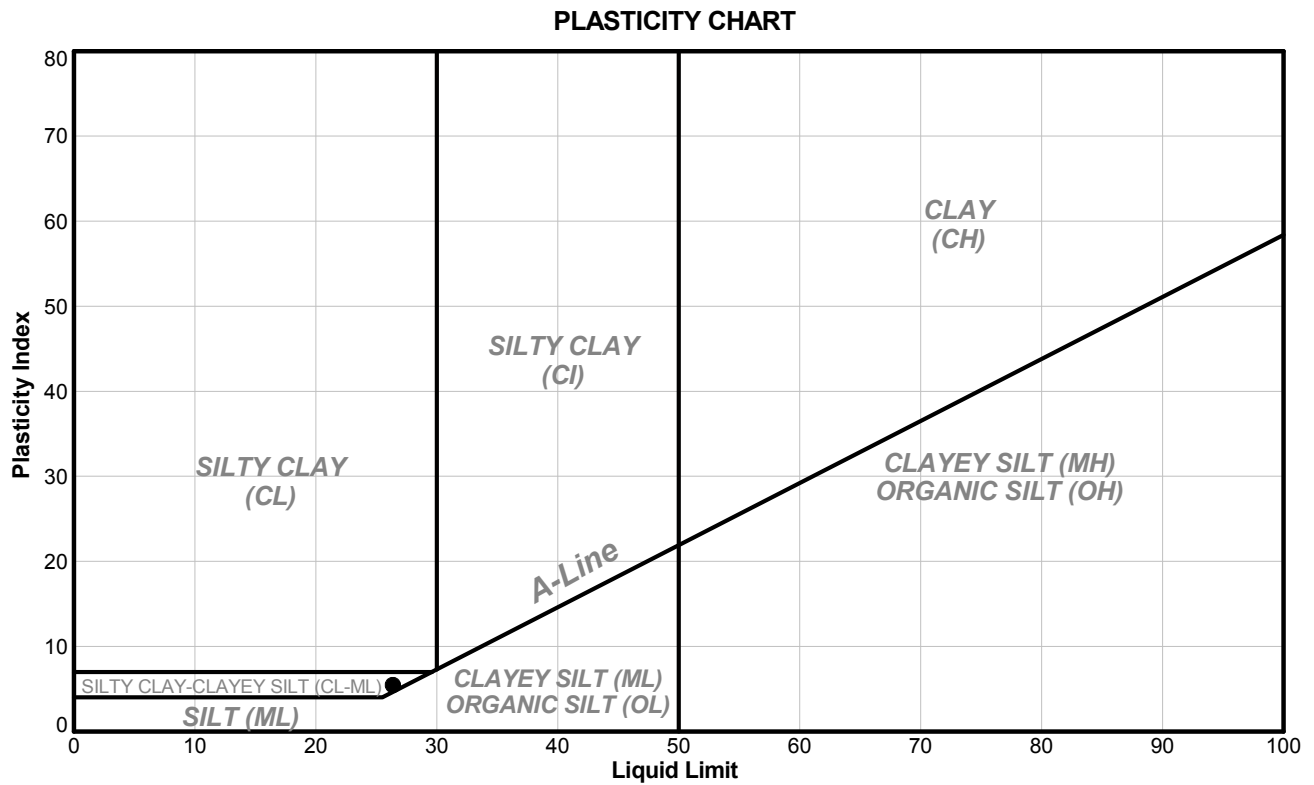
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH16-04	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 35	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 56.08 to 56.69	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point

Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-04	35	56.08	56.69	ND	26	21	5.0	27.6	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/OA	5/27/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

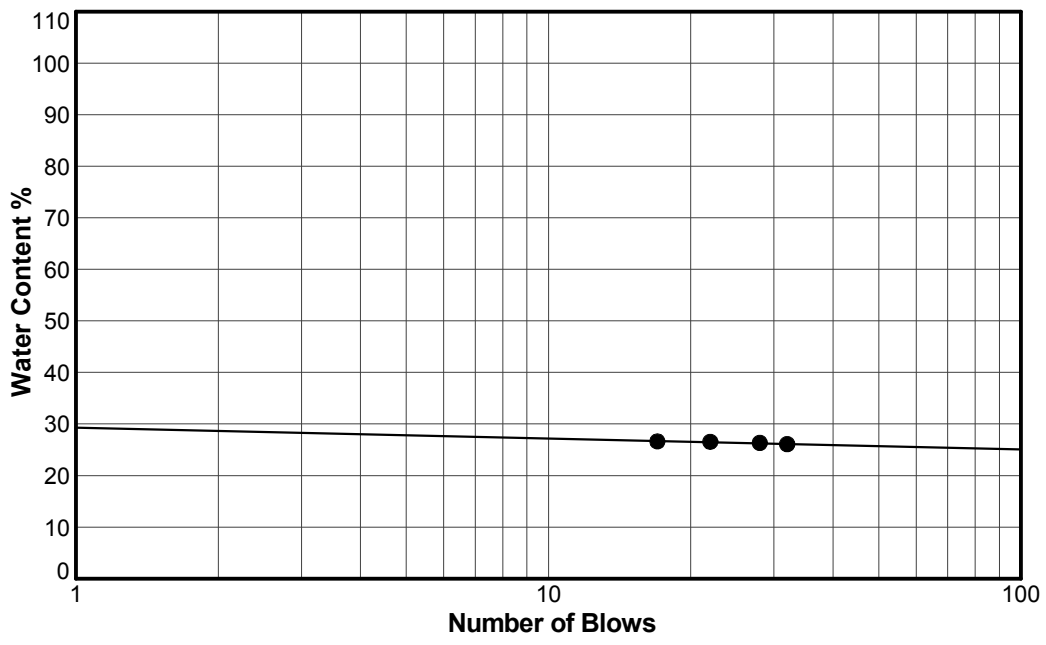
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-04
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 56.08 to 56.69
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	21
Plasticity Index	5
Natural Water Content (%)	27.6
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

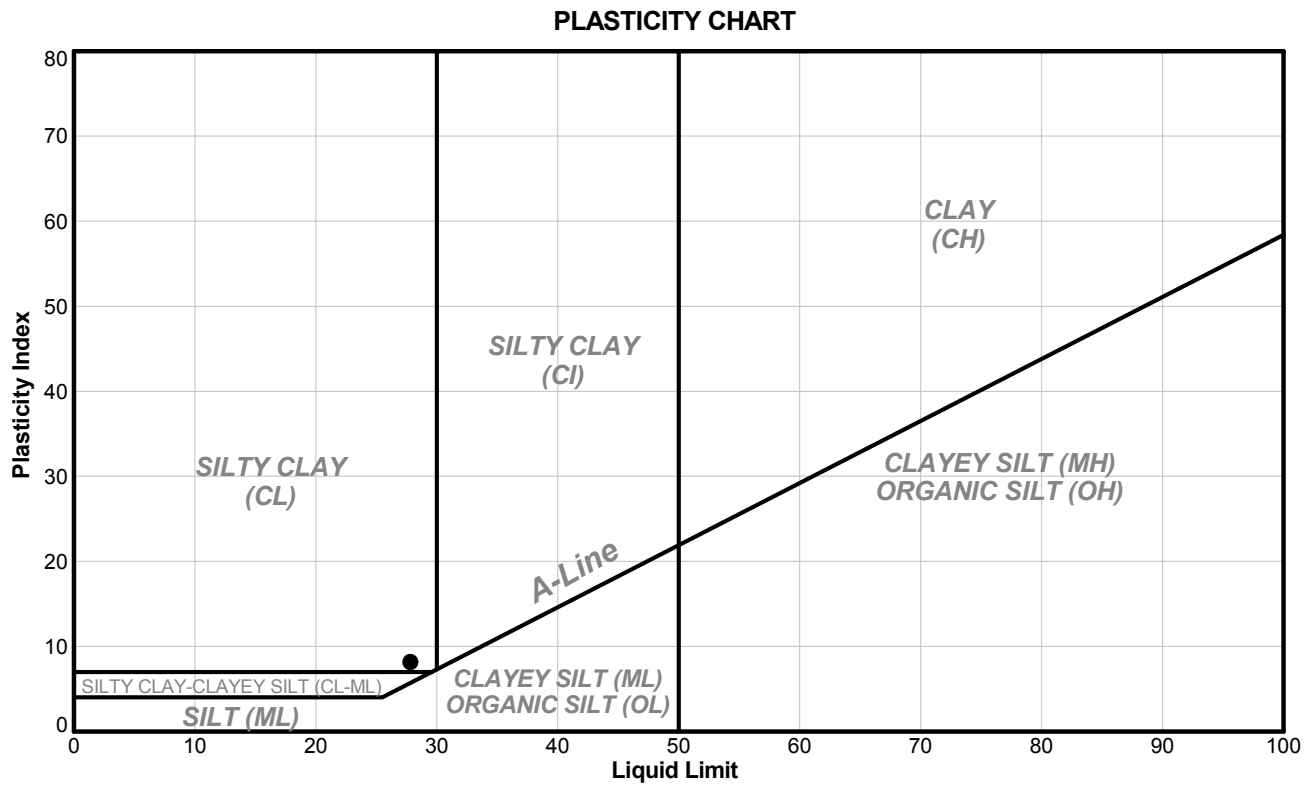
RRT/OA	5/27/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 39.01 to 39.62
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-05	24	39.01	39.62	100	28	20	8.0	29.4	1.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/OA	5/27/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

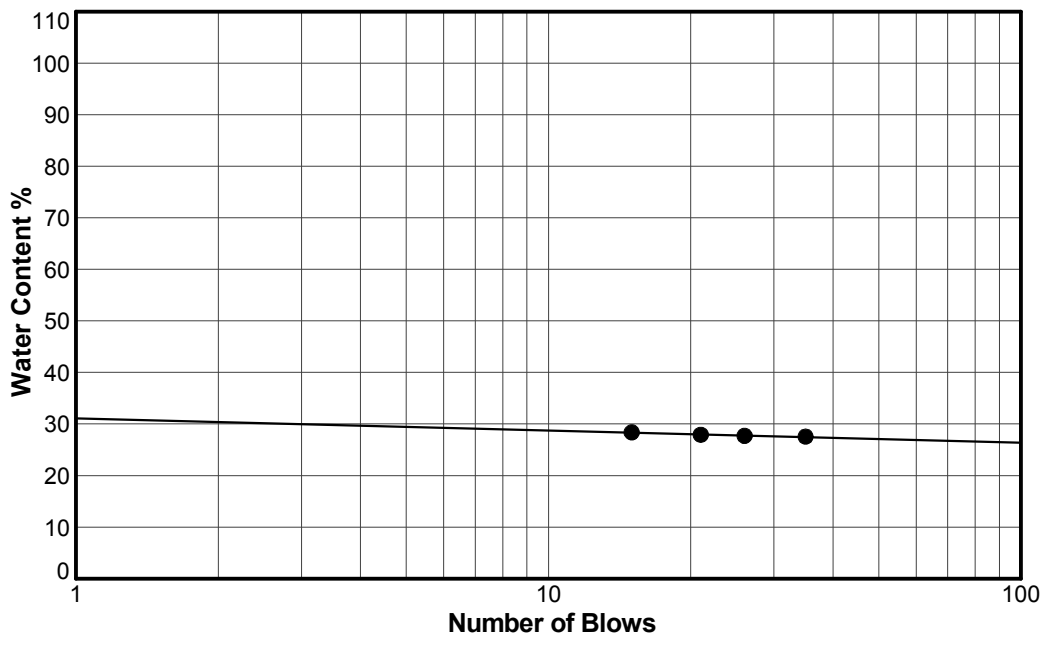
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 39.01 to 39.62
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	100
Liquid Limit	28
Plastic Limit	20
Plasticity Index	8
Natural Water Content (%)	29.4
Liquidity Index	1.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



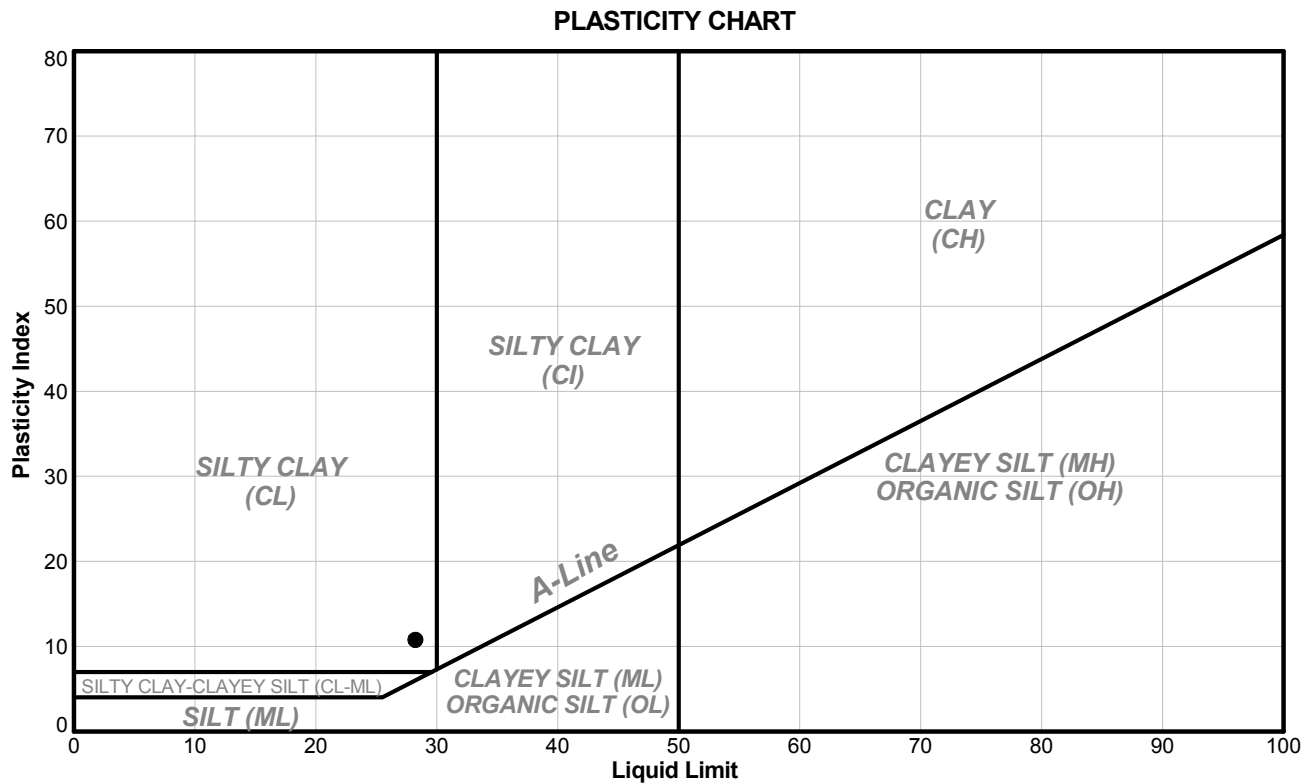
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/OA	5/27/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 43.59 to 44.20
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-05	27	43.59	44.20	ND	28	17	11.0	27.6	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2016/17

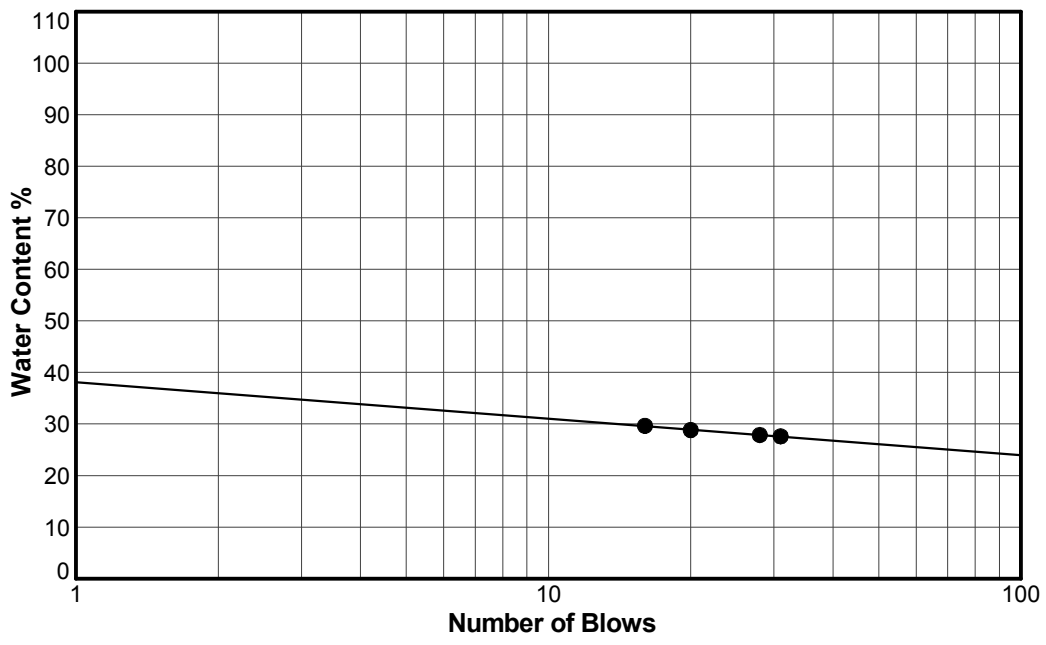
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 43.59 to 44.20
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	17
Plasticity Index	11
Natural Water Content (%)	27.6
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

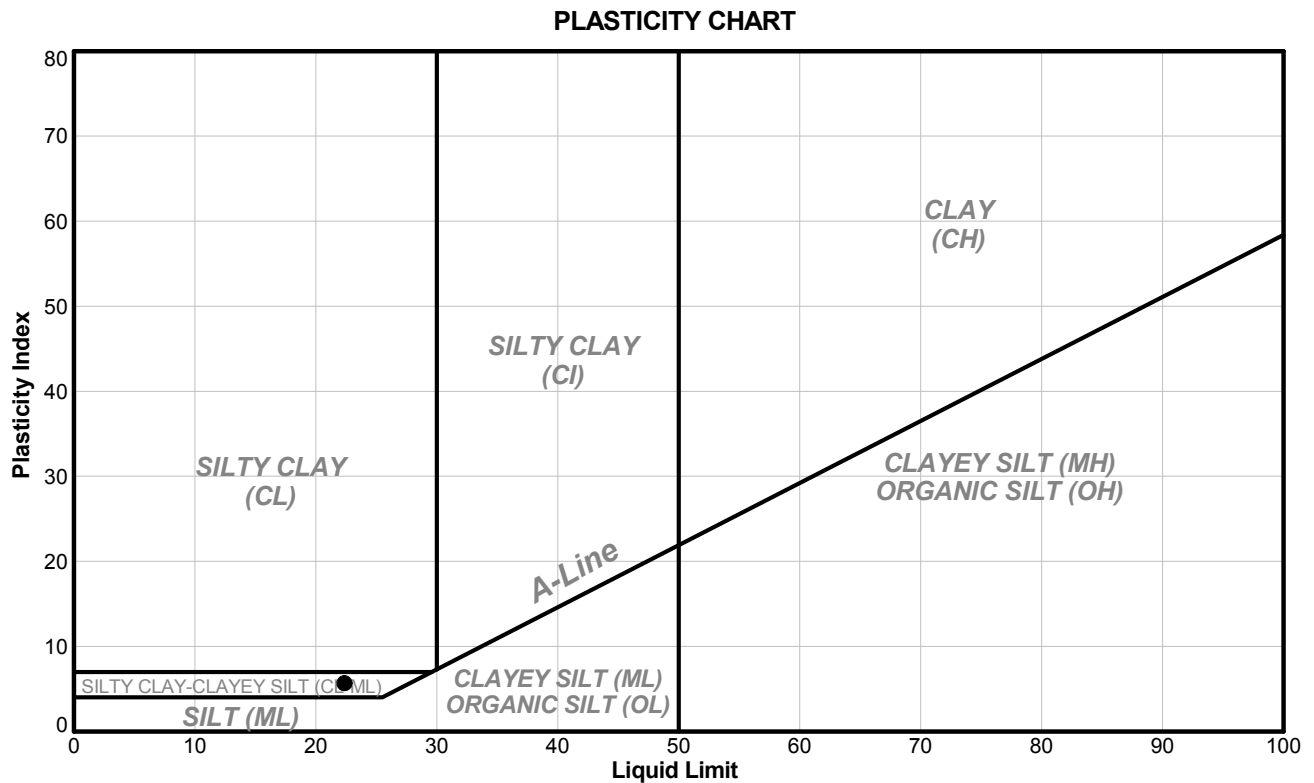
RRT/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 49.68 to 50.29
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-05	31	49.68	50.29	ND	22	17	5.0	25.2	1.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2016\17

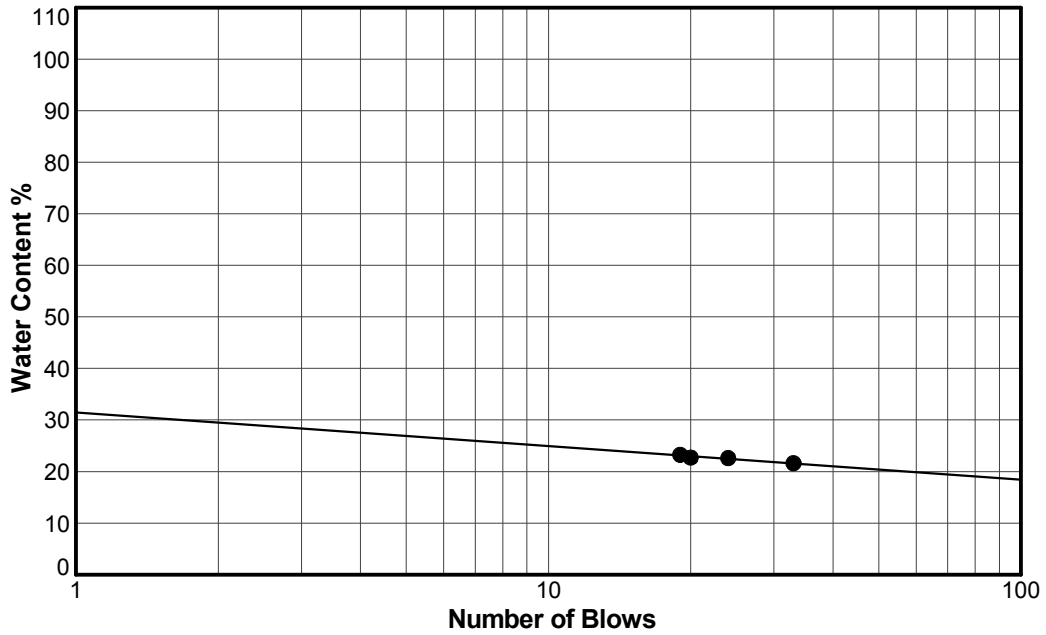
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 49.68 to 50.29
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	22
Plastic Limit	17
Plasticity Index	5
Natural Water Content (%)	25.2
Liquidity Index	1.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



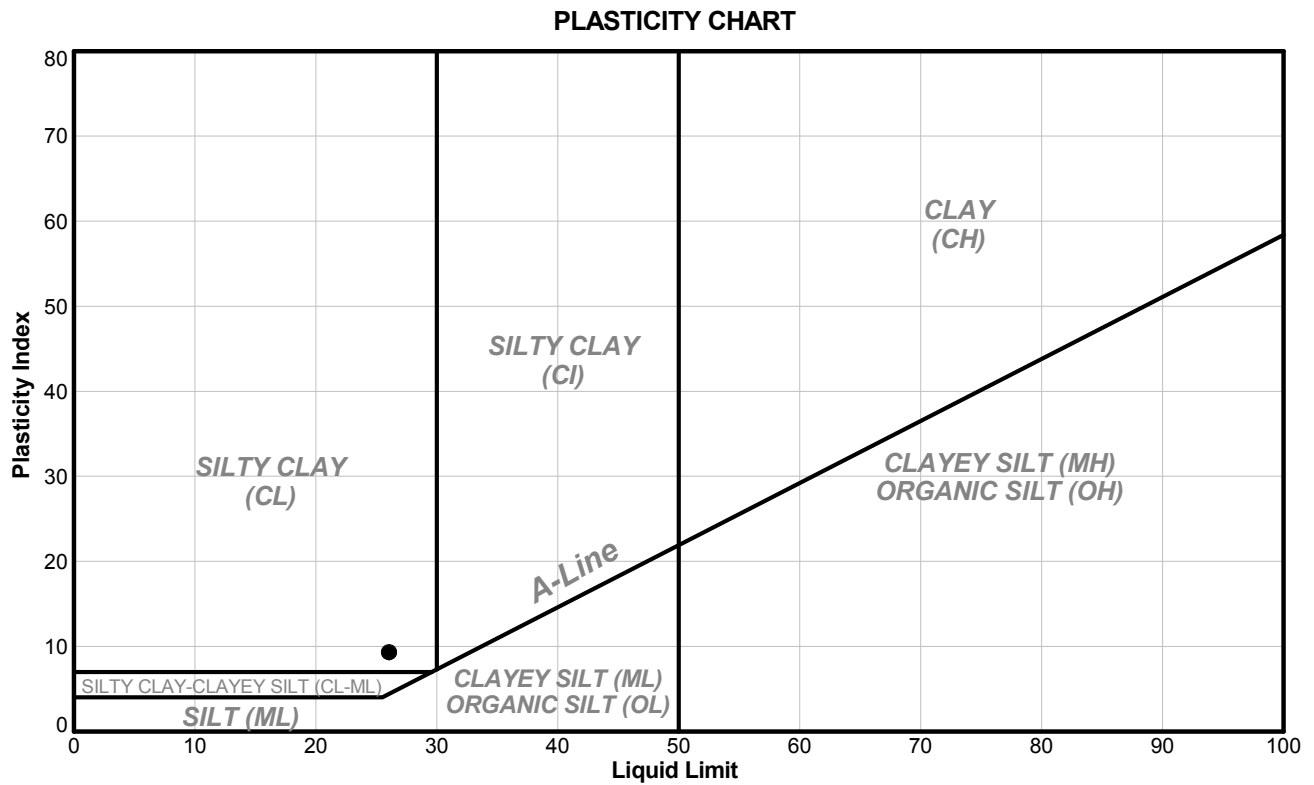
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RRT/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 52.73 to 53.34
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-05	33	52.73	53.34	ND	26	17	9.0	26.0	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

EET/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2016\17

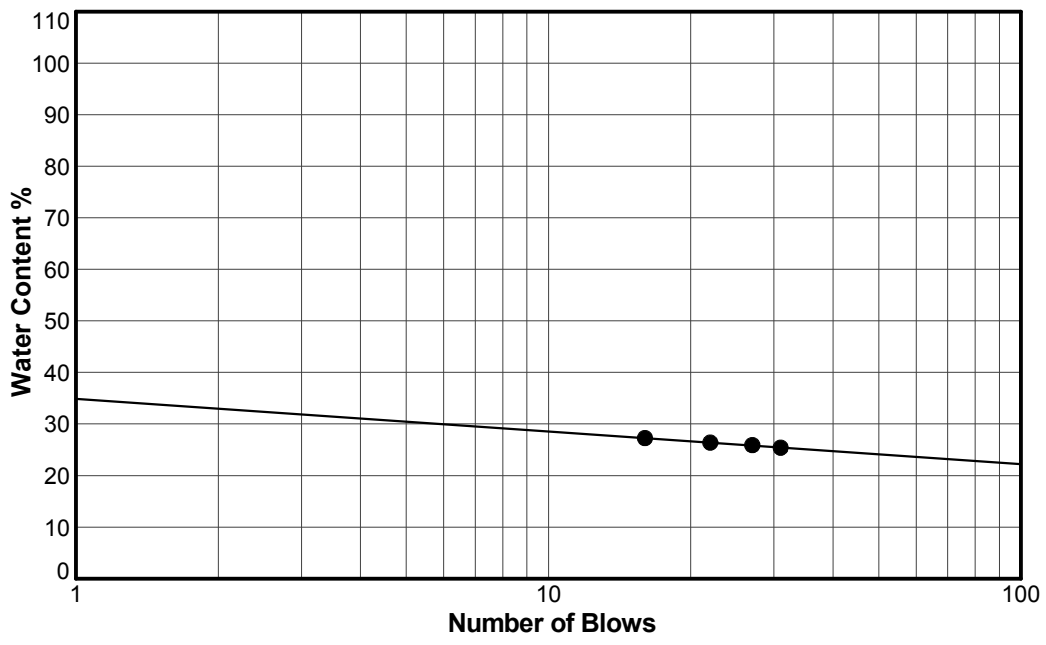
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 52.73 to 53.34
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	17
Plasticity Index	9
Natural Water Content (%)	26.0
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



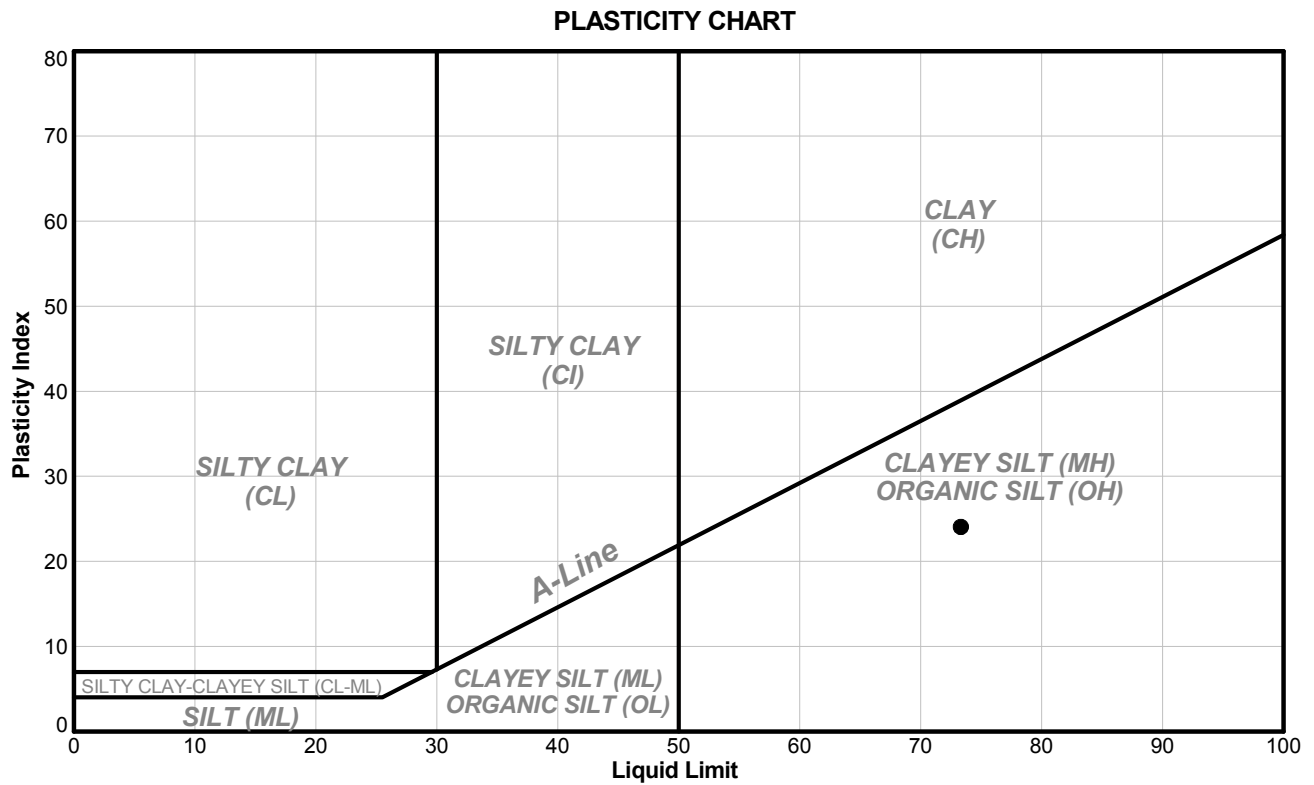
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

EET/DC	5/26/2016	LH	5/27/2016
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 2
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 3.15 to 3.76
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-06	2	3.15	3.76	ND	73	49	24.0	64.9	0.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/2/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 2
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 3.15 to 3.76
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	73
Plastic Limit	49
Plasticity Index	24
Natural Water Content (%)	64.9
Liquidity Index	0.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

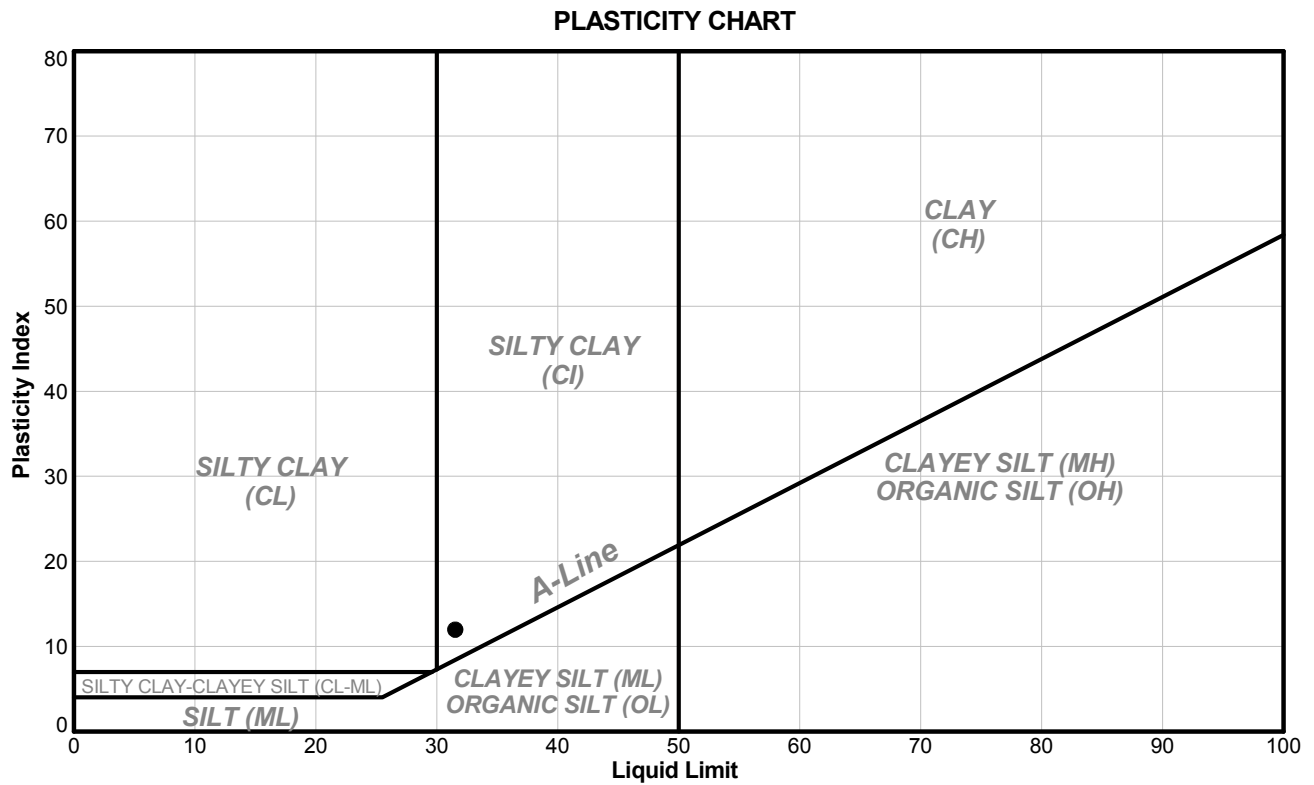
RG	2/2/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33 Specimen: CSR
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 49.99 to 50.60
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-06	CSR	49.99	50.60	ND	32	20	12.0	30.8	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

O/DC	3/3/2017		
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33 Specimen: CSR
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 49.99 to 50.60
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	32
Plastic Limit	20
Plasticity Index	12
Natural Water Content (%)	30.8
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

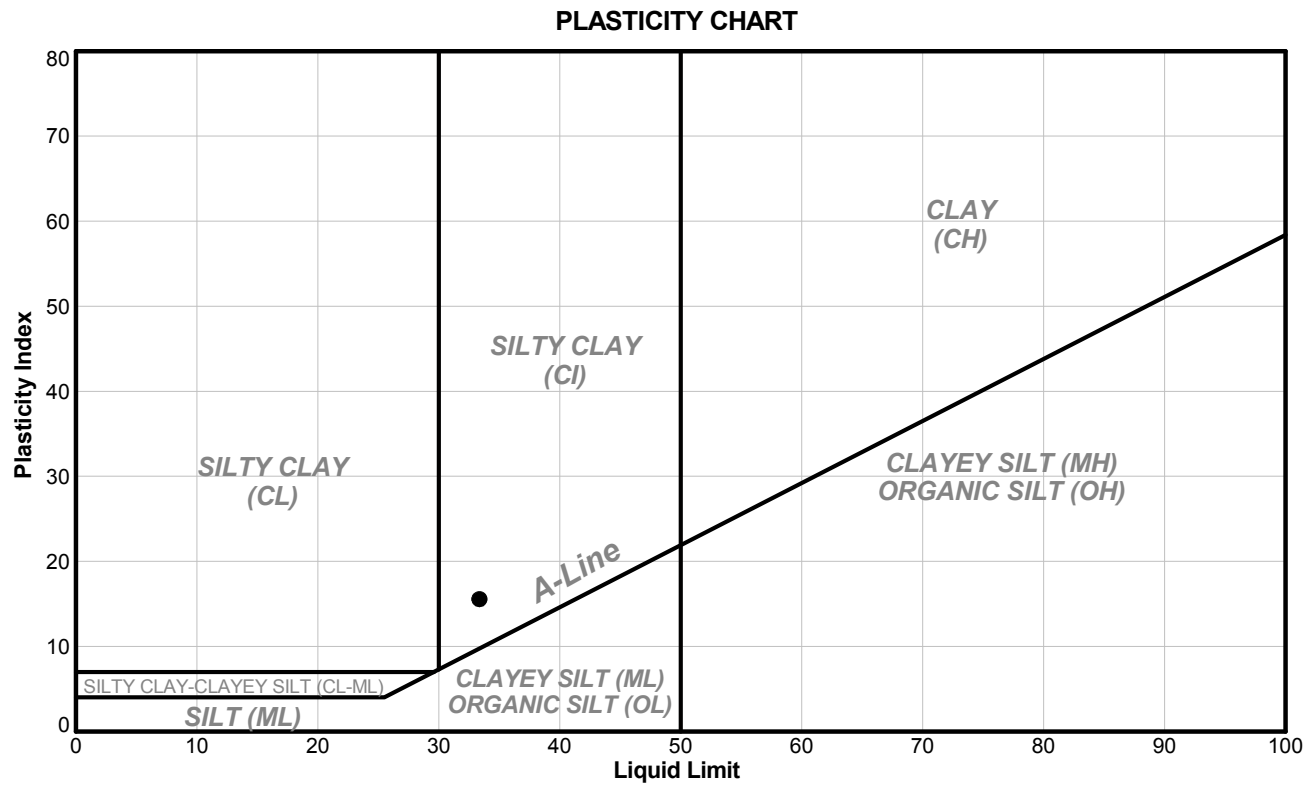
O/DC	3/3/2017		
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 50.20 to 50.25
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-06	33	50.20	50.25	ND	33	18	15.0	33.1	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/20/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) I:\young_2019\17

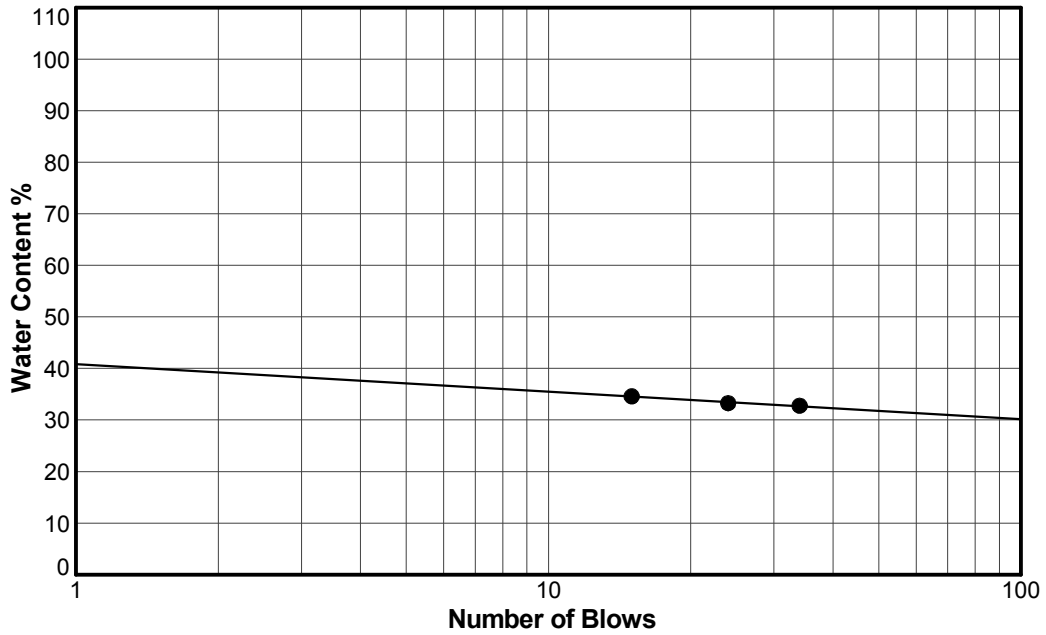
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 33
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 50.20 to 50.25
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	33
Plastic Limit	18
Plasticity Index	15
Natural Water Content (%)	33.1
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



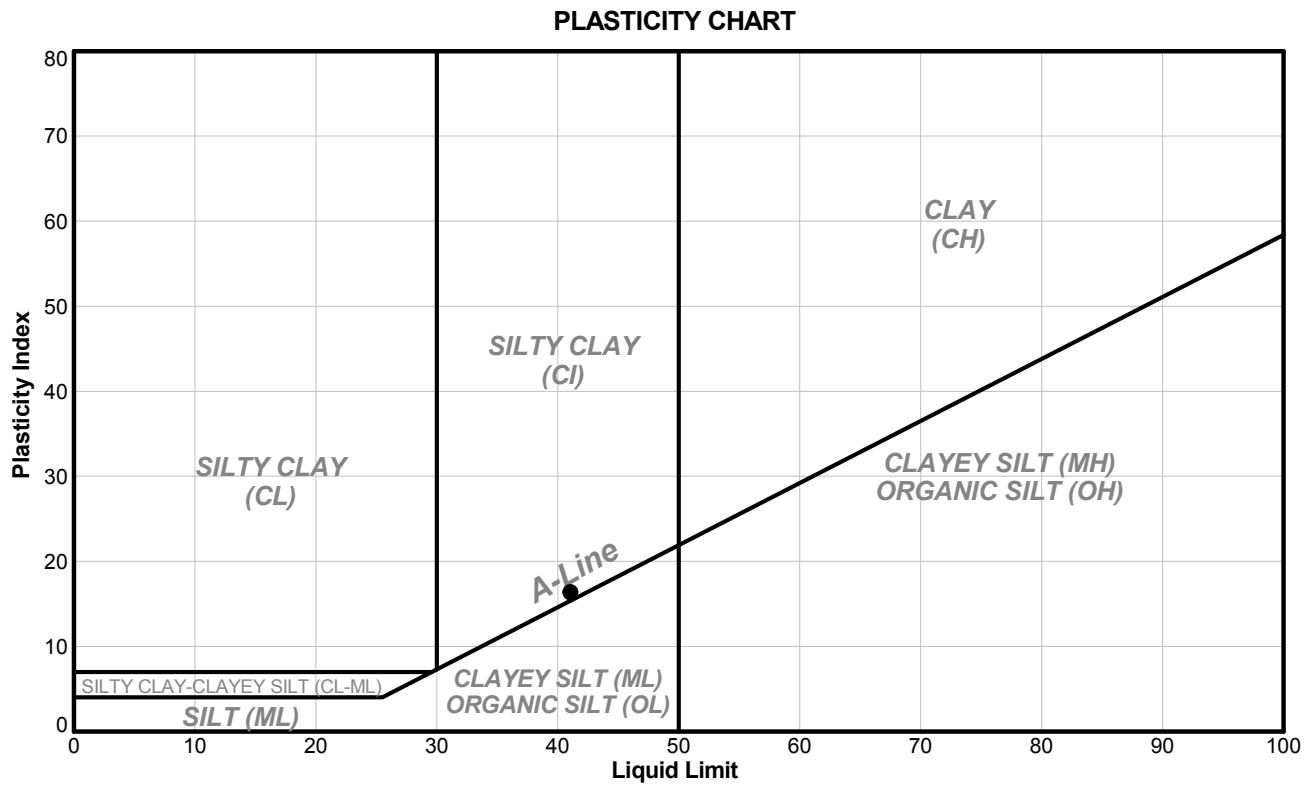
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/20/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 1
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.74 to 3.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-07	1	2.74	3.35	ND	41	25	16.0	46.0	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

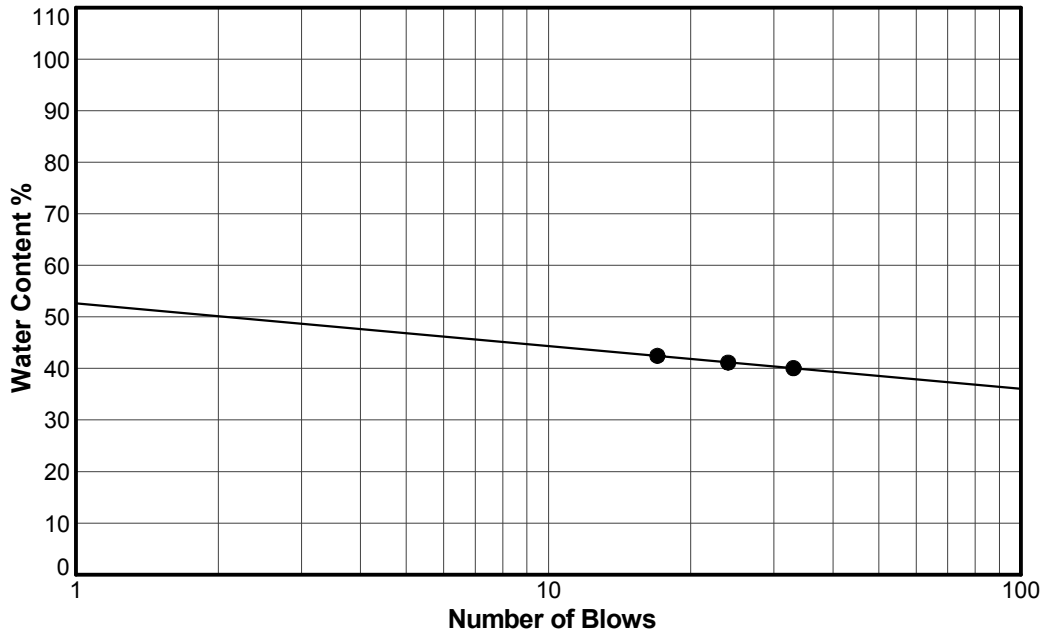
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 1
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 2.74 to 3.35
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	41
Plastic Limit	25
Plasticity Index	16
Natural Water Content (%)	46.0
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

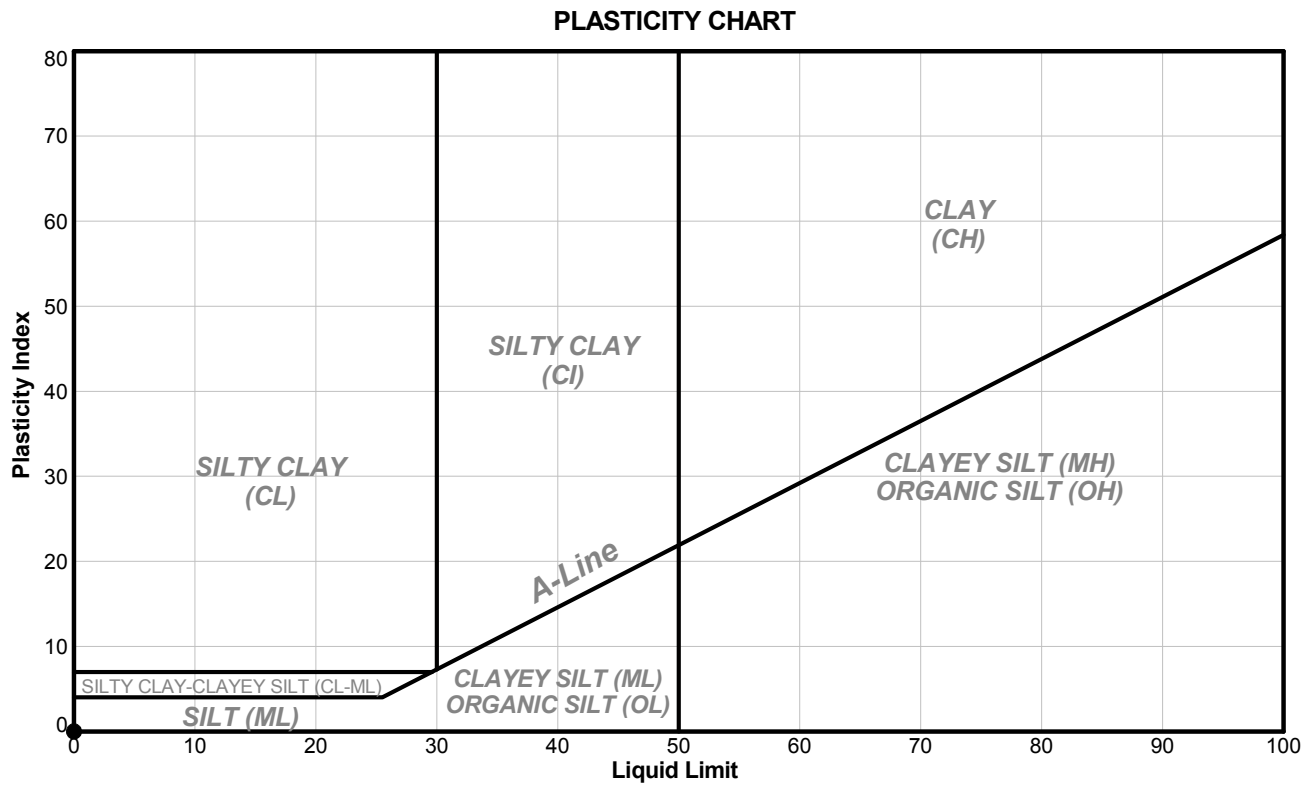
RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 3
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 5.49 to 6.10
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: Fine SAND, trace to some silt

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-07	3	5.49	6.10	ND	NP	NP	NP	35.4	NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

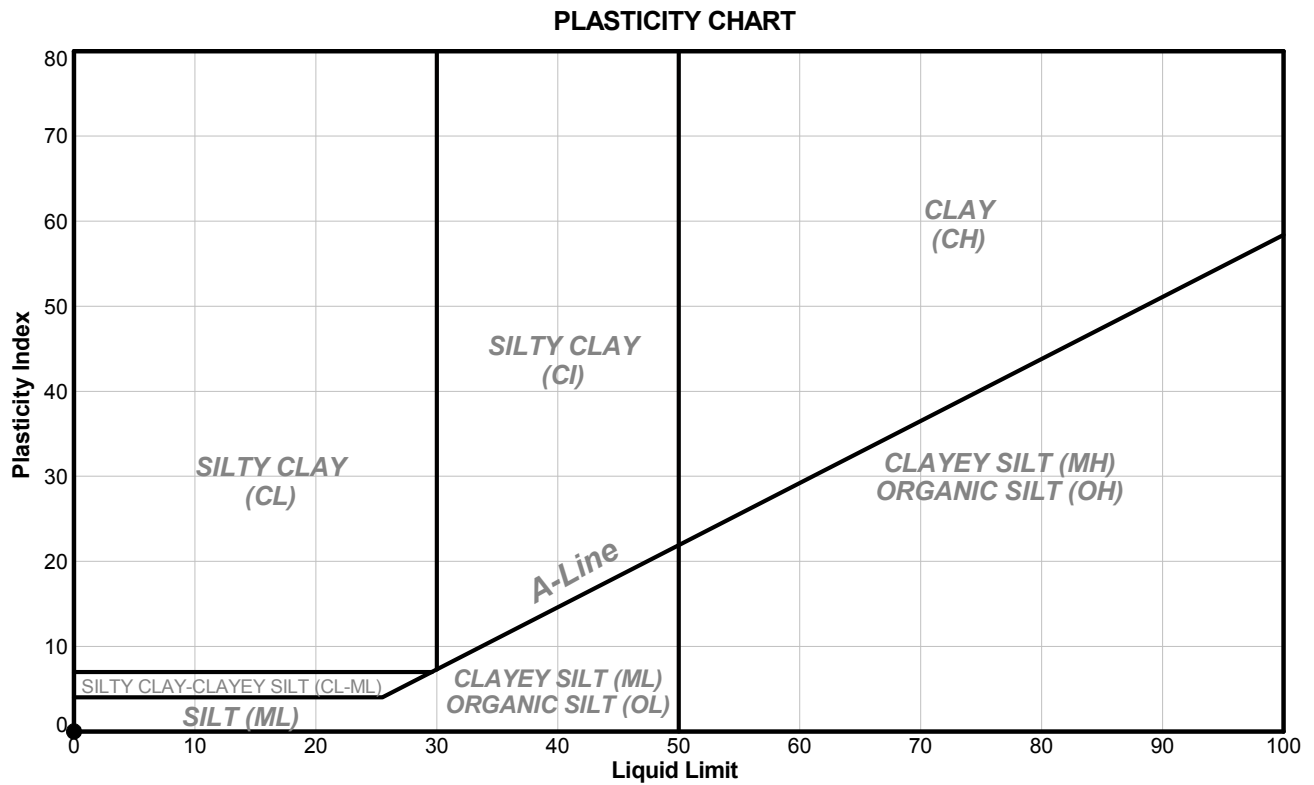
RG	2/2/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 32.92 to 33.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: Silty SAND

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-07	21	32.92	33.53	100	NP	NP	NP	32.3	NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

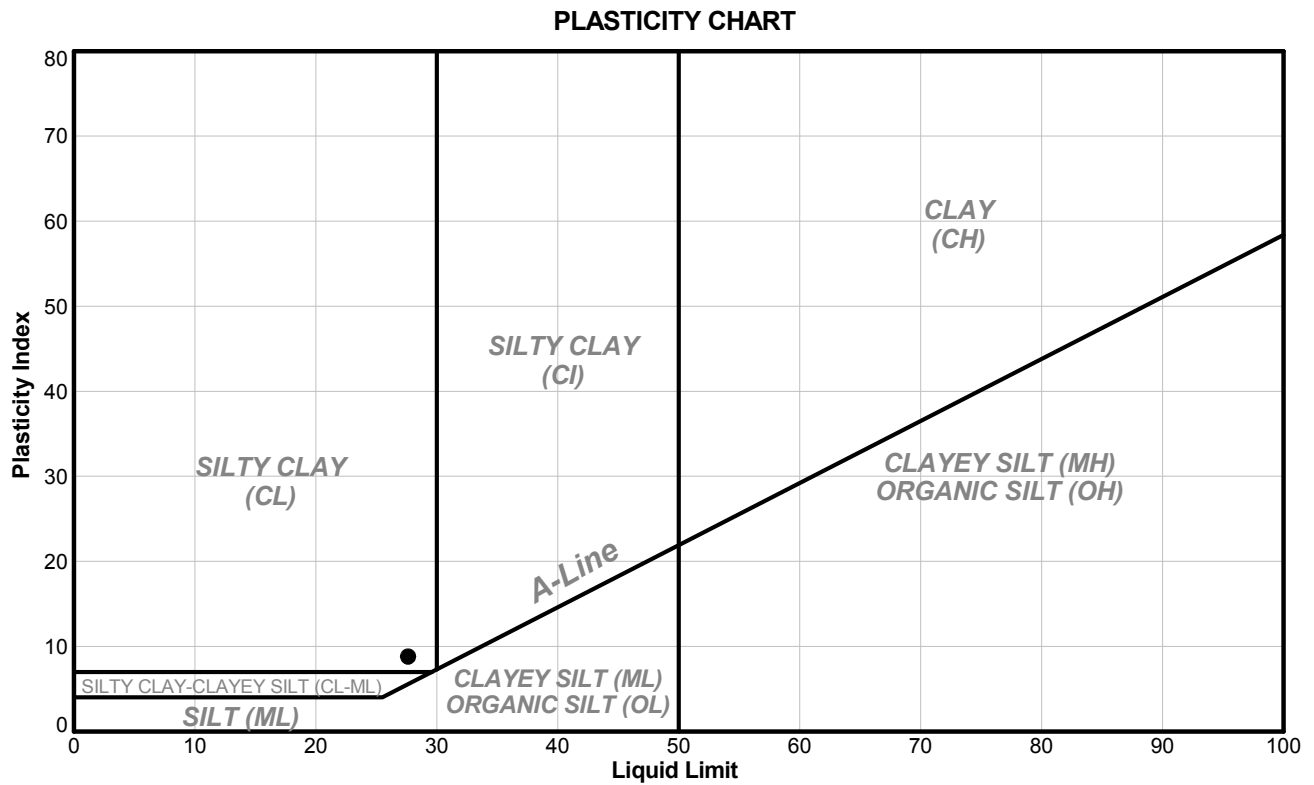
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	2/2/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 37.49 to 38.10
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-07	24	37.49	38.10	ND	28	19	9.0	33.9	1.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

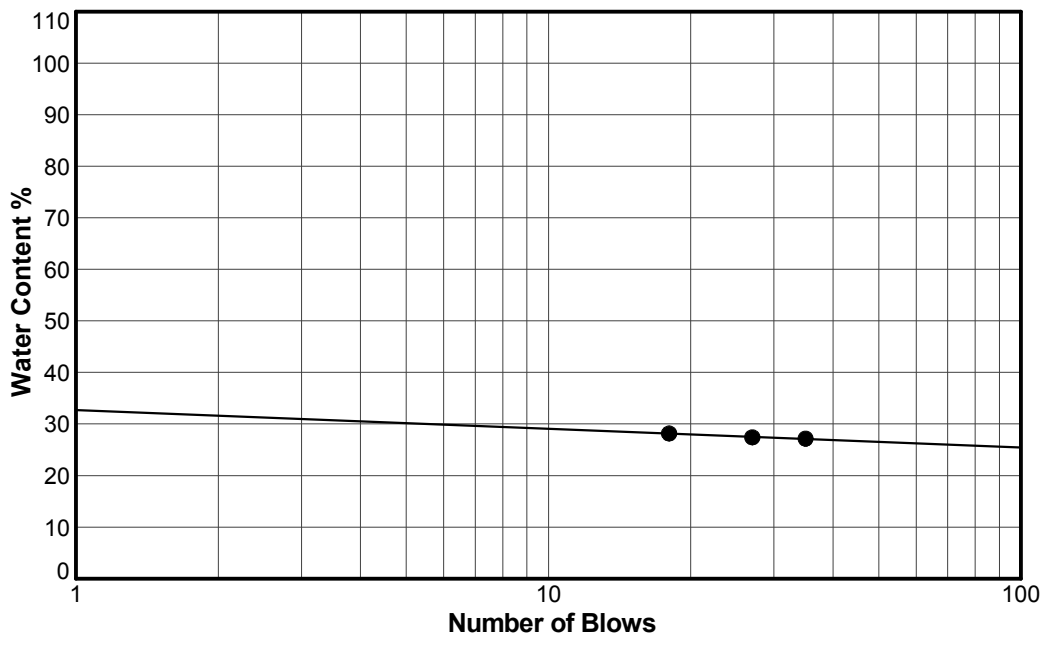
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 37.49 to 38.10
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	19
Plasticity Index	9
Natural Water Content (%)	33.9
Liquidity Index	1.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



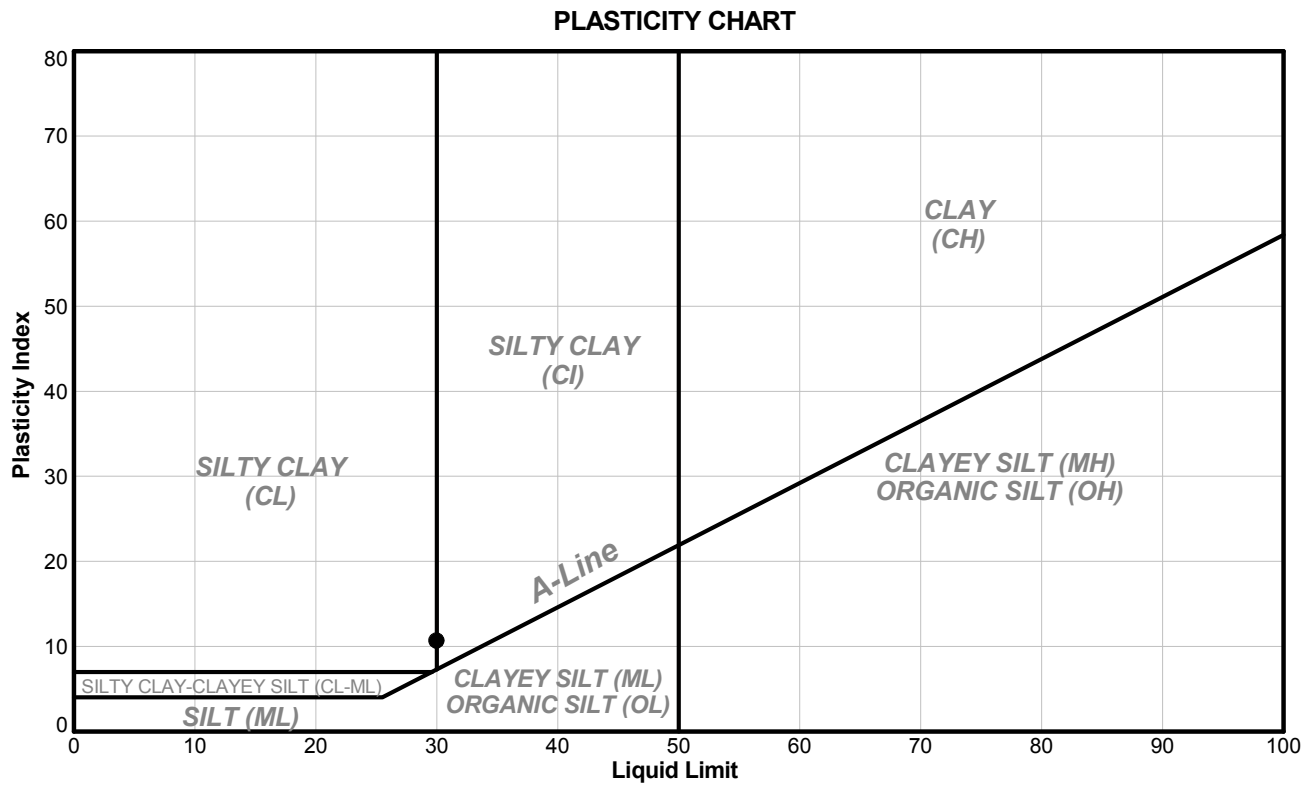
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 37
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 63.60 to 63.65
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-07	37	63.60	63.65	ND	30	19	11.0	29.3	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/20/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

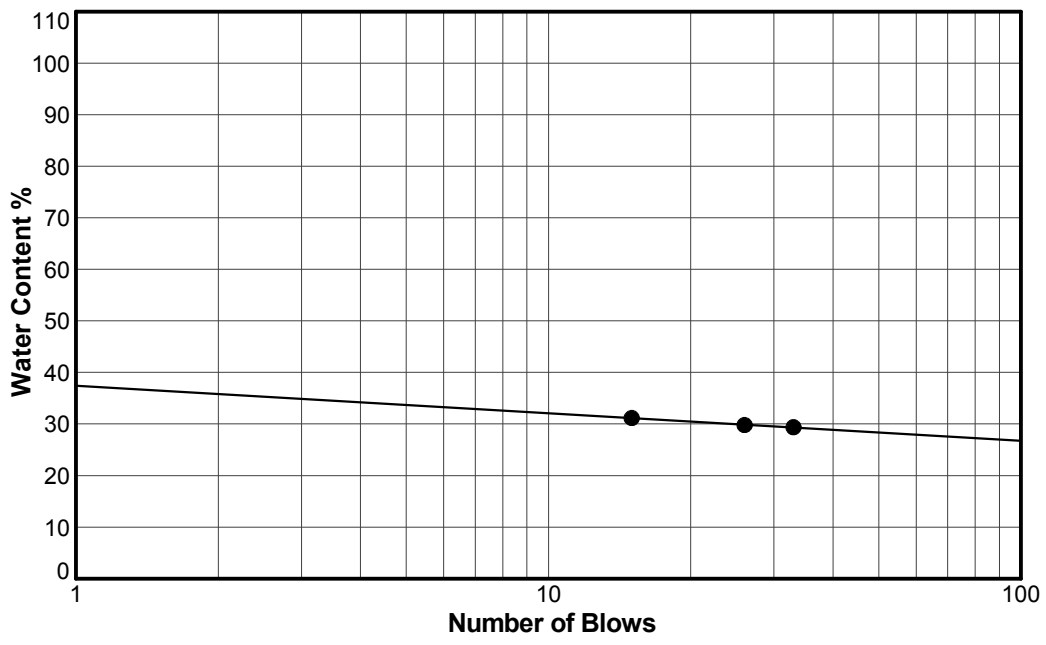
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 37
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 63.60 to 63.65
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	30
Plastic Limit	19
Plasticity Index	11
Natural Water Content (%)	29.3
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



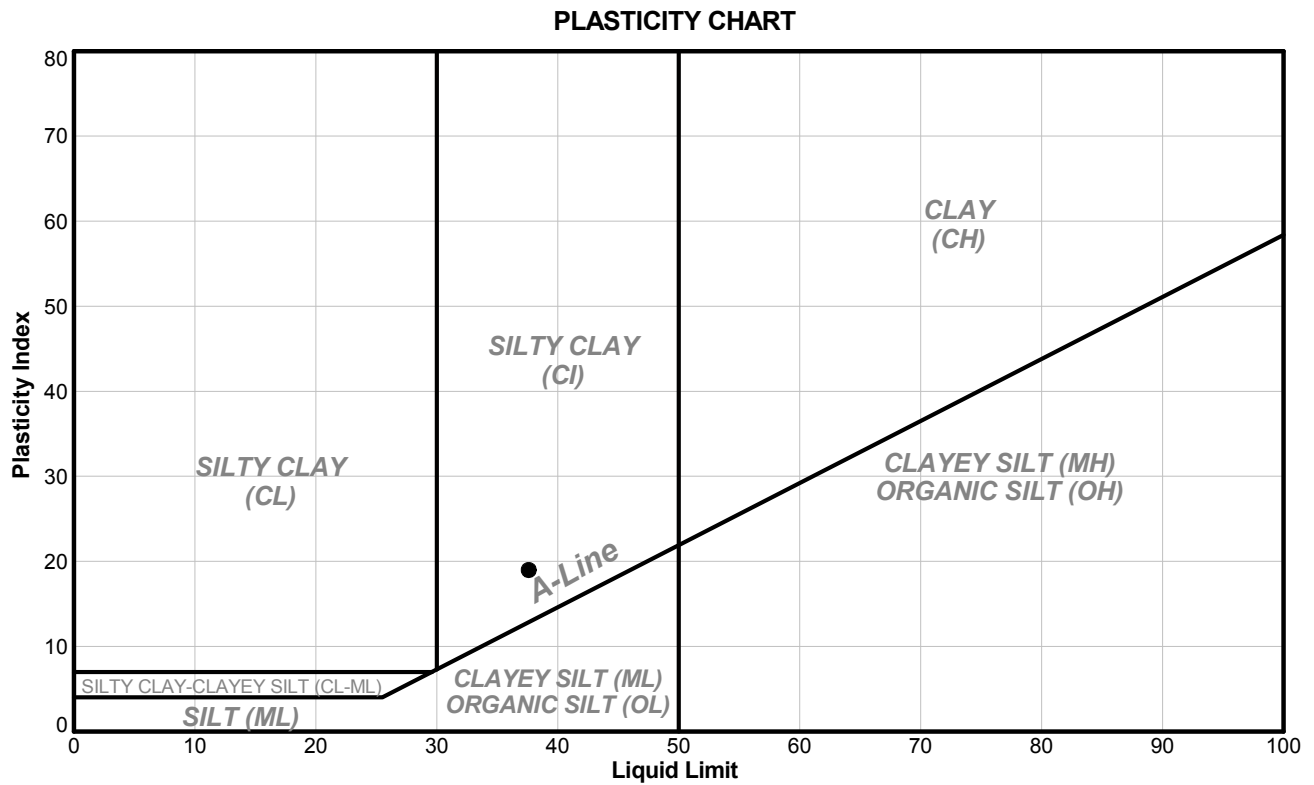
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/20/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 39
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 77.11 to 77.72
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-07	39	77.11	77.72	94	38	19	19.0	31.3	0.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 39
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 77.11 to 77.72
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	94
Liquid Limit	38
Plastic Limit	19
Plasticity Index	19
Natural Water Content (%)	31.3
Liquidity Index	0.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



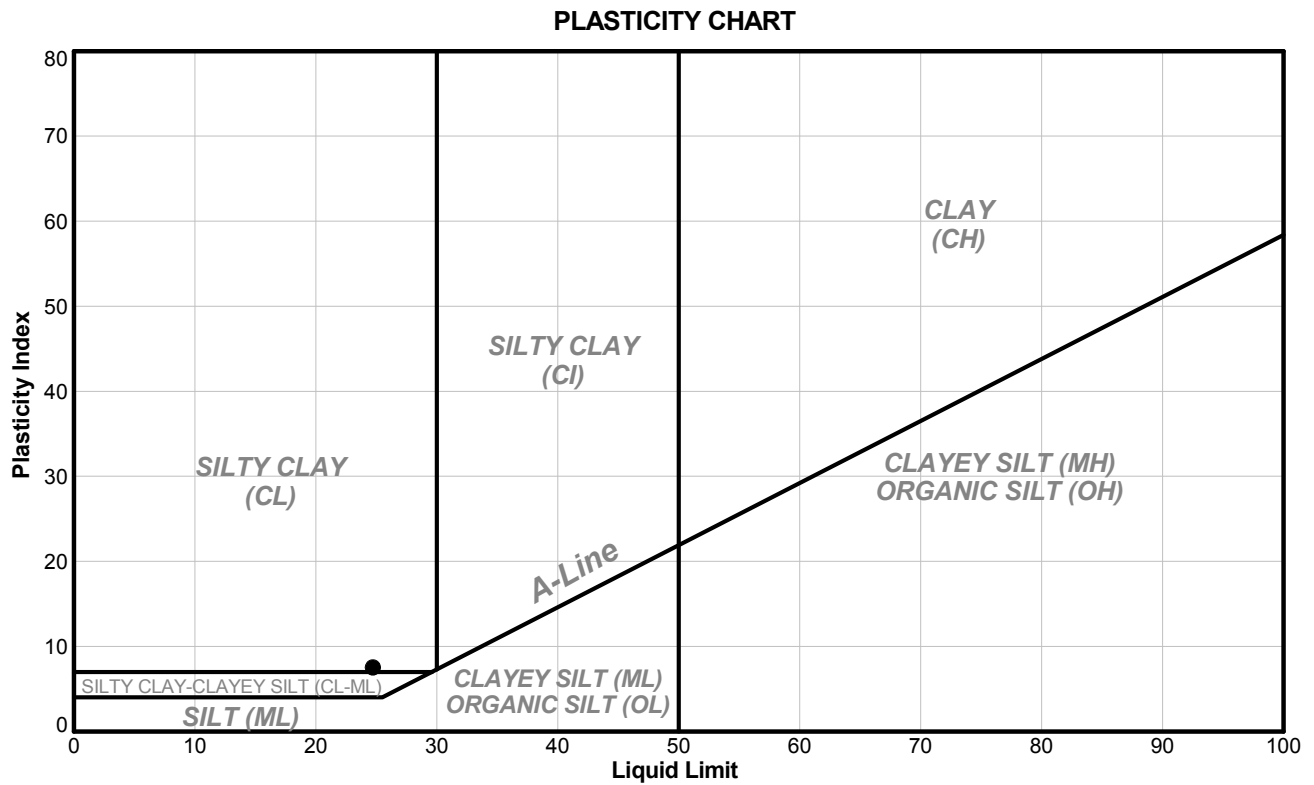
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CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH16-08	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 18	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 27.43 to 28.04	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	18	27.43	28.04	ND	25	17	8.0	26.4	1.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

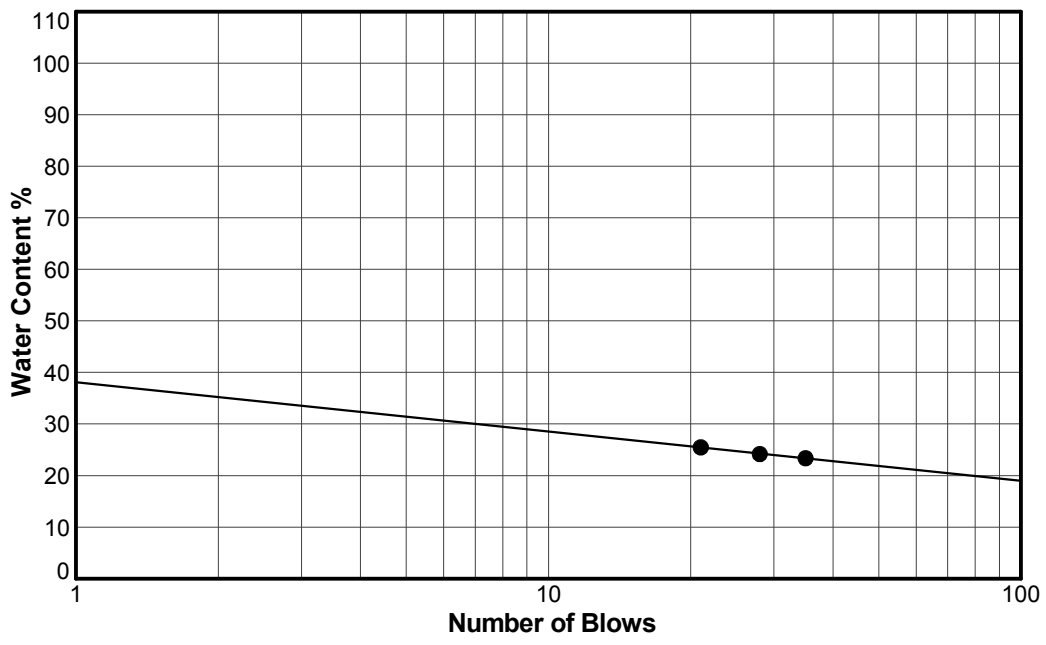
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 18
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 27.43 to 28.04
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	25
Plastic Limit	17
Plasticity Index	8
Natural Water Content (%)	26.4
Liquidity Index	1.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

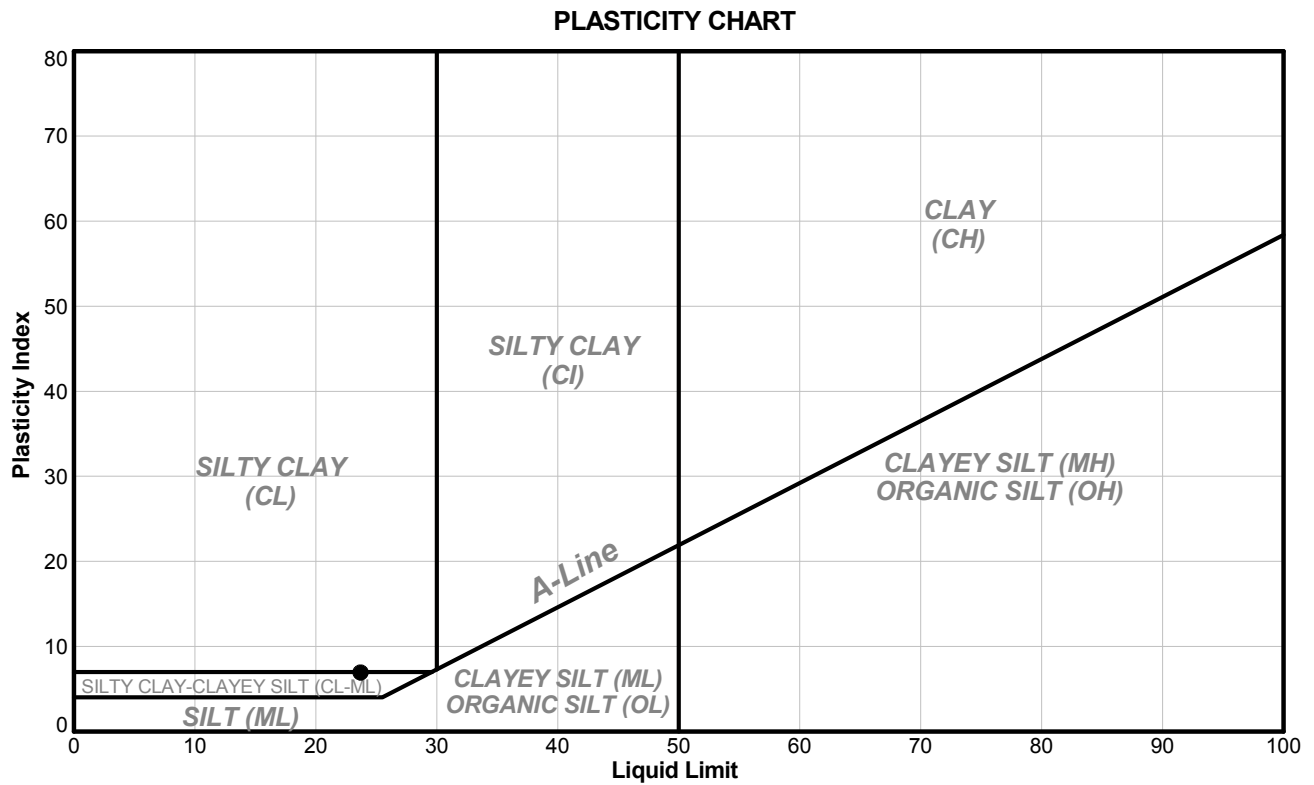
CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC	Borehole ID: BH16-08	
Project: AIWWTP Transient Mitigation and Outfall System	Sample No.: 19	
Location: Annacis Island, Delta, B.C.	Depth Interval (m): 29.20 to 29.25	
Project No.: 1525010 Phase: 2000	Lab Schedule No.:	

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	19	29.20	29.25	ND	24	17	7.0	28.2	1.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/20/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 19
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.20 to 29.25
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	24
Plastic Limit	17
Plasticity Index	7
Natural Water Content (%)	28.2
Liquidity Index	1.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



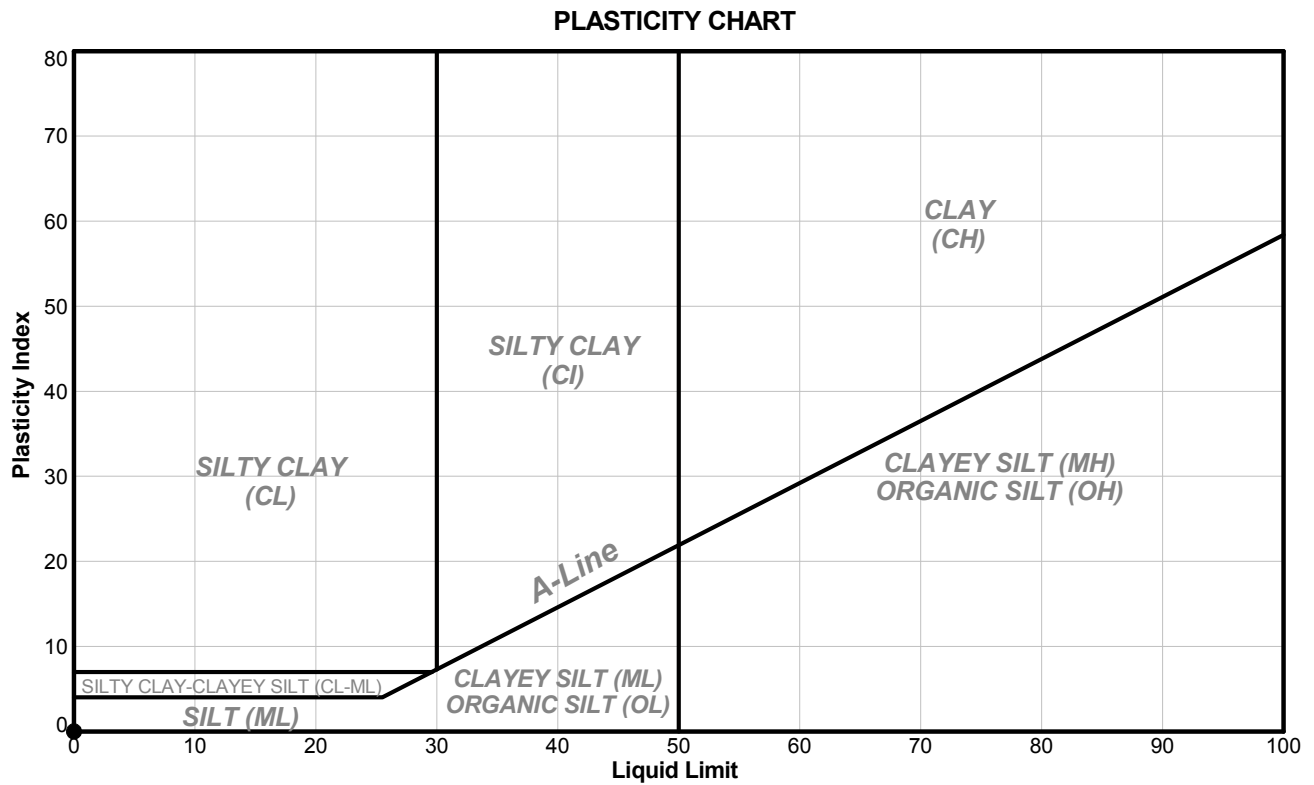
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RG	2/20/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 19 Specimen: 0.17 CRS
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.00 to 29.60
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	0.17 CRS	29.00	29.60	ND	NP	NP	NP		NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

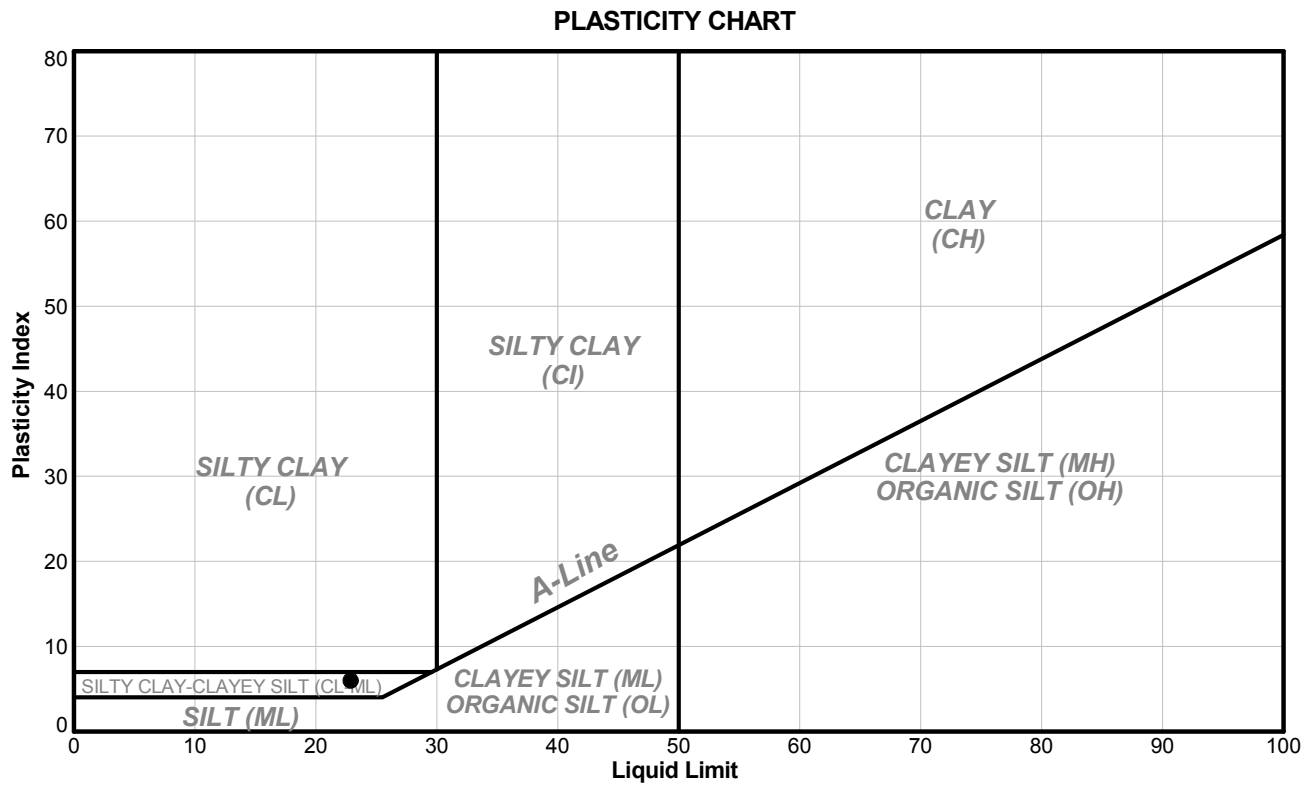
OA	3/13/2017	LH	3/29/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 32.00 to 32.61
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	21	32.00	32.61	ND	23	17	6.0	28.5	1.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OADC	3/28/2017	LH	3/29/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

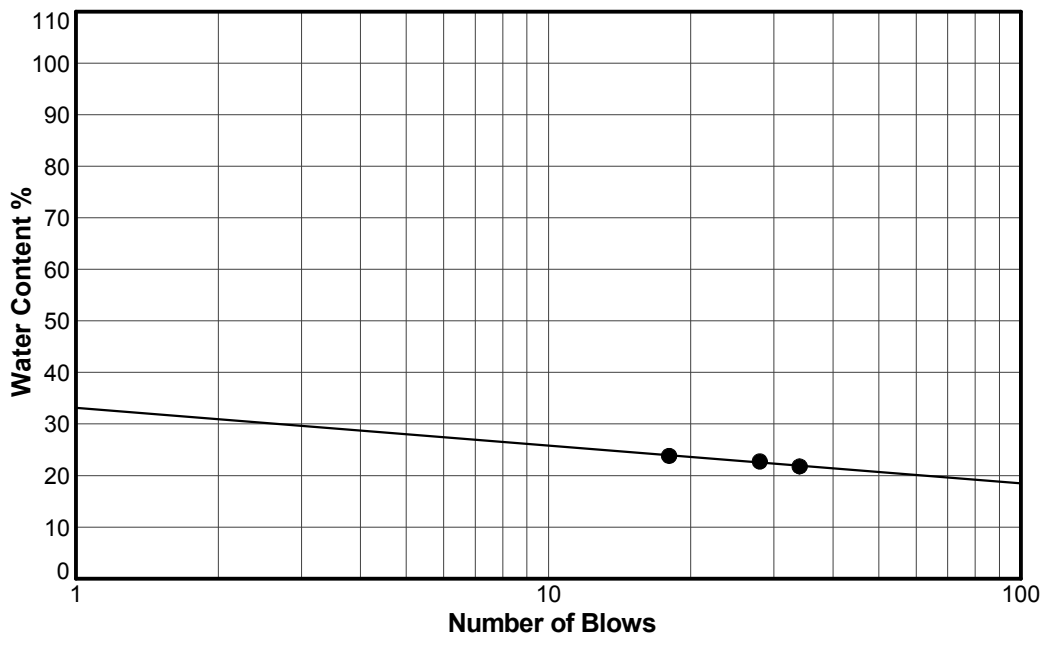
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 21
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 32.00 to 32.61
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	23
Plastic Limit	17
Plasticity Index	6
Natural Water Content (%)	28.5
Liquidity Index	1.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



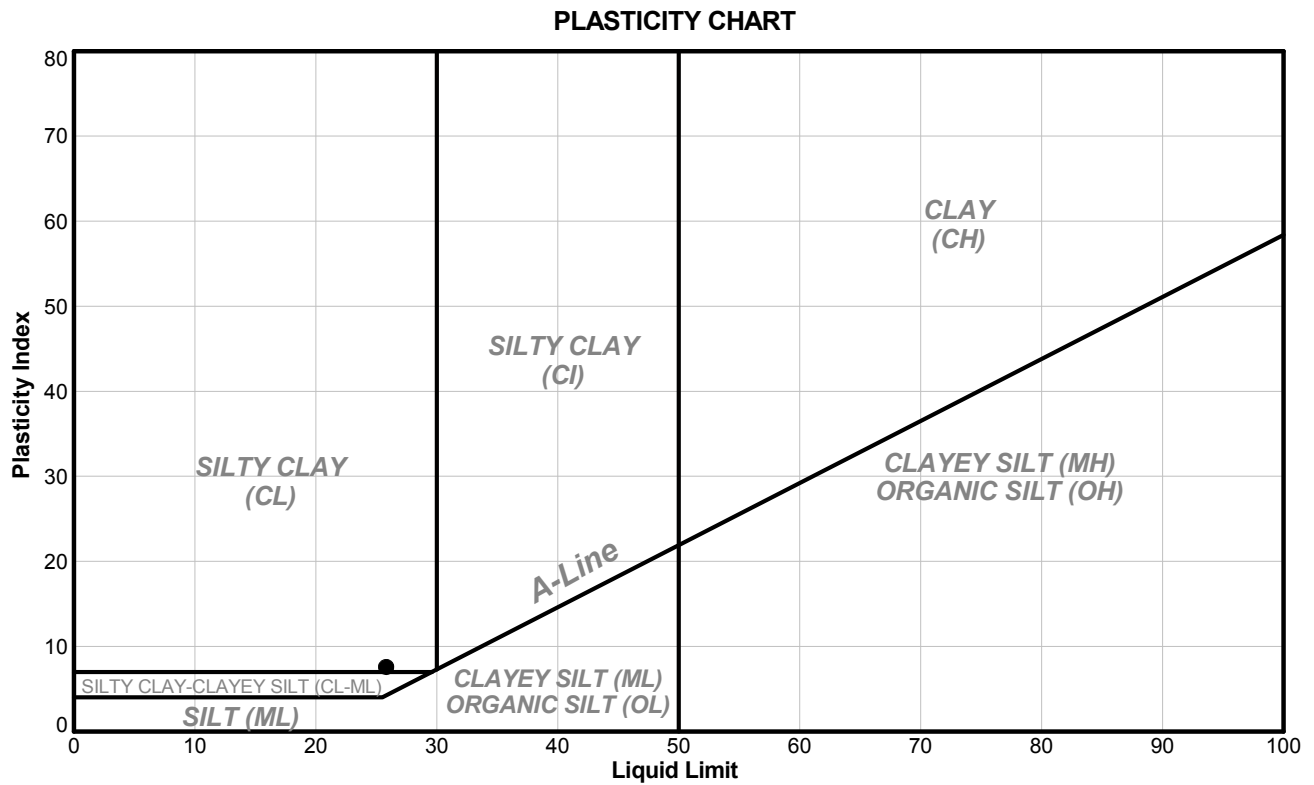
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA/DC	3/28/2017	LH	3/29/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 36.58 to 37.19
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	24	36.58	37.19	ND	26	18	8.0	29.2	1.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	2/28/2017	LH	3/29/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

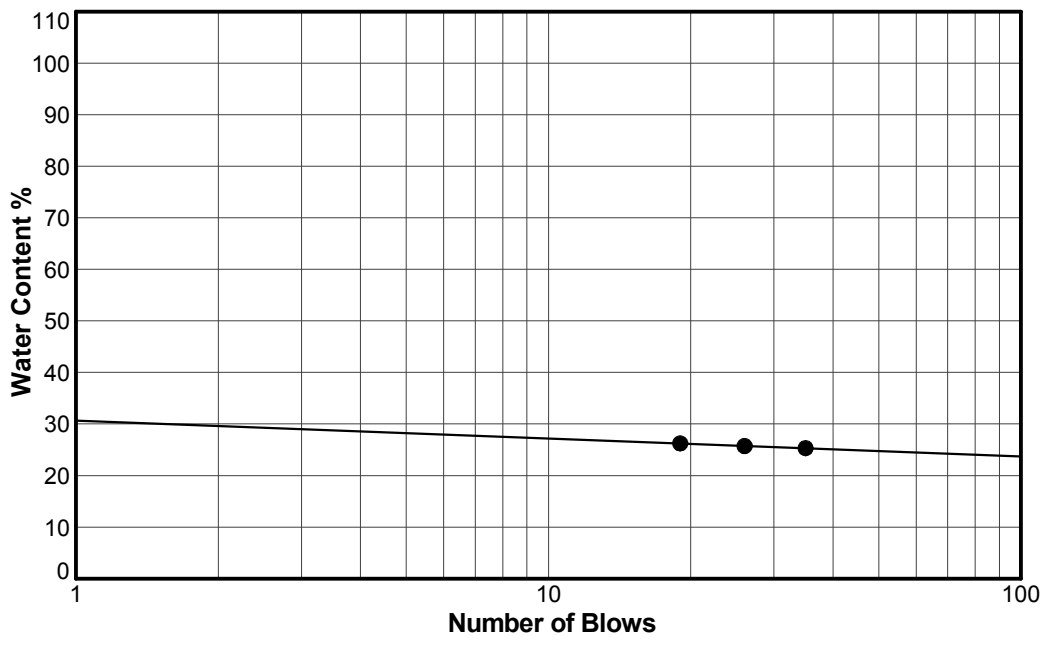
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 36.58 to 37.19
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	18
Plasticity Index	8
Natural Water Content (%)	29.2
Liquidity Index	1.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



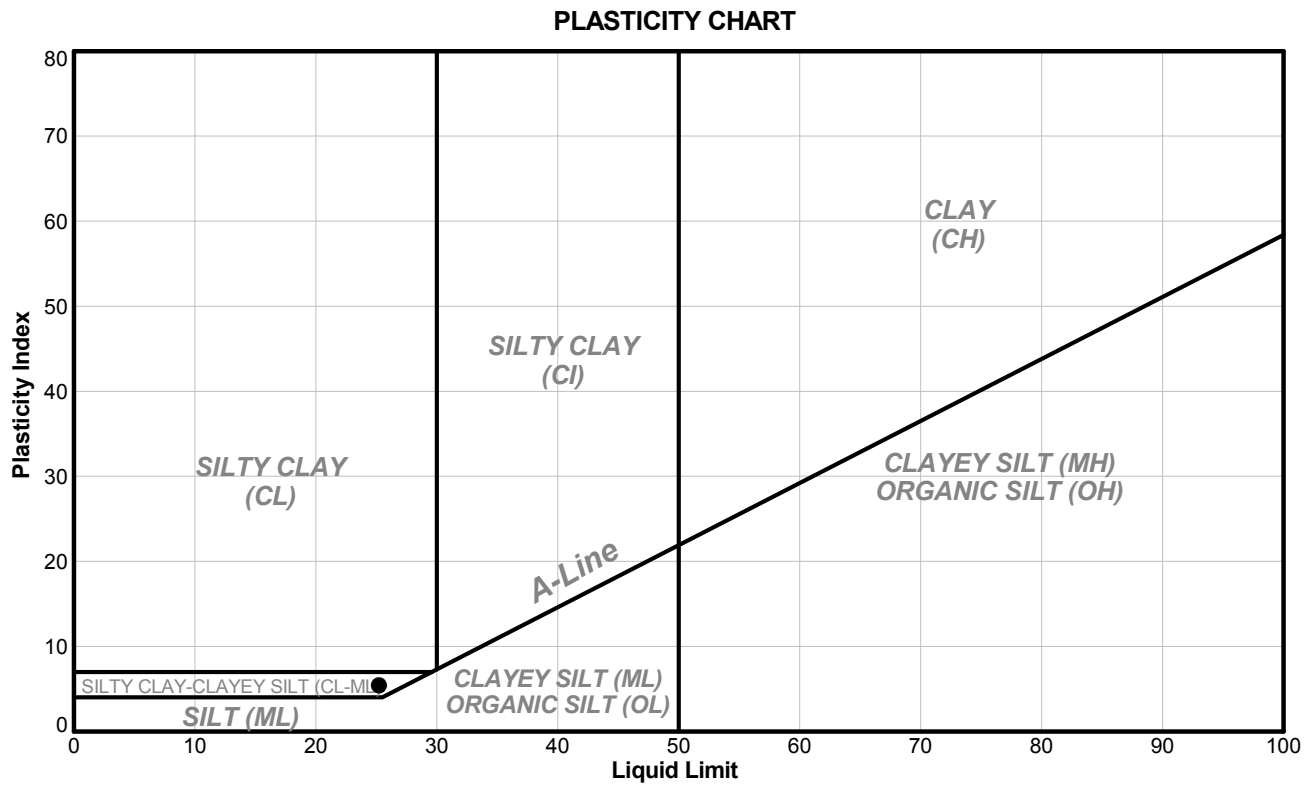
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

SJ/DC	2/28/2017	LH	3/29/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 38.10 to 38.71
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	25	38.10	38.71	ND	25	20	5.0	30.0	2.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/17/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

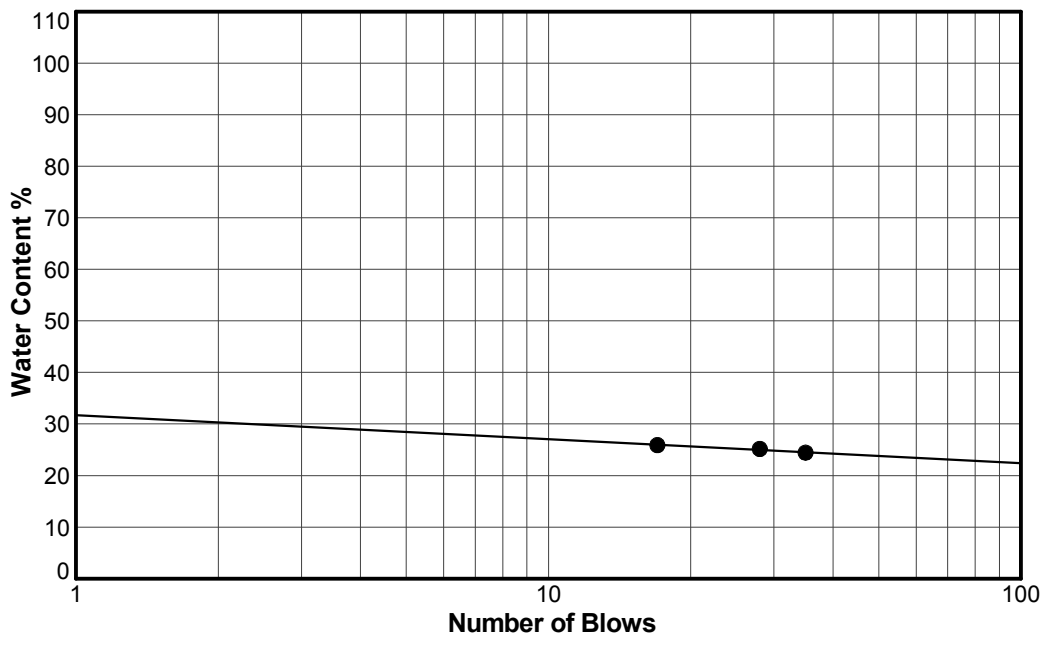
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 25
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 38.10 to 38.71
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	25
Plastic Limit	20
Plasticity Index	5
Natural Water Content (%)	30.0
Liquidity Index	2.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



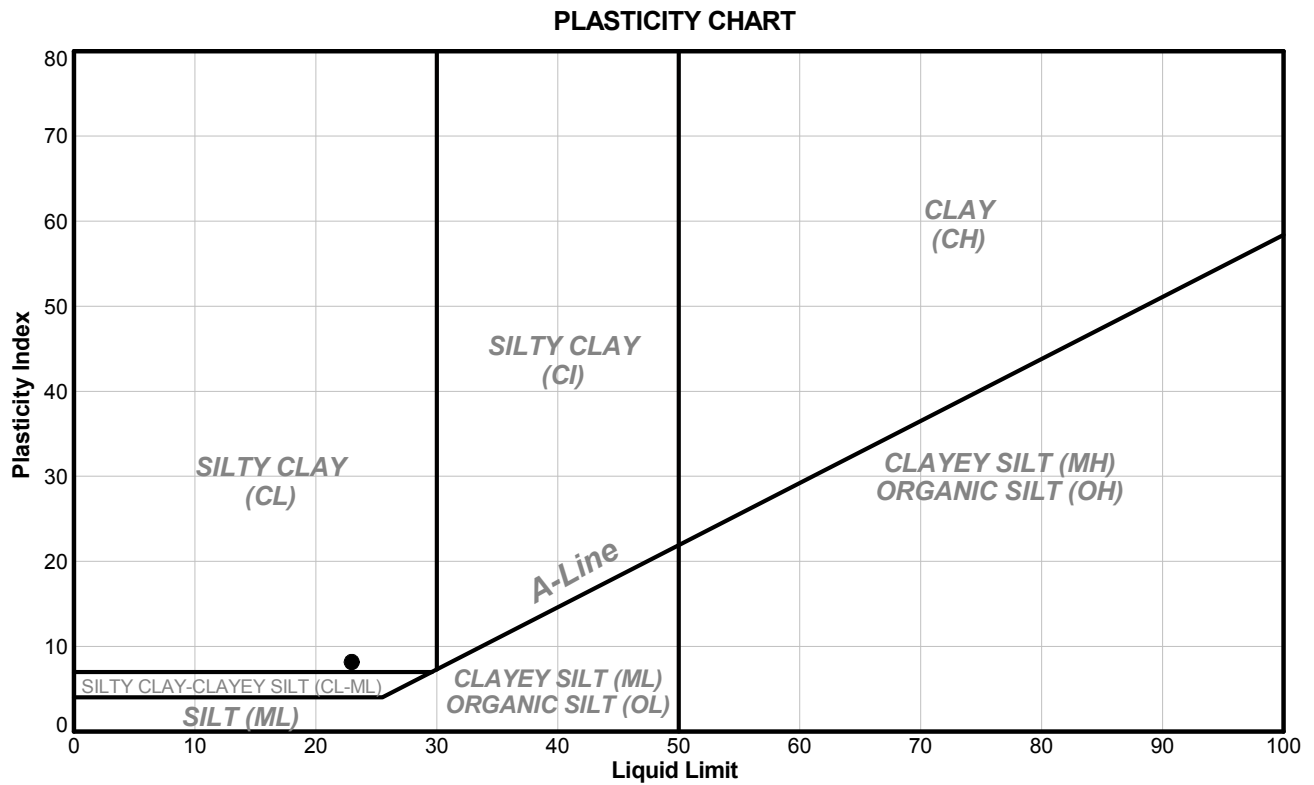
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RG	2/17/2017	LH	2/24/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.86 to 55.47
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	BH16-08	29	54.86	55.47	92	23	15	8.0	17.2	0.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

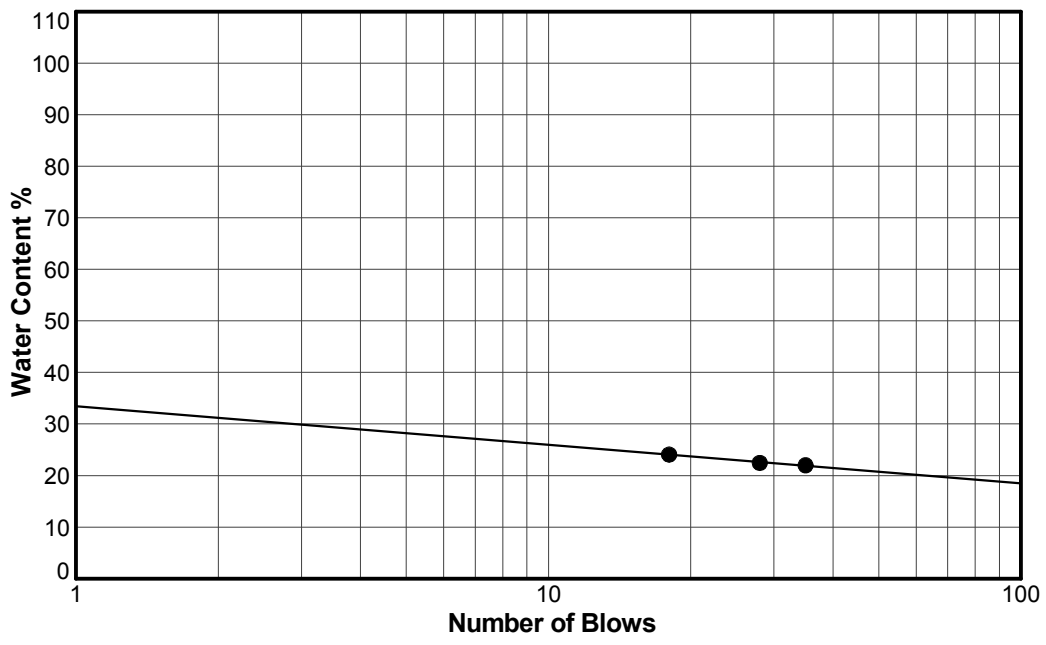
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Borehole ID: BH16-08
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 54.86 to 55.47
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	92
Liquid Limit	23
Plastic Limit	15
Plasticity Index	8
Natural Water Content (%)	17.2
Liquidity Index	0.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

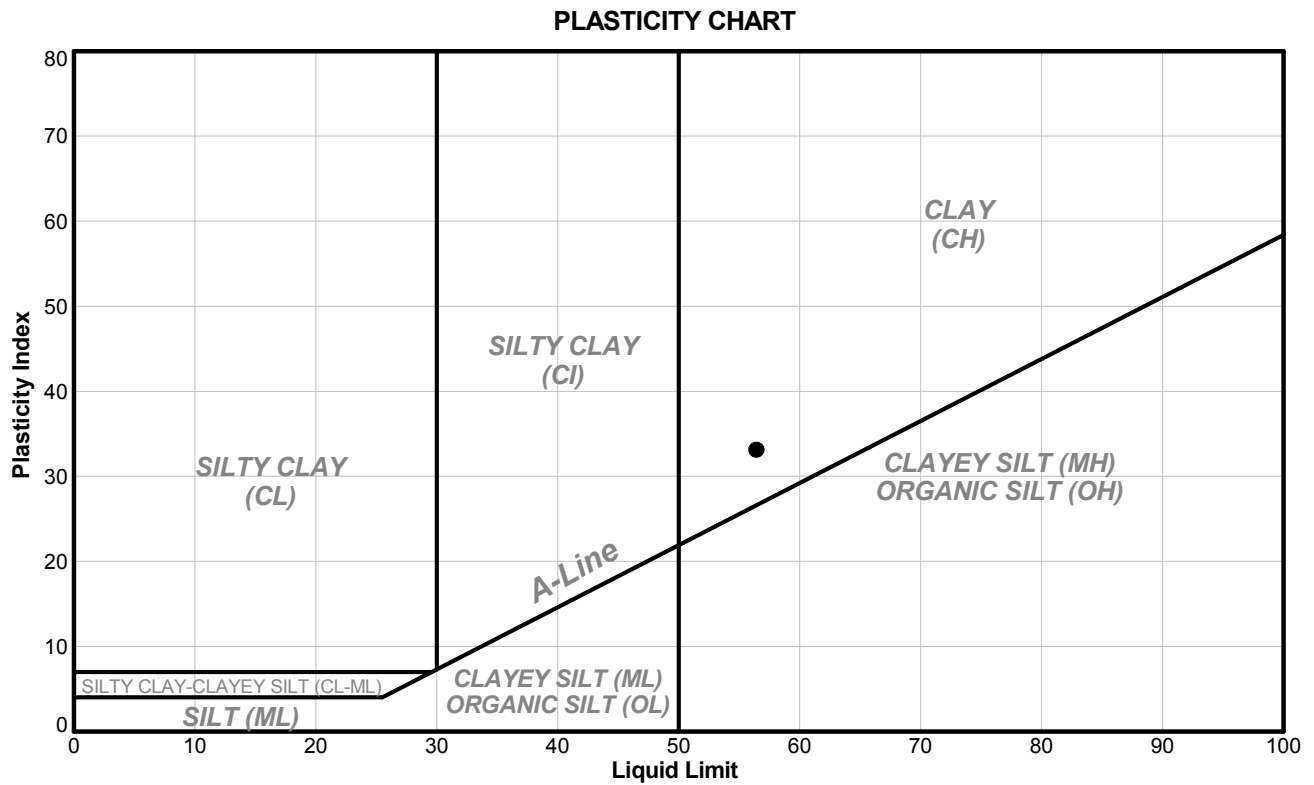
RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 69.80 to 69.95
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-05	29	69.80	69.95	ND	56	23	33.0	26.4	0.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

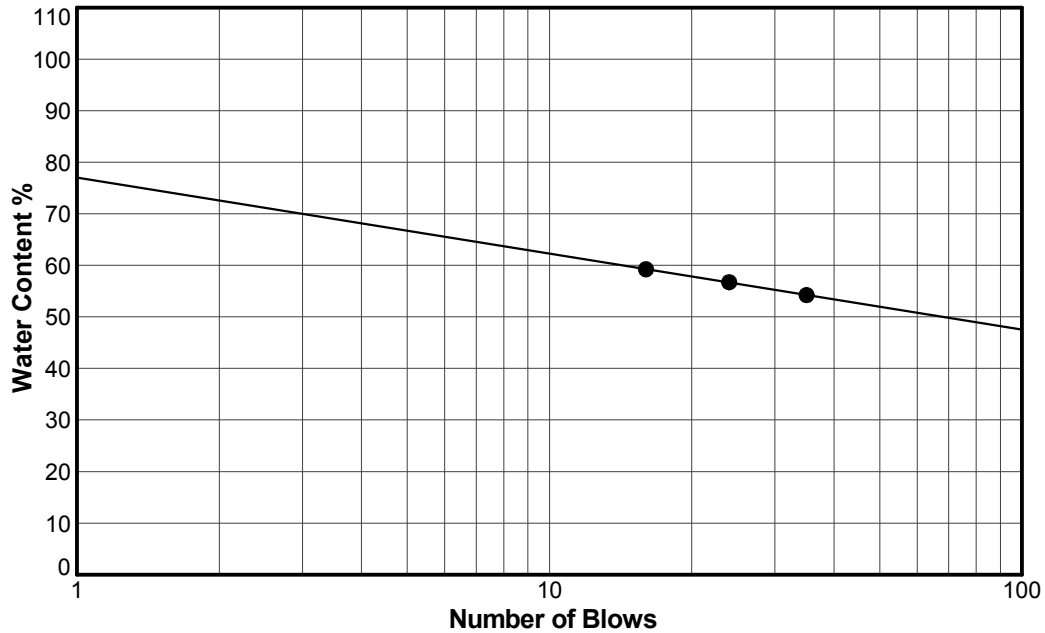
National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 69.80 to 69.95
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	56
Plastic Limit	23
Plasticity Index	33
Natural Water Content (%)	26.4
Liquidity Index	0.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

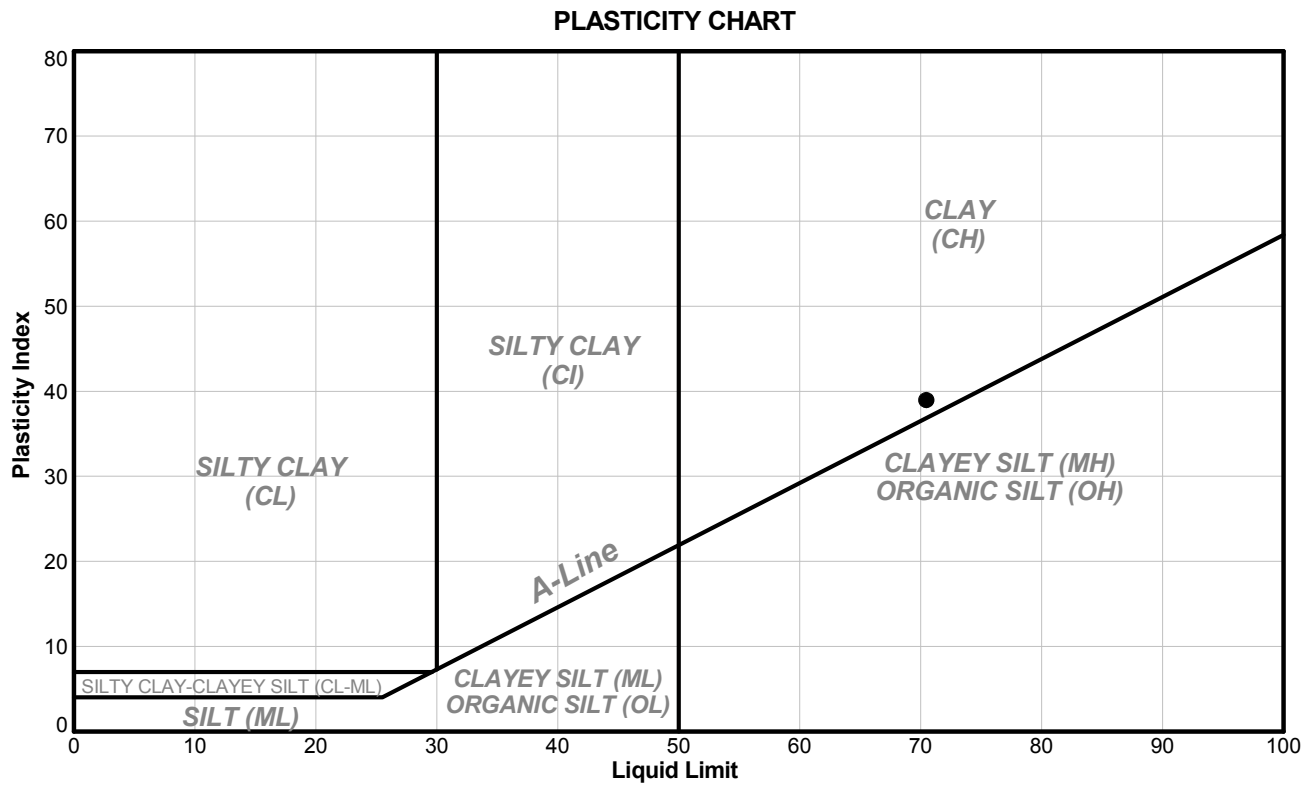
RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 71.32 to 71.48
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-05	30	71.32	71.48	ND	70	31	39.0	32.7	0.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2019/17

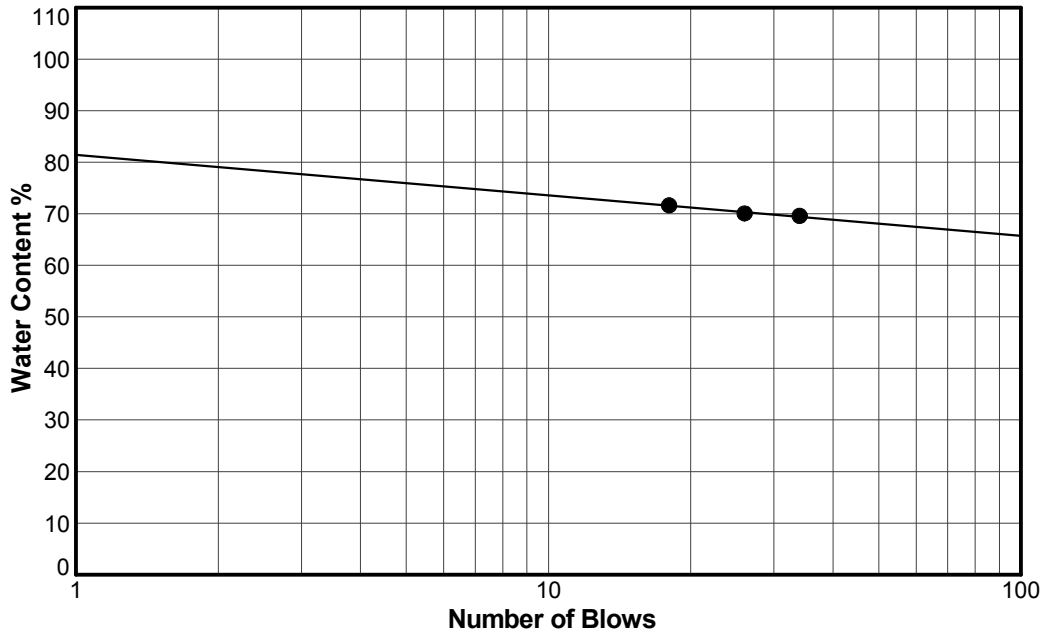
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 30
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 71.32 to 71.48
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	70
Plastic Limit	31
Plasticity Index	39
Natural Water Content (%)	32.7
Liquidity Index	0.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



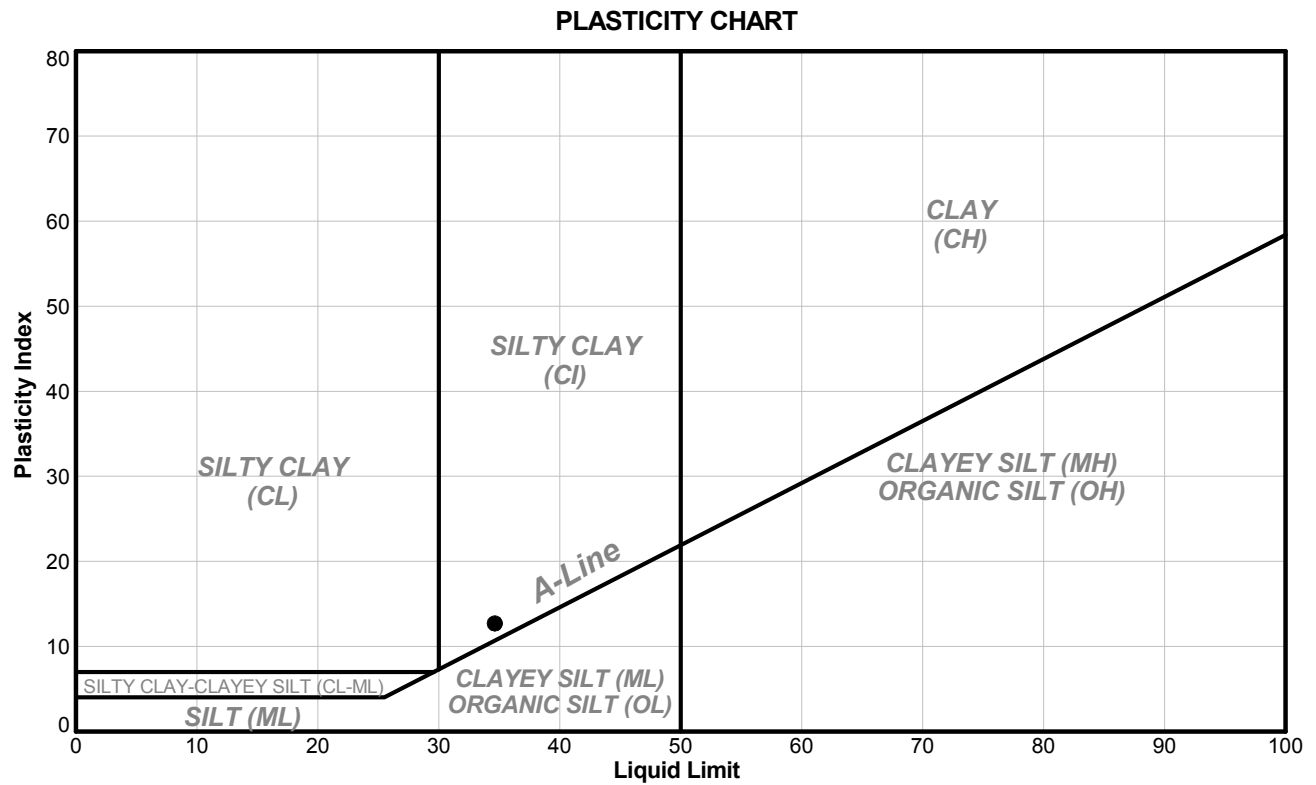
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 76.96 to 77.11
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-05	32	76.96	77.11	ND	35	22	13.0	22.2	0.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 76.96 to 77.11
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	35
Plastic Limit	22
Plasticity Index	13
Natural Water Content (%)	22.2
Liquidity Index	0.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



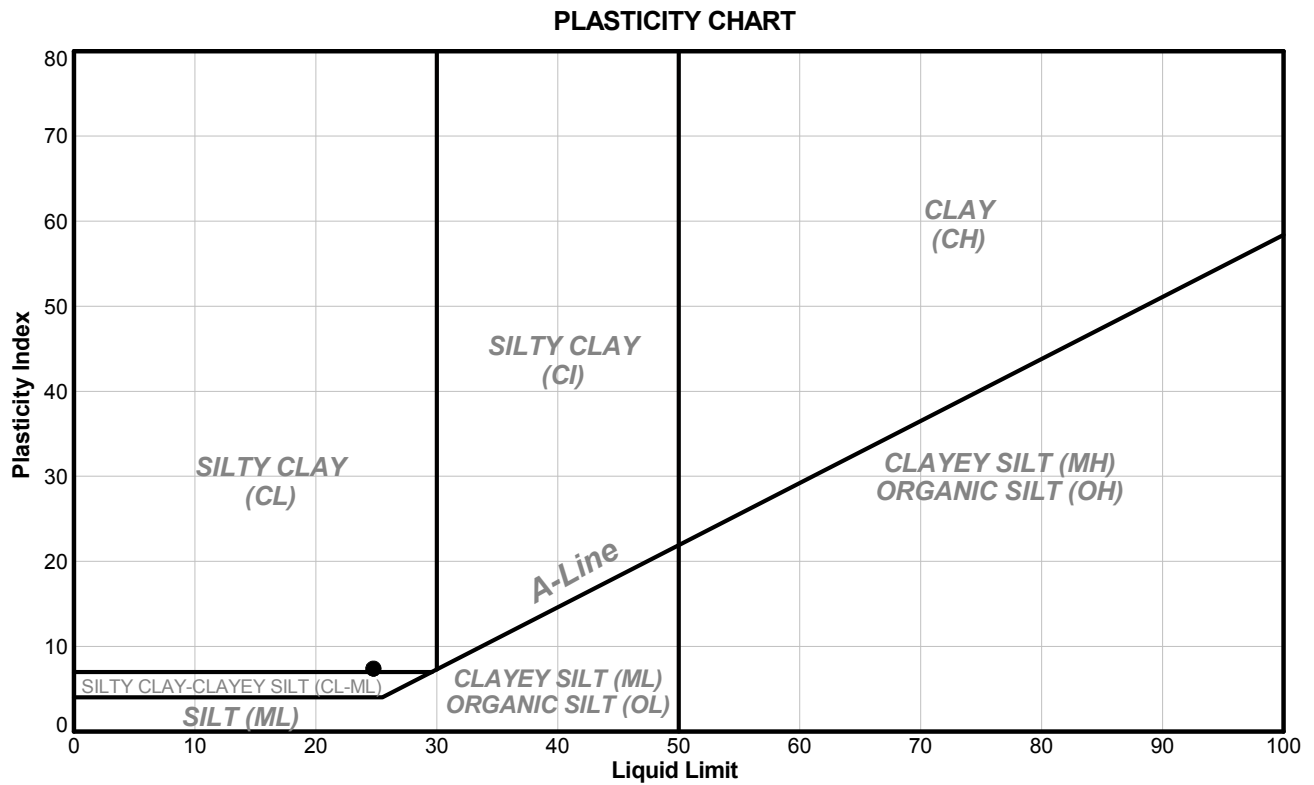
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RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 82.60 to 82.75
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-05	35	82.60	82.75	ND	25	17	8.0	15.4	-0.2

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		ID: SH16-05
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 35
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 82.60 to 82.75
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	25
Plastic Limit	17
Plasticity Index	8
Natural Water Content (%)	15.4
Liquidity Index	-0.2

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

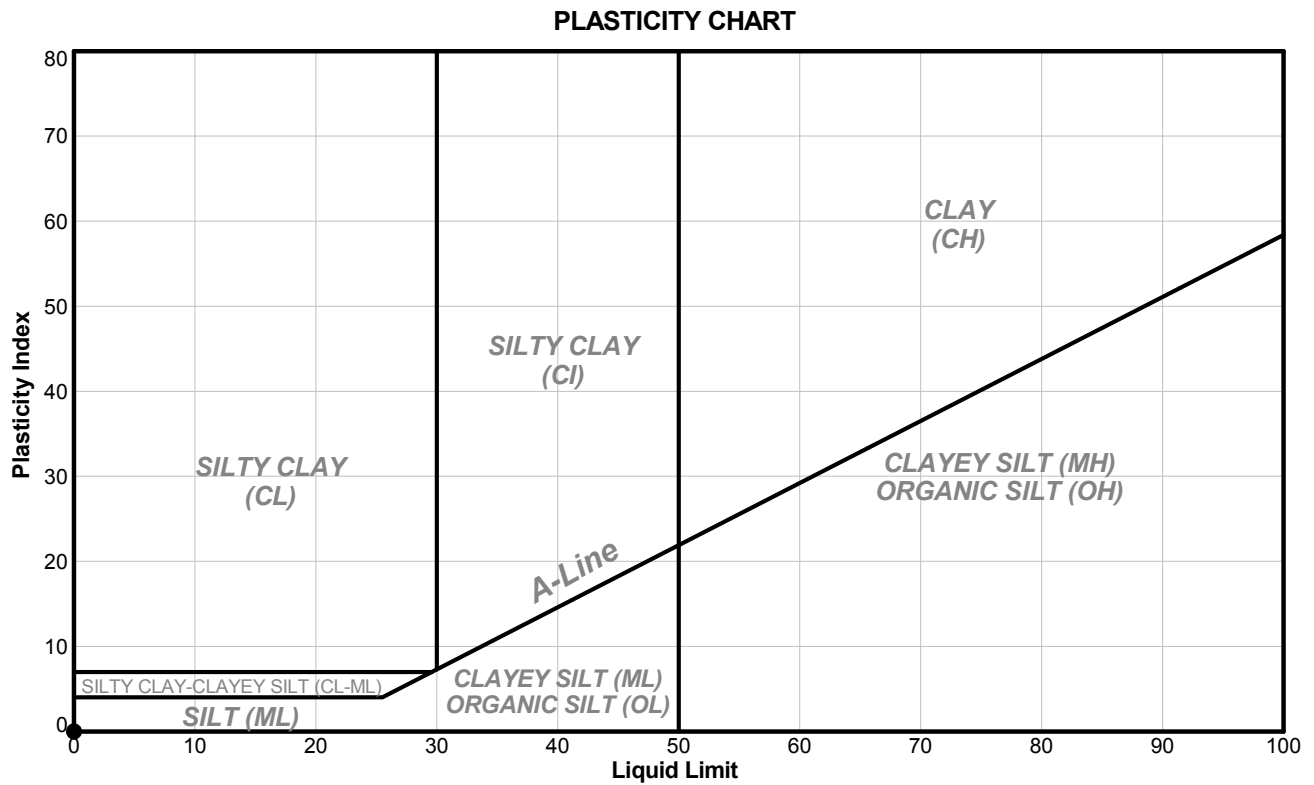
RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 10
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 29.57 to 29.72
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: Fine silty SAND

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	10	29.57	29.72	100	NP	NP	NP	27.5	NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

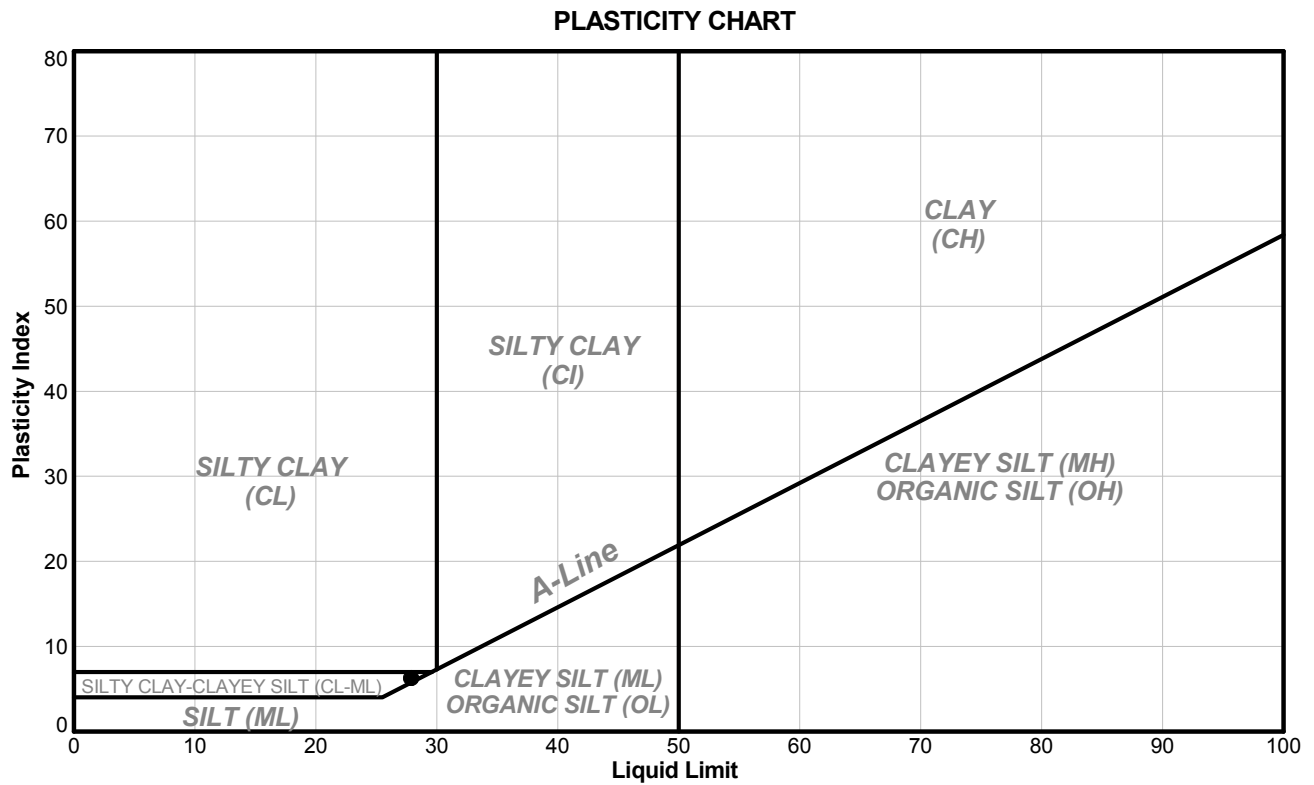
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 15
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 42.98 to 43.13
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	15	42.98	43.13	ND	28	22	6.0	30.0	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung 2019/17

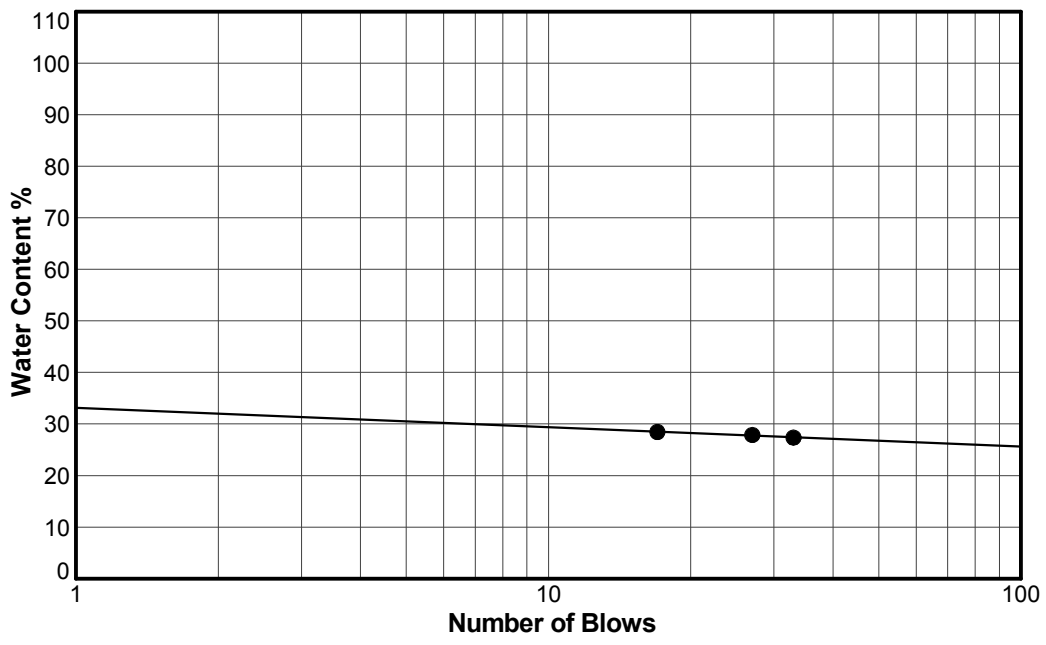
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 15
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 42.98 to 43.13
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	22
Plasticity Index	6
Natural Water Content (%)	30.0
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

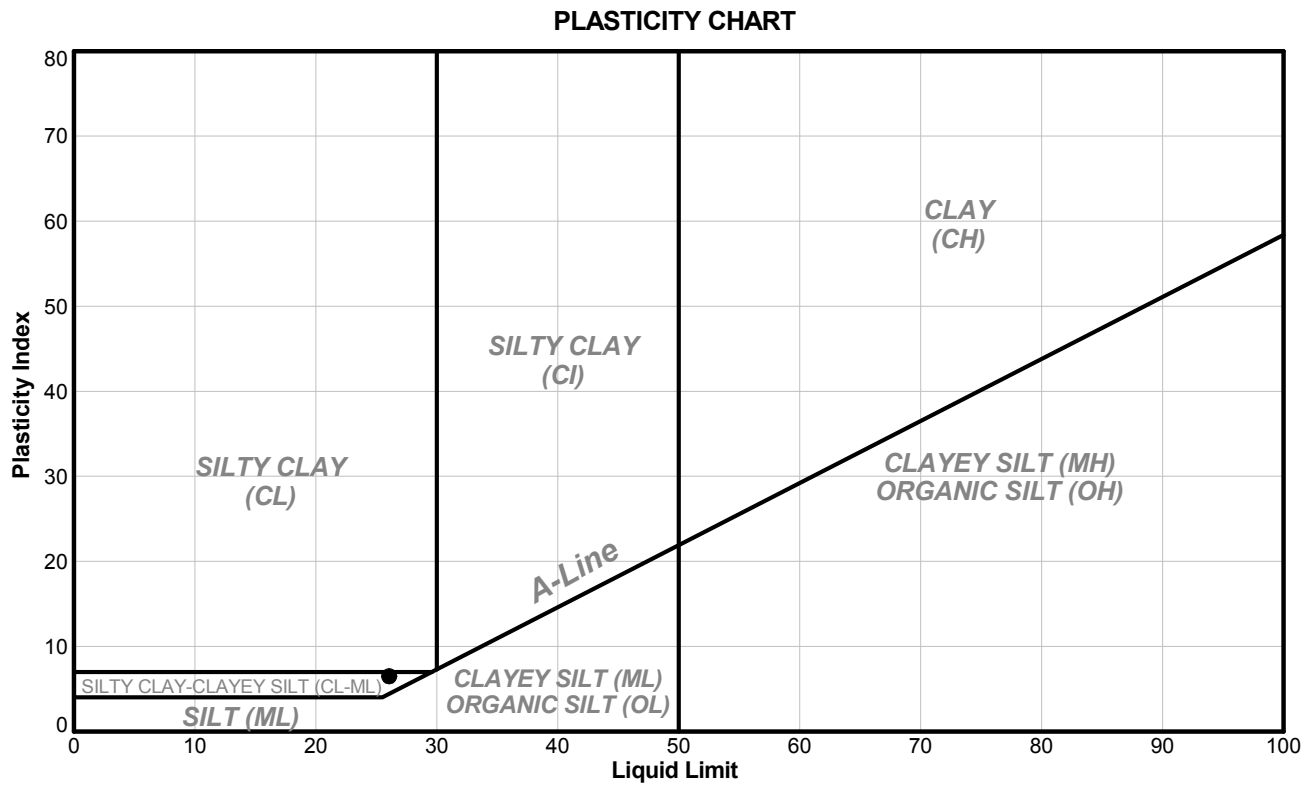
OA	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 20
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 55.93 to 56.08
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	20	55.93	56.08	ND	26	20	6.0	27.7	1.3

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 20
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 55.93 to 56.08
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	20
Plasticity Index	6
Natural Water Content (%)	27.7
Liquidity Index	1.3

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



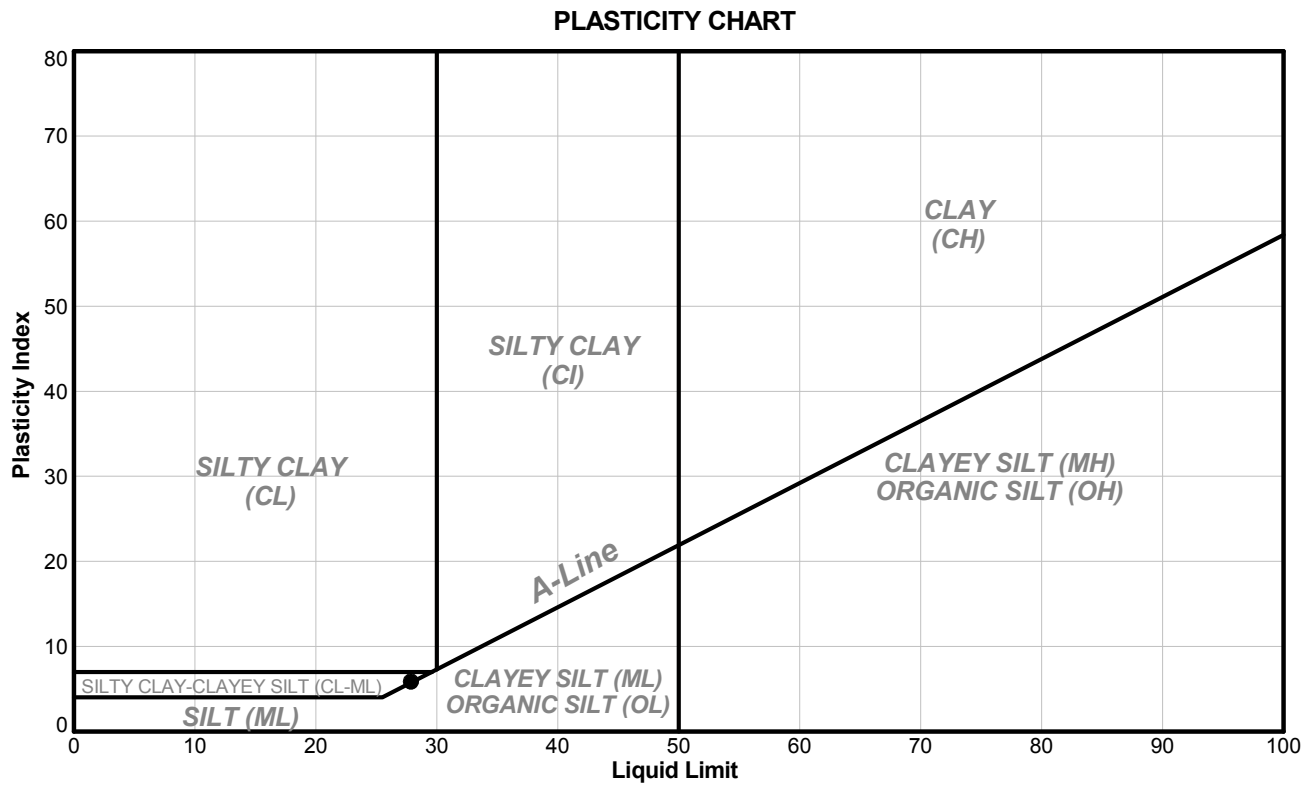
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 22
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 58.98 to 59.13
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	22	58.98	59.13	ND	28	22	6.0	69.4	7.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 22
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 58.98 to 59.13
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	22
Plasticity Index	6
Natural Water Content (%)	69.4
Liquidity Index	7.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

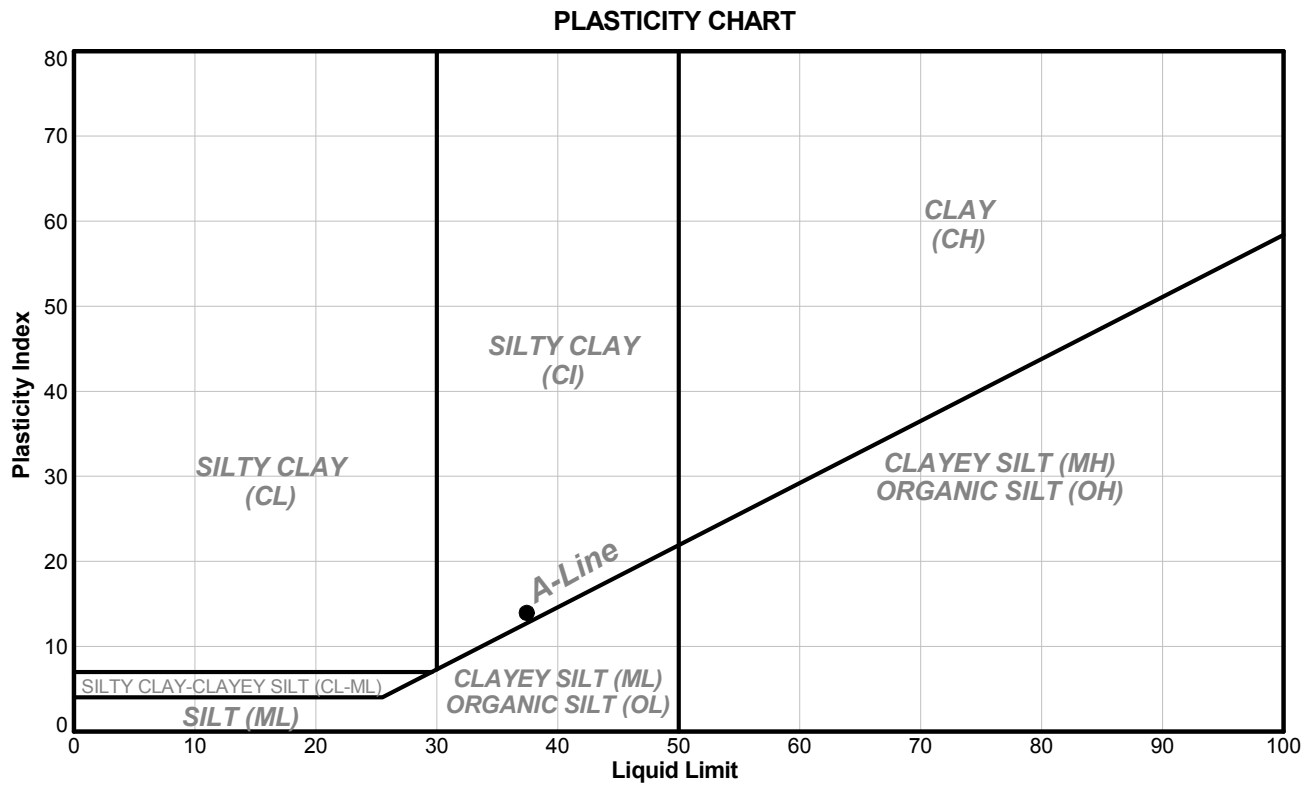
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Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 66.29 to 66.45
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	27	66.29	66.45	ND	37	23	14.0	37.7	1.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

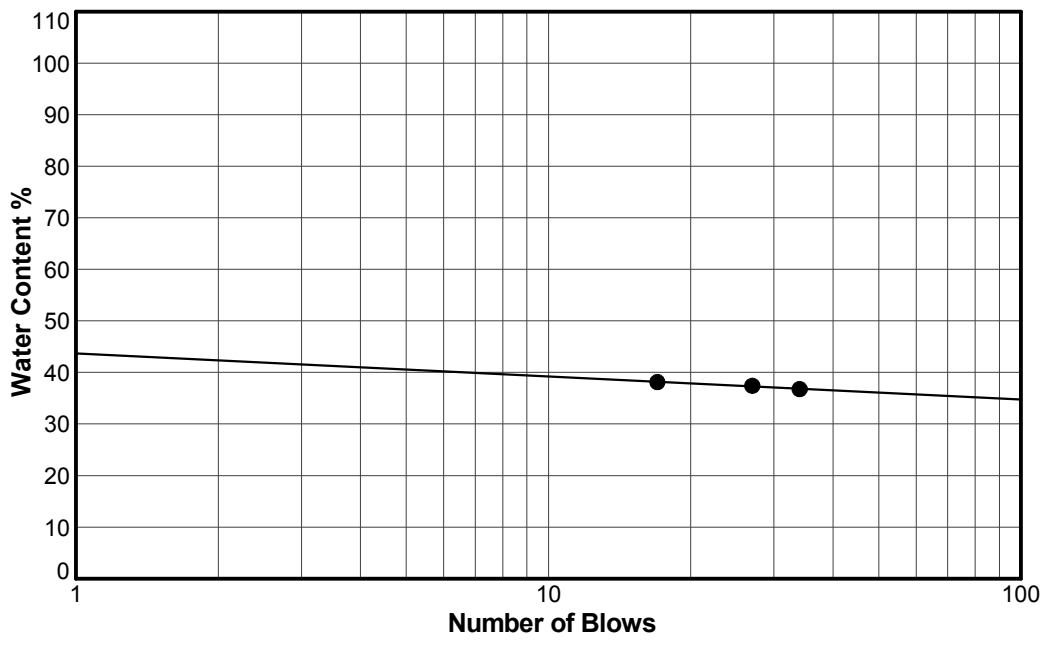
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 66.29 to 66.45
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	37
Plastic Limit	23
Plasticity Index	14
Natural Water Content (%)	37.7
Liquidity Index	1.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



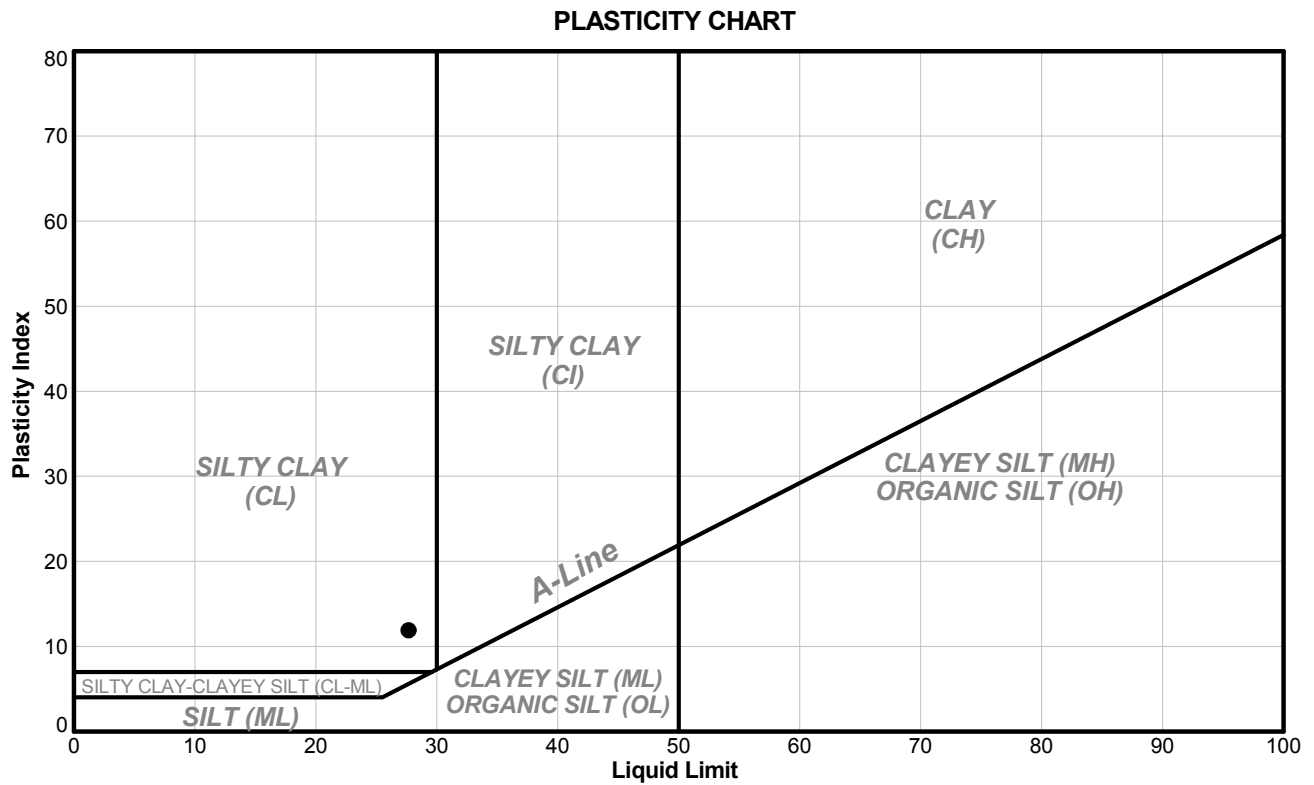
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT).jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 72.69 to 72.85
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	31	72.69	72.85	ND	28	16	12.0	24.3	0.7

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CP	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

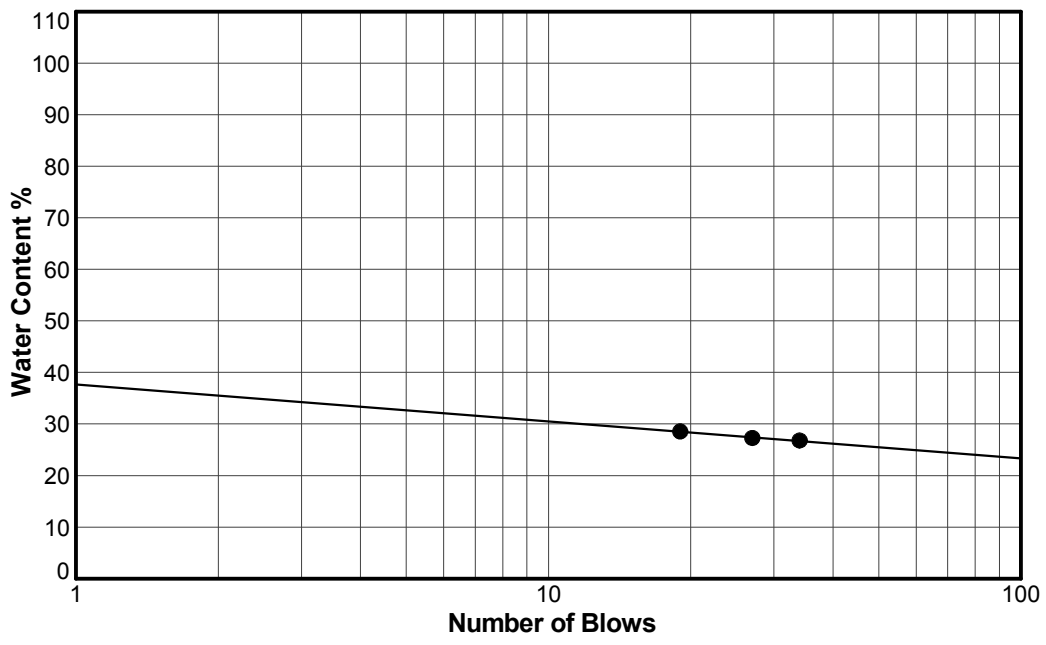
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 31
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 72.69 to 72.85
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	16
Plasticity Index	12
Natural Water Content (%)	24.3
Liquidity Index	0.7

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

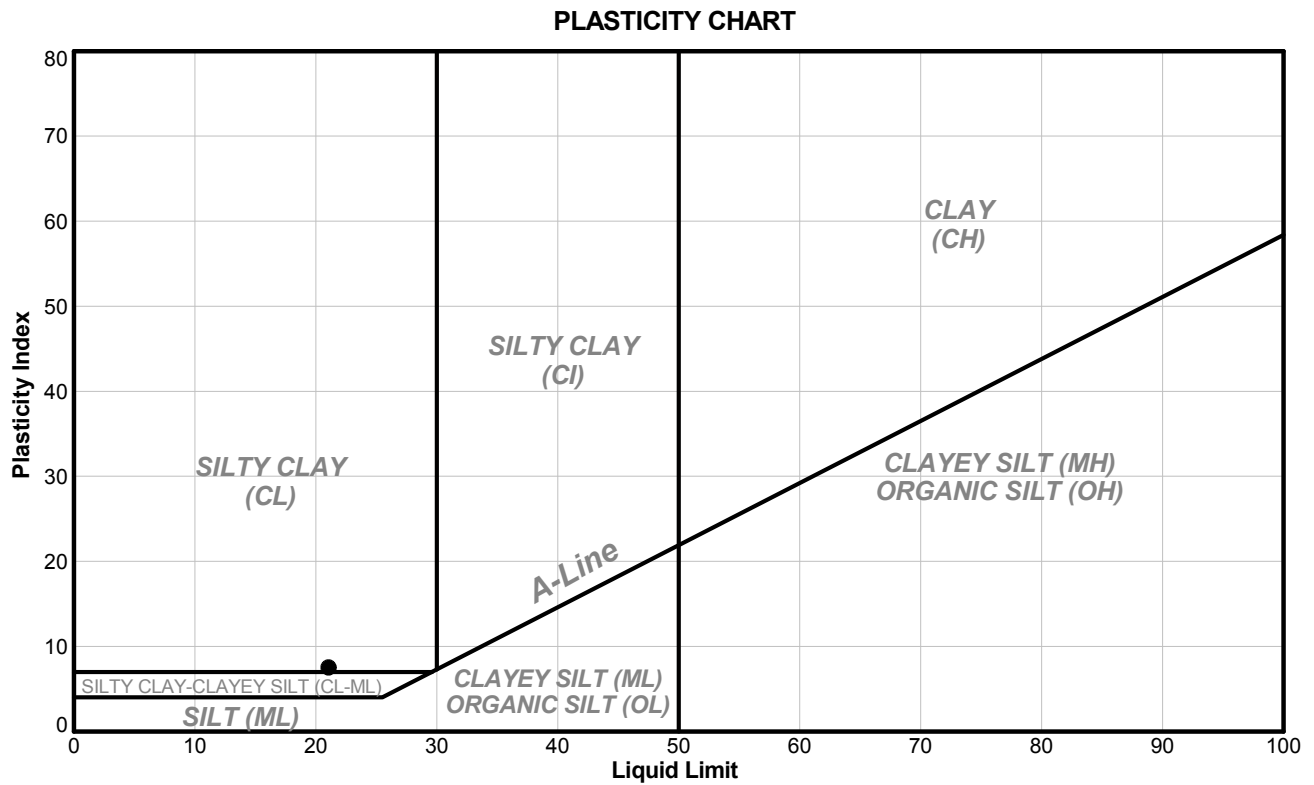
CP	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 81.38 to 81.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-06	36	81.38	81.53	ND	21	14	7.0	14.4	0.1

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-06
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 81.38 to 81.53
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Air Dried

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	21
Plastic Limit	14
Plasticity Index	7
Natural Water Content (%)	14.4
Liquidity Index	0.1

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



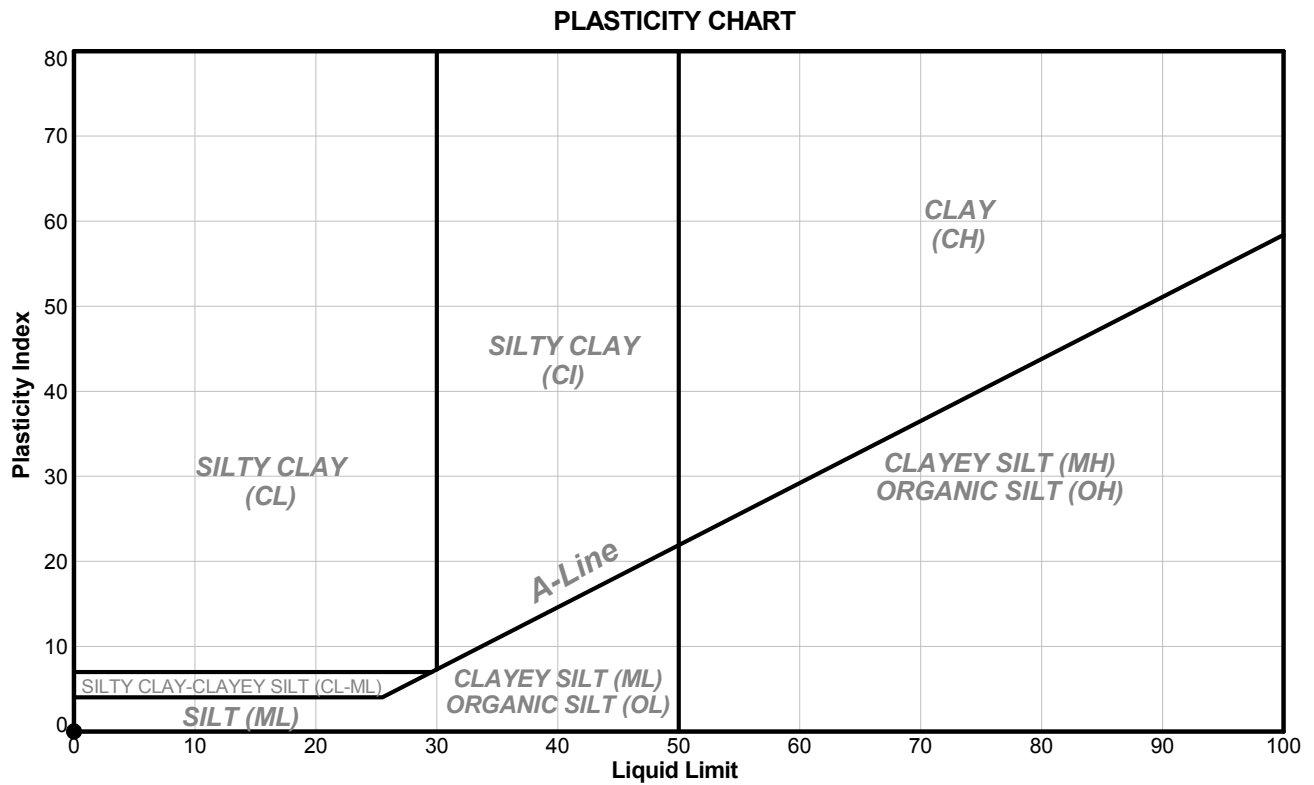
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Service: GINT_GAL_NATIONALIM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 1
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 3.35 to 3.51
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	1	3.35	3.51	ND	NP	NP	NP	36.9	NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

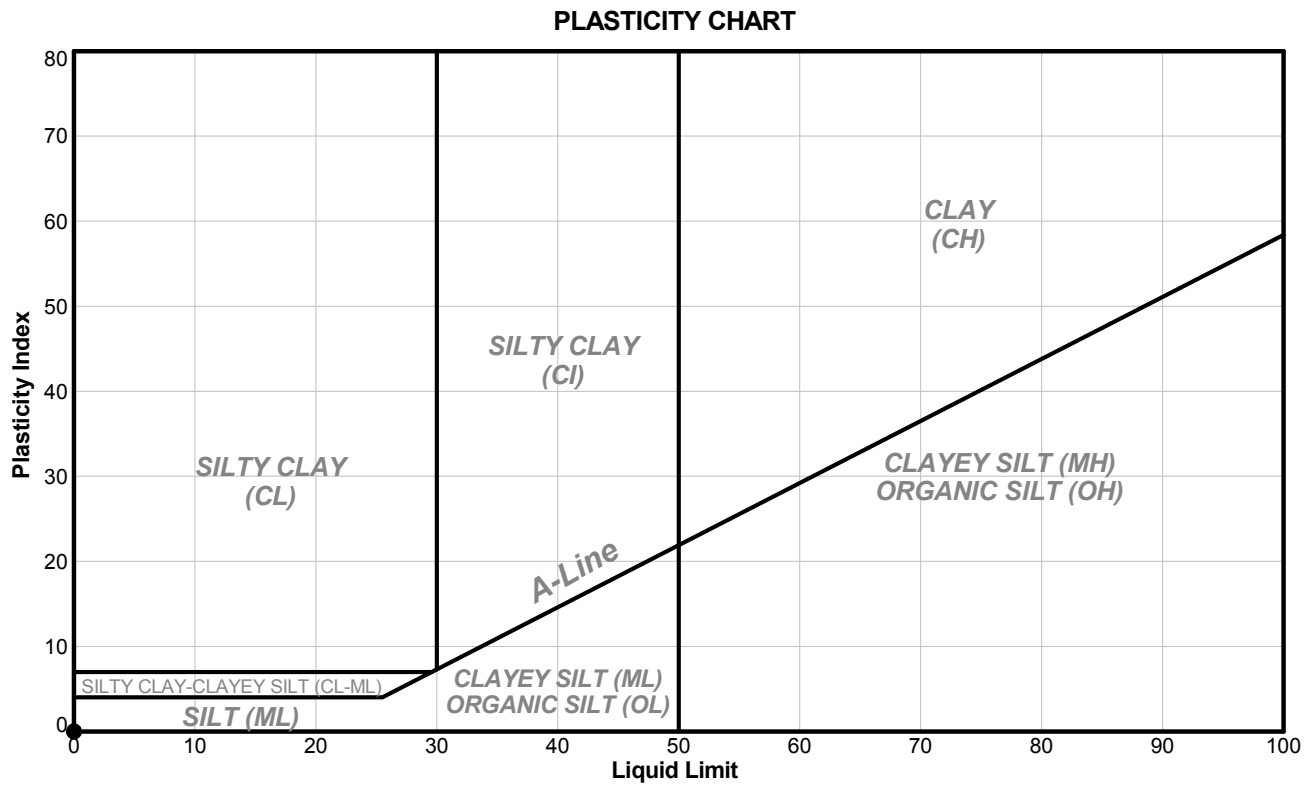
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

TM/CS	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 19
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 39.62 to 39.78
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	19	39.62	39.78	ND	NP	NP	NP	23.3	NP

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

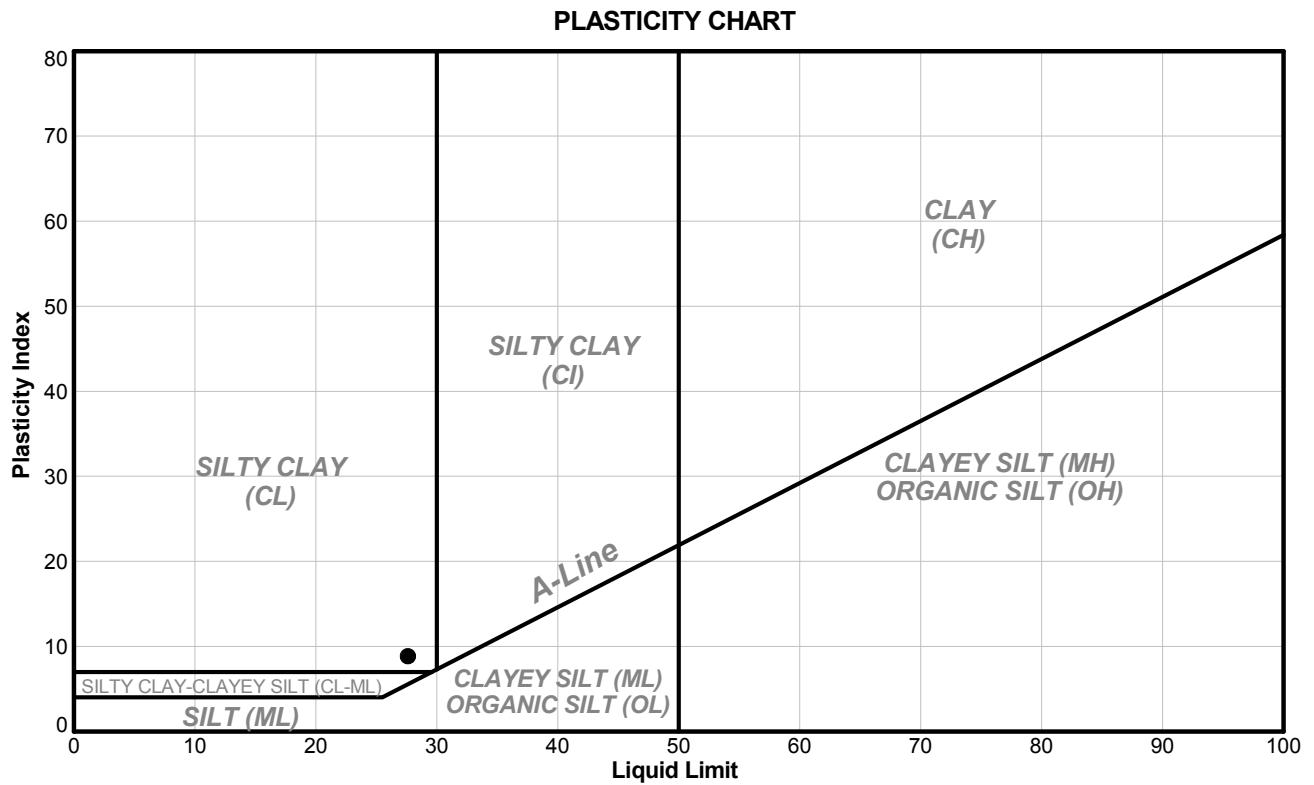
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

OA	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) Ijyoung_2019/17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 22
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 43.59 to 43.74
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	22	43.59	43.74	ND	28	19	9.0	26.7	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

TM/CS	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

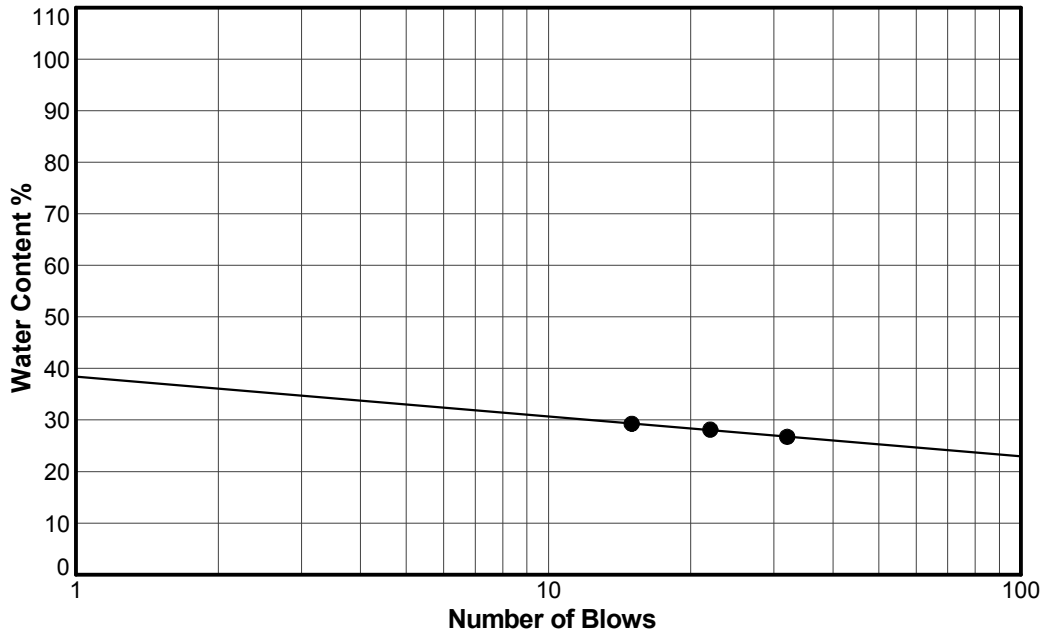
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Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 22
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 43.59 to 43.74
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	19
Plasticity Index	9
Natural Water Content (%)	26.7
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



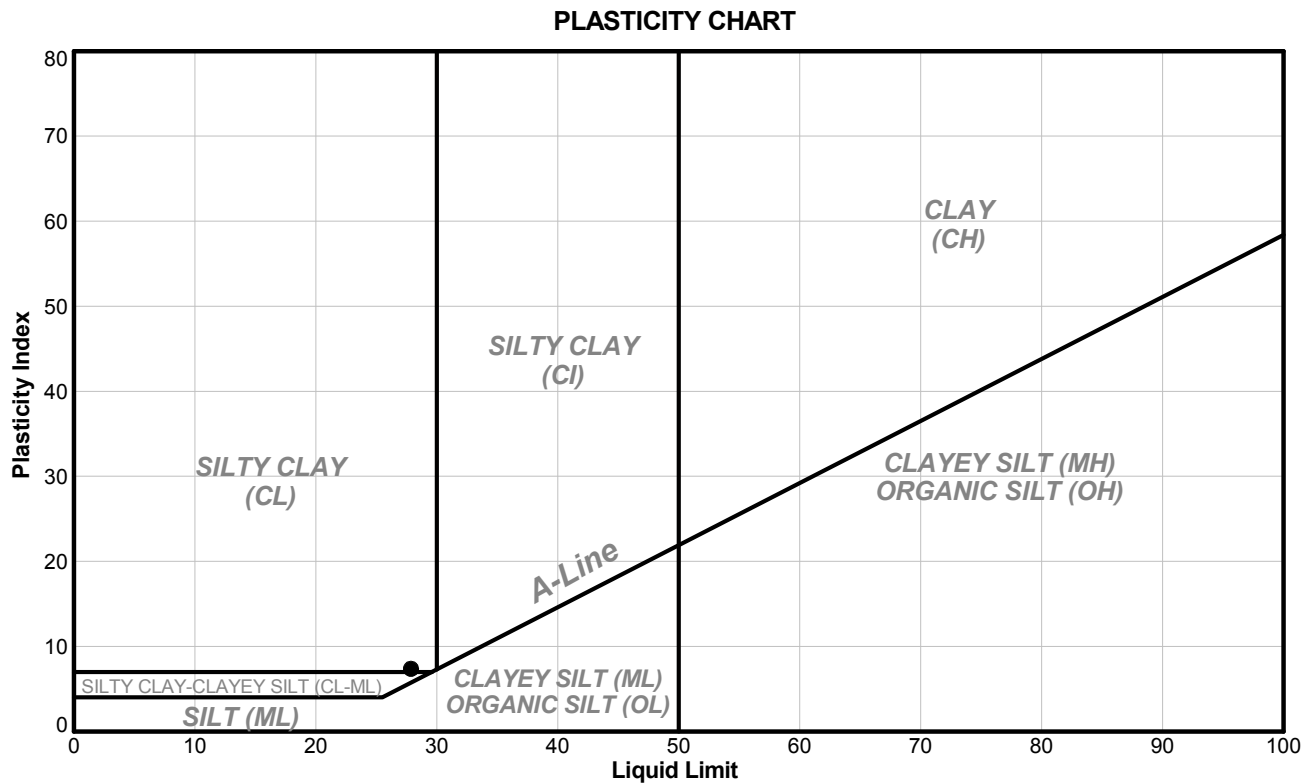
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

TM/CS	1/31/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201917

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 46.63 to 46.79
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	24	46.63	46.79	ND	28	20	8.0	26.9	0.9

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

TM/CS	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

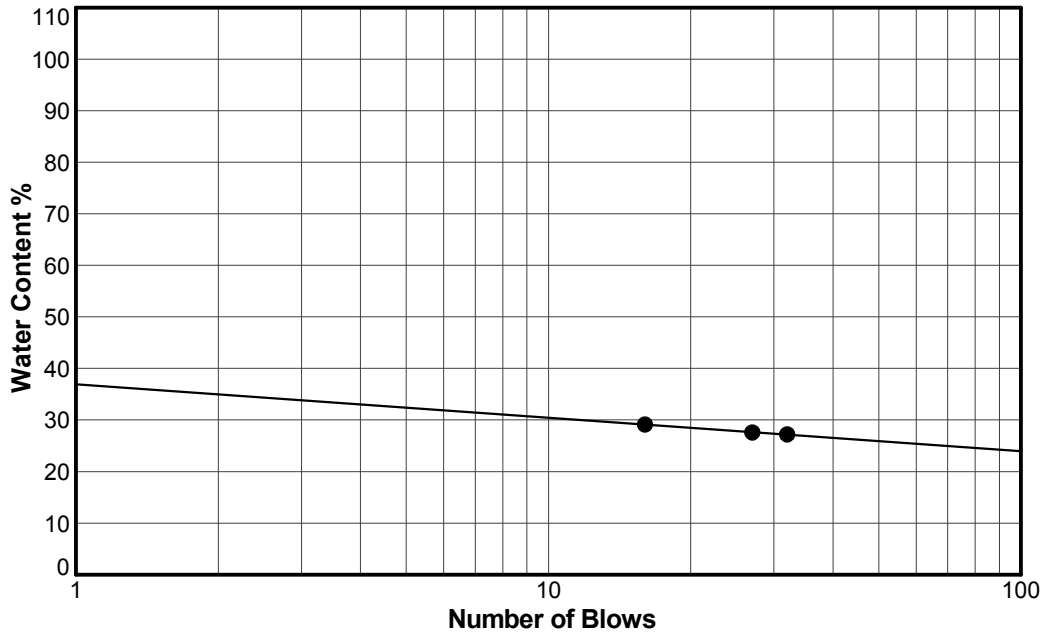
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 24
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 46.63 to 46.79
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	20
Plasticity Index	8
Natural Water Content (%)	26.9
Liquidity Index	0.9

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



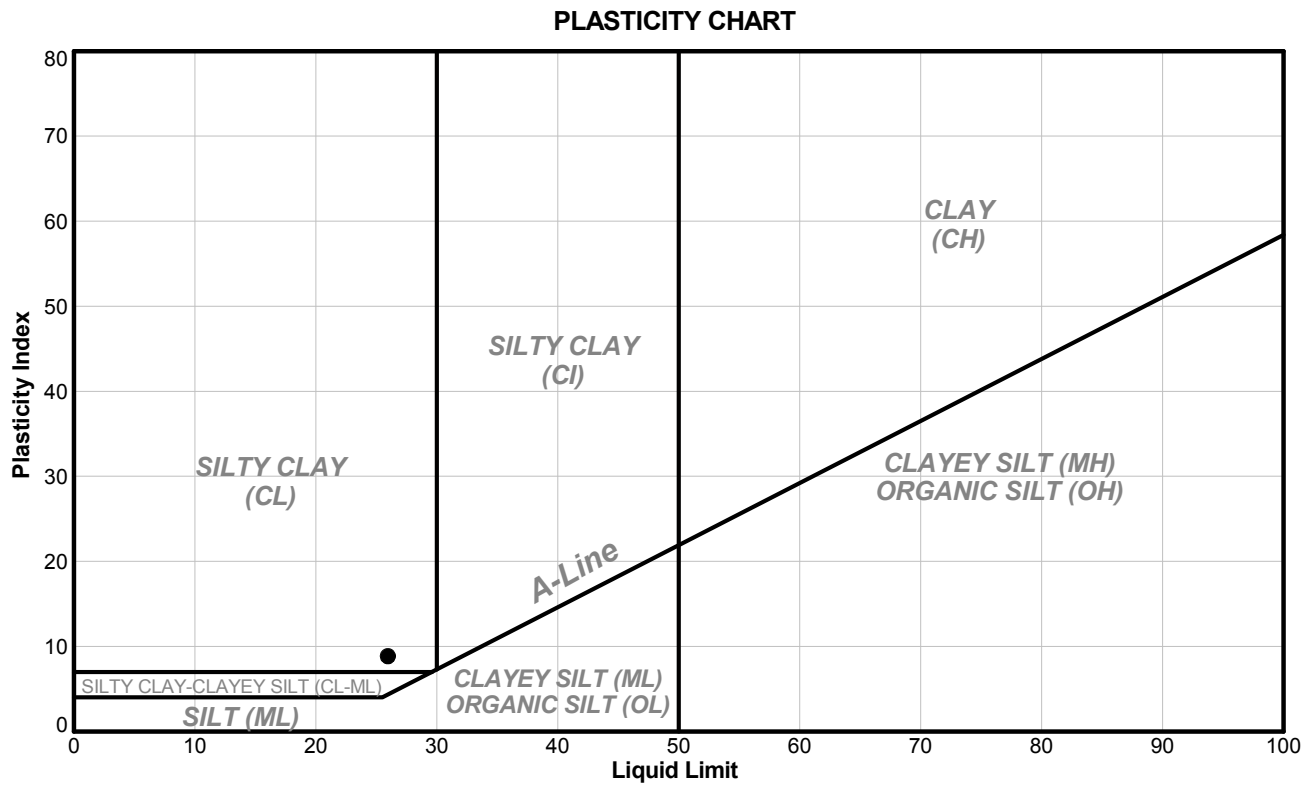
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

TM/CS	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201917

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 55.47 to 55.63
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	27	55.47	55.63	ND	26	17	9.0	29.7	1.4

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

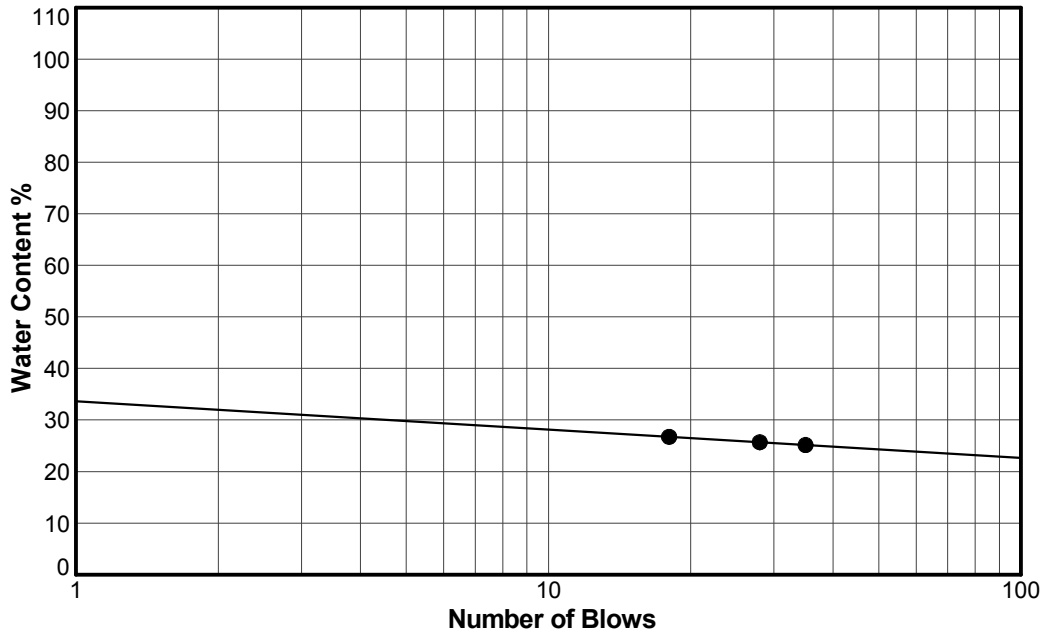
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 27
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 55.47 to 55.63
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	26
Plastic Limit	17
Plasticity Index	9
Natural Water Content (%)	29.7
Liquidity Index	1.4

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



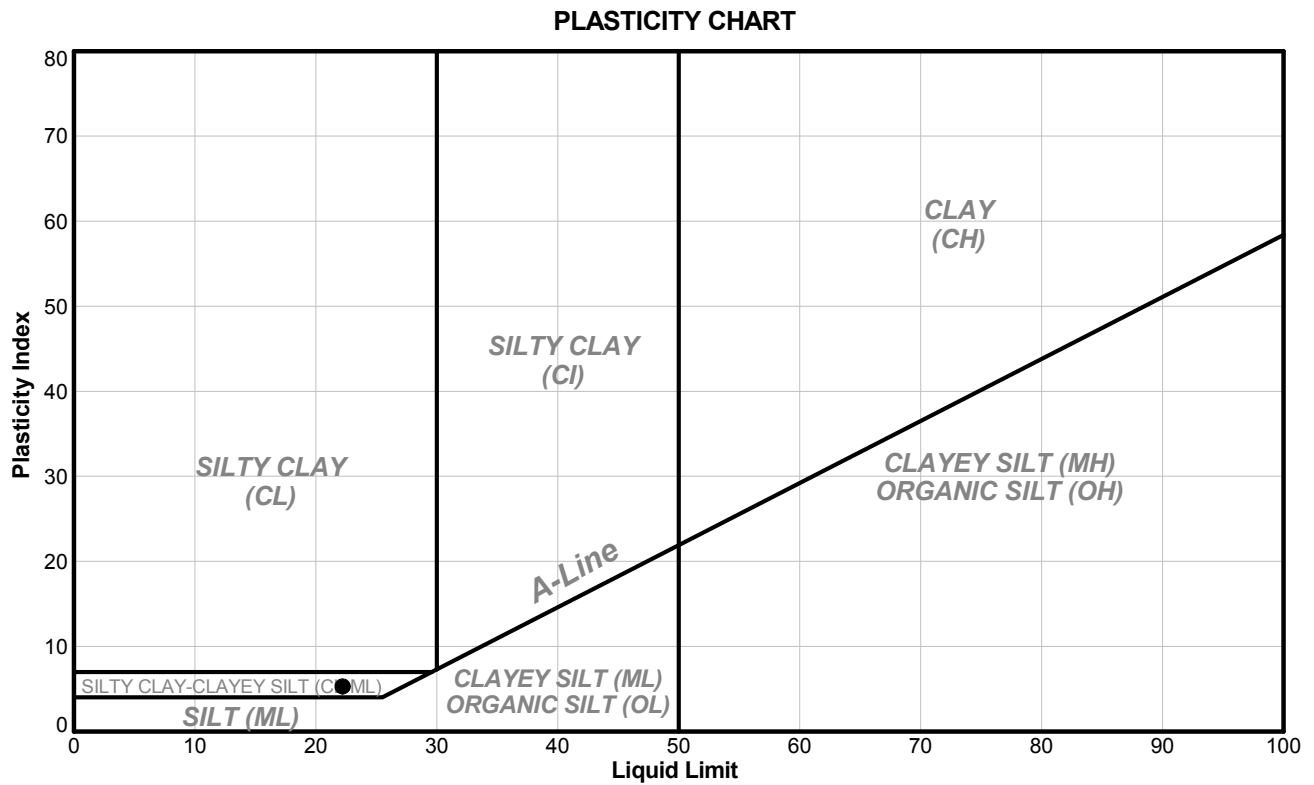
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

CS/MM	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 60.66 to 60.81
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	29	60.66	60.81	ND	22	17	5.0	24.3	1.5

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

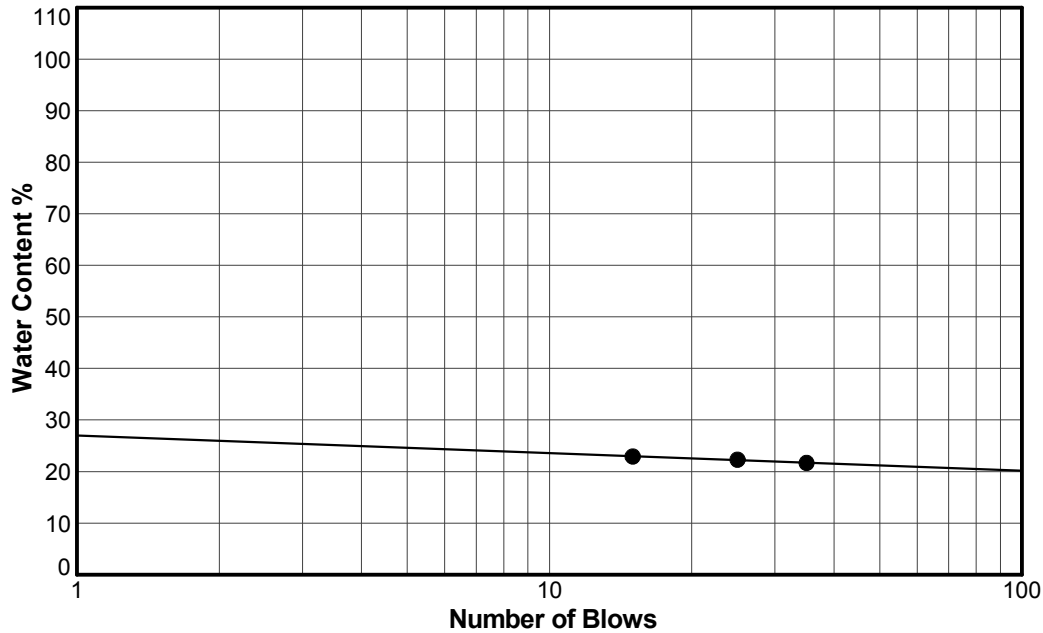
RG	2/3/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\jyoung_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 29
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 60.66 to 60.81
Project No.: 1525010 Phase: 2000		Lab Schedule No.:
Other Remarks: N/A		
Test Method: A-Multi Point		Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	22
Plastic Limit	17
Plasticity Index	5
Natural Water Content (%)	24.3
Liquidity Index	1.5

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



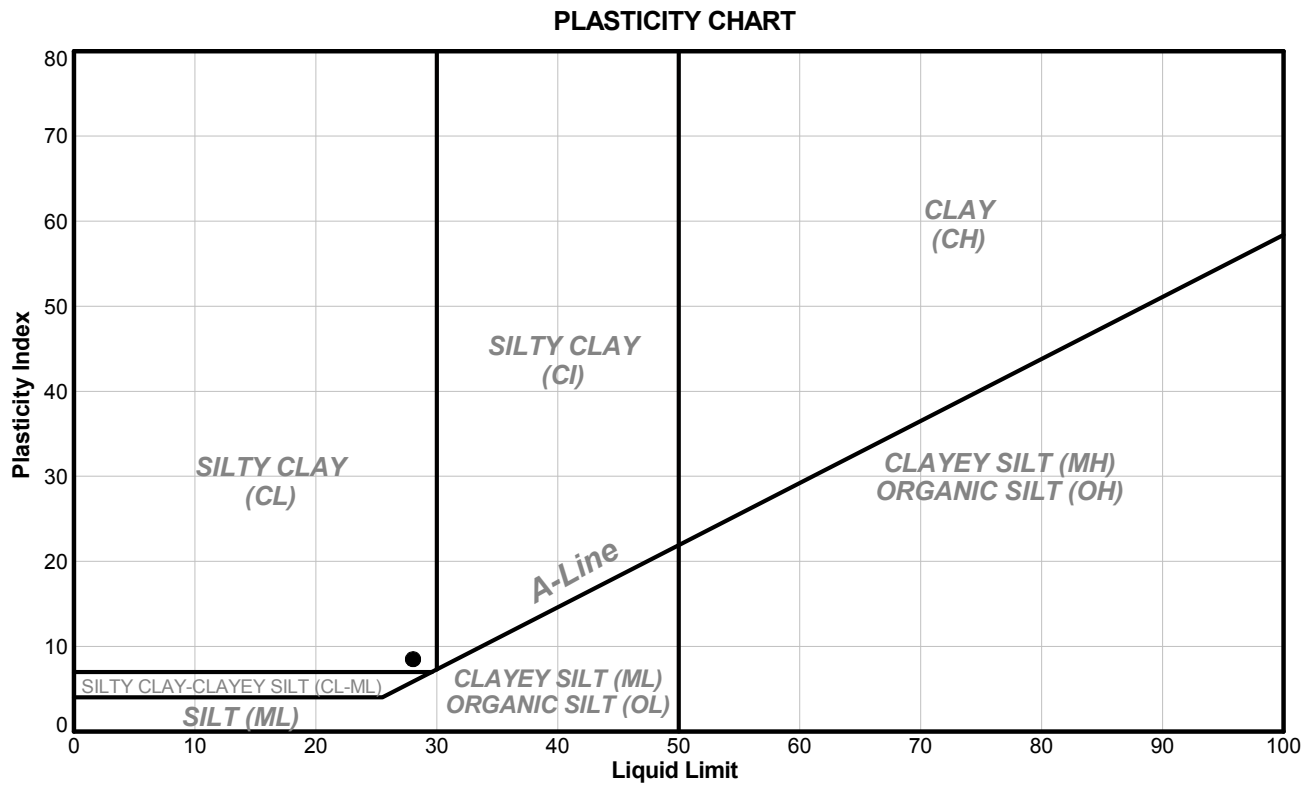
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/3/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Service: GINT_GAL_NATIONALIM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT) jgchang_201917

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 70.87 to 71.02
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	32	70.87	71.02	ND	28	20	8.0	27.7	1.0

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

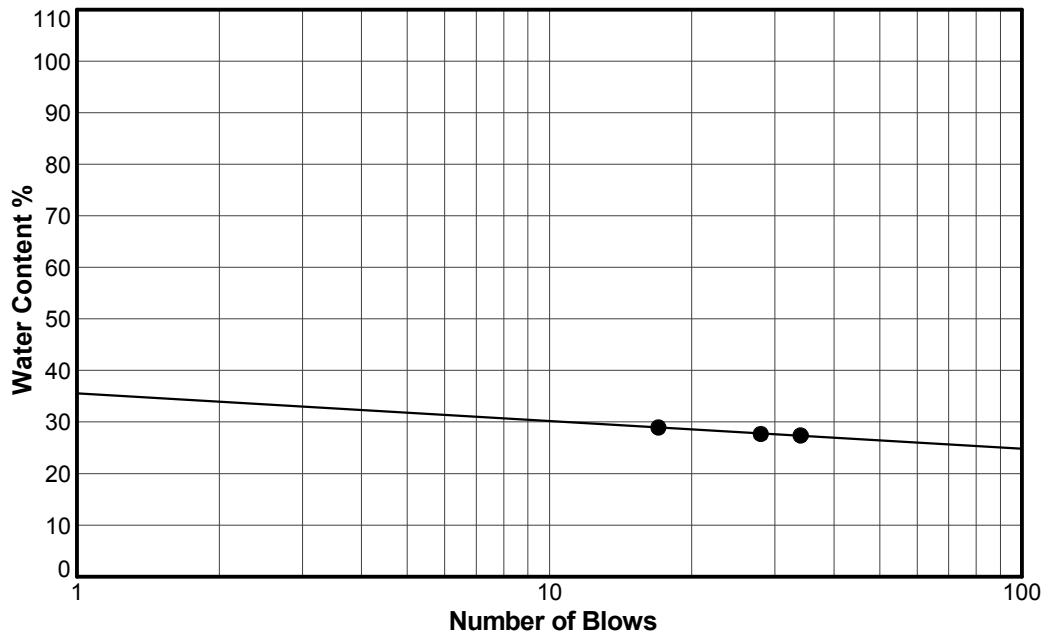
National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 32
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 70.87 to 71.02
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	28
Plastic Limit	20
Plasticity Index	8
Natural Water Content (%)	27.7
Liquidity Index	1.0

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



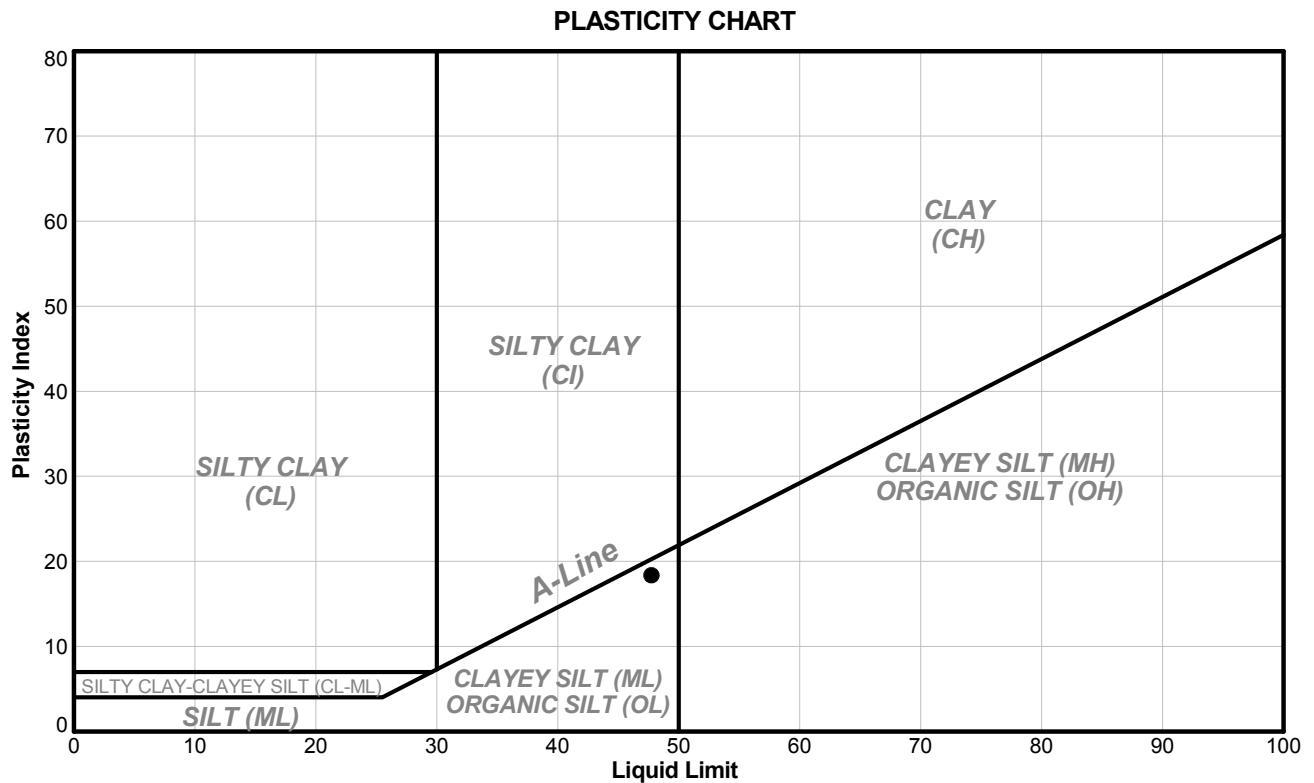
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/1/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 81.84 to 81.99
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	36	81.84	81.99	ND	48	29	19.0	40.3	0.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/2/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

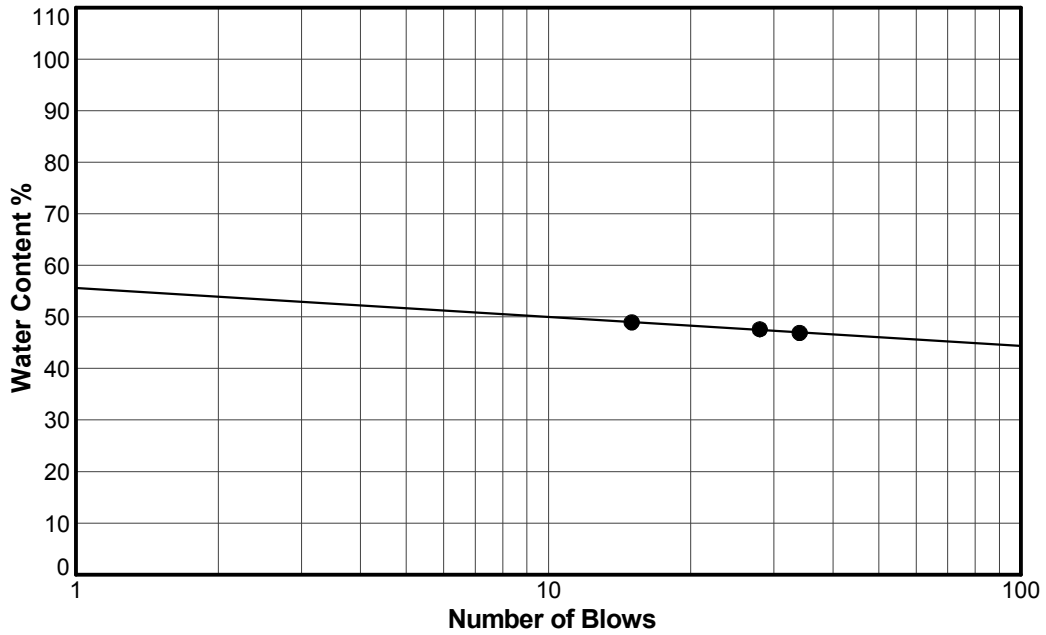
LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 36
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 81.84 to 81.99
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	48
Plastic Limit	29
Plasticity Index	19
Natural Water Content (%)	40.3
Liquidity Index	0.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



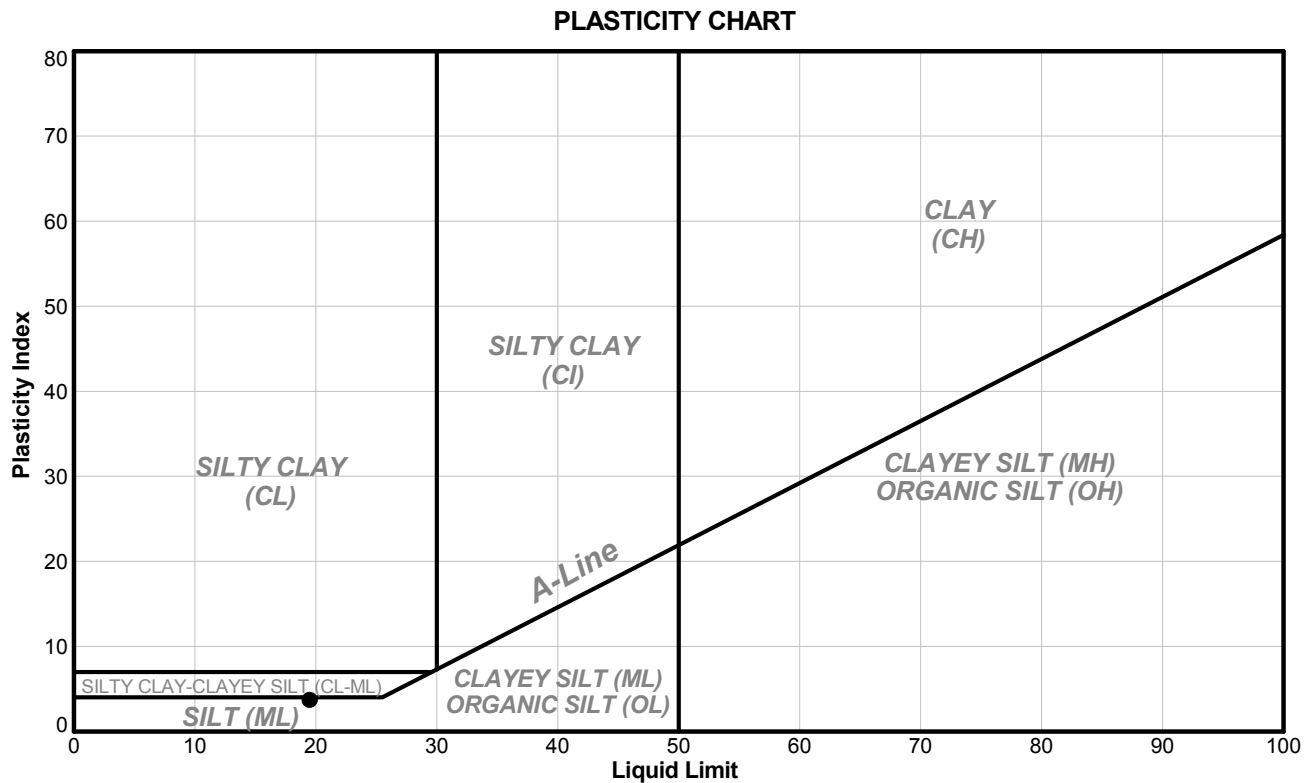
Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/2/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server: GINT_GAL_NATIONAL\IM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgyseng_201617

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 39
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 88.09 to 88.24
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A	
Test Method: A-Multi Point	Preparation Method: Wet



Sym.	Sample Location	Sample / Specimen Number	Depth (m)	Bottom (m)	Percent Passing #40 Sieve (%)	Liquid Limit	Plastic Limit	Plasticity Index	Natural Water Content (%)	Liquidity Index
●	SH16-07	39	88.09	88.24	ND	19	16	3.0	17.7	0.6

NP - NON-PLASTIC RESULT ND - NOT DETERMINED

Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/3/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Server:GINT_GAL_NATIONAL\Unique Project ID: Output Form: LAB_ATTERRBERG CASAGRANDE (SINGLE) J:\young_2019\17

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS		Reference(s) ASTM D 4318-10
Client: CDM Smith Canada ULC		Sonic Hole ID: SH16-07
Project: AIWWTP Transient Mitigation and Outfall System		Sample No.: 39
Location: Annacis Island, Delta, B.C.		Depth Interval (m): 88.09 to 88.24
Project No.: 1525010 Phase: 2000		Lab Schedule No.:

Other Remarks: N/A

Test Method: A-Multi Point **Preparation Method:** Wet

SUMMARY	
Percent Passing #40 Sieve (%)	ND
Liquid Limit	19
Plastic Limit	16
Plasticity Index	3
Natural Water Content (%)	17.7
Liquidity Index	0.6

NP - NON-PLASTIC RESULT
ND - NOT DETERMINED



Note: The test data given herein pertain to the sample provided only. This report constitutes a testing service only.

RG	2/3/2017	LH	2/10/2017
Tech	Date	Checked	Date

National IM Service: GINT_GAL_NATIONALIM Unique Project ID: Output Form: LAB_ATTENBERG LIMITS (REPORT)_jgchang_201917



Sieve Analyses and Hydrometer Tests

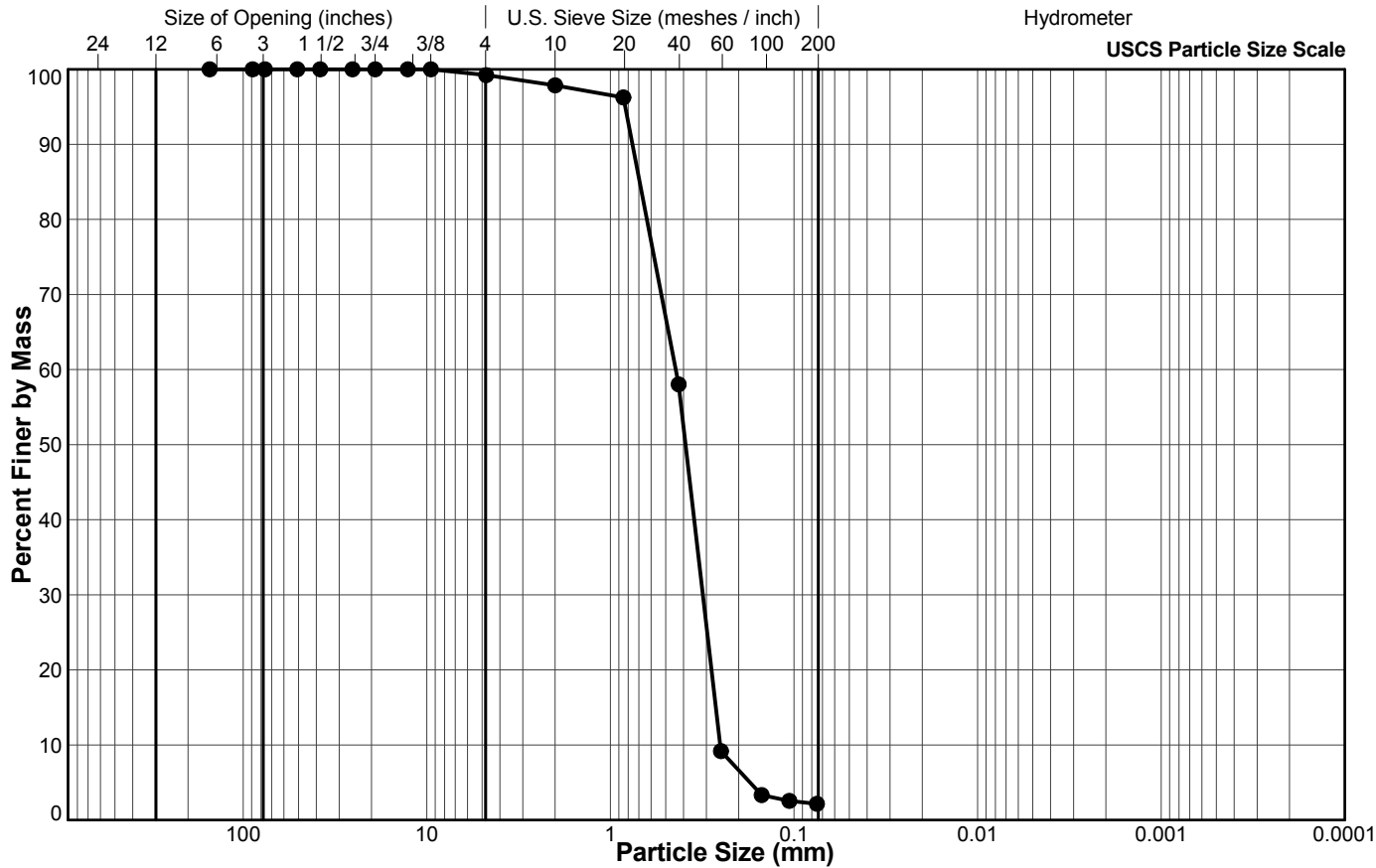


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 1
Depth Interval (m): 1.50 to 2.11
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.2
#10 US MESH	2	97.9
#20 US MESH	0.85	96.3
#40 US MESH	0.425	58.0
#60 US MESH	0.25	9.2
#100 US MESH	0.15	3.3
#140 US MESH	0.106	2.6
#200 US MESH	0.075	2.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

Checked

Date

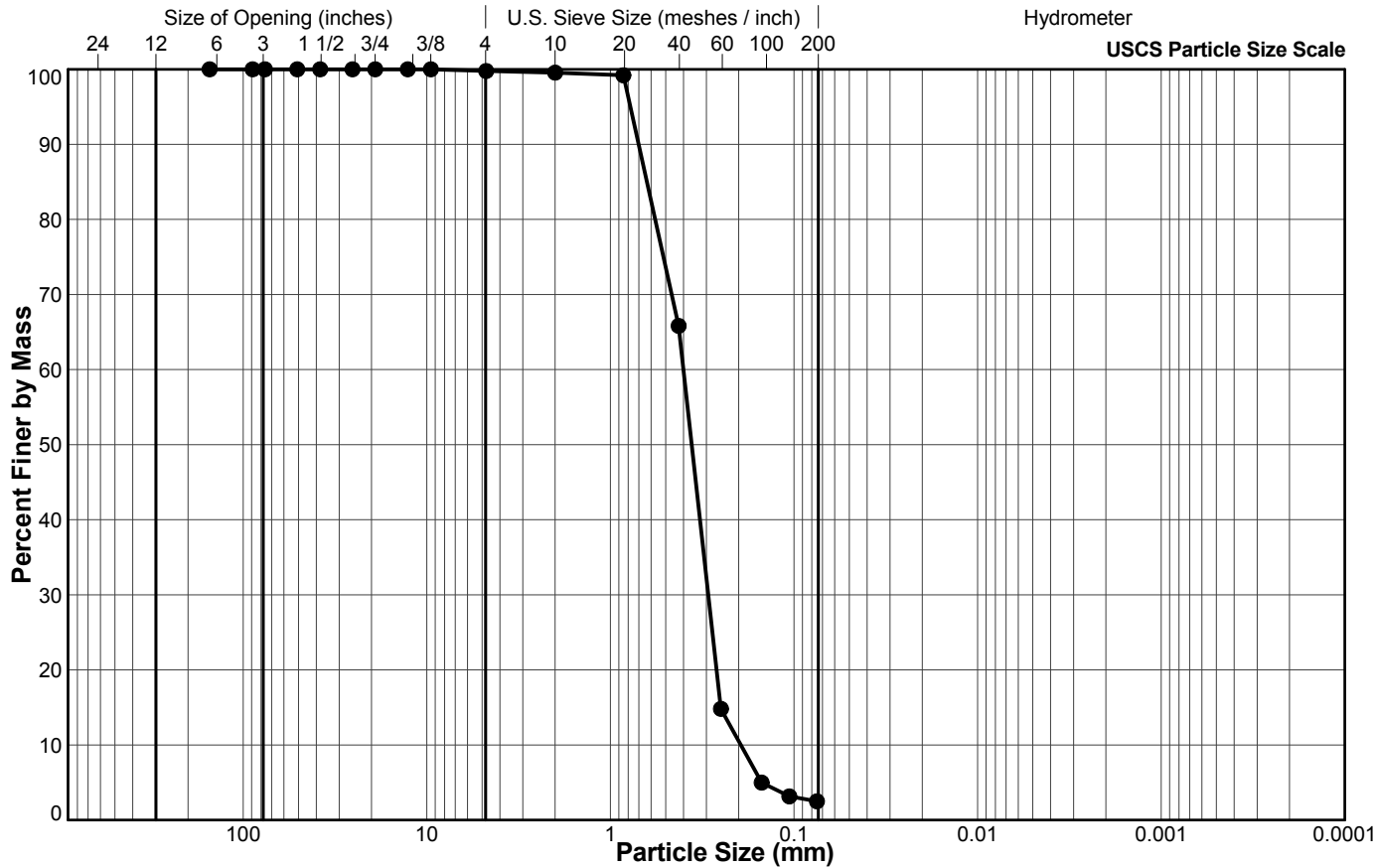


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 3
Depth Interval (m): 4.57 to 5.18
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.8
#10 US MESH	2	99.6
#20 US MESH	0.85	99.2
#40 US MESH	0.425	65.8
#60 US MESH	0.25	14.8
#100 US MESH	0.15	5.0
#140 US MESH	0.106	3.1
#200 US MESH	0.075	2.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

Checked

Date

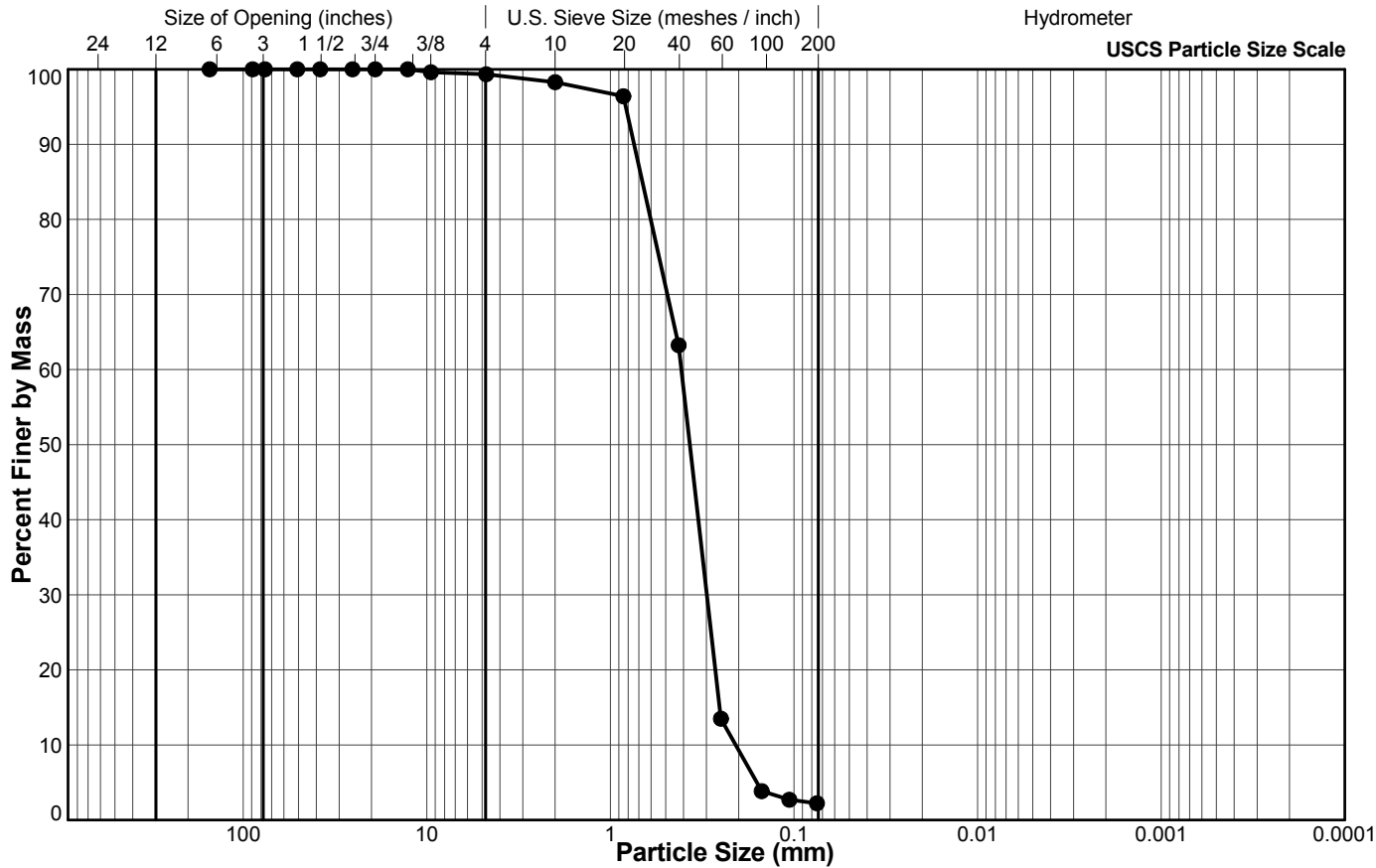


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 5
Depth Interval (m): 7.59 to 8.20
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.6
#4 US MESH	4.75	99.3
#10 US MESH	2	98.3
#20 US MESH	0.85	96.4
#40 US MESH	0.425	63.2
#60 US MESH	0.25	13.5
#100 US MESH	0.15	3.8
#140 US MESH	0.106	2.7
#200 US MESH	0.075	2.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

Checked

Date

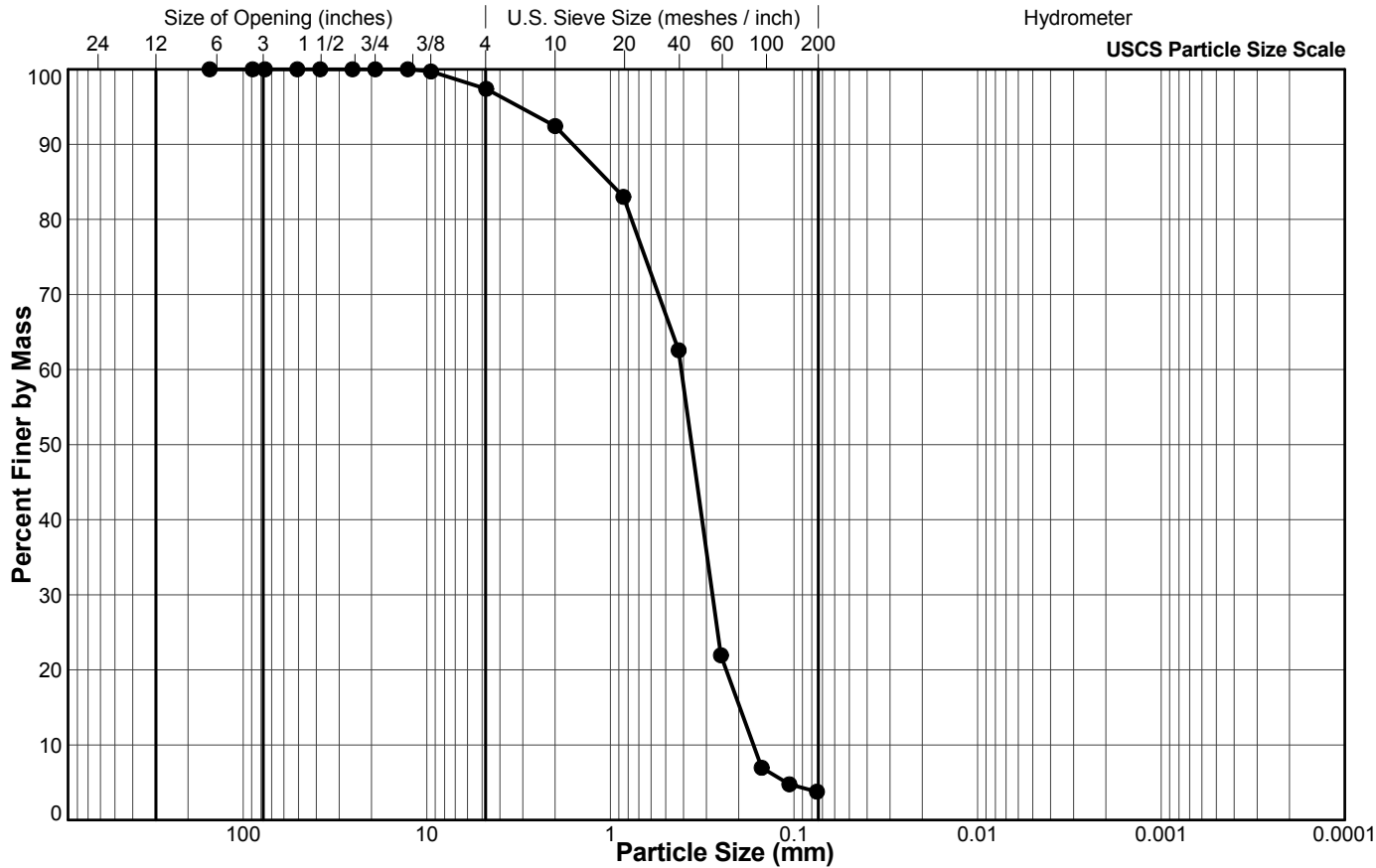


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 7
Depth Interval (m): 10.62 to 11.23
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.7
#4 US MESH	4.75	97.4
#10 US MESH	2	92.4
#20 US MESH	0.85	83.0
#40 US MESH	0.425	62.6
#60 US MESH	0.25	21.9
#100 US MESH	0.15	7.0
#140 US MESH	0.106	4.8
#200 US MESH	0.075	3.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

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Date

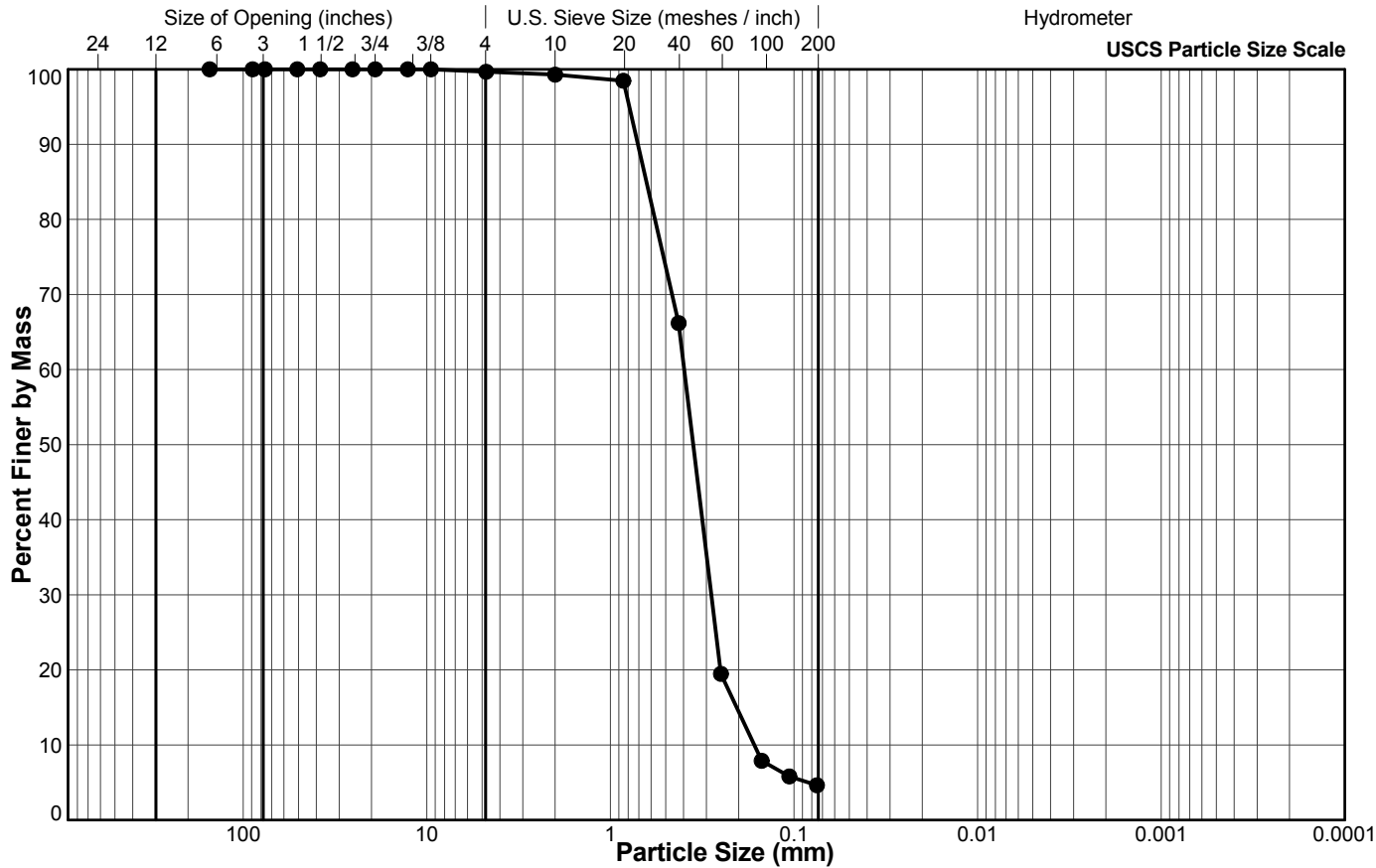


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 10
Depth Interval (m): 15.24 to 15.85
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.7
#10 US MESH	2	99.3
#20 US MESH	0.85	98.5
#40 US MESH	0.425	66.2
#60 US MESH	0.25	19.5
#100 US MESH	0.15	7.9
#140 US MESH	0.106	5.8
#200 US MESH	0.075	4.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

Checked

Date

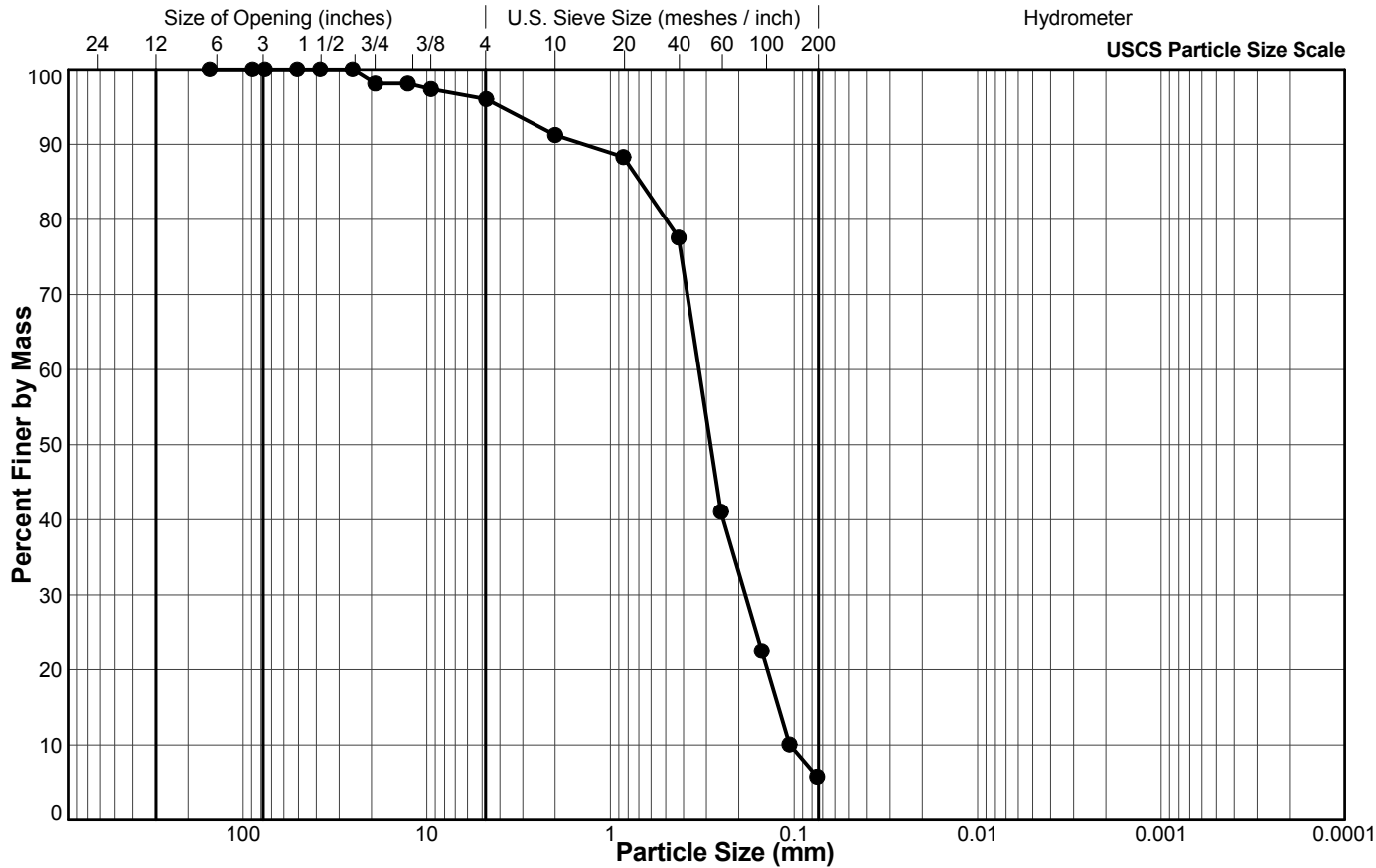


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 12
Depth Interval (m): 18.34 to 18.95
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	98.1
1/2"	12.7	98.1
3/8"	9.5	97.3
#4 US MESH	4.75	96.0
#10 US MESH	2	91.2
#20 US MESH	0.85	88.3
#40 US MESH	0.425	77.6
#60 US MESH	0.25	41.1
#100 US MESH	0.15	22.5
#140 US MESH	0.106	10.1
#200 US MESH	0.075	5.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

Checked

Date

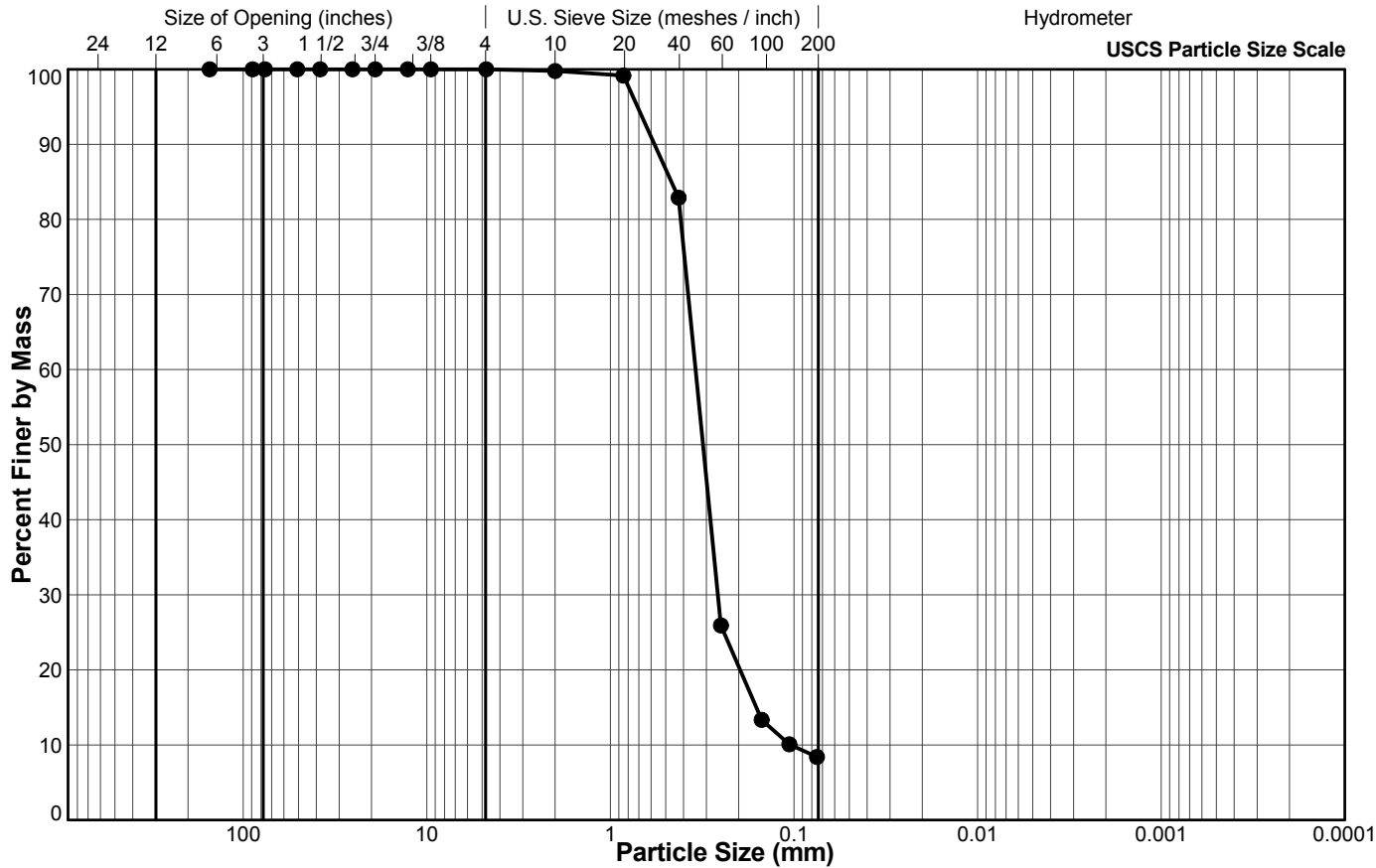


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-01
 Sample No.: 14
 Depth Interval (m): 21.39 to 22.00
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.8
#20 US MESH	0.85	99.2
#40 US MESH	0.425	82.9
#60 US MESH	0.25	25.9
#100 US MESH	0.15	13.3
#140 US MESH	0.106	10.1
#200 US MESH	0.075	8.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

RZ

11/3/2015

LH

11/4/2015

Tech

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Date

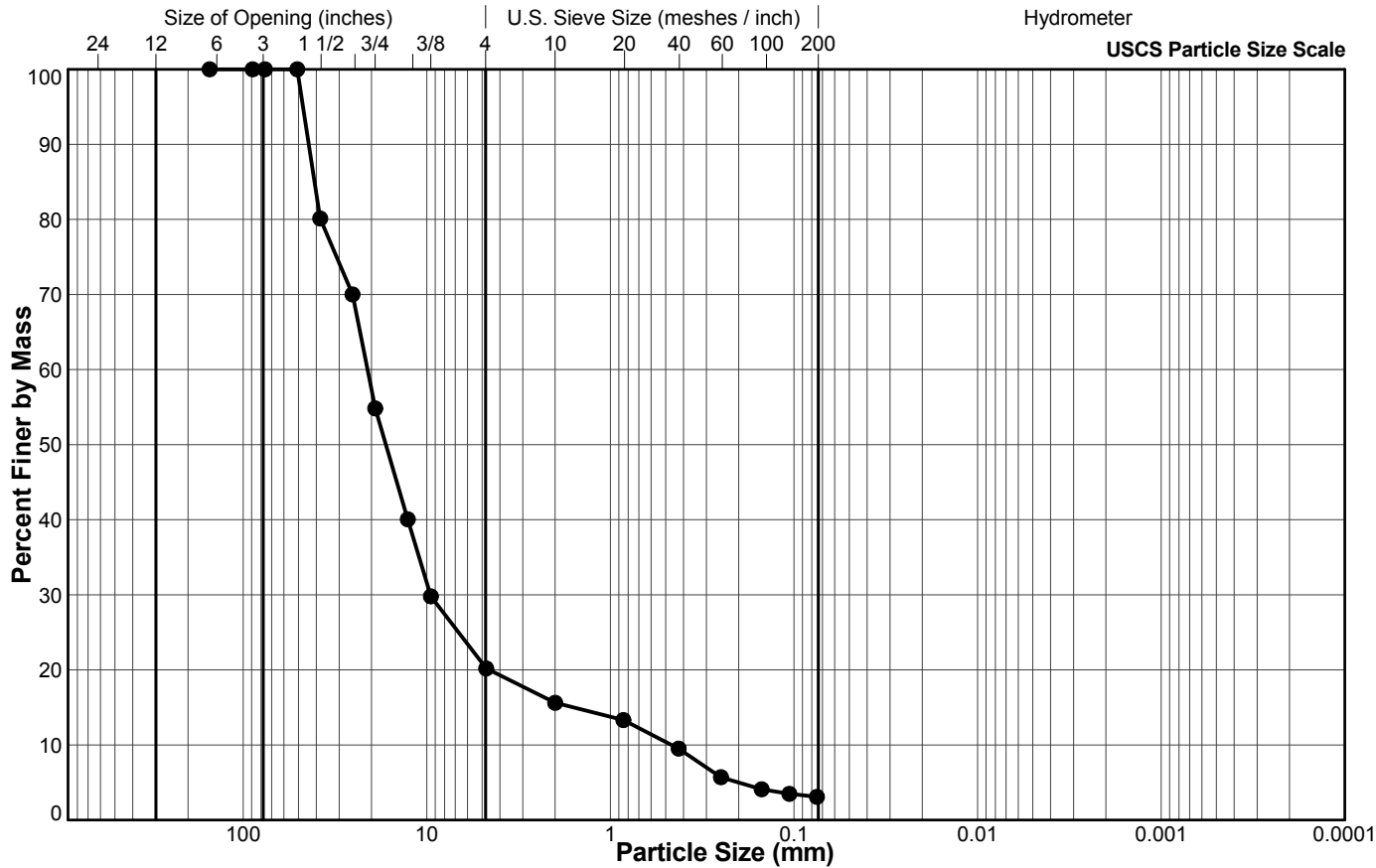


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 22
Depth Interval (m): 35.08 to 35.69
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	80.1
1"	25.4	70.0
3/4"	19.1	54.8
1/2"	12.7	40.1
3/8"	9.5	29.8
#4 US MESH	4.75	20.2
#10 US MESH	2	15.6
#20 US MESH	0.85	13.3
#40 US MESH	0.425	9.5
#60 US MESH	0.25	5.7
#100 US MESH	0.15	4.1
#140 US MESH	0.106	3.5
#200 US MESH	0.075	3.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/RZ

10/29/2015

LH

11/4/2015

Tech

Date

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Date

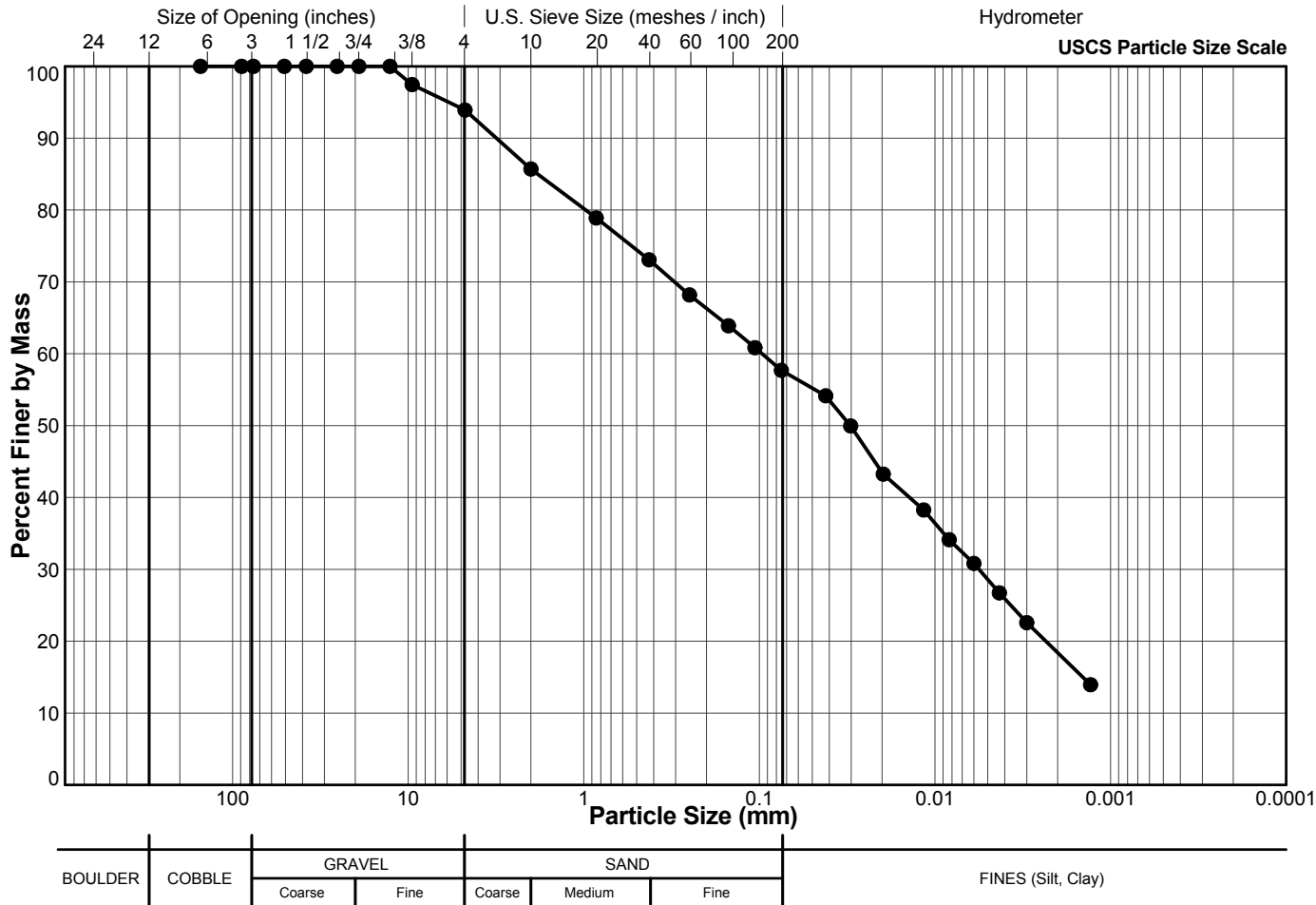


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01
Sample No.: 25
Depth Interval (m): 39.55 to 40.16
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	97.5
#4 US MESH	4.75	93.9
#10 US MESH	2	85.7
#20 US MESH	0.85	78.9
#40 US MESH	0.425	73.1
#60 US MESH	0.25	68.2
#100 US MESH	0.15	63.9
#140 US MESH	0.106	60.9
#200 US MESH	0.075	57.7
	0.0419	54.1
	0.0302	50.0
	0.0197	43.2
	0.0116	38.3
	0.0083	34.1
	0.0060	30.8
	0.0043	26.7
	0.0030	22.6
	0.0013	13.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/DC

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LH

11/4/2015

Tech

Date

Checked

Date

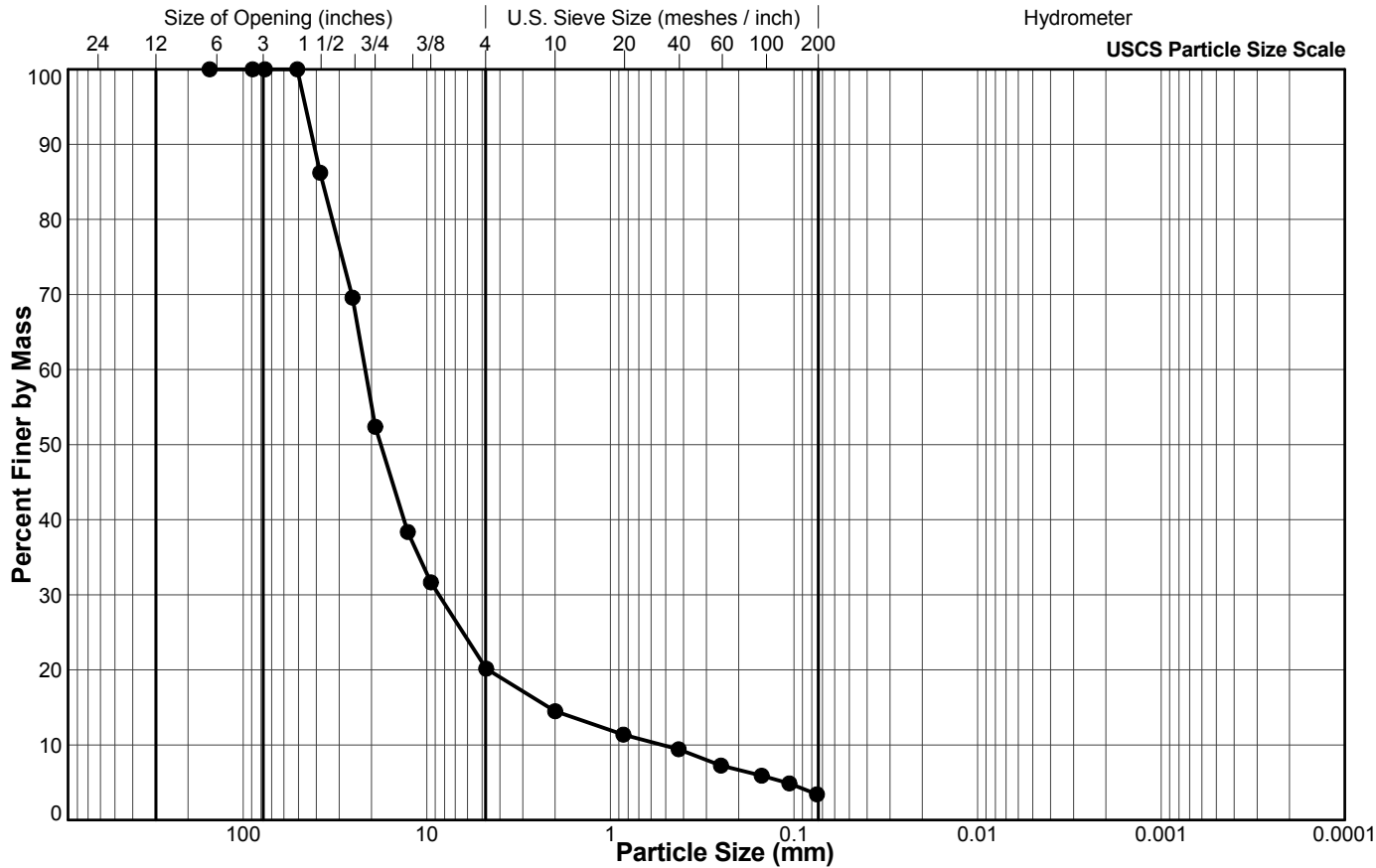


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01B
Sample No.: 2
Depth Interval (m): 24.99 to 25.60
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	86.2
1"	25.4	69.6
3/4"	19.1	52.4
1/2"	12.7	38.4
3/8"	9.5	31.7
#4 US MESH	4.75	20.2
#10 US MESH	2	14.5
#20 US MESH	0.85	11.4
#40 US MESH	0.425	9.4
#60 US MESH	0.25	7.3
#100 US MESH	0.15	5.9
#140 US MESH	0.106	4.9
#200 US MESH	0.075	3.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

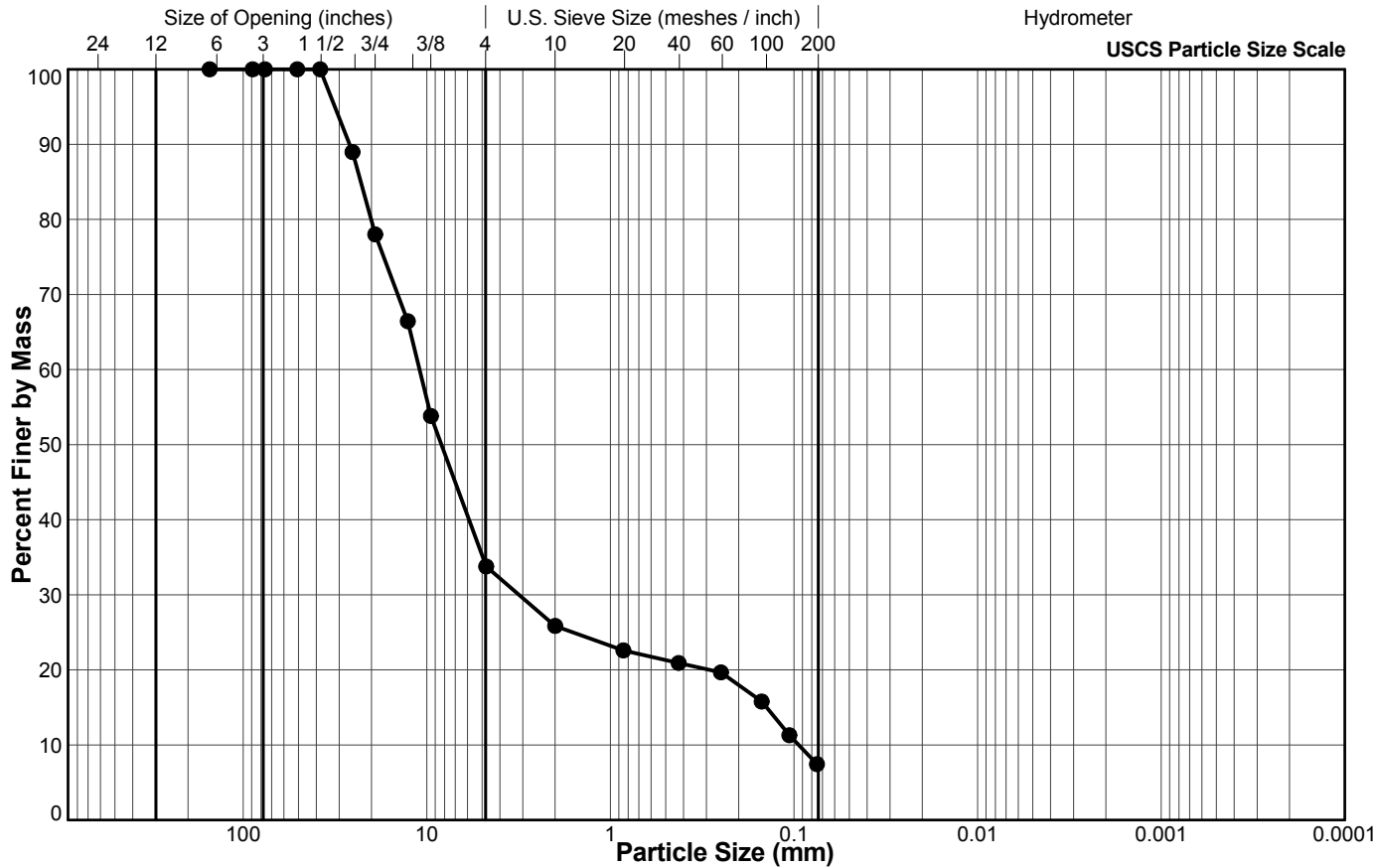


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-01B
Sample No.: 4
Depth Interval (m): 28.04 to 28.65
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	89.0
3/4"	19.1	78.0
1/2"	12.7	66.4
3/8"	9.5	53.8
#4 US MESH	4.75	33.8
#10 US MESH	2	25.9
#20 US MESH	0.85	22.6
#40 US MESH	0.425	20.9
#60 US MESH	0.25	19.7
#100 US MESH	0.15	15.8
#140 US MESH	0.106	11.3
#200 US MESH	0.075	7.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AX/DC

10/31/2015

LH

11/4/2015

Tech

Date

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Date

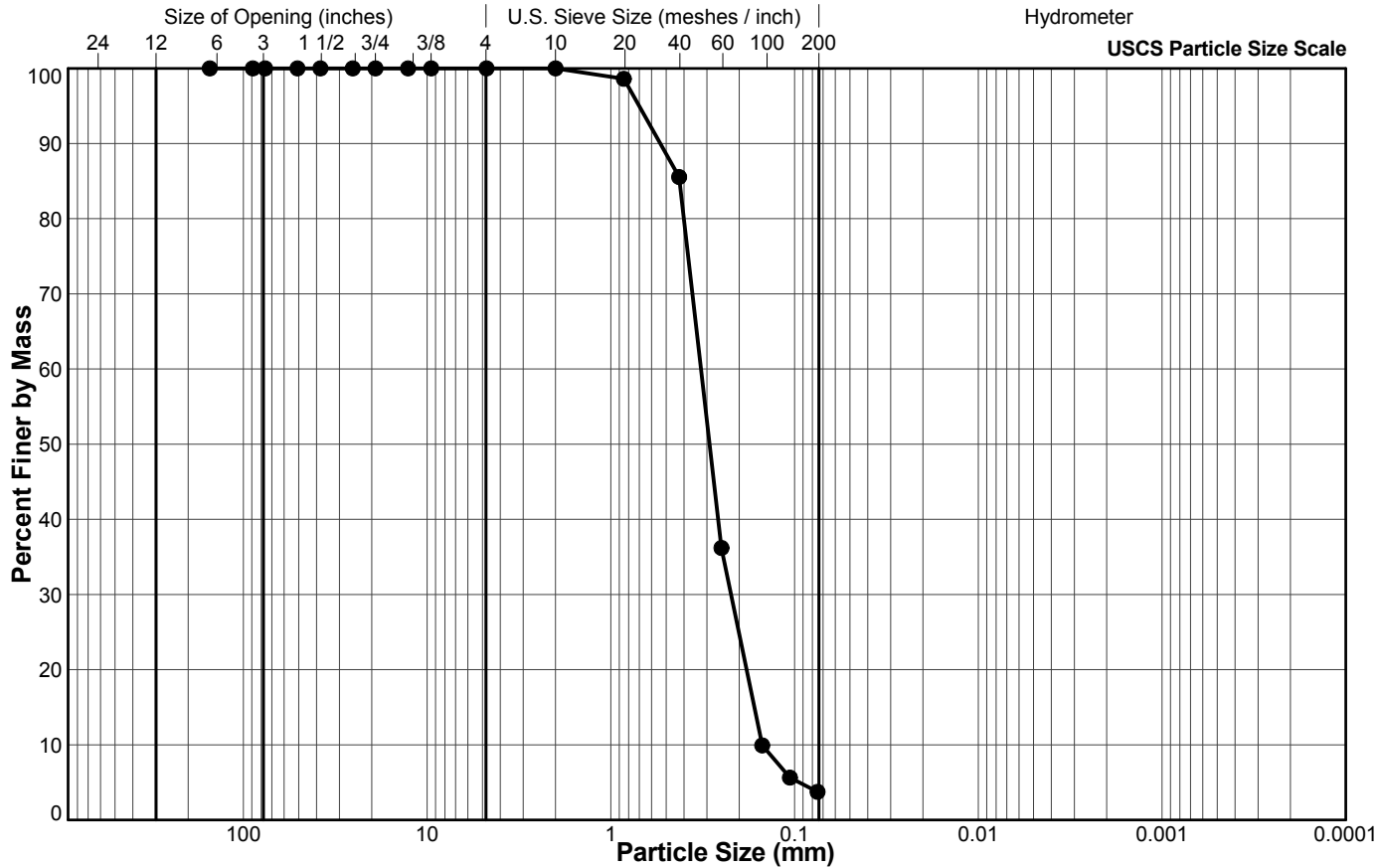


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-02
Sample No.: 1
Depth Interval (m): 1.55 to 2.16
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	98.6
#40 US MESH	0.425	85.5
#60 US MESH	0.25	36.2
#100 US MESH	0.15	9.9
#140 US MESH	0.106	5.6
#200 US MESH	0.075	3.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

National IM Server:GINT_GAL_NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 maceachern 21/9/17

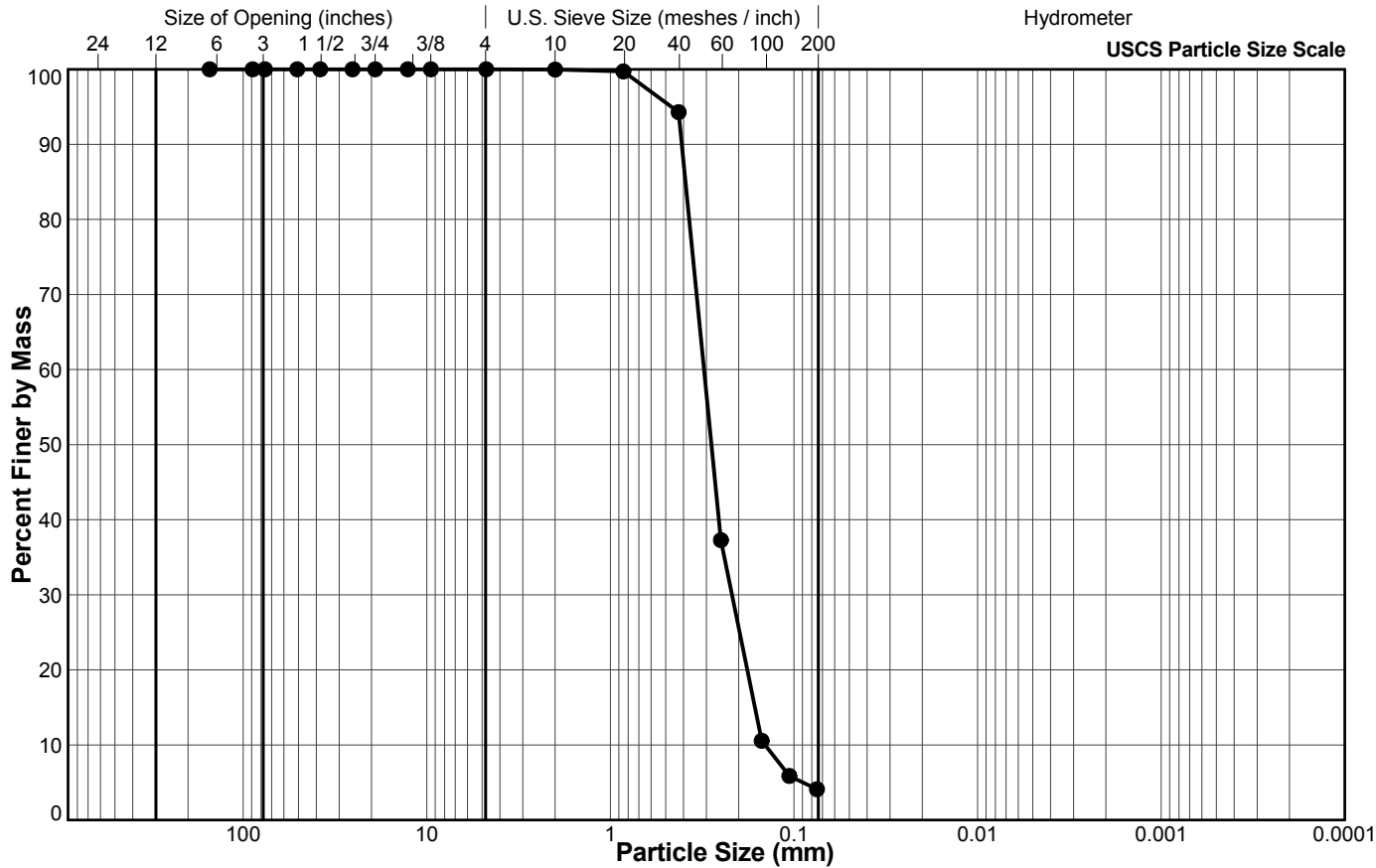


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-02
 Sample No.: 3
 Depth Interval (m): 4.52 to 5.13
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.7
#40 US MESH	0.425	94.3
#60 US MESH	0.25	37.3
#100 US MESH	0.15	10.6
#140 US MESH	0.106	5.9
#200 US MESH	0.075	4.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

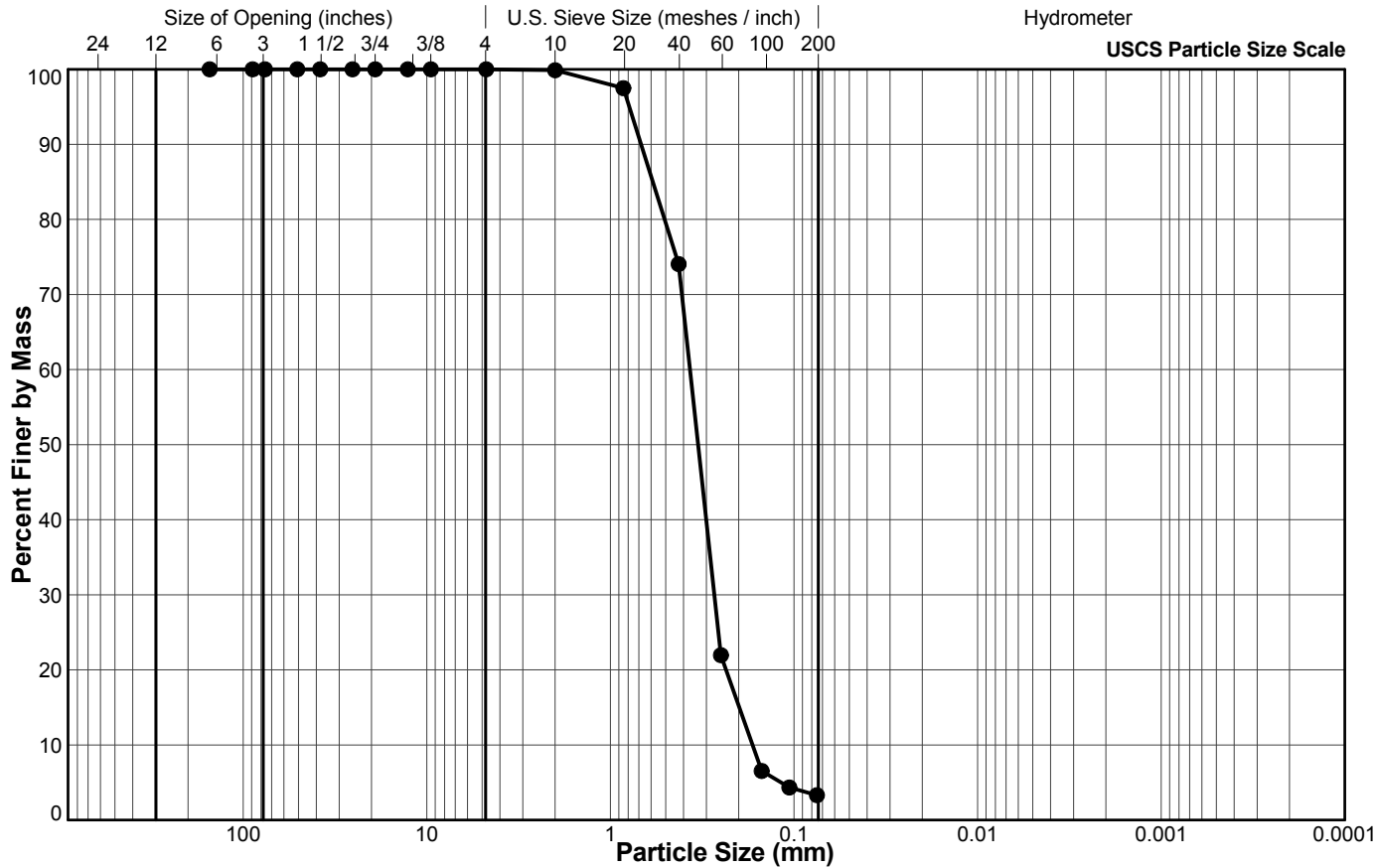


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-02
Sample No.: 6
Depth Interval (m): 9.22 to 9.83
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	97.5
#40 US MESH	0.425	74.1
#60 US MESH	0.25	22.0
#100 US MESH	0.15	6.5
#140 US MESH	0.106	4.3
#200 US MESH	0.075	3.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

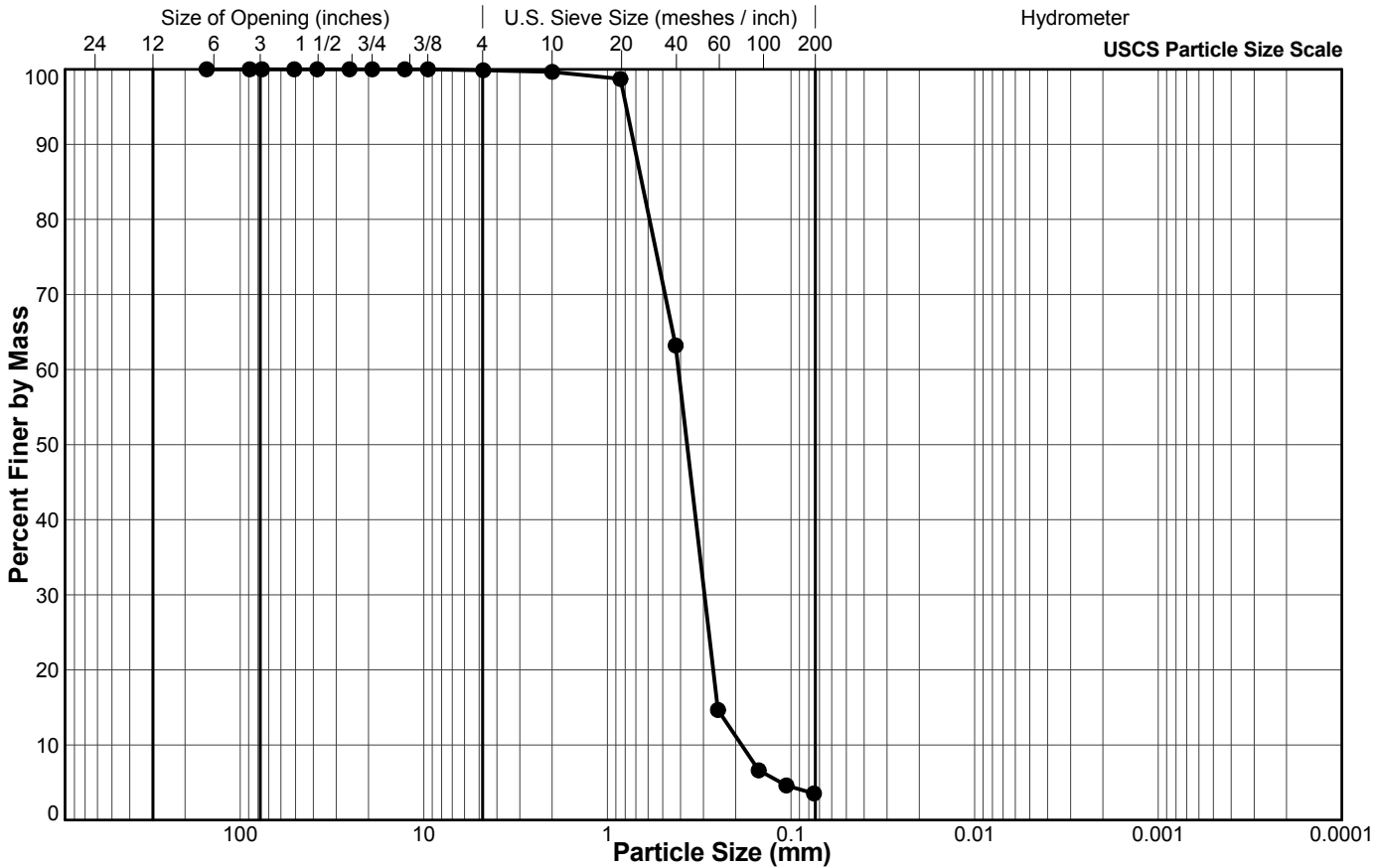


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-02
Sample No.: 8
Depth Interval (m): 12.01 to 12.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.9
#10 US MESH	2	99.7
#20 US MESH	0.85	98.7
#40 US MESH	0.425	63.2
#60 US MESH	0.25	14.7
#100 US MESH	0.15	6.6
#140 US MESH	0.106	4.6
#200 US MESH	0.075	3.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

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LH

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Tech

Date

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Date

National IM Server:GINT_GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 maceachern 21/9/17

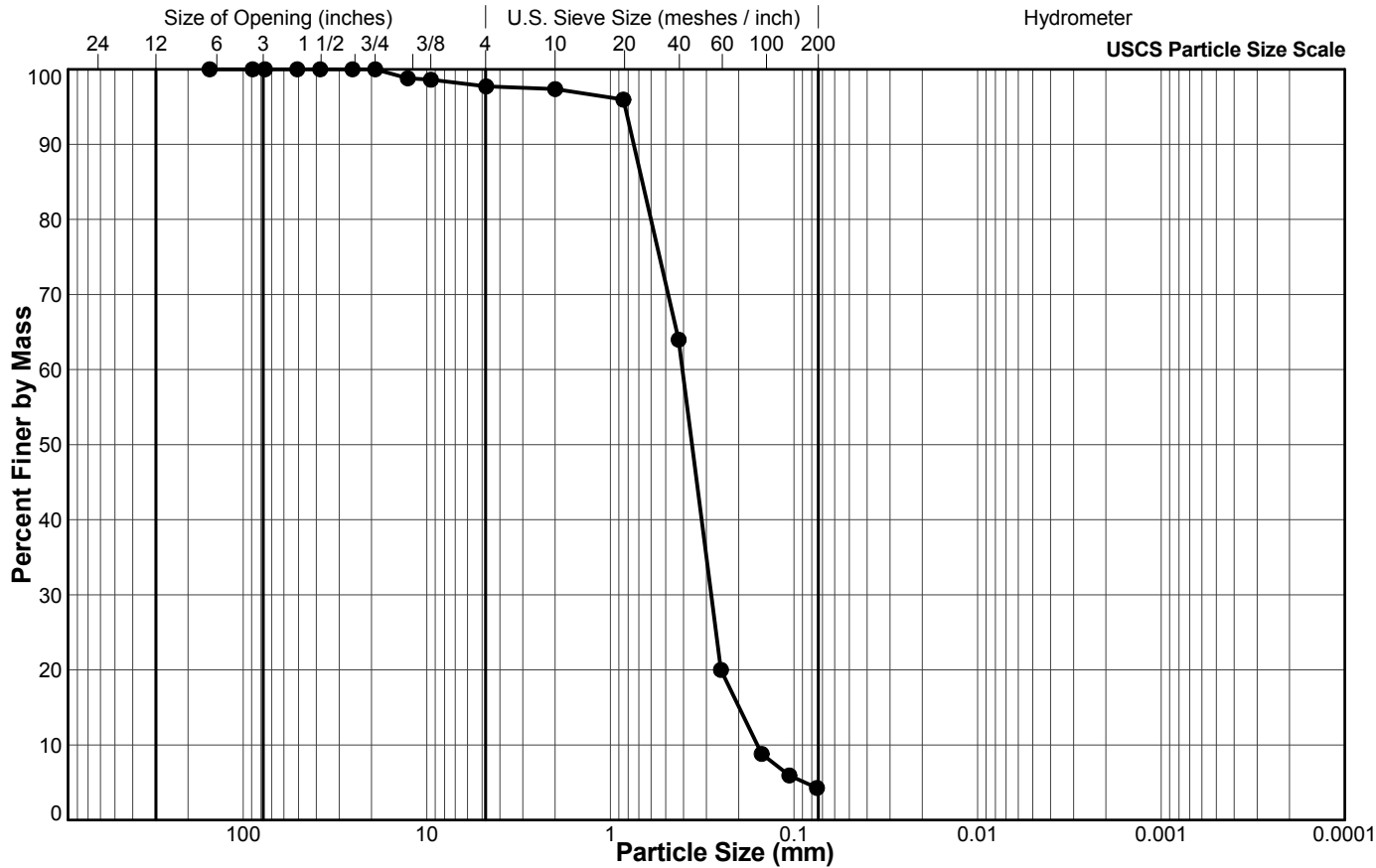


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-02
Sample No.: 10
Depth Interval (m): 15.09 to 15.70
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	98.8
3/8"	9.5	98.6
#4 US MESH	4.75	97.7
#10 US MESH	2	97.4
#20 US MESH	0.85	96.0
#40 US MESH	0.425	64.0
#60 US MESH	0.25	20.0
#100 US MESH	0.15	8.8
#140 US MESH	0.106	5.9
#200 US MESH	0.075	4.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

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LH

11/4/2015

Tech

Date

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Date

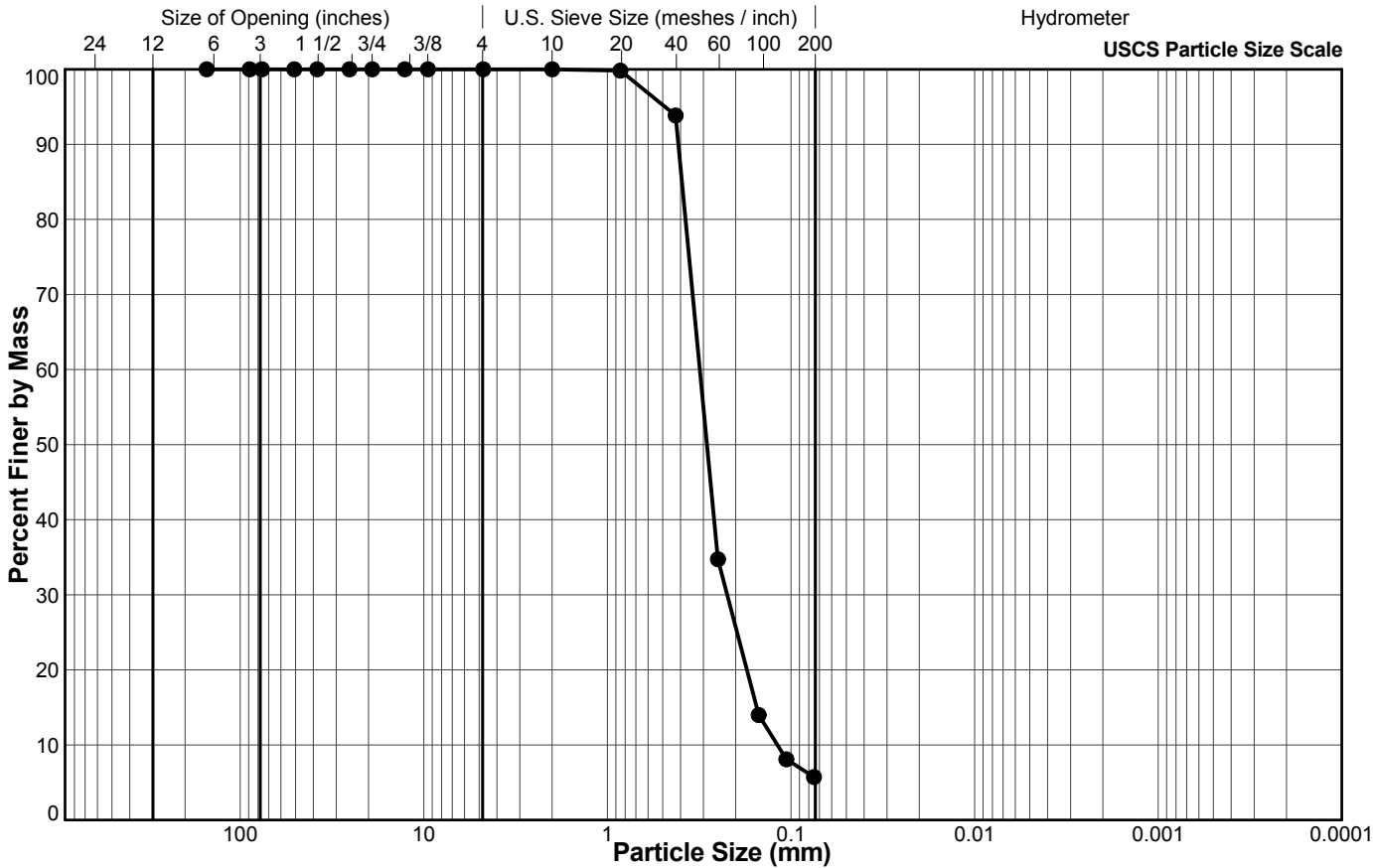


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-02
Sample No.: 13
Depth Interval (m): 19.76 to 20.37
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	93.8
#60 US MESH	0.25	34.7
#100 US MESH	0.15	14.0
#140 US MESH	0.106	8.1
#200 US MESH	0.075	5.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

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LH

11/4/2015

Tech

Date

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Date

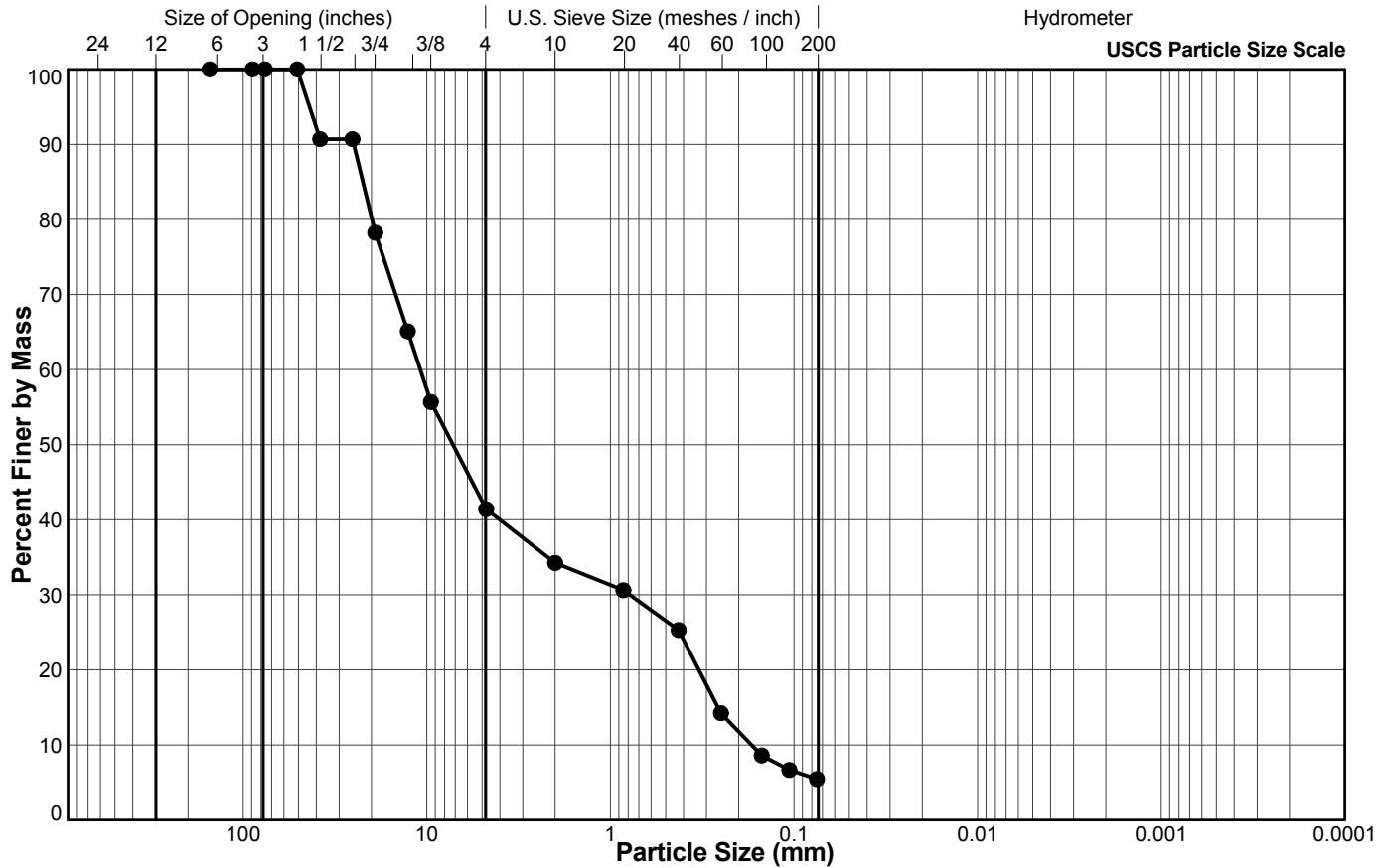


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-02
 Sample No.: 15
 Depth Interval (m): 22.25 to 22.86
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	90.7
1"	25.4	90.7
3/4"	19.1	78.2
1/2"	12.7	65.1
3/8"	9.5	55.7
#4 US MESH	4.75	41.4
#10 US MESH	2	34.2
#20 US MESH	0.85	30.6
#40 US MESH	0.425	25.3
#60 US MESH	0.25	14.2
#100 US MESH	0.15	8.6
#140 US MESH	0.106	6.7
#200 US MESH	0.075	5.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

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LH

11/4/2015

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Date

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Date

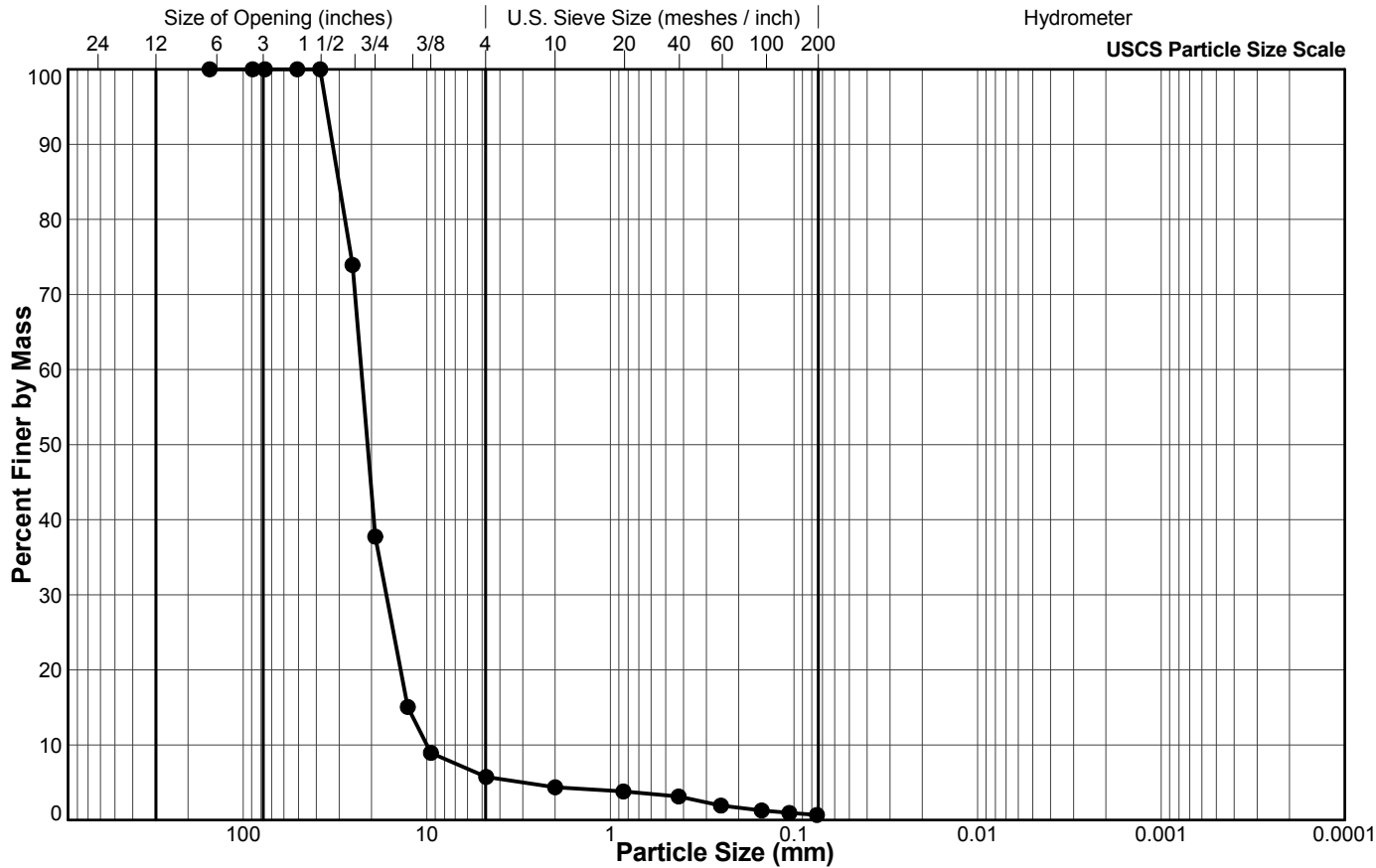


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-02
 Sample No.: 17
 Depth Interval (m): 24.99 to 25.60
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	73.9
3/4"	19.1	37.7
1/2"	12.7	15.1
3/8"	9.5	8.9
#4 US MESH	4.75	5.7
#10 US MESH	2	4.4
#20 US MESH	0.85	3.8
#40 US MESH	0.425	3.1
#60 US MESH	0.25	1.9
#100 US MESH	0.15	1.3
#140 US MESH	0.106	0.9
#200 US MESH	0.075	0.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

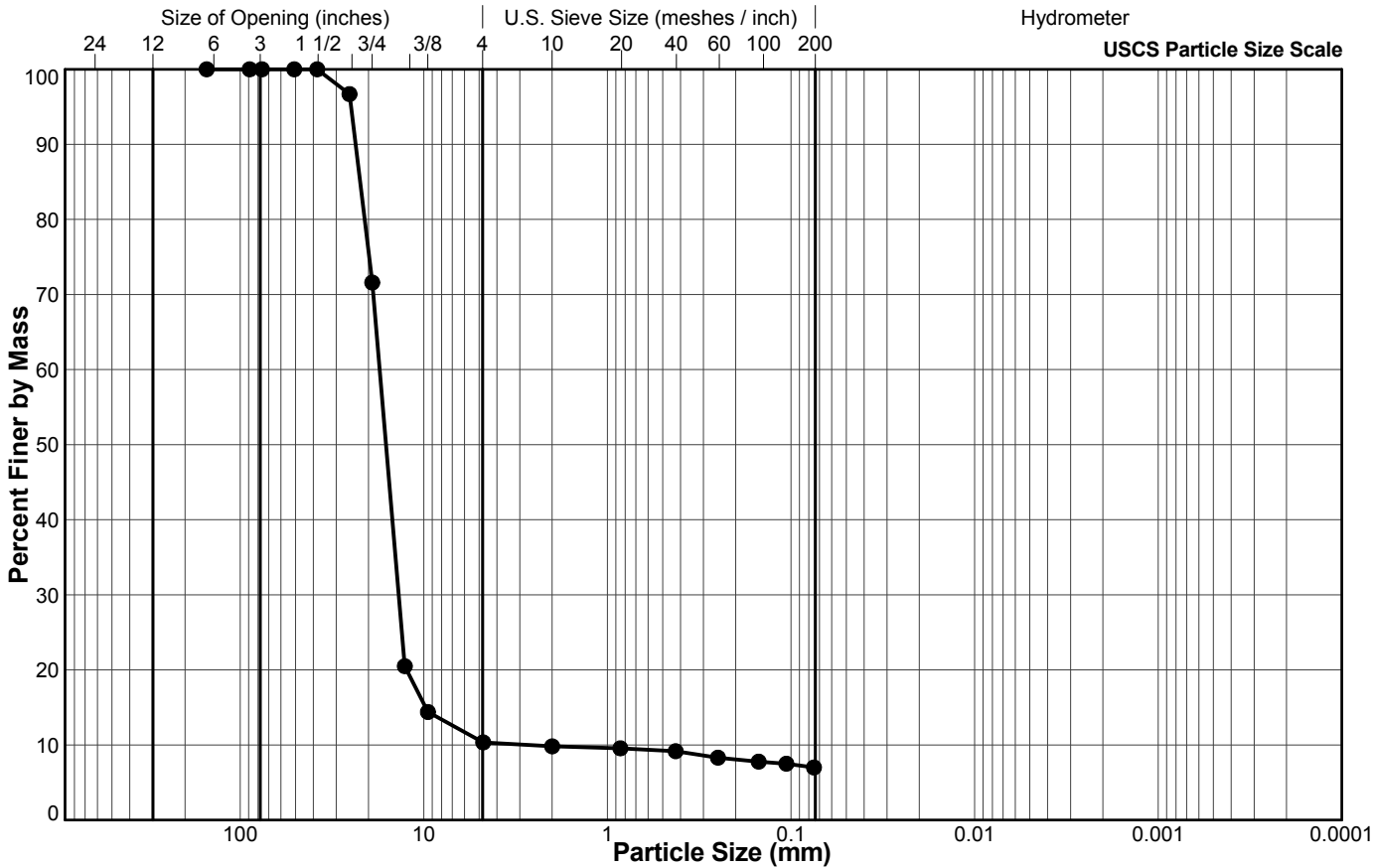


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-02
 Sample No.: 19
 Depth Interval (m): 28.35 to 28.96
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	96.7
3/4"	19.1	71.6
1/2"	12.7	20.5
3/8"	9.5	14.4
#4 US MESH	4.75	10.3
#10 US MESH	2	9.8
#20 US MESH	0.85	9.5
#40 US MESH	0.425	9.2
#60 US MESH	0.25	8.3
#100 US MESH	0.15	7.8
#140 US MESH	0.106	7.5
#200 US MESH	0.075	7.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

National IM Server: GINT_GAL_NATIONALIM Unique Project ID: 1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 m: maceachern 21/9/17

Golder Associates Ltd.

Suite 200 - 2920 Virtual Way Vancouver, BC, V5M 0C4 CANADA
 Tel: +1 (604) 296 4200 Fax: +1 (604) 298 5253 www.golder.com

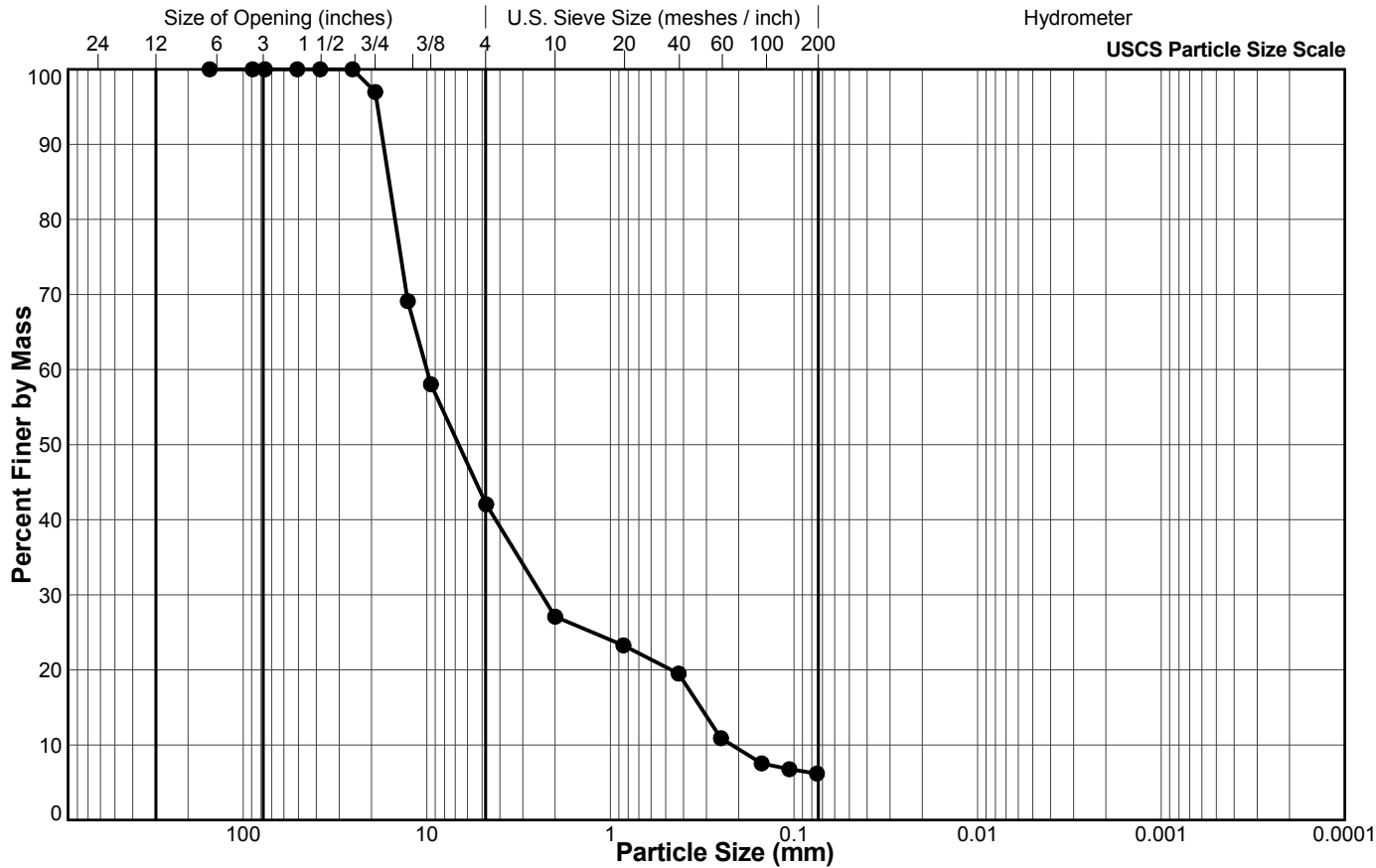


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-02
Sample No.: 23
Depth Interval (m): 36.07 to 36.68
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	97.0
1/2"	12.7	69.1
3/8"	9.5	58.0
#4 US MESH	4.75	42.0
#10 US MESH	2	27.1
#20 US MESH	0.85	23.3
#40 US MESH	0.425	19.5
#60 US MESH	0.25	10.9
#100 US MESH	0.15	7.5
#140 US MESH	0.106	6.8
#200 US MESH	0.075	6.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

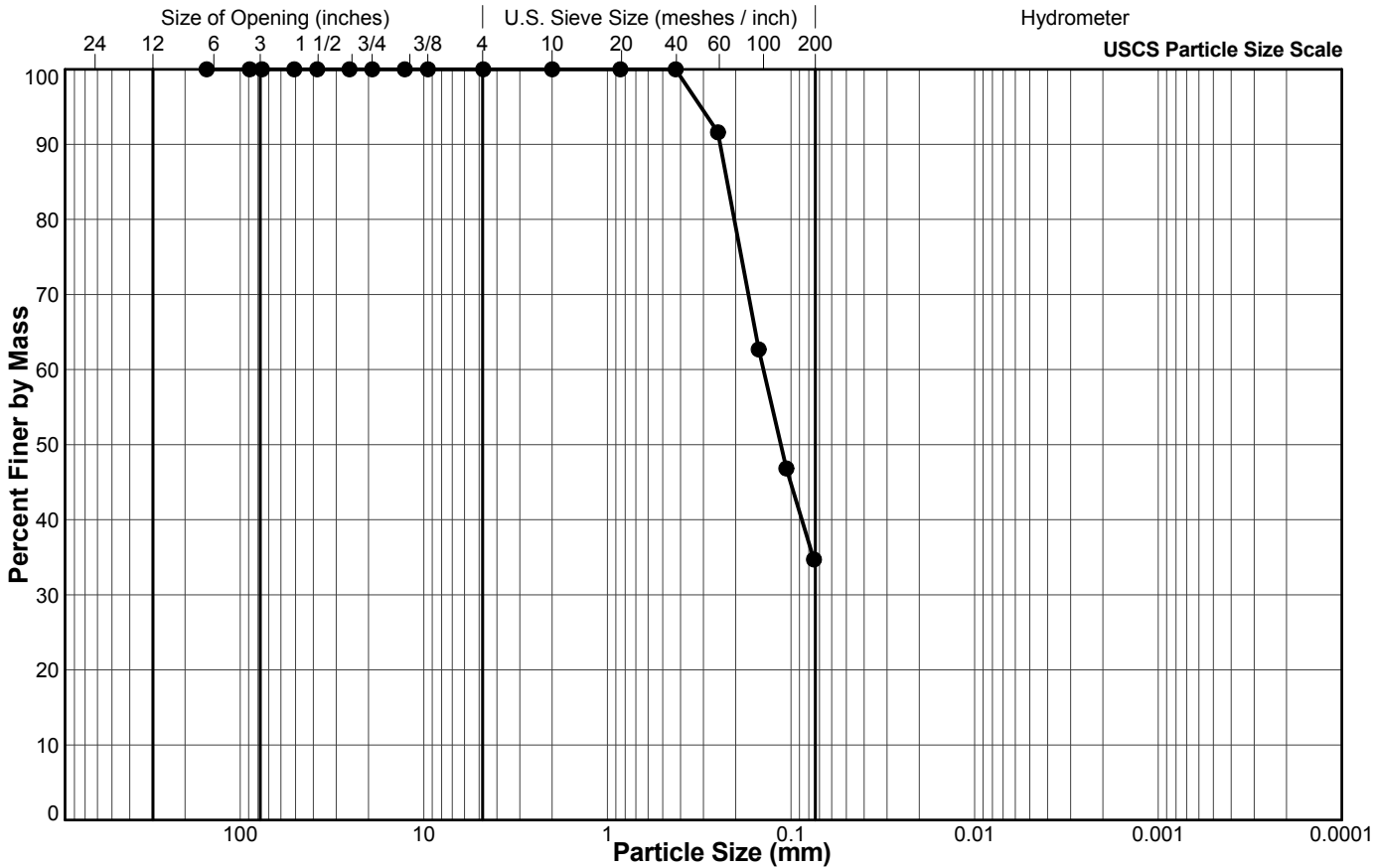


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-03
 Sample No.: 7
 Depth Interval (m): 7.32 to 7.92
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	91.6
#100 US MESH	0.15	62.7
#140 US MESH	0.106	46.8
#200 US MESH	0.075	34.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

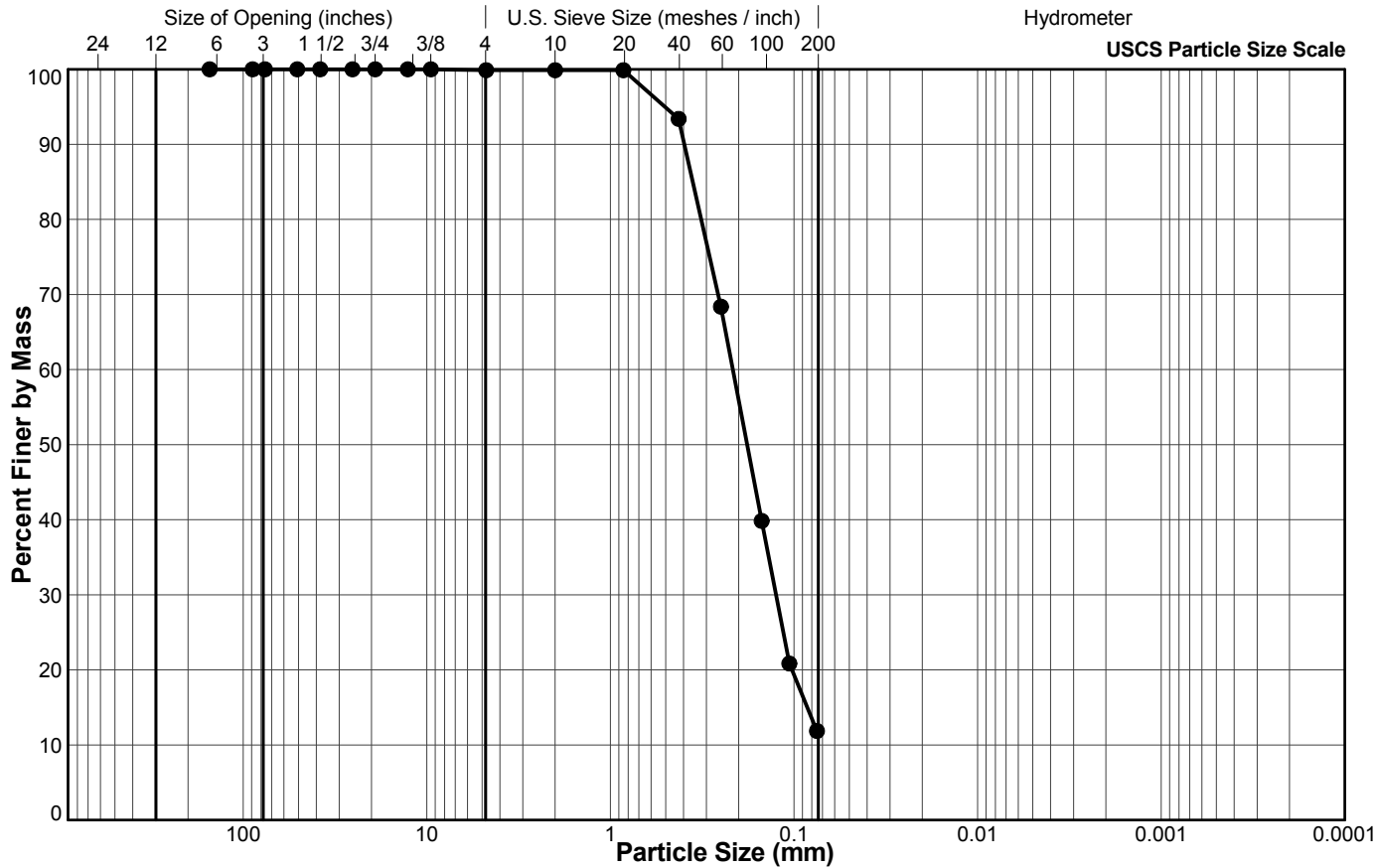


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 9
Depth Interval (m): 10.36 to 10.97
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.9
#10 US MESH	2	99.9
#20 US MESH	0.85	99.9
#40 US MESH	0.425	93.4
#60 US MESH	0.25	68.4
#100 US MESH	0.15	39.8
#140 US MESH	0.106	20.8
#200 US MESH	0.075	11.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

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Date

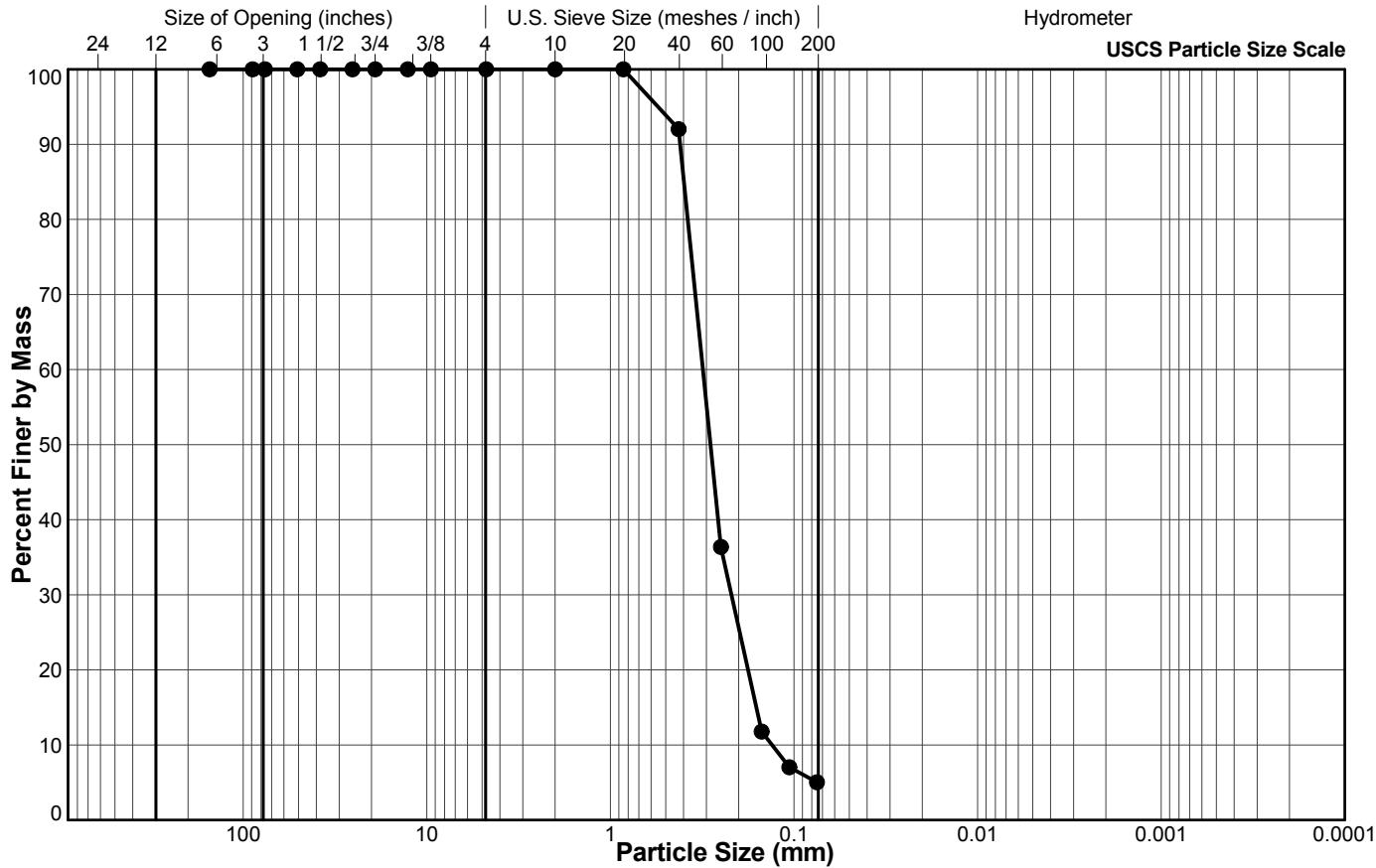


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 11
Depth Interval (m): 13.41 to 14.02
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	92.0
#60 US MESH	0.25	36.4
#100 US MESH	0.15	11.8
#140 US MESH	0.106	7.0
#200 US MESH	0.075	5.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

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11/20/2015

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Checked

Date

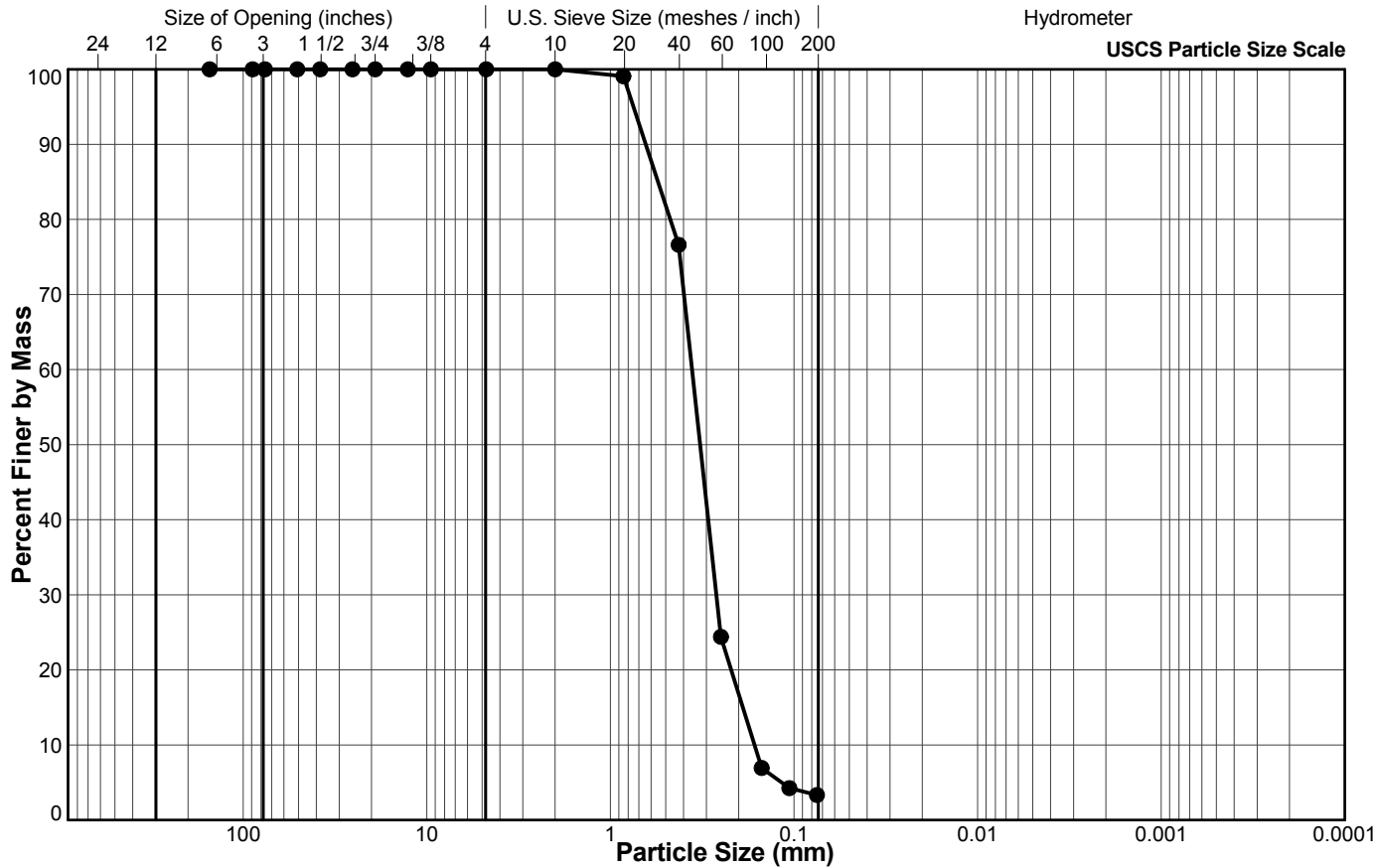


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 13
Depth Interval (m): 16.46 to 17.07
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.1
#40 US MESH	0.425	76.6
#60 US MESH	0.25	24.4
#100 US MESH	0.15	6.9
#140 US MESH	0.106	4.3
#200 US MESH	0.075	3.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

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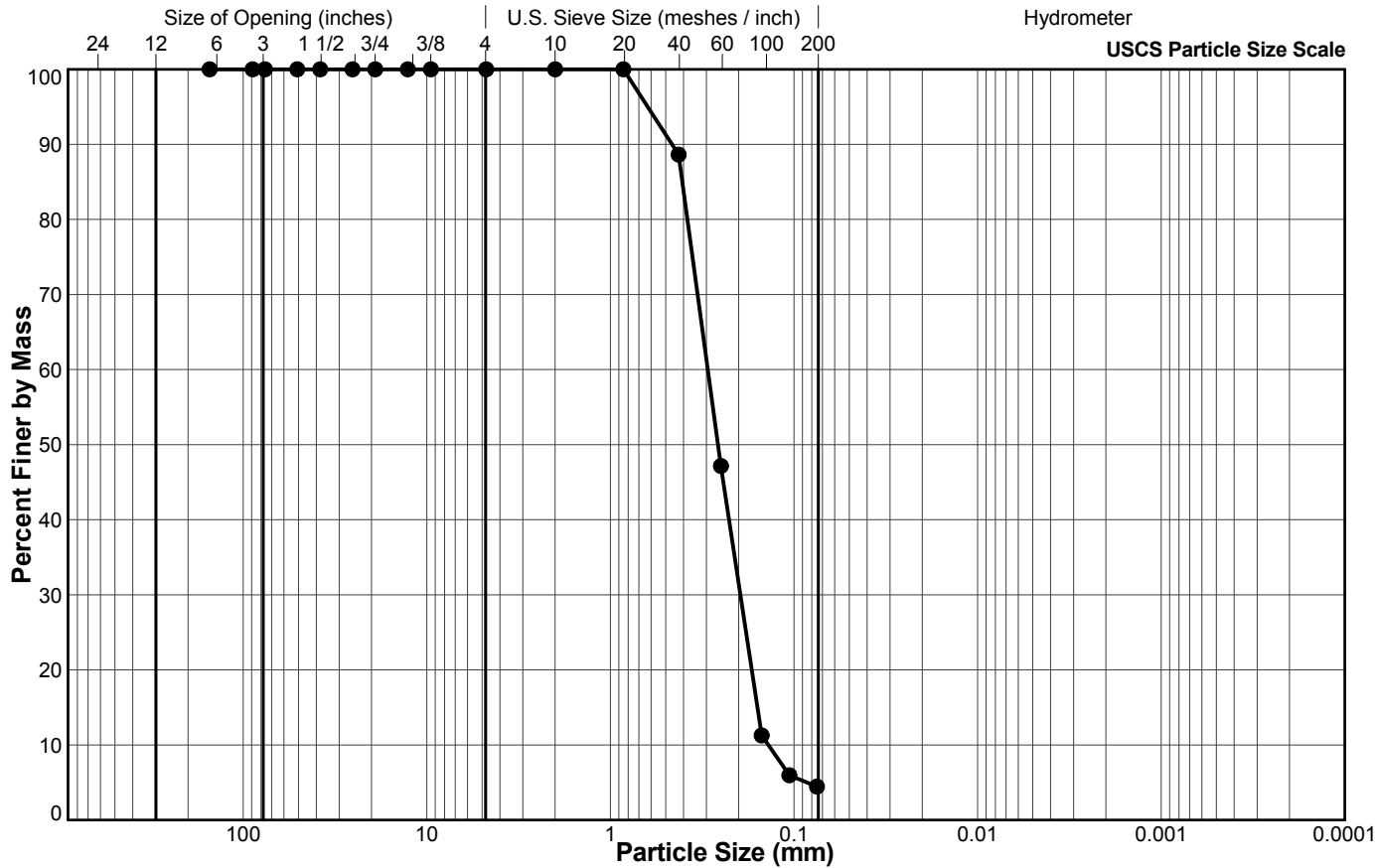


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-03
 Sample No.: 15
 Depth Interval (m): 19.51 to 20.12
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	88.6
#60 US MESH	0.25	47.2
#100 US MESH	0.15	11.3
#140 US MESH	0.106	6.0
#200 US MESH	0.075	4.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

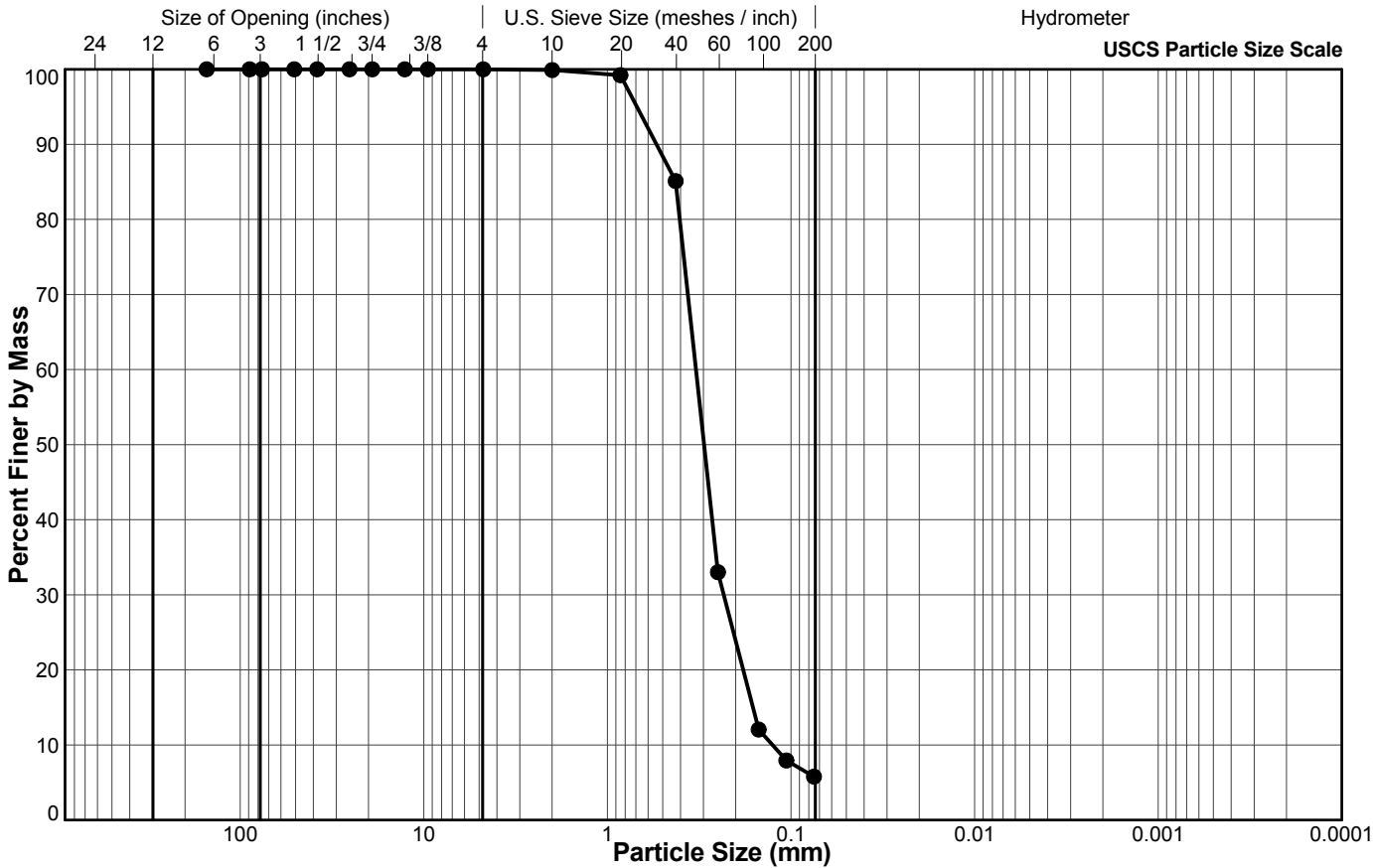


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 17
Depth Interval (m): 22.56 to 23.16
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.2
#40 US MESH	0.425	85.1
#60 US MESH	0.25	33.0
#100 US MESH	0.15	12.0
#140 US MESH	0.106	7.9
#200 US MESH	0.075	5.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

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Date

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Date

National IM Server:GINT_GAL_NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 maceachern 21/9/17

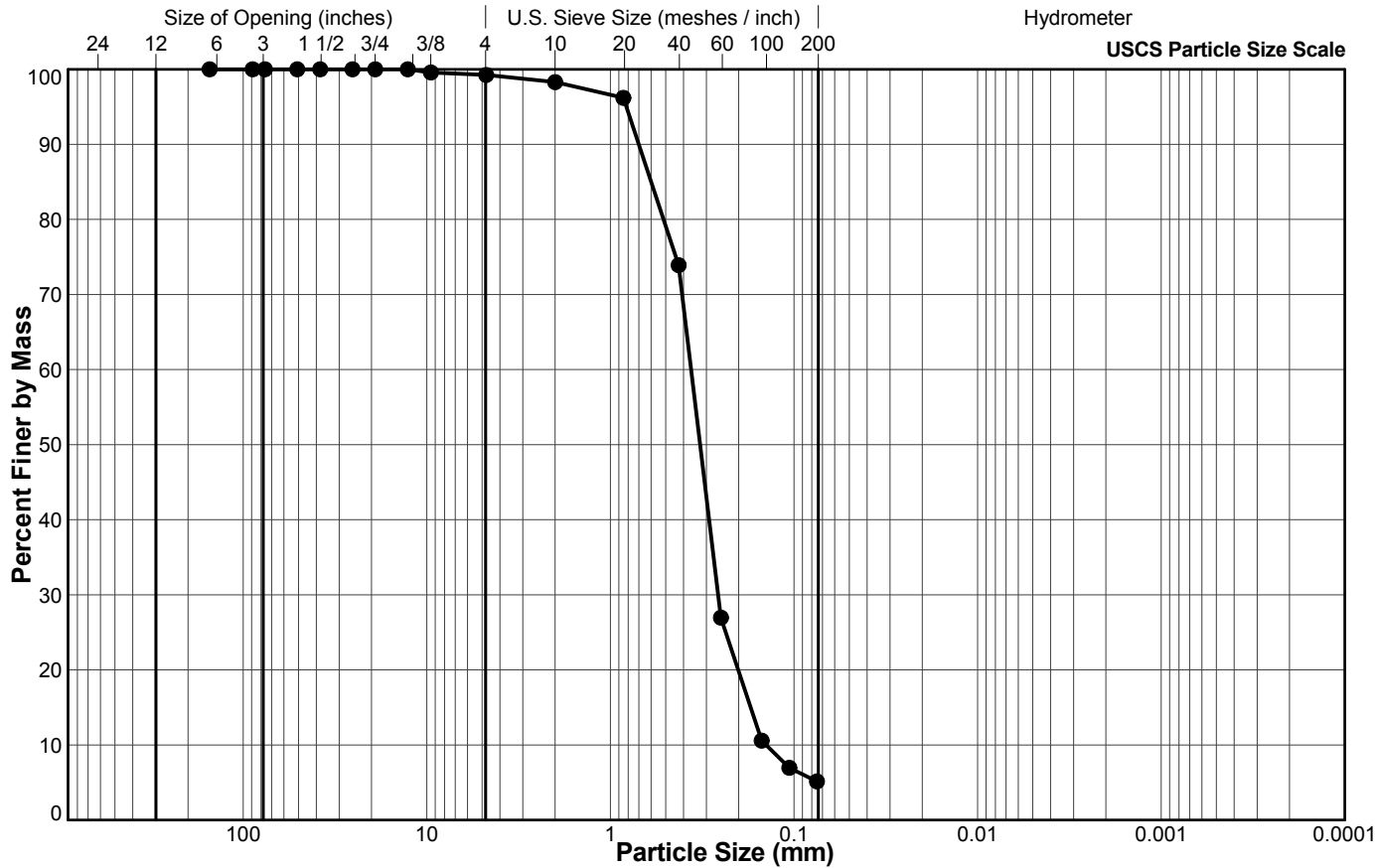


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-03
 Sample No.: 19
 Depth Interval (m): 25.60 to 26.21
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.6
#4 US MESH	4.75	99.2
#10 US MESH	2	98.3
#20 US MESH	0.85	96.2
#40 US MESH	0.425	73.9
#60 US MESH	0.25	27.0
#100 US MESH	0.15	10.6
#140 US MESH	0.106	7.0
#200 US MESH	0.075	5.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

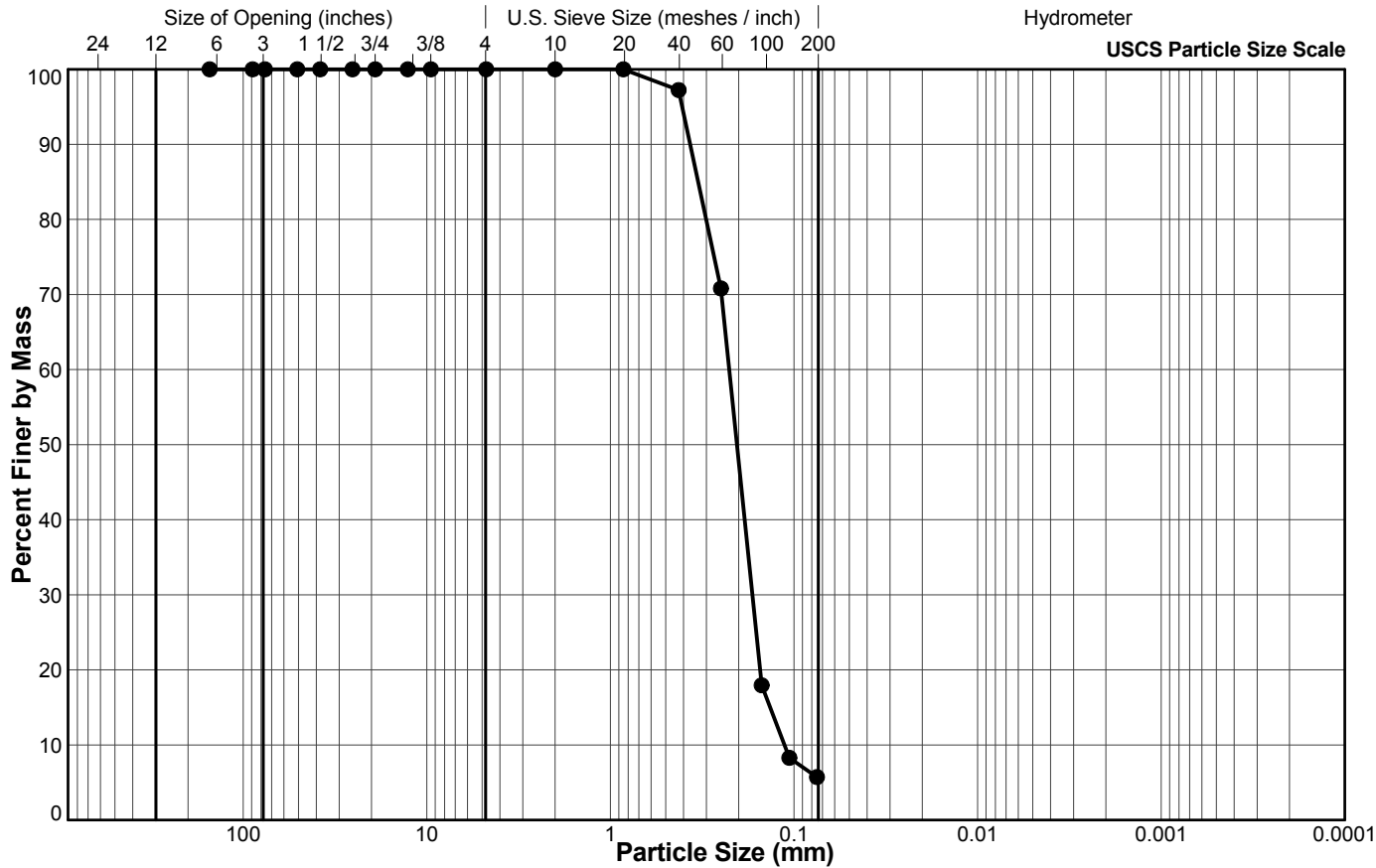


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-03
 Sample No.: 21
 Depth Interval (m): 28.65 to 29.26
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	97.2
#60 US MESH	0.25	70.8
#100 US MESH	0.15	17.9
#140 US MESH	0.106	8.3
#200 US MESH	0.075	5.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

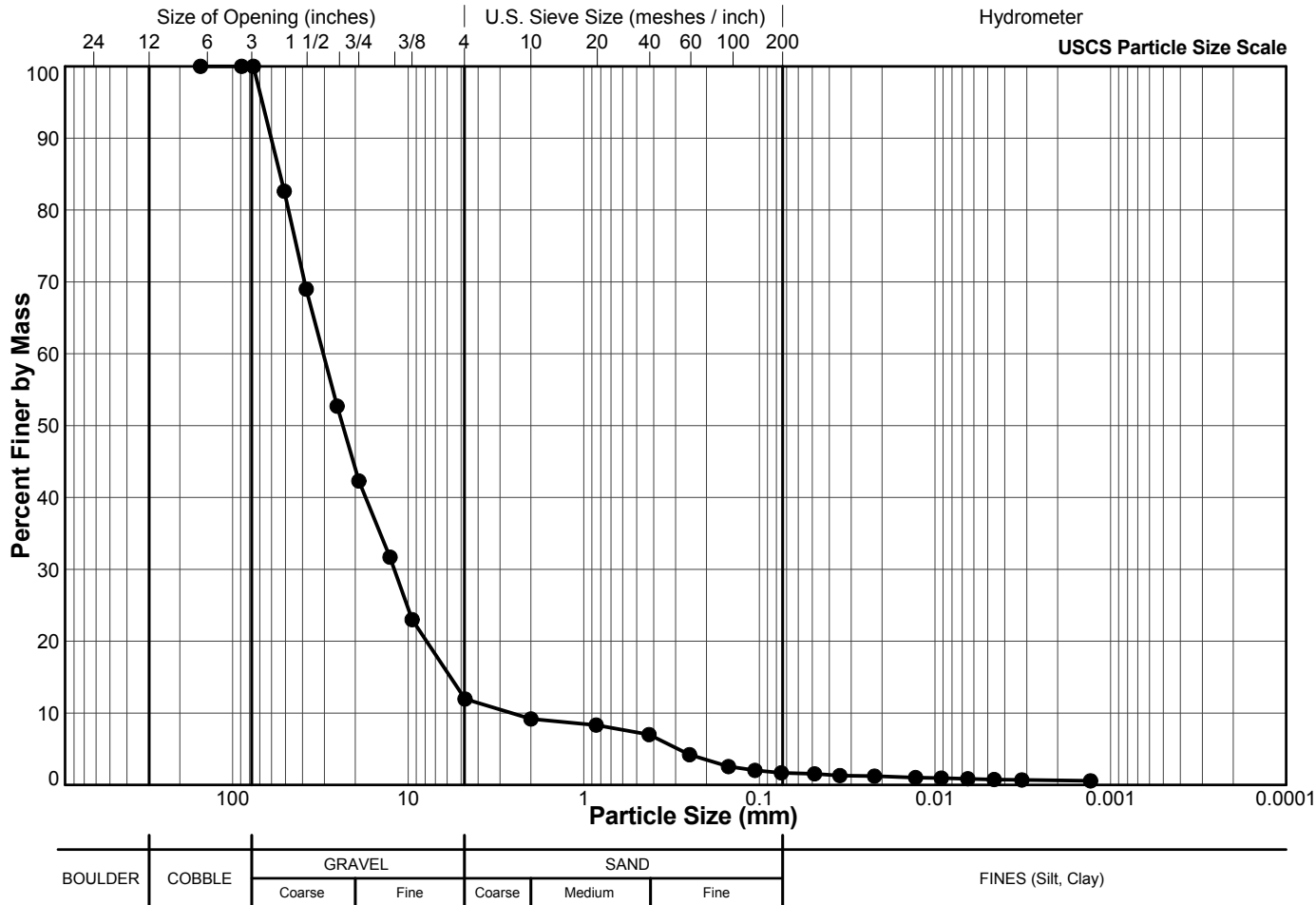


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-03
 Sample No.: 22
 Depth Interval (m): 30.18 to 30.78
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	82.6
1 1/2"	38.1	69.0
1"	25.4	52.7
3/4"	19.1	42.3
1/2"	12.7	31.7
3/8"	9.5	23.0
#4 US MESH	4.75	12.0
#10 US MESH	2	9.2
#20 US MESH	0.85	8.3
#40 US MESH	0.425	7.0
#60 US MESH	0.25	4.2
#100 US MESH	0.15	2.6
#140 US MESH	0.106	2.0
#200 US MESH	0.075	1.7
	0.0485	1.5
	0.0348	1.3
	0.0221	1.2
	0.0129	1.0
	0.0092	1.0
	0.0065	0.9
	0.0046	0.7
	0.0032	0.7
	0.0013	0.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

11/16/2015

LH

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Date

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Date

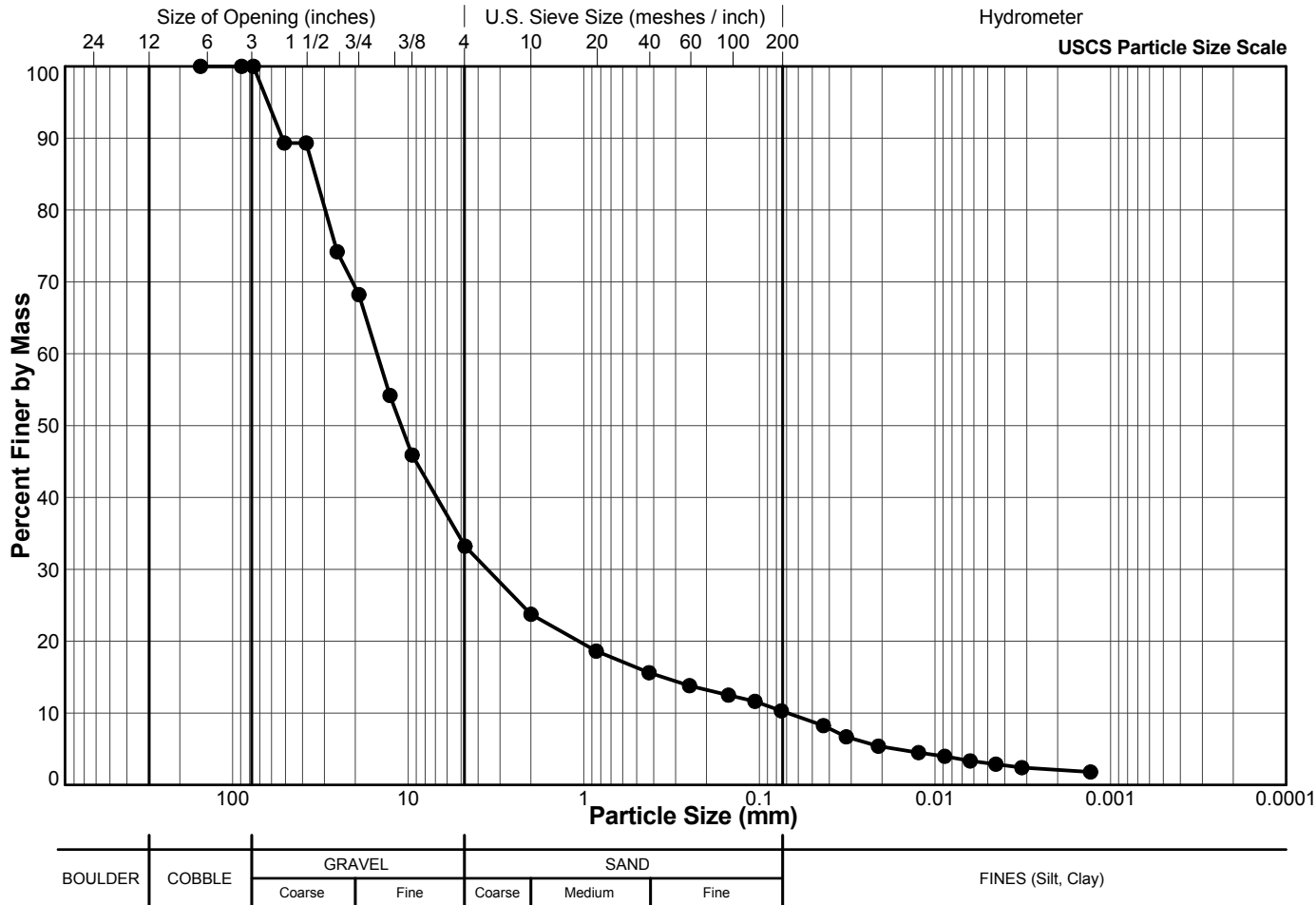


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 24
Depth Interval (m): 33.22 to 33.83
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	89.3
1 1/2"	38.1	89.3
1"	25.4	74.2
3/4"	19.1	68.2
1/2"	12.7	54.2
3/8"	9.5	45.9
#4 US MESH	4.75	33.2
#10 US MESH	2	23.7
#20 US MESH	0.85	18.6
#40 US MESH	0.425	15.6
#60 US MESH	0.25	13.8
#100 US MESH	0.15	12.5
#140 US MESH	0.106	11.6
#200 US MESH	0.075	10.3
	0.0432	8.3
	0.0320	6.7
	0.0210	5.4
	0.0124	4.5
	0.0088	4.0
	0.0063	3.3
	0.0045	2.9
	0.0032	2.4
	0.0013	1.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

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LH

11/20/2015

Tech

Date

Checked

Date

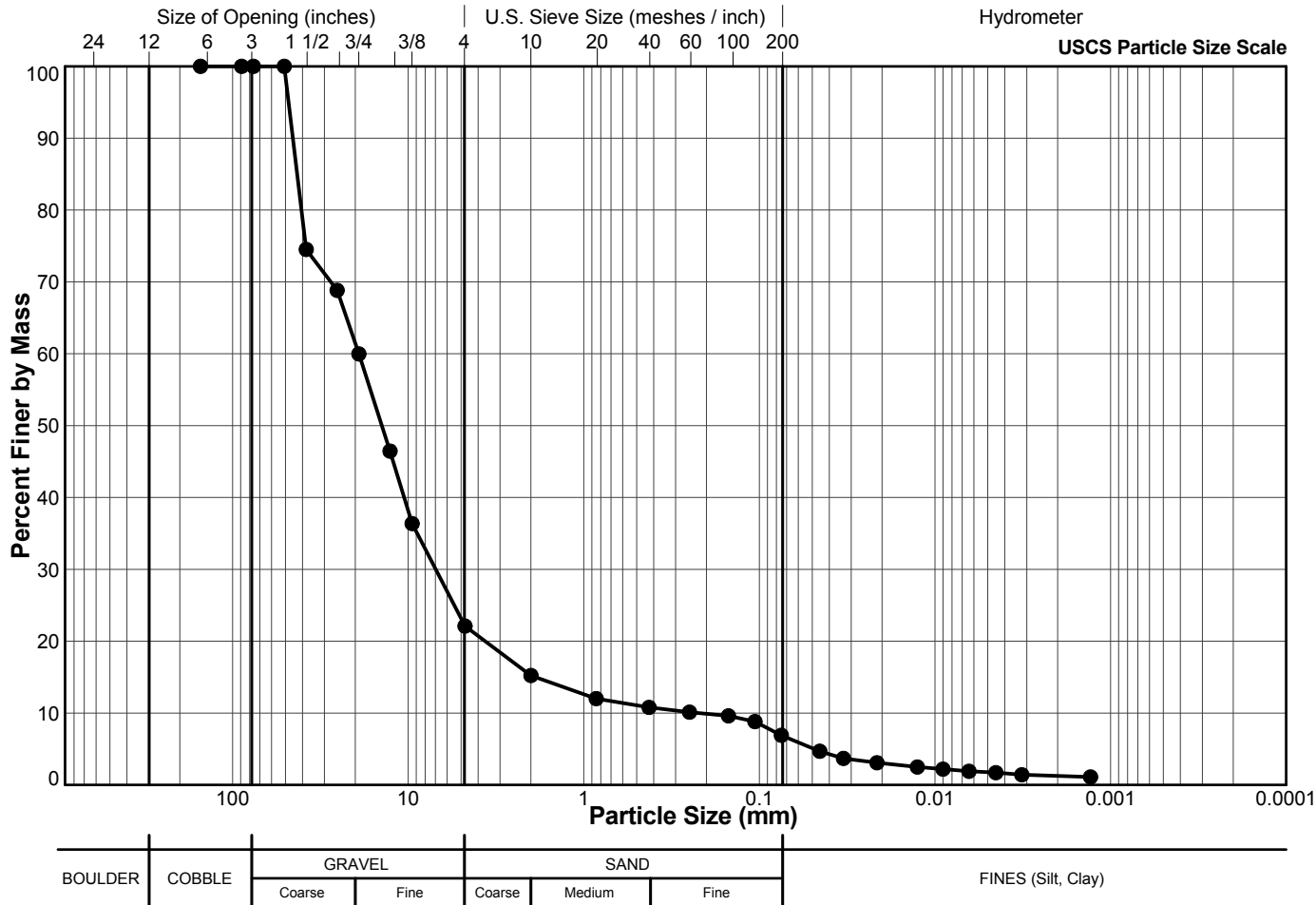


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-03
 Sample No.: 26
 Depth Interval (m): 36.27 to 36.88
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	74.5
1"	25.4	68.8
3/4"	19.1	60.0
1/2"	12.7	46.5
3/8"	9.5	36.4
#4 US MESH	4.75	22.1
#10 US MESH	2	15.2
#20 US MESH	0.85	12.0
#40 US MESH	0.425	10.8
#60 US MESH	0.25	10.1
#100 US MESH	0.15	9.6
#140 US MESH	0.106	8.8
#200 US MESH	0.075	6.9
	0.0453	4.7
	0.0332	3.7
	0.0214	3.1
	0.0126	2.5
	0.0090	2.2
	0.0064	1.9
	0.0045	1.7
	0.0032	1.4
	0.0013	1.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

11/16/2015

LH

11/20/2015

Tech

Date

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Date

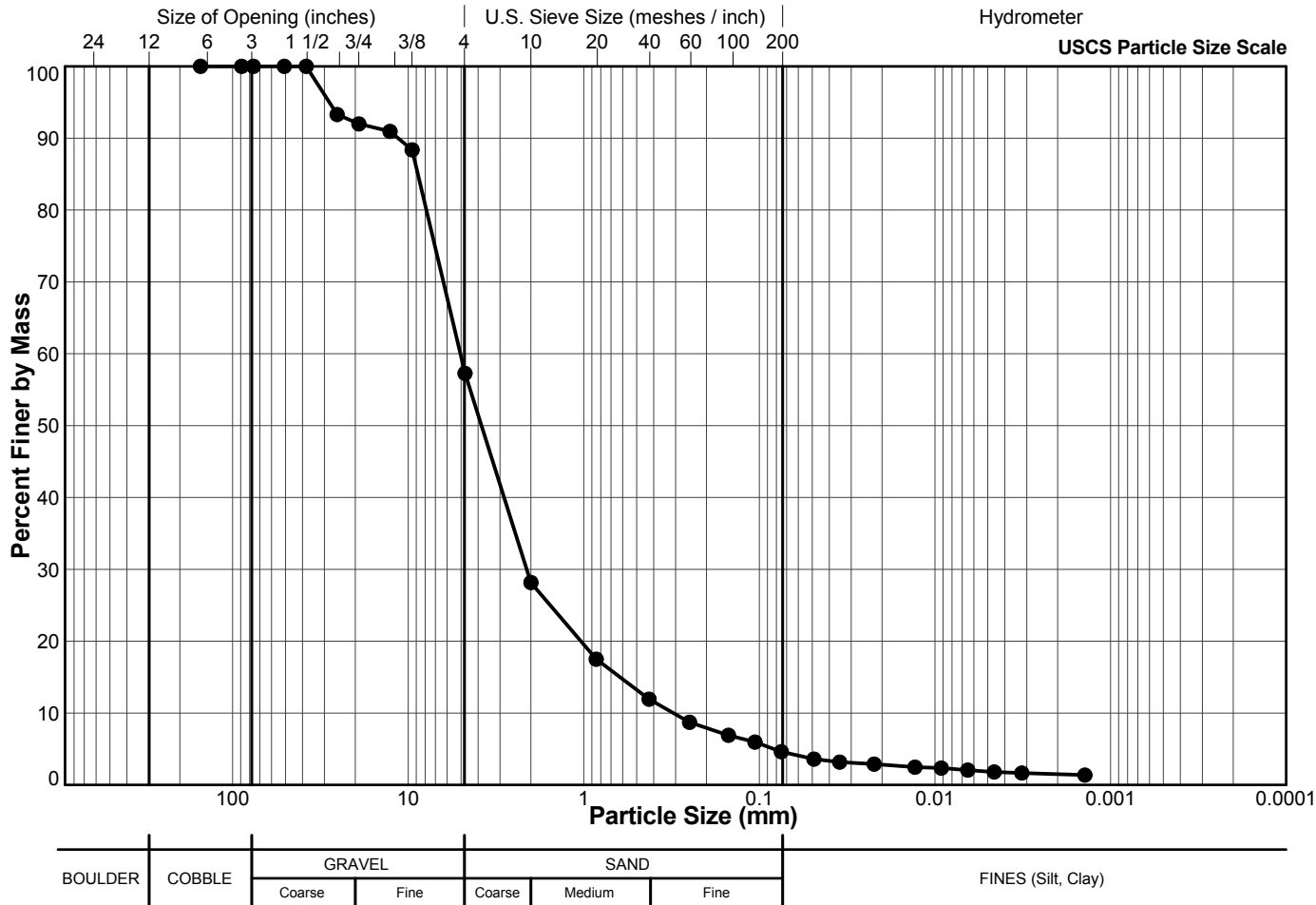


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 28
Depth Interval (m): 39.32 to 39.93
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	93.3
3/4"	19.1	92.0
1/2"	12.7	90.9
3/8"	9.5	88.4
#4 US MESH	4.75	57.3
#10 US MESH	2	28.2
#20 US MESH	0.85	17.5
#40 US MESH	0.425	11.9
#60 US MESH	0.25	8.7
#100 US MESH	0.15	6.9
#140 US MESH	0.106	6.0
#200 US MESH	0.075	4.6
	0.0489	3.6
	0.0349	3.2
	0.0222	2.9
	0.0130	2.5
	0.0092	2.3
	0.0065	2.1
	0.0046	1.8
	0.0032	1.7
	0.0014	1.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

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Date

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Date

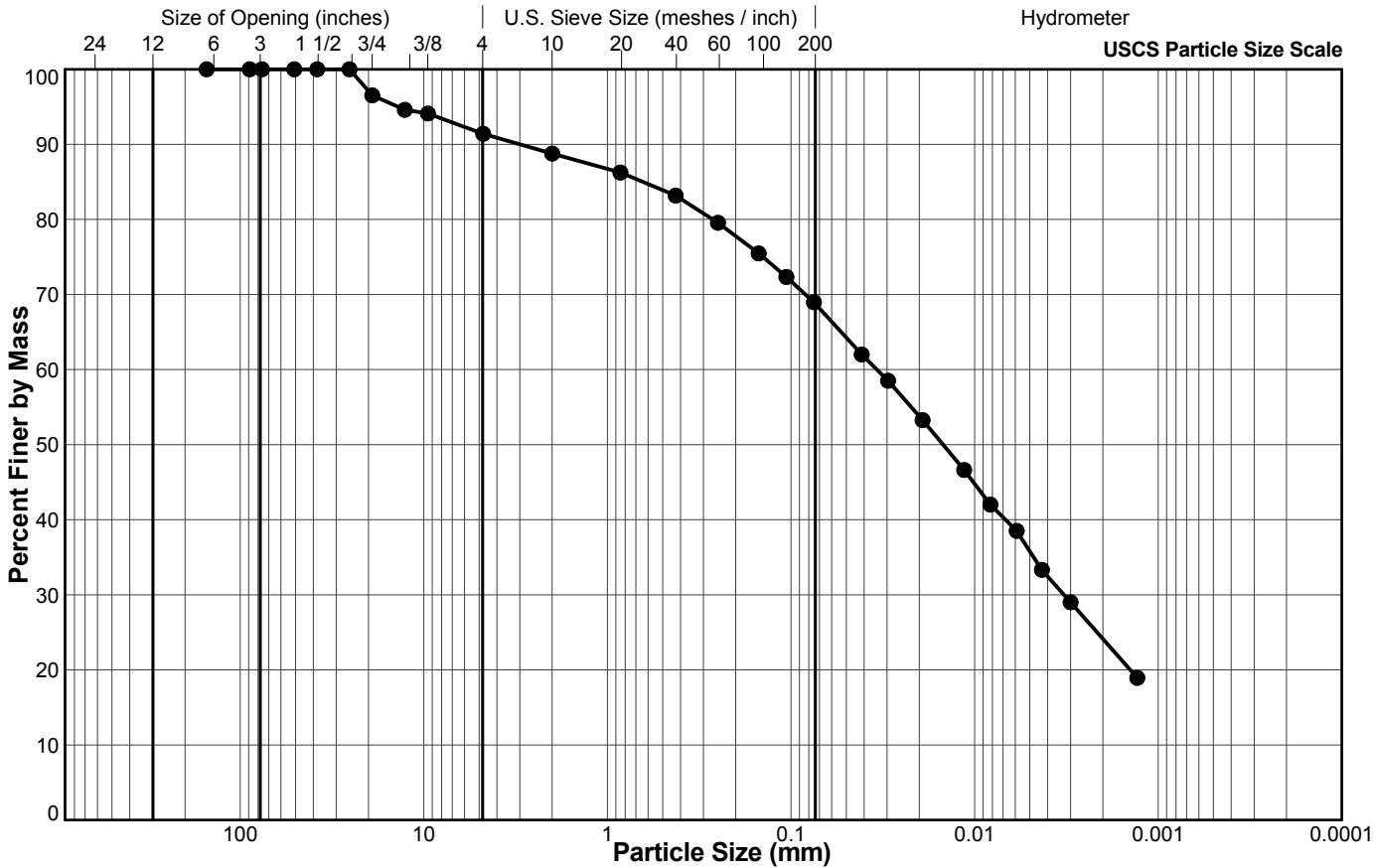


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: 33
Depth Interval (m): 48.46 to 49.07
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	96.5
1/2"	12.7	94.6
3/8"	9.5	94.1
#4 US MESH	4.75	91.4
#10 US MESH	2	88.8
#20 US MESH	0.85	86.2
#40 US MESH	0.425	83.2
#60 US MESH	0.25	79.6
#100 US MESH	0.15	75.5
#140 US MESH	0.106	72.3
#200 US MESH	0.075	69.0
	0.0412	62.0
	0.0296	58.5
	0.0192	53.3
	0.0114	46.6
	0.0082	42.0
	0.0059	38.5
	0.0043	33.3
	0.0030	29.0
	0.0013	18.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

11/16/2015

LH

11/20/2015

Tech

Date

Checked

Date

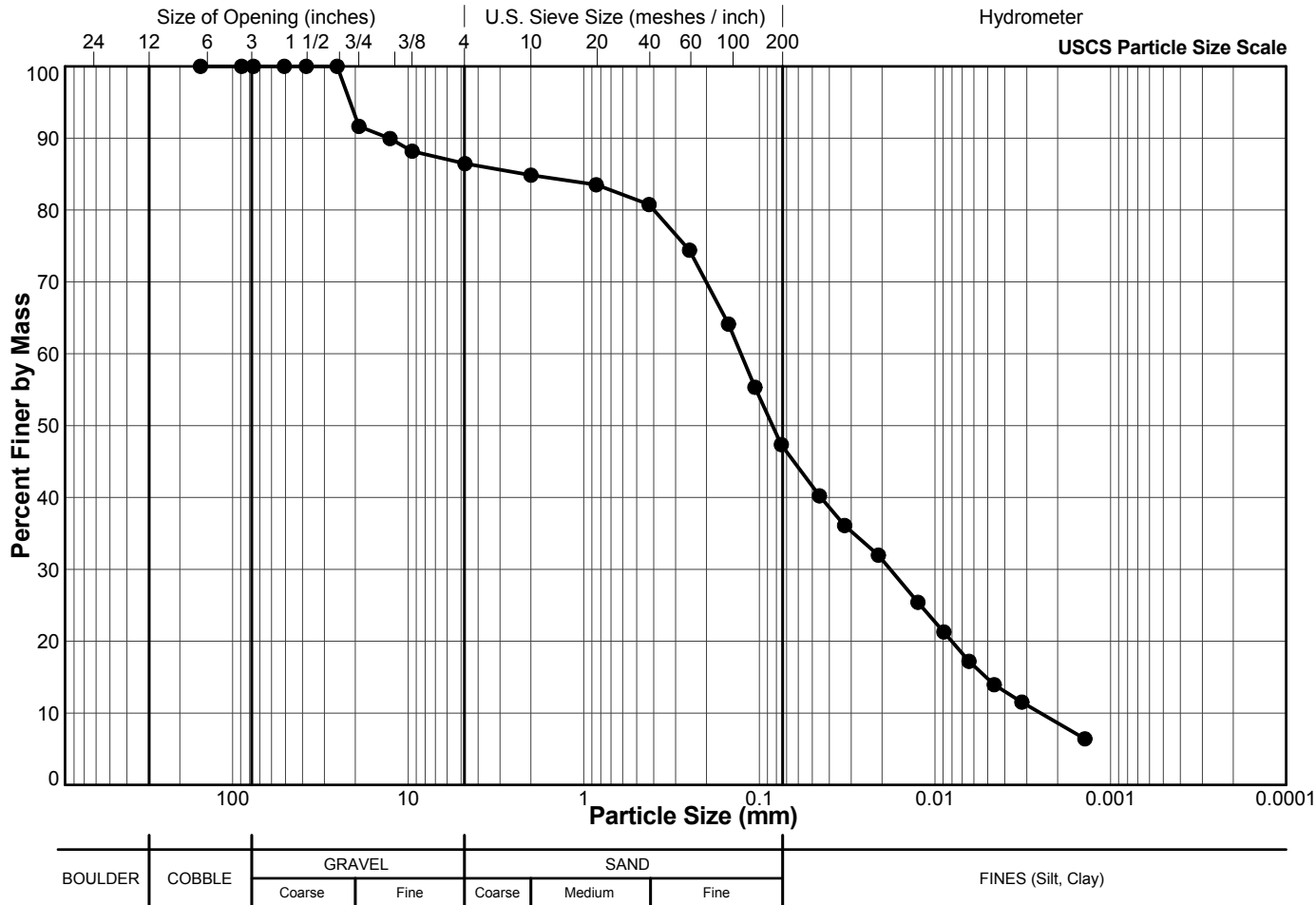


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-03
Sample No.: CS03
Depth (m): 54.86
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	91.6
1/2"	12.7	90.0
3/8"	9.5	88.2
#4 US MESH	4.75	86.5
#10 US MESH	2	84.9
#20 US MESH	0.85	83.5
#40 US MESH	0.425	80.8
#60 US MESH	0.25	74.4
#100 US MESH	0.15	64.1
#140 US MESH	0.106	55.3
#200 US MESH	0.075	47.4
	0.0455	40.2
	0.0327	36.1
	0.0210	32.0
	0.0125	25.4
	0.0089	21.3
	0.0064	17.2
	0.0046	13.9
	0.0032	11.5
	0.0014	6.4

SJ/OA

11/16/2015

LH

11/20/2015

Tech

Date

Checked

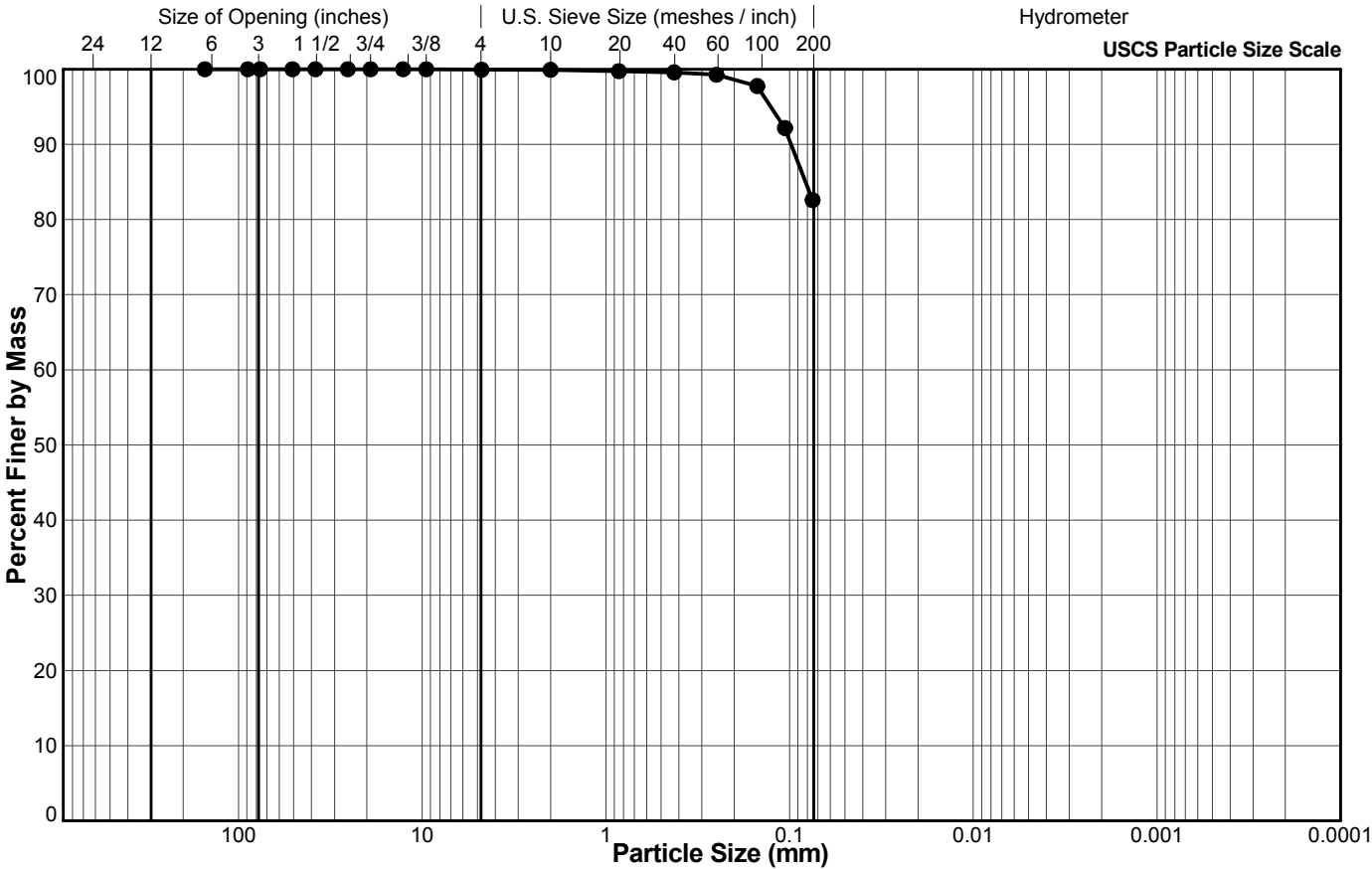
Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-04
Sample No.: 4
Depth Interval (m): 3.96 to 4.57
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.9
#10 US MESH	2	99.9
#20 US MESH	0.85	99.7
#40 US MESH	0.425	99.6
#60 US MESH	0.25	99.3
#100 US MESH	0.15	97.8
#140 US MESH	0.106	92.2
#200 US MESH	0.075	82.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

	RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch

Sample Location: BH15-04

Project: Annacis Outfall

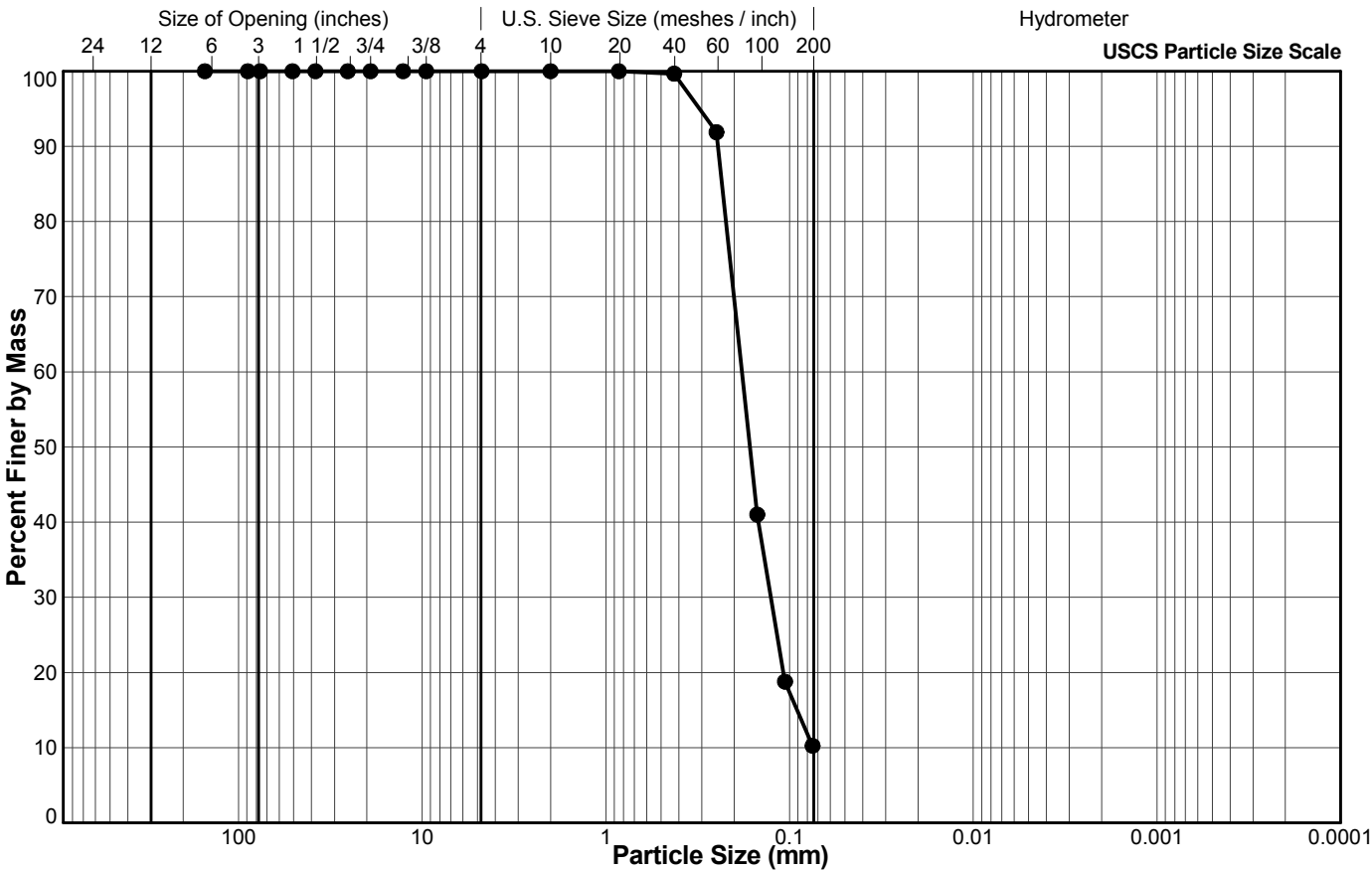
Sample No.: 7

Location: Annacis Island

Depth Interval (m): 8.53 to 9.14

Project No.: 1532895 **Phase:** 1000

Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	91.9
#100 US MESH	0.15	41.0
#140 US MESH	0.106	18.8
#200 US MESH	0.075	10.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

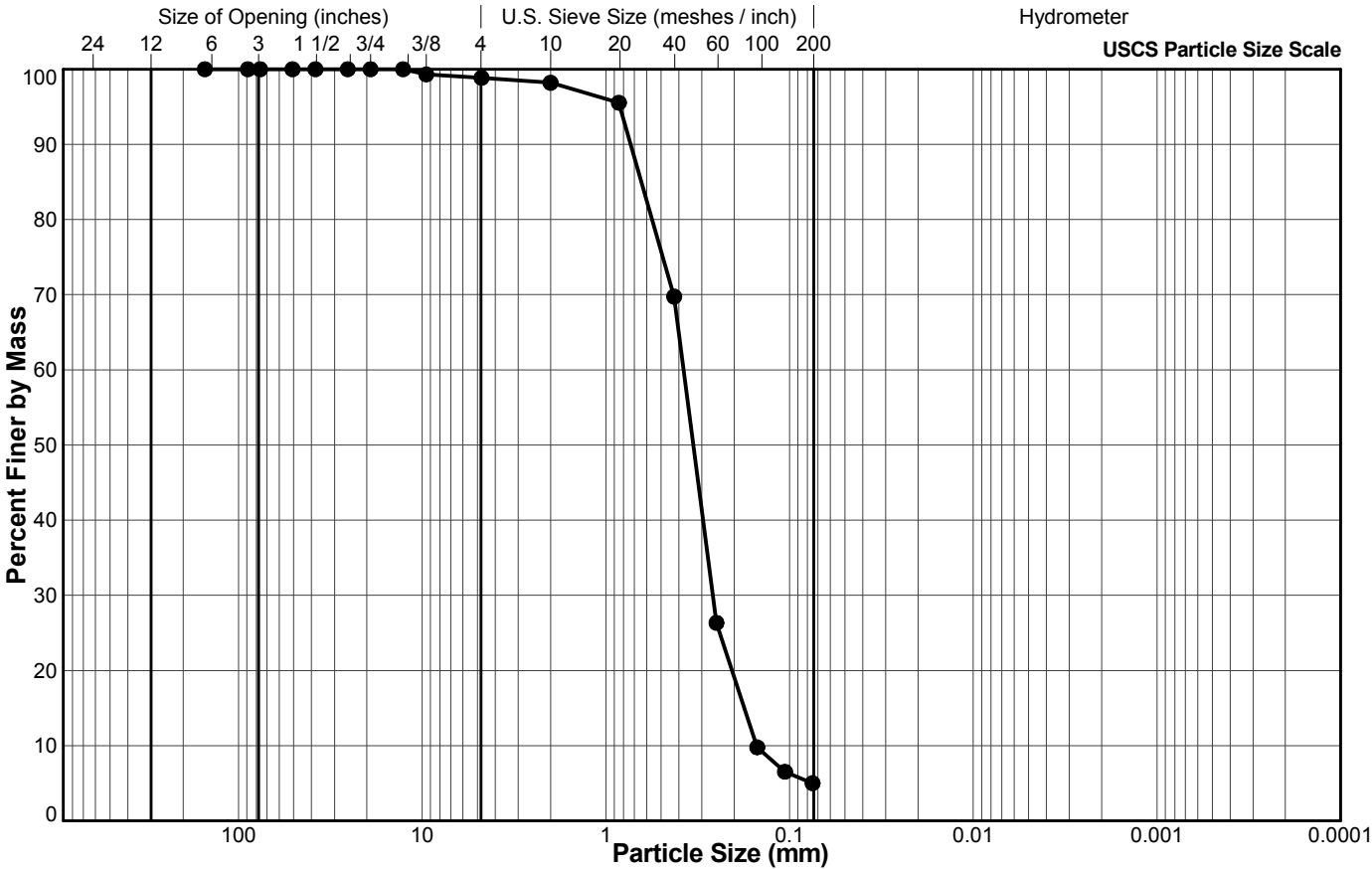
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	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-04
Sample No.: 18
Depth Interval (m): 25.30 to 25.91
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.3
#4 US MESH	4.75	98.9
#10 US MESH	2	98.2
#20 US MESH	0.85	95.5
#40 US MESH	0.425	69.7
#60 US MESH	0.25	26.3
#100 US MESH	0.15	9.8
#140 US MESH	0.106	6.5
#200 US MESH	0.075	5.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

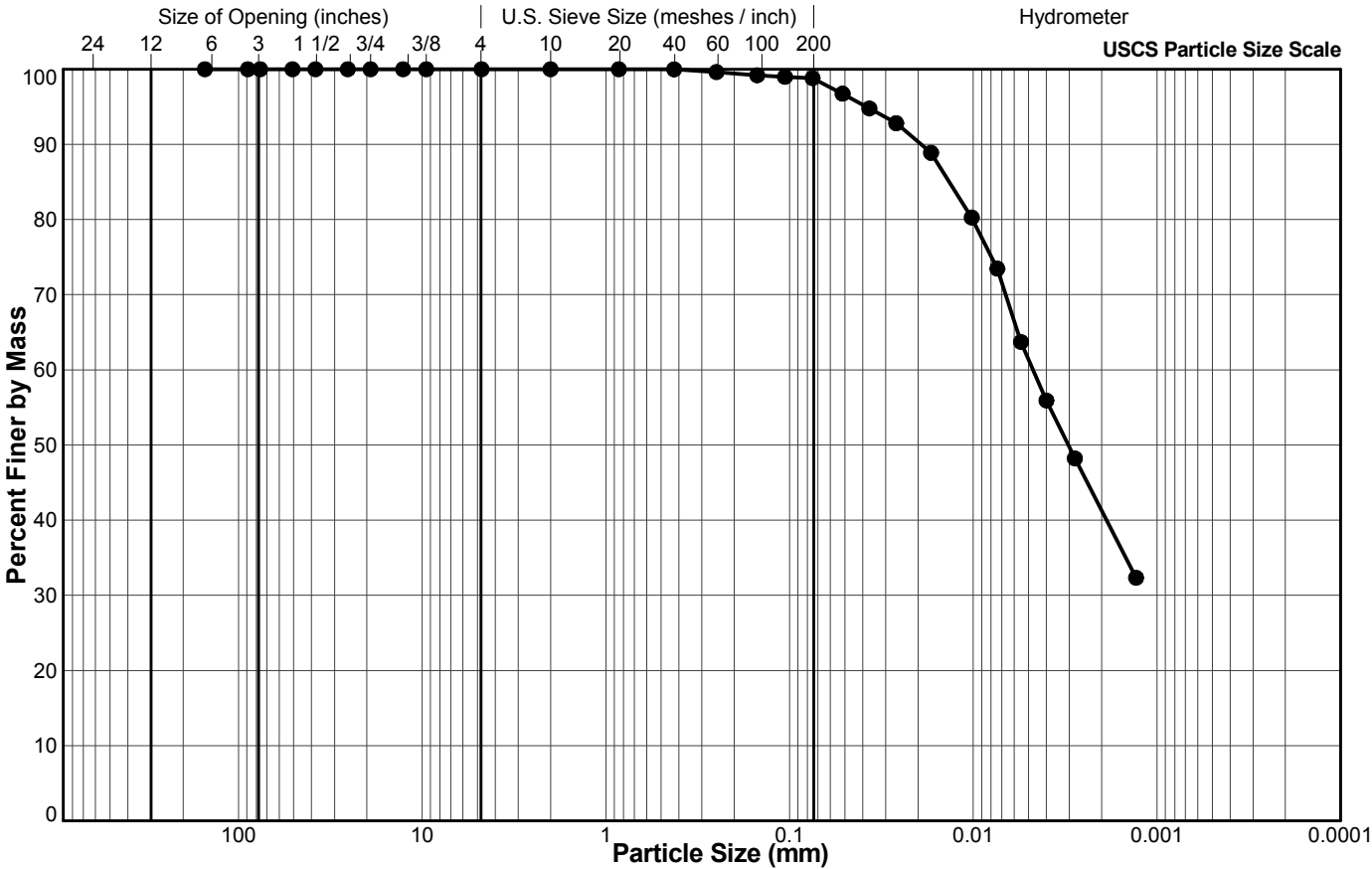
	RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM D 422

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 Phase: 1000

Sample Location: BH15-04
Sample No.: 31
Depth Interval (m): 43.59 to 44.20
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	99.6
#100 US MESH	0.15	99.2
#140 US MESH	0.106	99.0
#200 US MESH	0.075	98.8
	0.0515	96.7
	0.0368	94.8
	0.0263	92.8
	0.0170	88.9
	0.0102	80.3
	0.0074	73.5
	0.0055	63.7
	0.0040	55.9
	0.0028	48.2
	0.0013	32.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

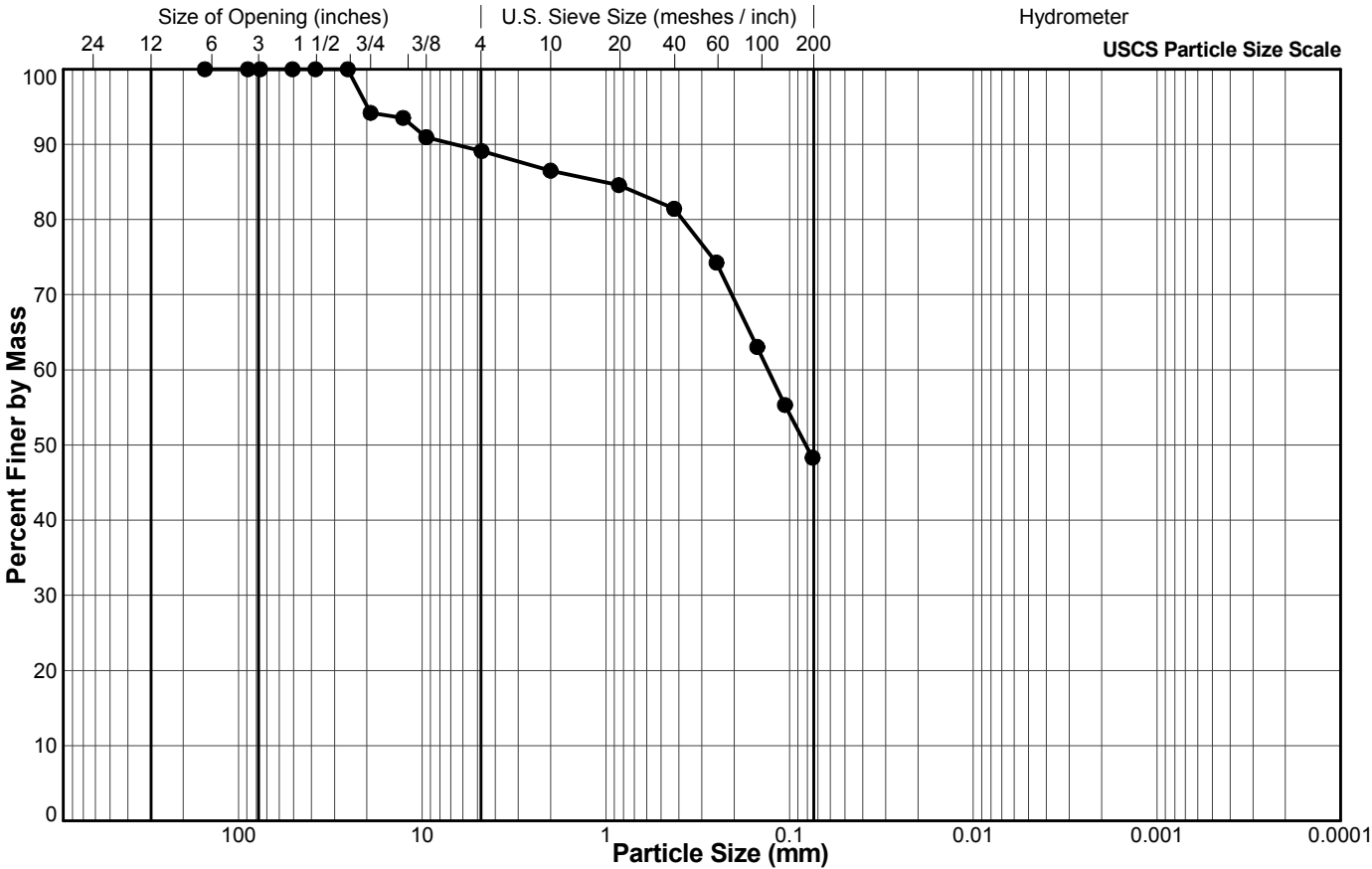
	OA	9/8/2015	LH
	Tech	Date	Checked
			9/11/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-04
Sample No.: 34
Depth Interval (m): 48.16 to 48.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	94.2
1/2"	12.7	93.5
3/8"	9.5	91.0
#4 US MESH	4.75	89.1
#10 US MESH	2	86.5
#20 US MESH	0.85	84.6
#40 US MESH	0.425	81.4
#60 US MESH	0.25	74.3
#100 US MESH	0.15	63.0
#140 US MESH	0.106	55.3
#200 US MESH	0.075	48.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

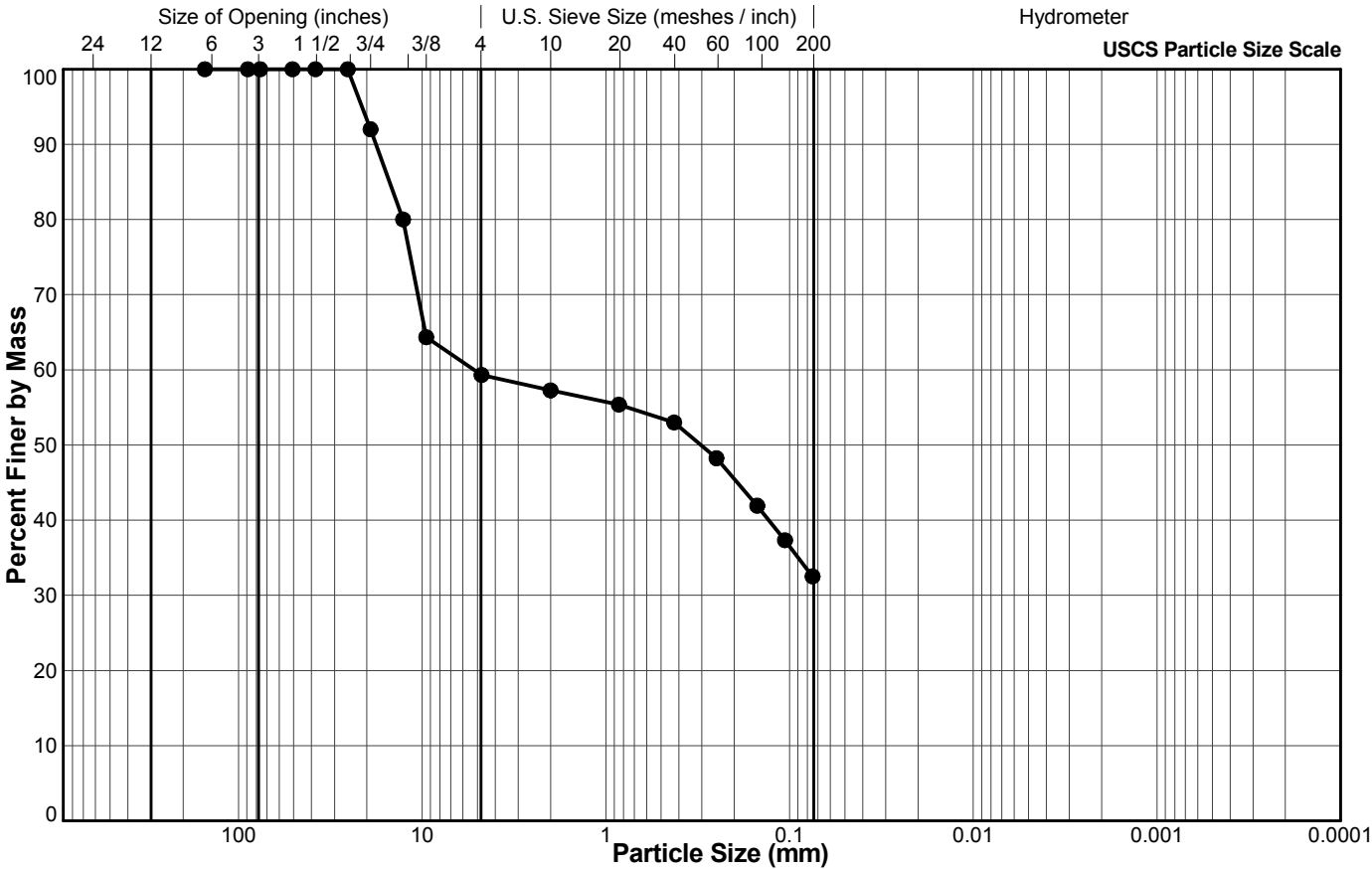
	RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-04
Sample No.: 37
Depth Interval (m): 52.73 to 52.86
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	92.0
1/2"	12.7	80.0
3/8"	9.5	64.3
#4 US MESH	4.75	59.3
#10 US MESH	2	57.3
#20 US MESH	0.85	55.4
#40 US MESH	0.425	53.0
#60 US MESH	0.25	48.2
#100 US MESH	0.15	41.9
#140 US MESH	0.106	37.3
#200 US MESH	0.075	32.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

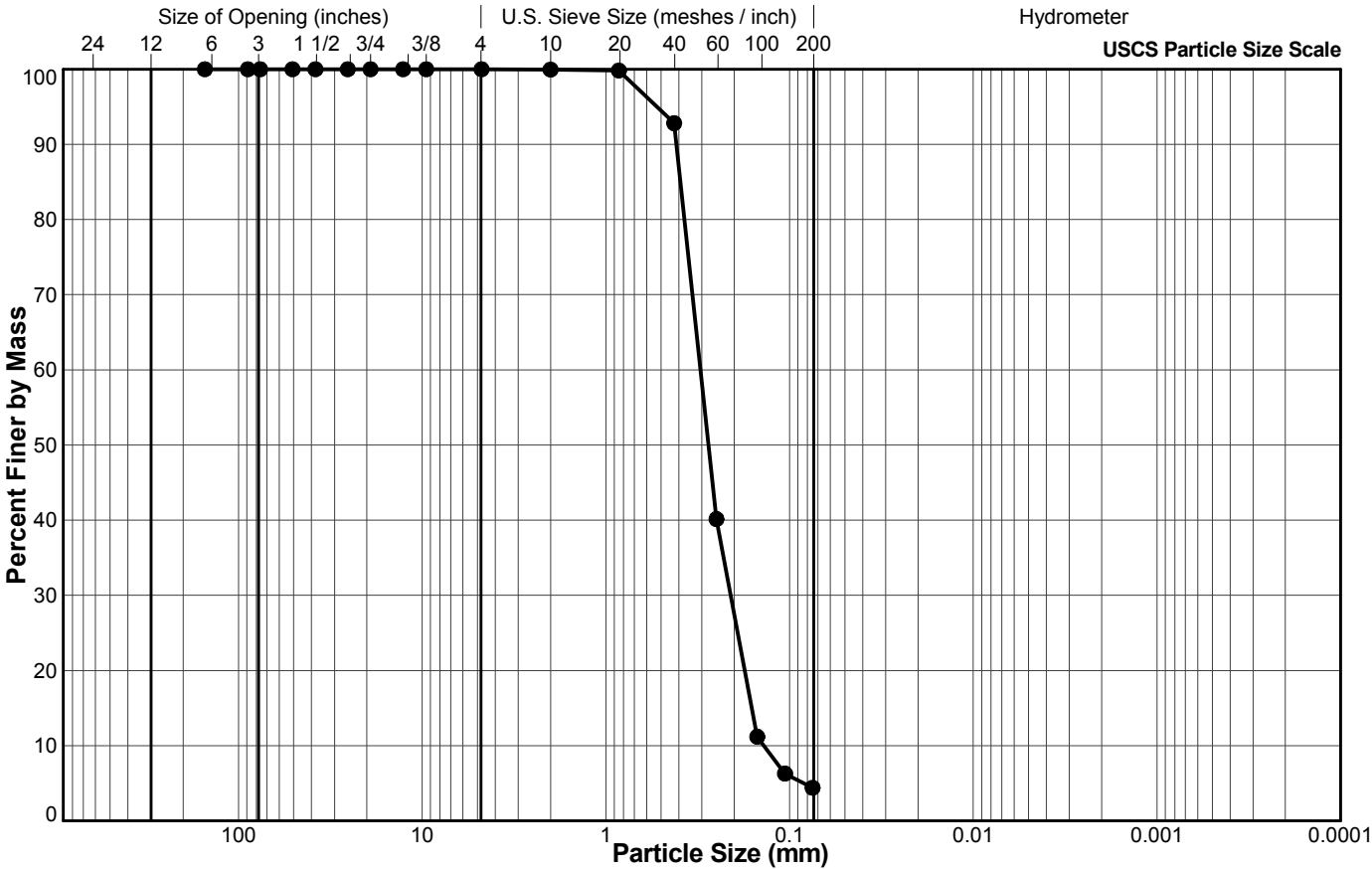
	RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-05
Sample No.: 7
Depth Interval (m): 10.06 to 10.67
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	92.8
#60 US MESH	0.25	40.1
#100 US MESH	0.15	11.2
#140 US MESH	0.106	6.3
#200 US MESH	0.075	4.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

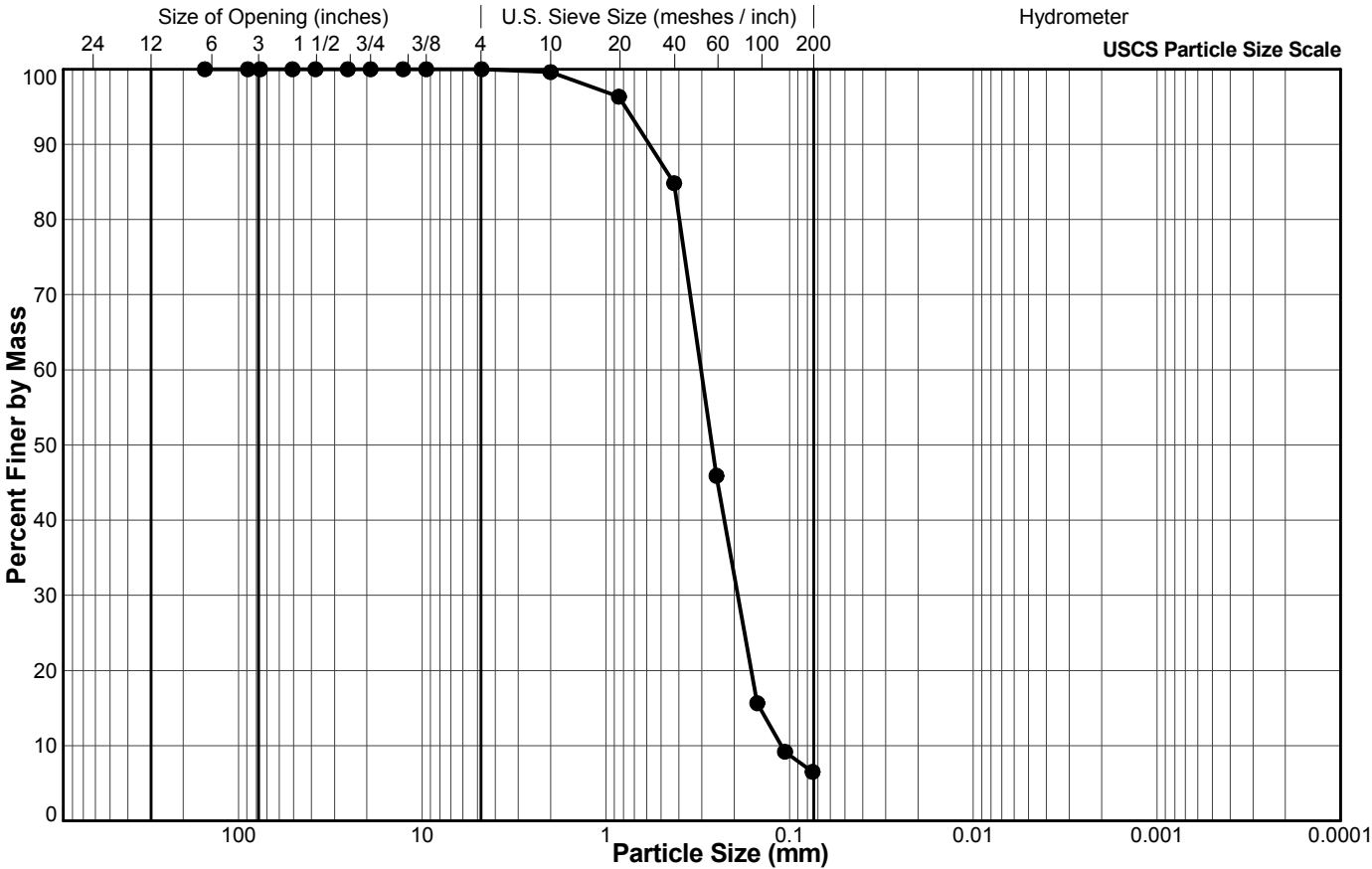
	RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-05
Sample No.: 18
Depth Interval (m): 26.82 to 27.43
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.6
#20 US MESH	0.85	96.3
#40 US MESH	0.425	84.8
#60 US MESH	0.25	45.9
#100 US MESH	0.15	15.7
#140 US MESH	0.106	9.2
#200 US MESH	0.075	6.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

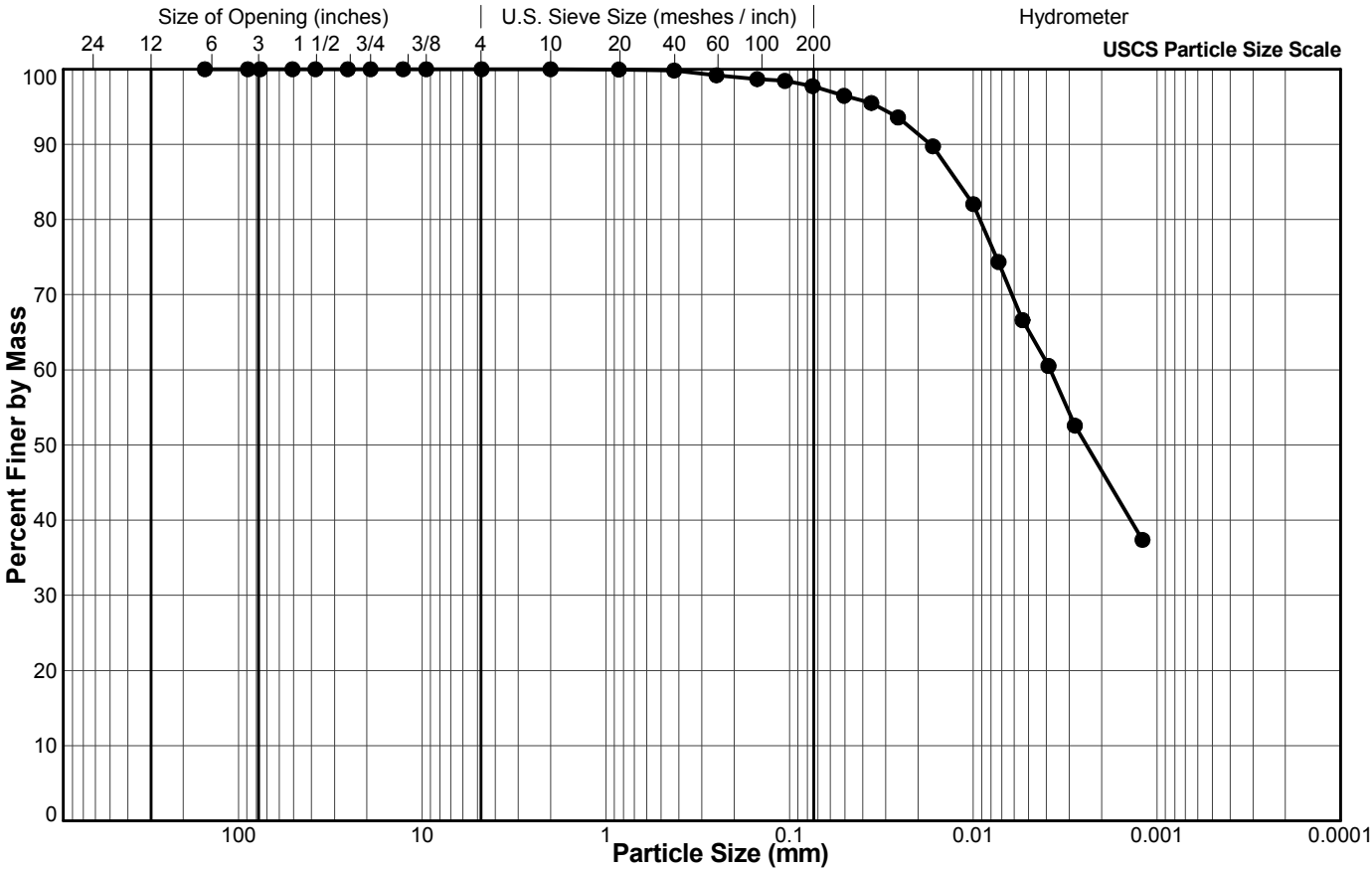
	RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM D 422

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-05
Sample No.: 33
Depth Interval (m): 49.68 to 50.29
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.2
#100 US MESH	0.15	98.7
#140 US MESH	0.106	98.4
#200 US MESH	0.075	97.7
	0.0505	96.5
	0.0359	95.5
	0.0257	93.6
	0.0166	89.7
	0.0100	82.0
	0.0073	74.4
	0.0054	66.6
	0.0039	60.5
	0.0028	52.6
	0.0012	37.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

OA/AZ

8/19/2015

LP

8/20/2015

Tech

Date

Checked

Date

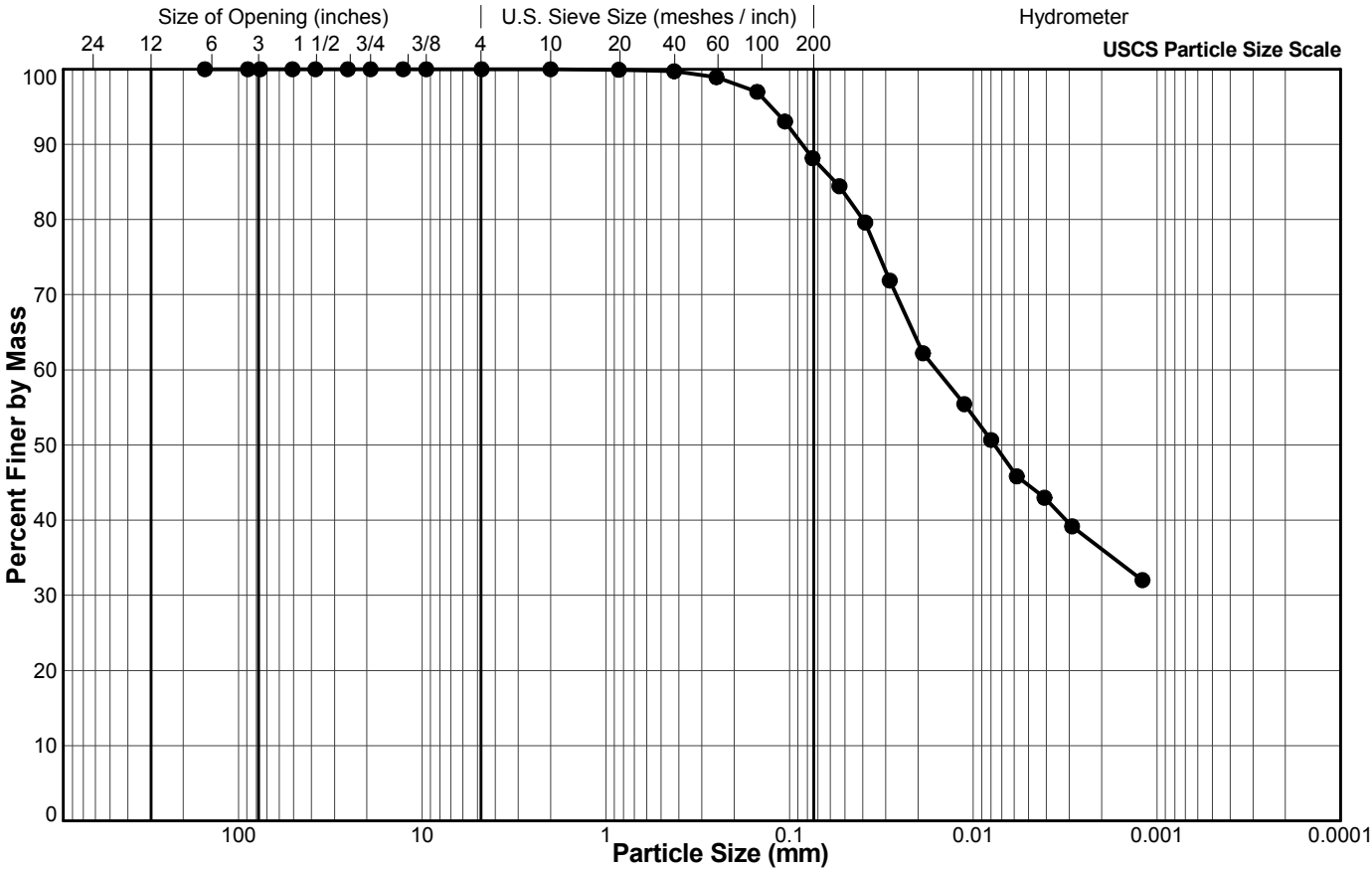


SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM D 422

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 Phase: 1000

Sample Location: BH15-05
Sample No.: 35
Depth Interval (m): 52.73 to 53.34
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.7
#60 US MESH	0.25	98.9
#100 US MESH	0.15	97.0
#140 US MESH	0.106	93.0
#200 US MESH	0.075	88.2
	0.0536	84.4
	0.0388	79.6
	0.0285	71.9
	0.0188	62.2
	0.0112	55.4
	0.0080	50.7
	0.0058	45.8
	0.0041	43.0
	0.0029	39.2
	0.0012	32.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

OA/AZ

8/19/2015

LP

8/20/2015

Tech

Date

Checked

Date

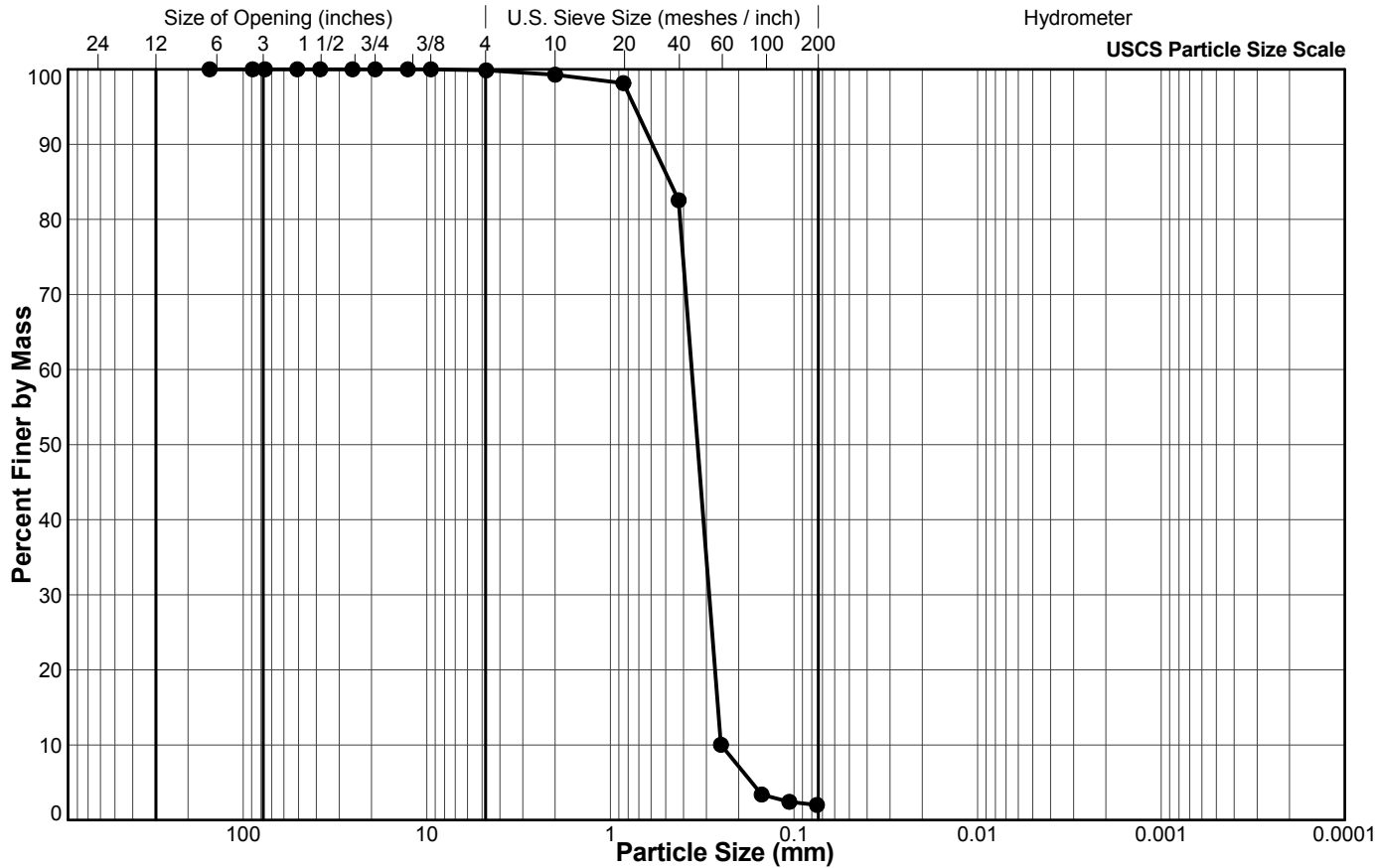


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 2
Depth Interval (m): 1.52 to 2.13
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.9
#10 US MESH	2	99.3
#20 US MESH	0.85	98.2
#40 US MESH	0.425	82.6
#60 US MESH	0.25	10.0
#100 US MESH	0.15	3.4
#140 US MESH	0.106	2.4
#200 US MESH	0.075	2.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

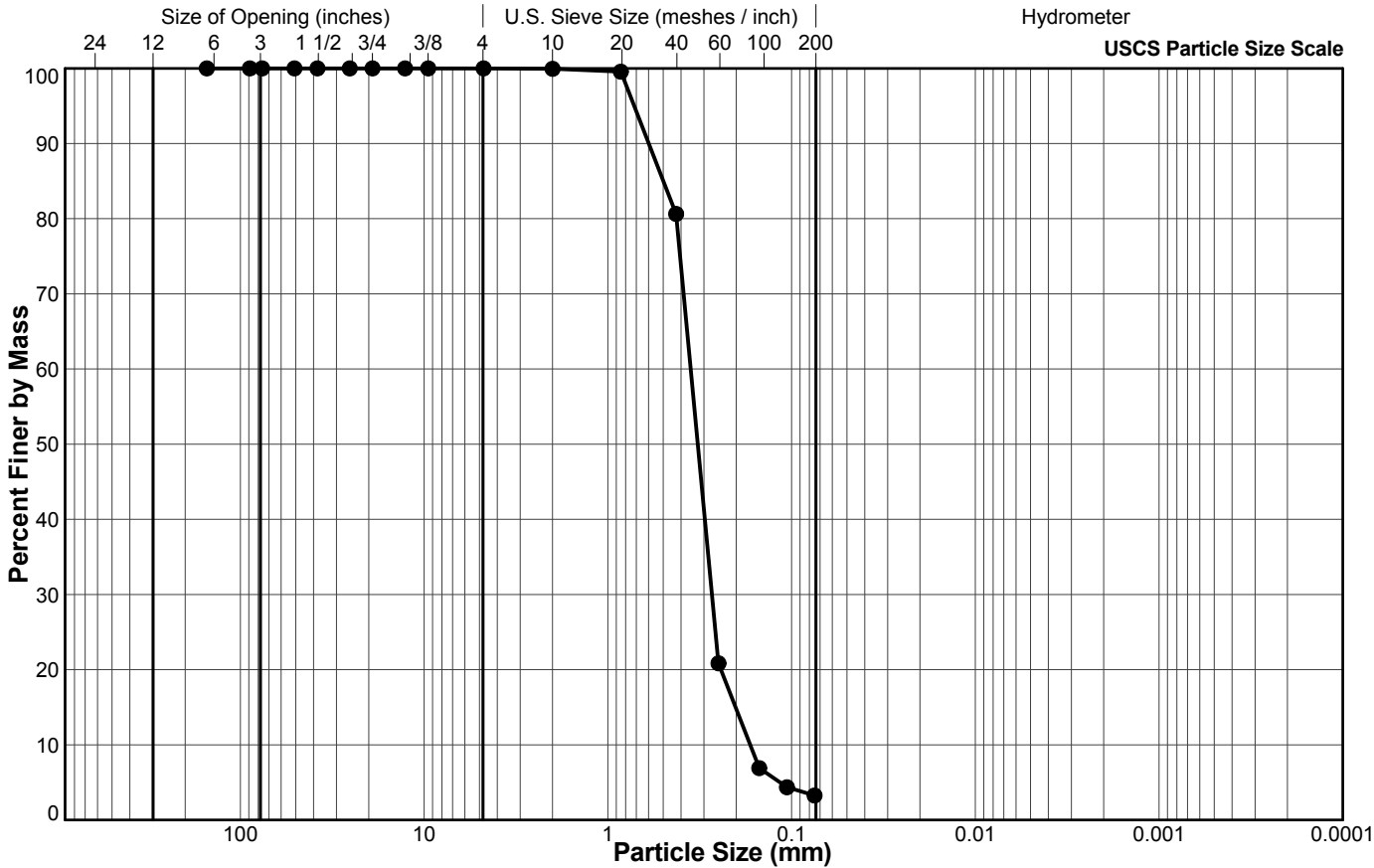


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 3
Depth Interval (m): 3.05 to 3.66
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.6
#40 US MESH	0.425	80.6
#60 US MESH	0.25	20.8
#100 US MESH	0.15	6.9
#140 US MESH	0.106	4.4
#200 US MESH	0.075	3.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

National IM Server:GINT_GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 m:aceachern 21/9/17

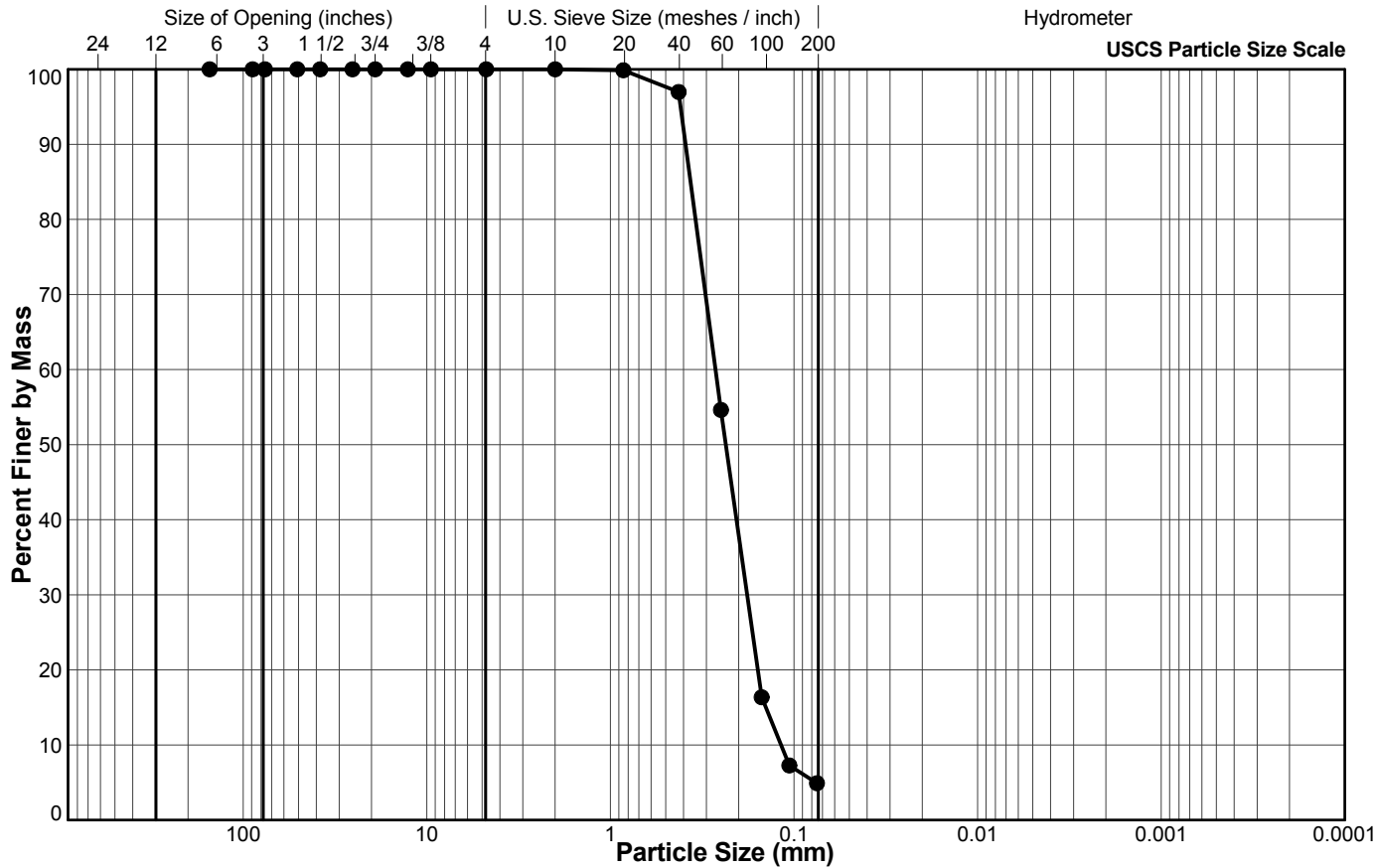


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-09
 Sample No.: 5
 Depth Interval (m): 6.10 to 6.71
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	97.0
#60 US MESH	0.25	54.6
#100 US MESH	0.15	16.4
#140 US MESH	0.106	7.3
#200 US MESH	0.075	4.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

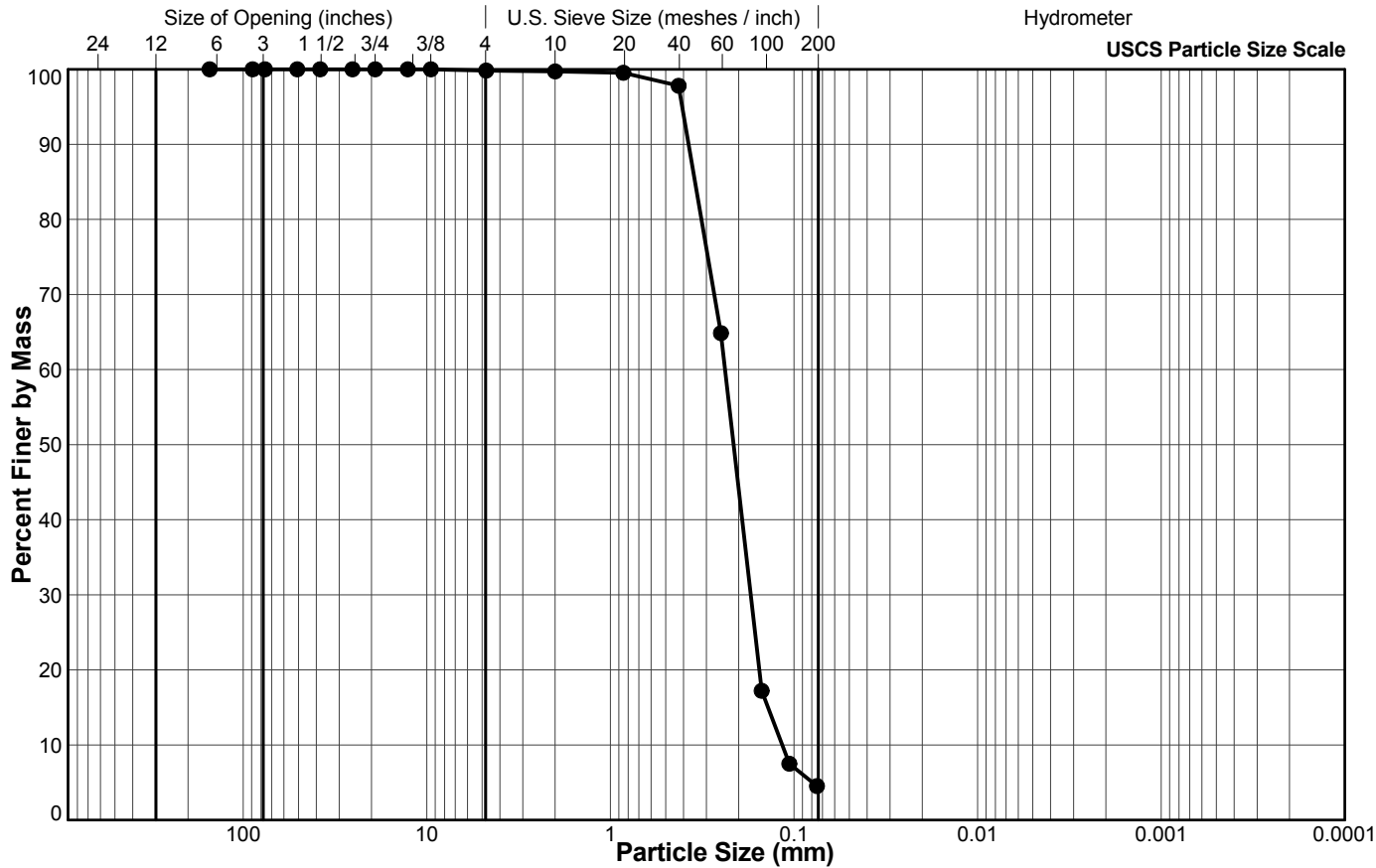


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 7
Depth Interval (m): 9.14 to 9.75
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.8
#10 US MESH	2	99.7
#20 US MESH	0.85	99.5
#40 US MESH	0.425	97.8
#60 US MESH	0.25	64.9
#100 US MESH	0.15	17.2
#140 US MESH	0.106	7.5
#200 US MESH	0.075	4.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

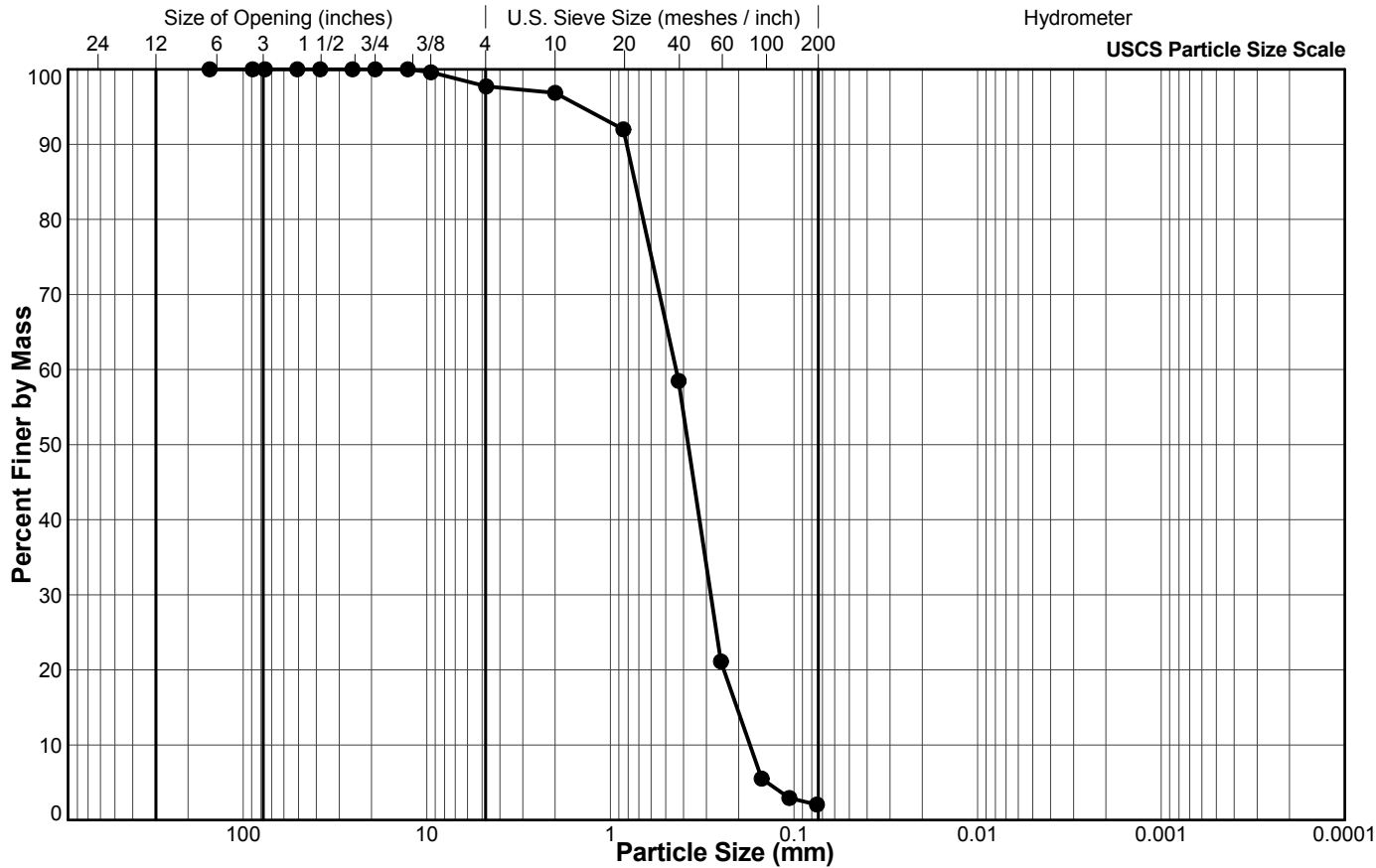


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 10
Depth Interval (m): 13.69 to 14.30
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.6
#4 US MESH	4.75	97.7
#10 US MESH	2	96.9
#20 US MESH	0.85	92.0
#40 US MESH	0.425	58.5
#60 US MESH	0.25	21.1
#100 US MESH	0.15	5.5
#140 US MESH	0.106	2.9
#200 US MESH	0.075	2.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

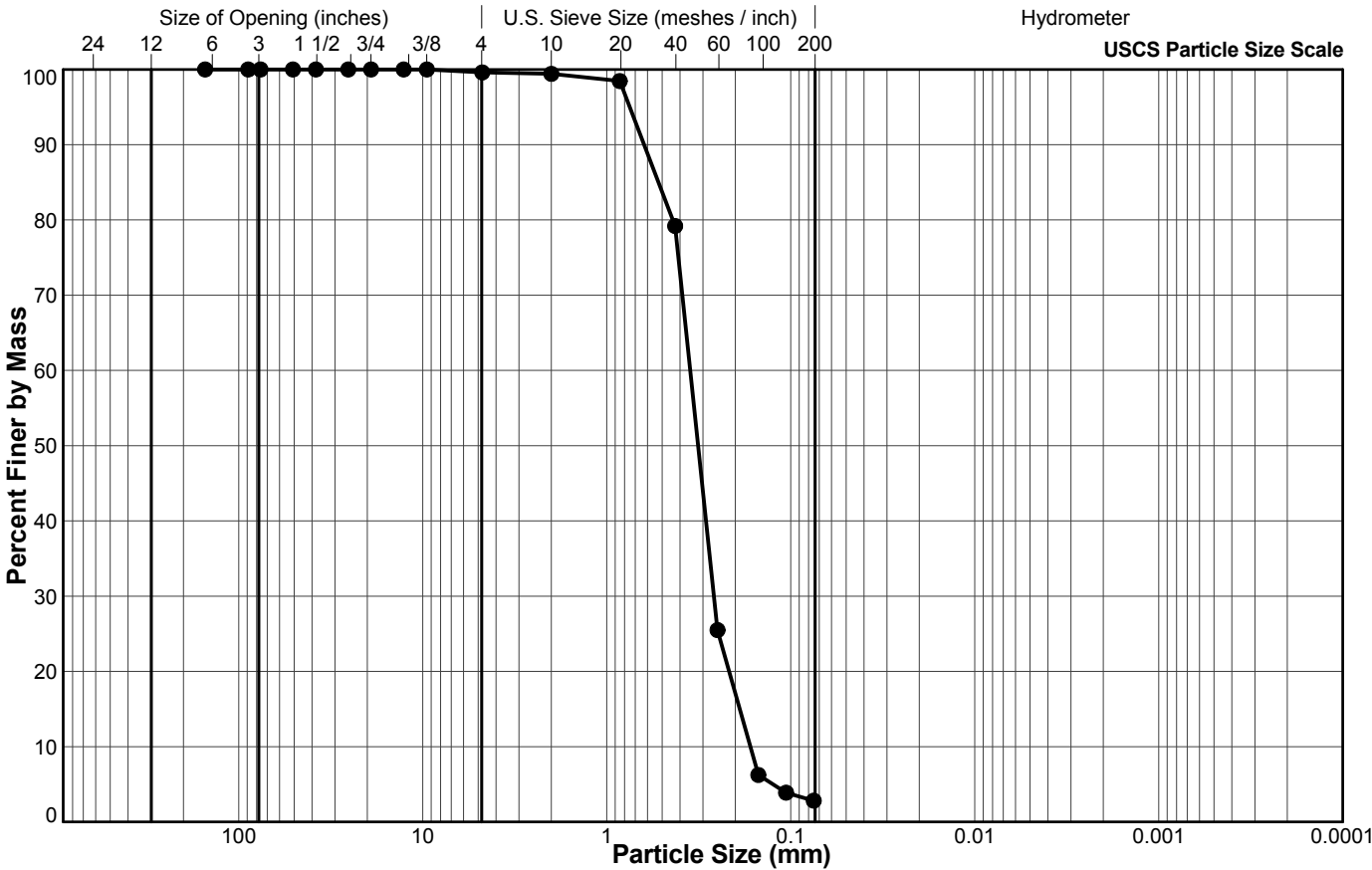


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-09
 Sample No.: 12
 Depth Interval (m): 16.76 to 17.37
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.6
#10 US MESH	2	99.4
#20 US MESH	0.85	98.5
#40 US MESH	0.425	79.2
#60 US MESH	0.25	25.5
#100 US MESH	0.15	6.2
#140 US MESH	0.106	3.9
#200 US MESH	0.075	2.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/30/2015

LH

11/4/2015

Tech

Date

Checked

Date

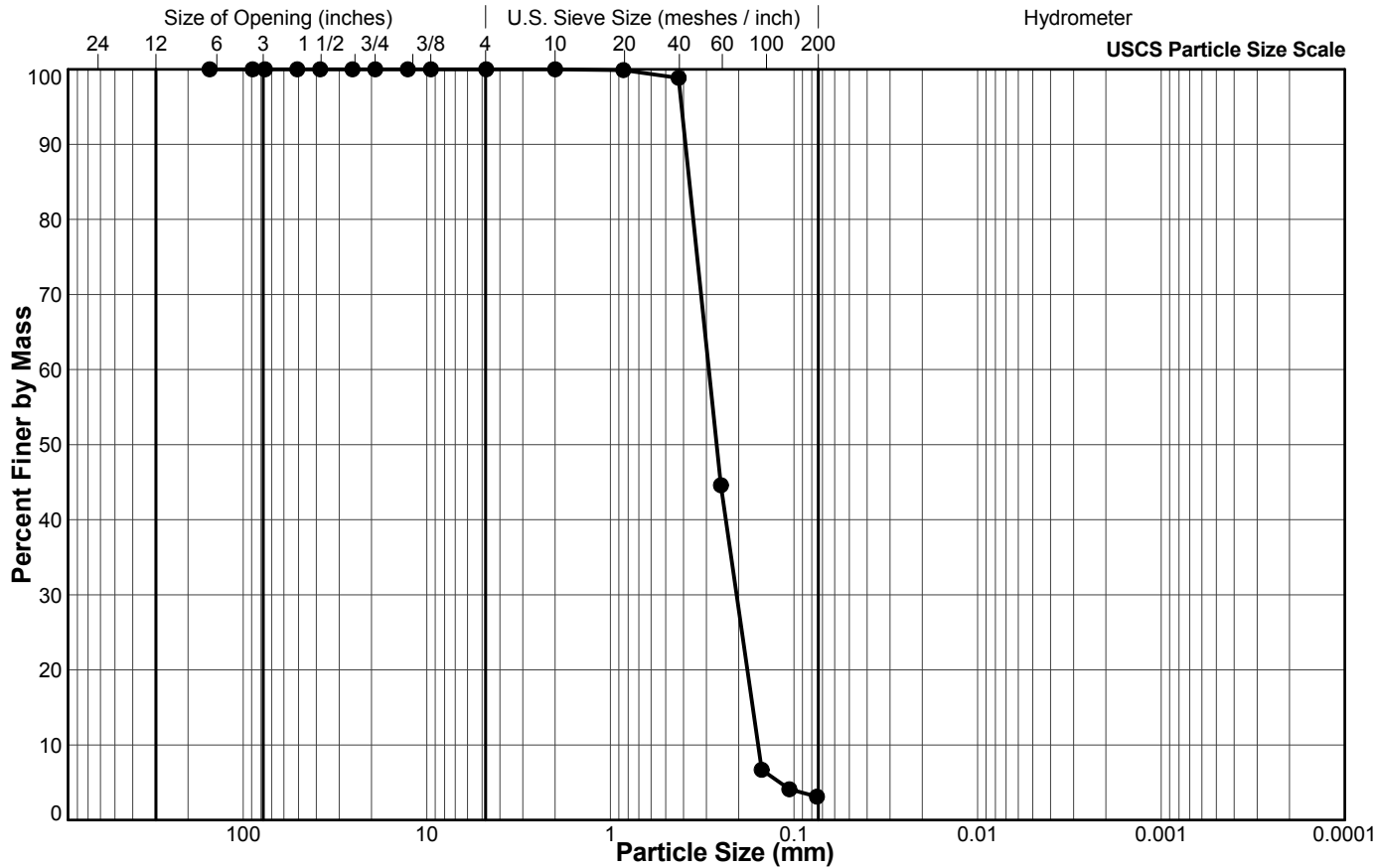


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-09
 Sample No.: 14
 Depth Interval (m): 19.89 to 20.50
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.9
#60 US MESH	0.25	44.6
#100 US MESH	0.15	6.7
#140 US MESH	0.106	4.1
#200 US MESH	0.075	3.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

RZ

11/3/2015

LH

11/4/2015

Tech

Date

Checked

Date

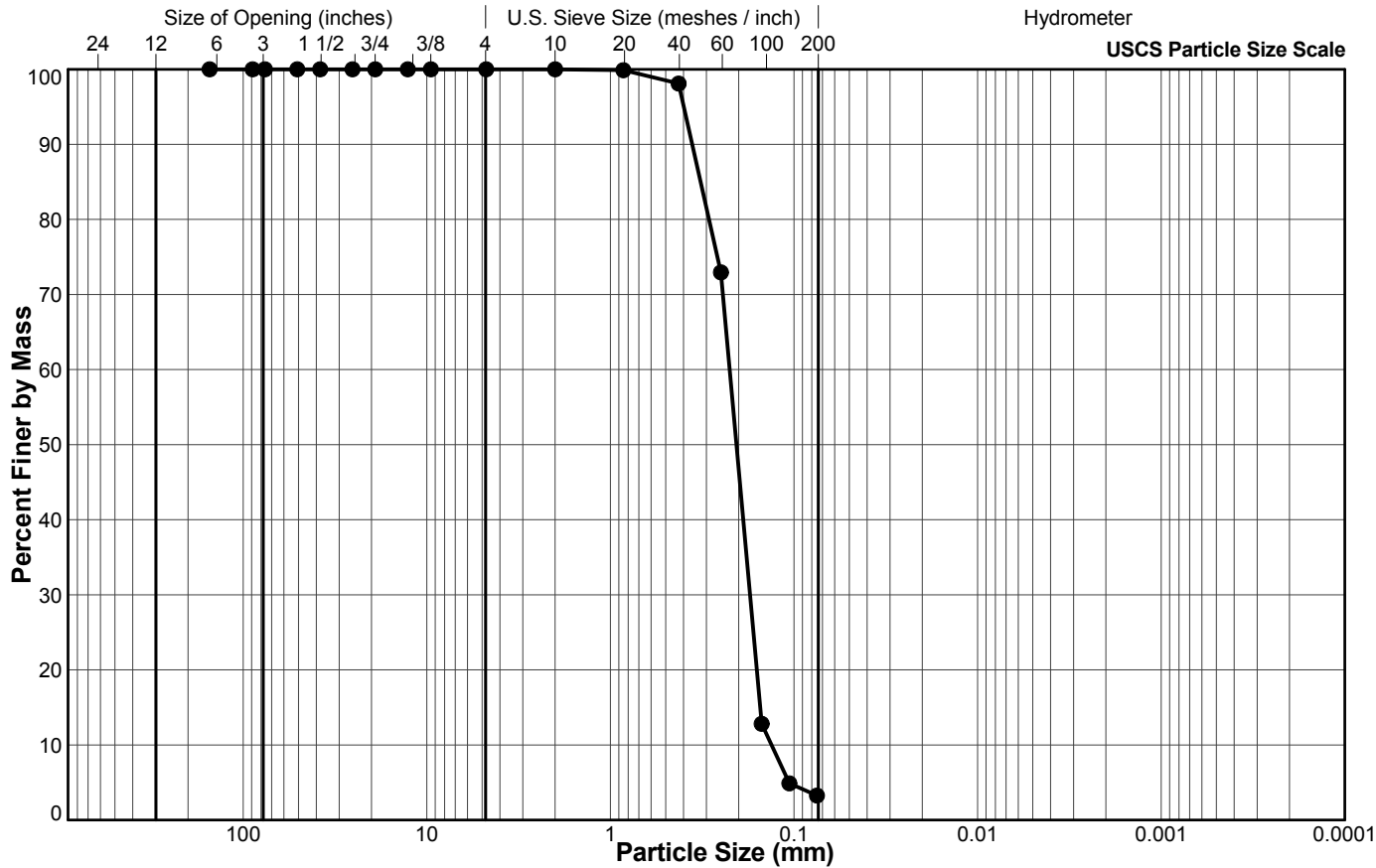


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 15
Depth Interval (m): 21.34 to 21.95
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.1
#60 US MESH	0.25	72.9
#100 US MESH	0.15	12.8
#140 US MESH	0.106	4.9
#200 US MESH	0.075	3.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

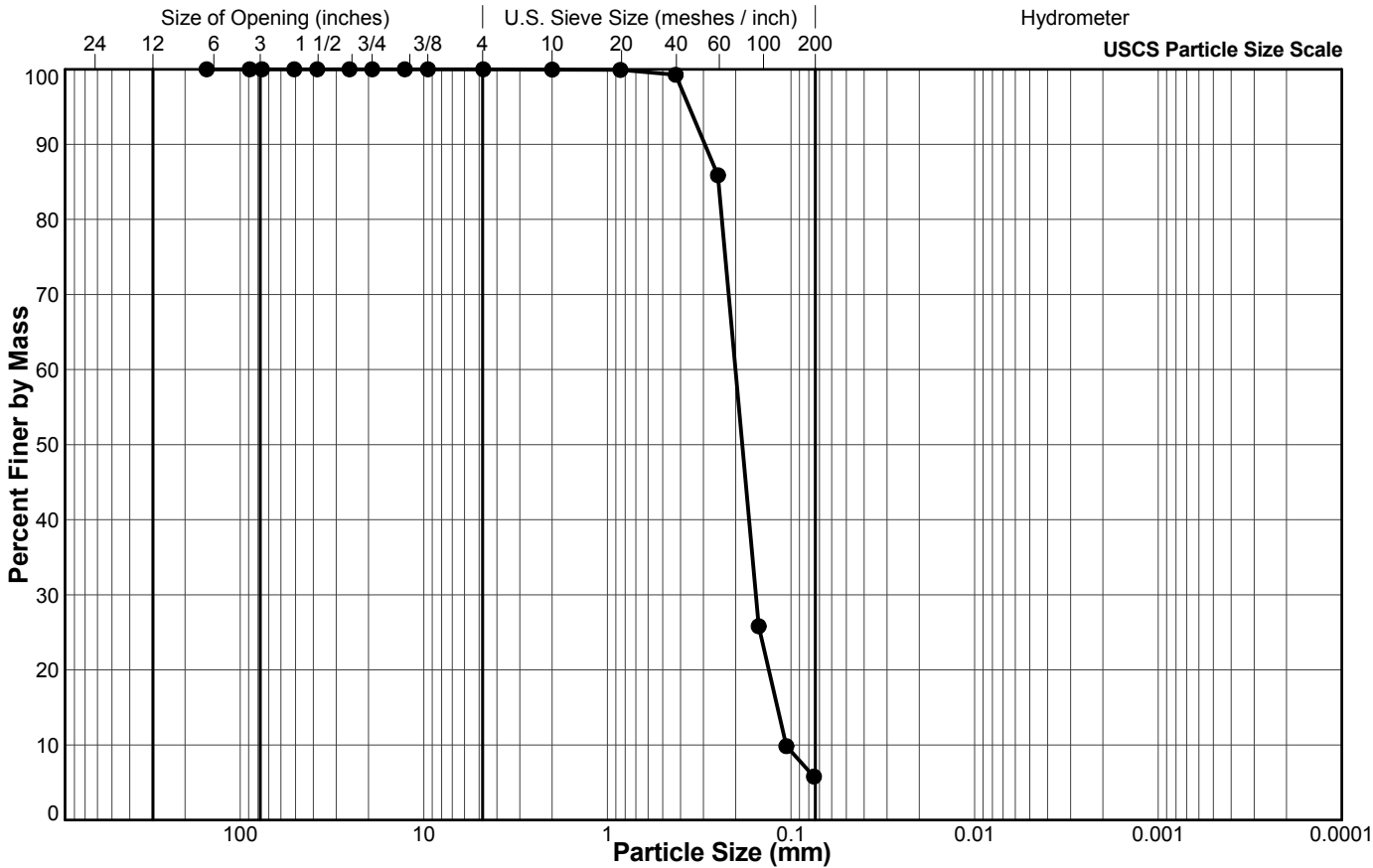


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 16
Depth Interval (m): 22.83 to 23.44
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.3
#60 US MESH	0.25	85.9
#100 US MESH	0.15	25.8
#140 US MESH	0.106	9.8
#200 US MESH	0.075	5.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

RZ

11/3/2015

LH

11/4/2015

Tech

Date

Checked

Date

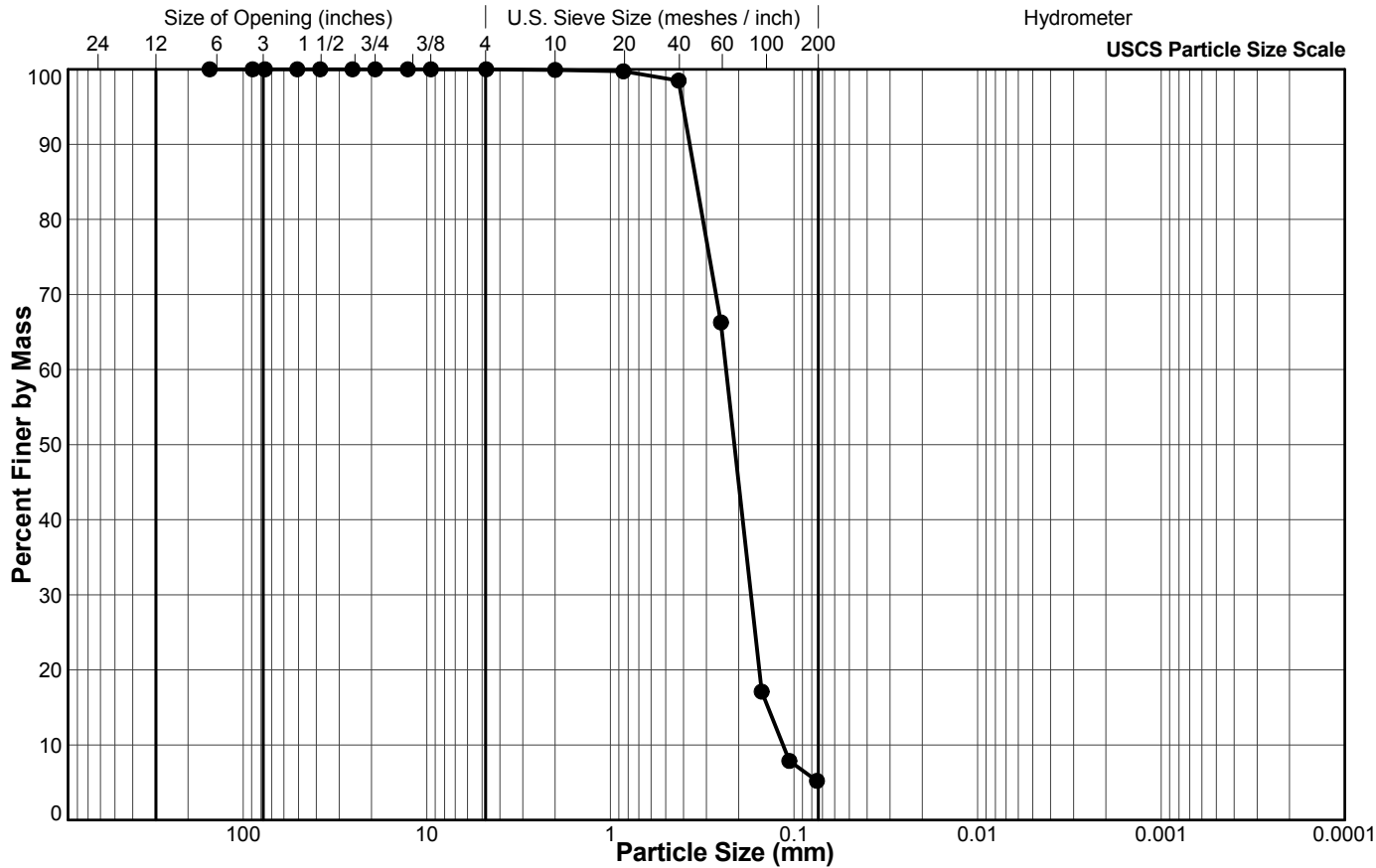


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-09
 Sample No.: 18
 Depth Interval (m): 25.88 to 26.49
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.7
#40 US MESH	0.425	98.5
#60 US MESH	0.25	66.3
#100 US MESH	0.15	17.1
#140 US MESH	0.106	7.9
#200 US MESH	0.075	5.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

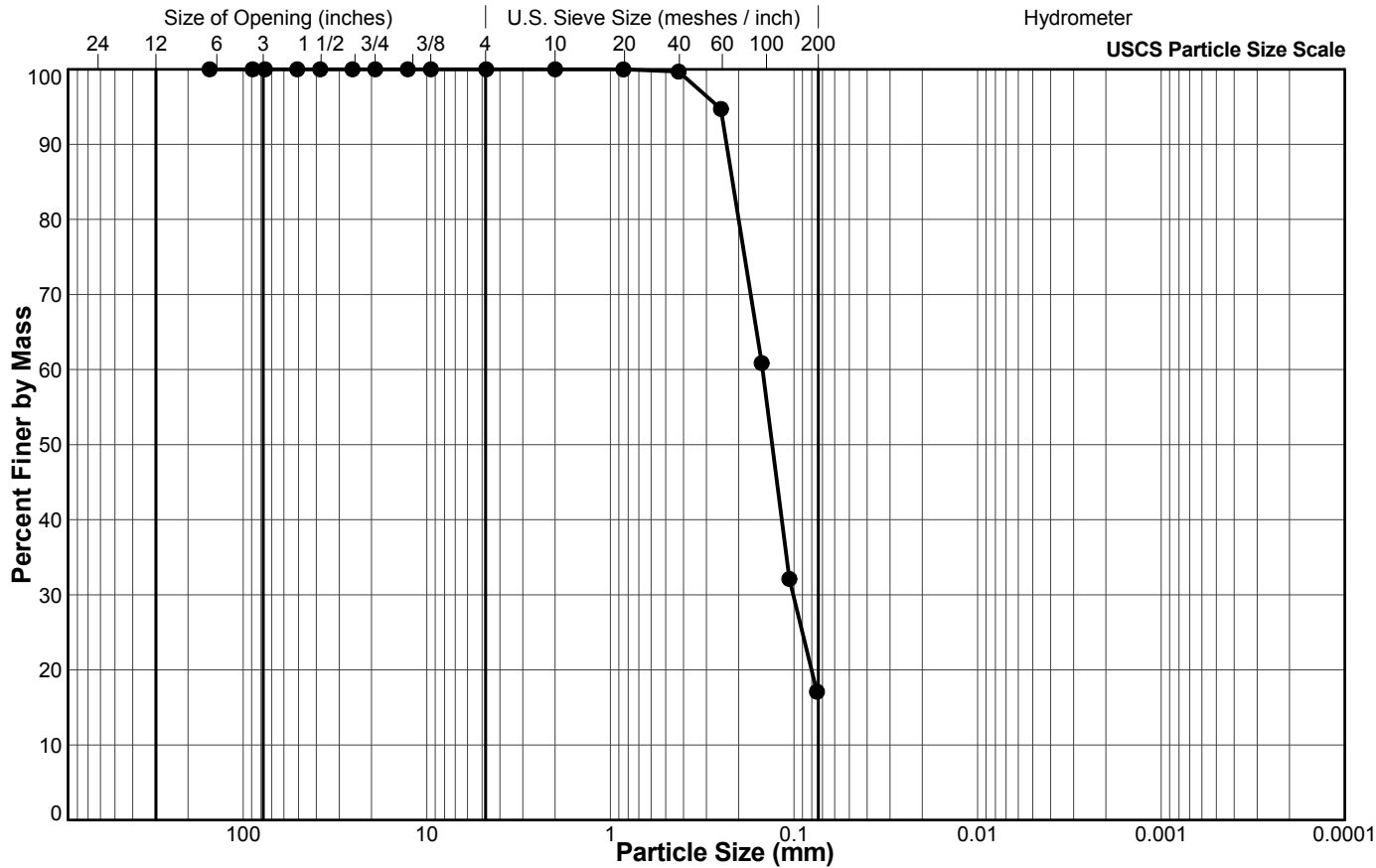


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-09
Sample No.: 36
Depth Interval (m): 79.50 to 80.11
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	94.7
#100 US MESH	0.15	60.9
#140 US MESH	0.106	32.1
#200 US MESH	0.075	17.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

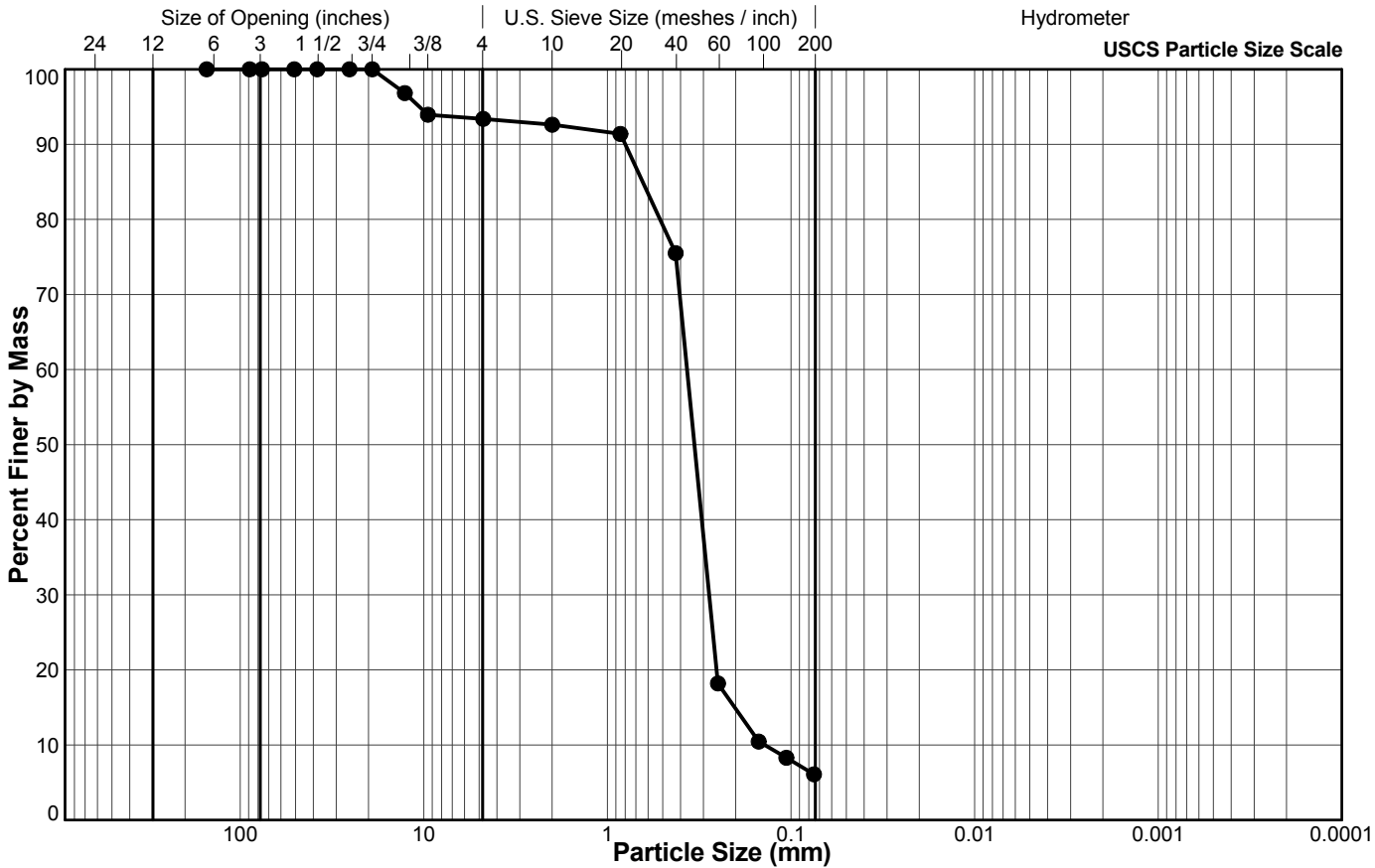


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-10
Sample No.: 2
Depth Interval (m): 1.60 to 2.21
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	96.8
3/8"	9.5	93.9
#4 US MESH	4.75	93.4
#10 US MESH	2	92.6
#20 US MESH	0.85	91.4
#40 US MESH	0.425	75.5
#60 US MESH	0.25	18.2
#100 US MESH	0.15	10.4
#140 US MESH	0.106	8.3
#200 US MESH	0.075	6.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

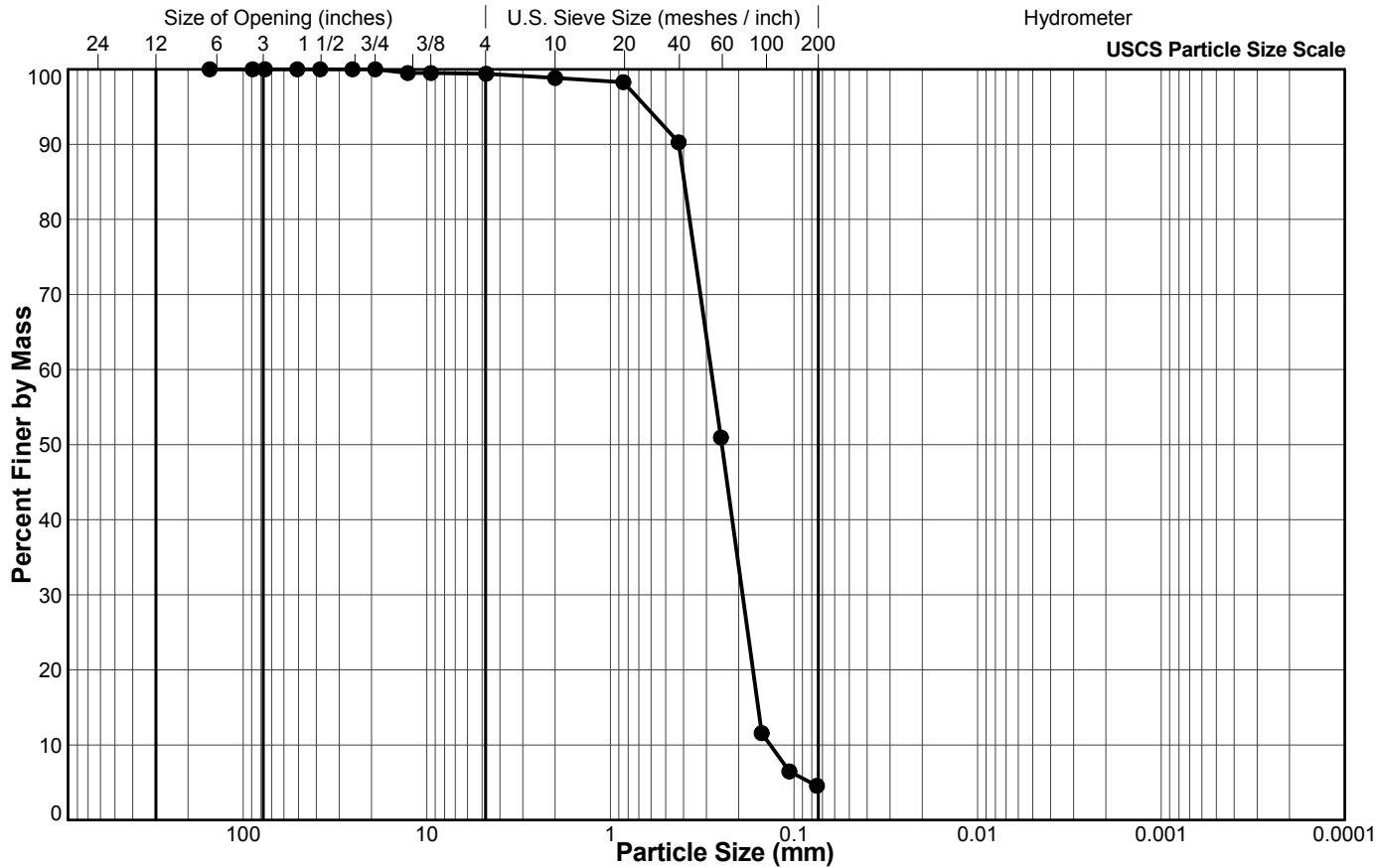


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-10
 Sample No.: 4
 Depth Interval (m): 4.65 to 5.34
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	99.5
3/8"	9.5	99.5
#4 US MESH	4.75	99.4
#10 US MESH	2	98.8
#20 US MESH	0.85	98.3
#40 US MESH	0.425	90.3
#60 US MESH	0.25	50.9
#100 US MESH	0.15	11.6
#140 US MESH	0.106	6.5
#200 US MESH	0.075	4.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

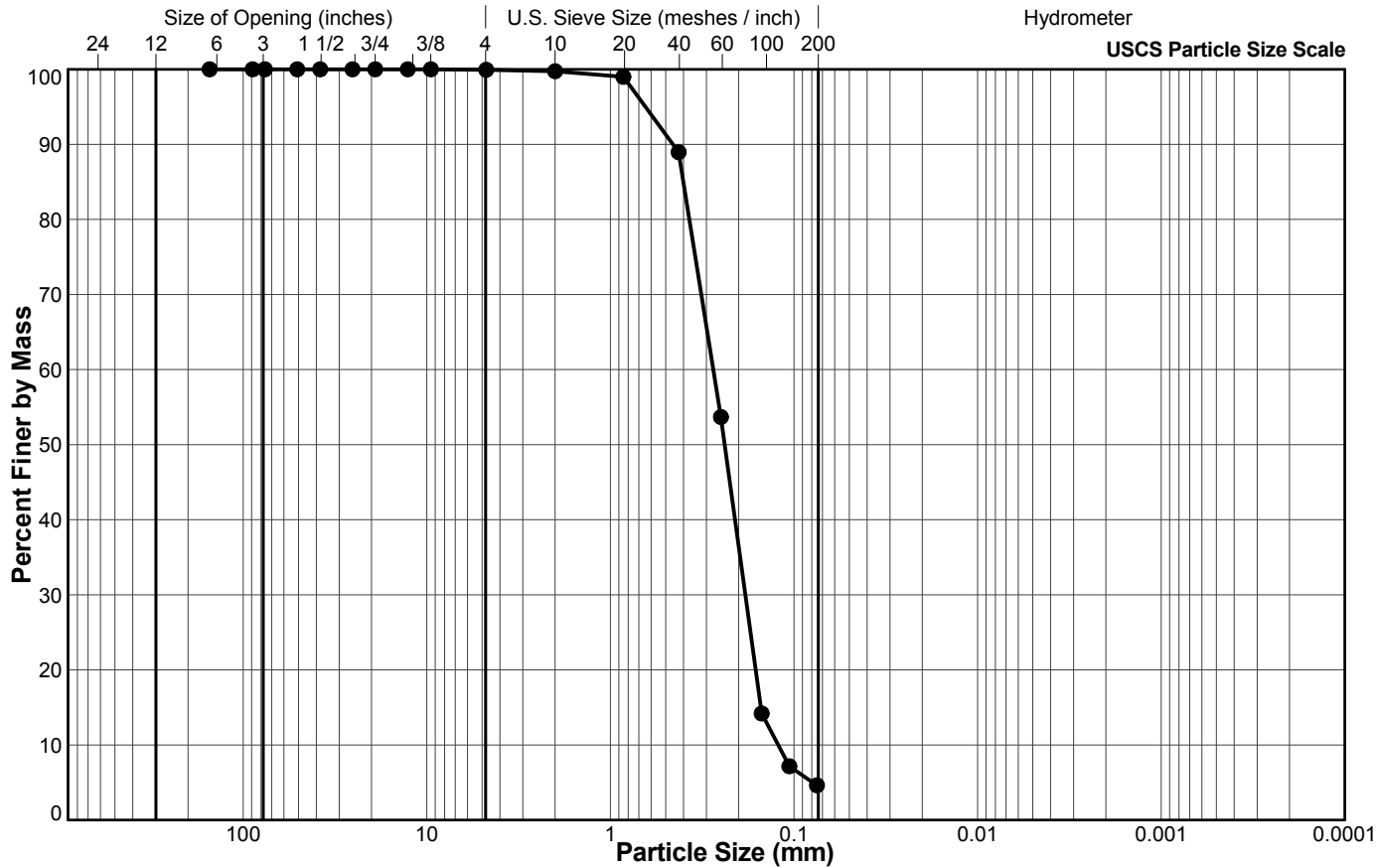


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-10
 Sample No.: 6
 Depth Interval (m): 7.42 to 8.03
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.9
#10 US MESH	2	99.7
#20 US MESH	0.85	99.0
#40 US MESH	0.425	89.0
#60 US MESH	0.25	53.7
#100 US MESH	0.15	14.2
#140 US MESH	0.106	7.2
#200 US MESH	0.075	4.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

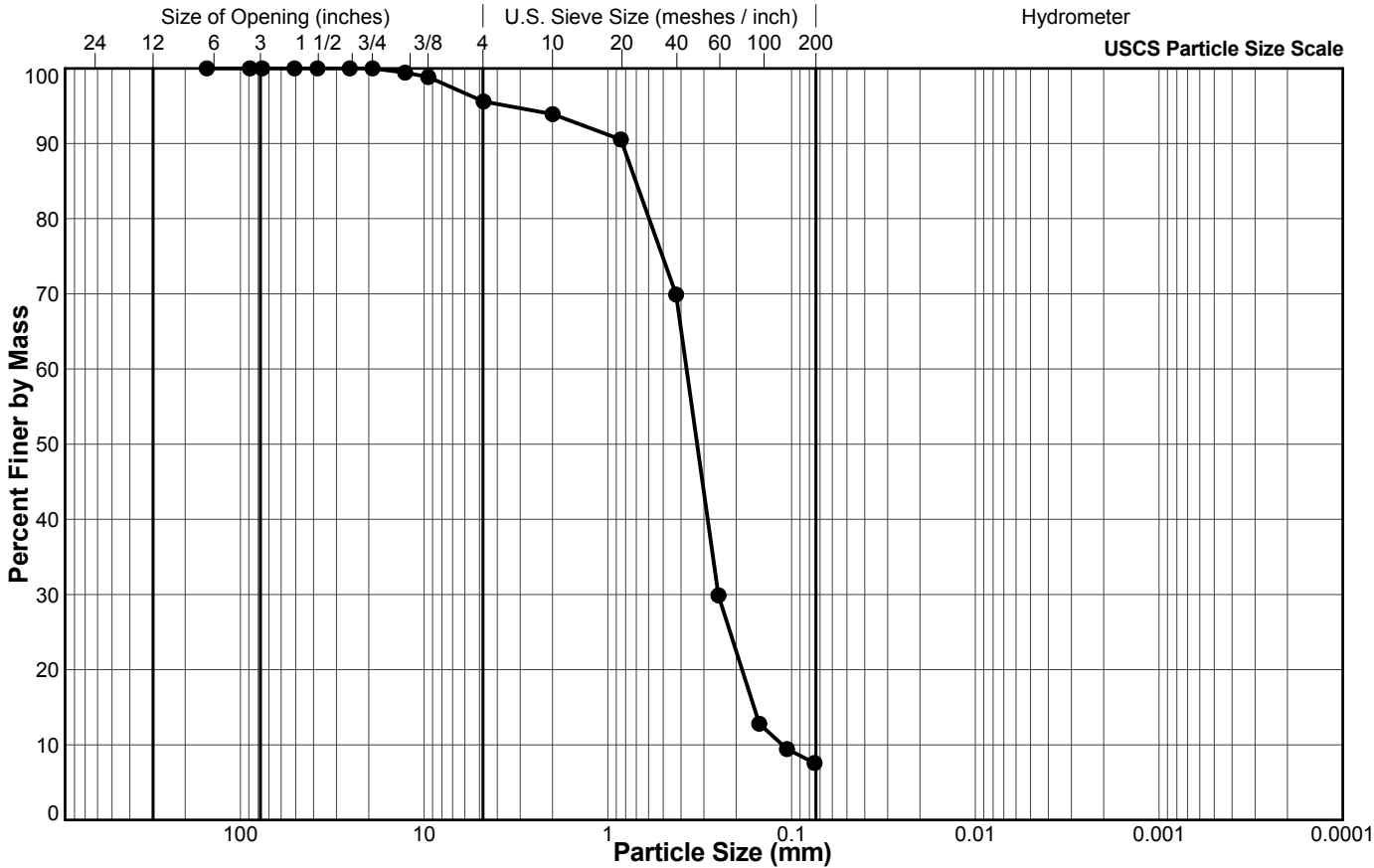


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-10
Sample No.: 8
Depth Interval (m): 10.67 to 11.28
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	99.4
3/8"	9.5	98.8
#4 US MESH	4.75	95.6
#10 US MESH	2	93.9
#20 US MESH	0.85	90.5
#40 US MESH	0.425	69.9
#60 US MESH	0.25	29.9
#100 US MESH	0.15	12.8
#140 US MESH	0.106	9.4
#200 US MESH	0.075	7.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

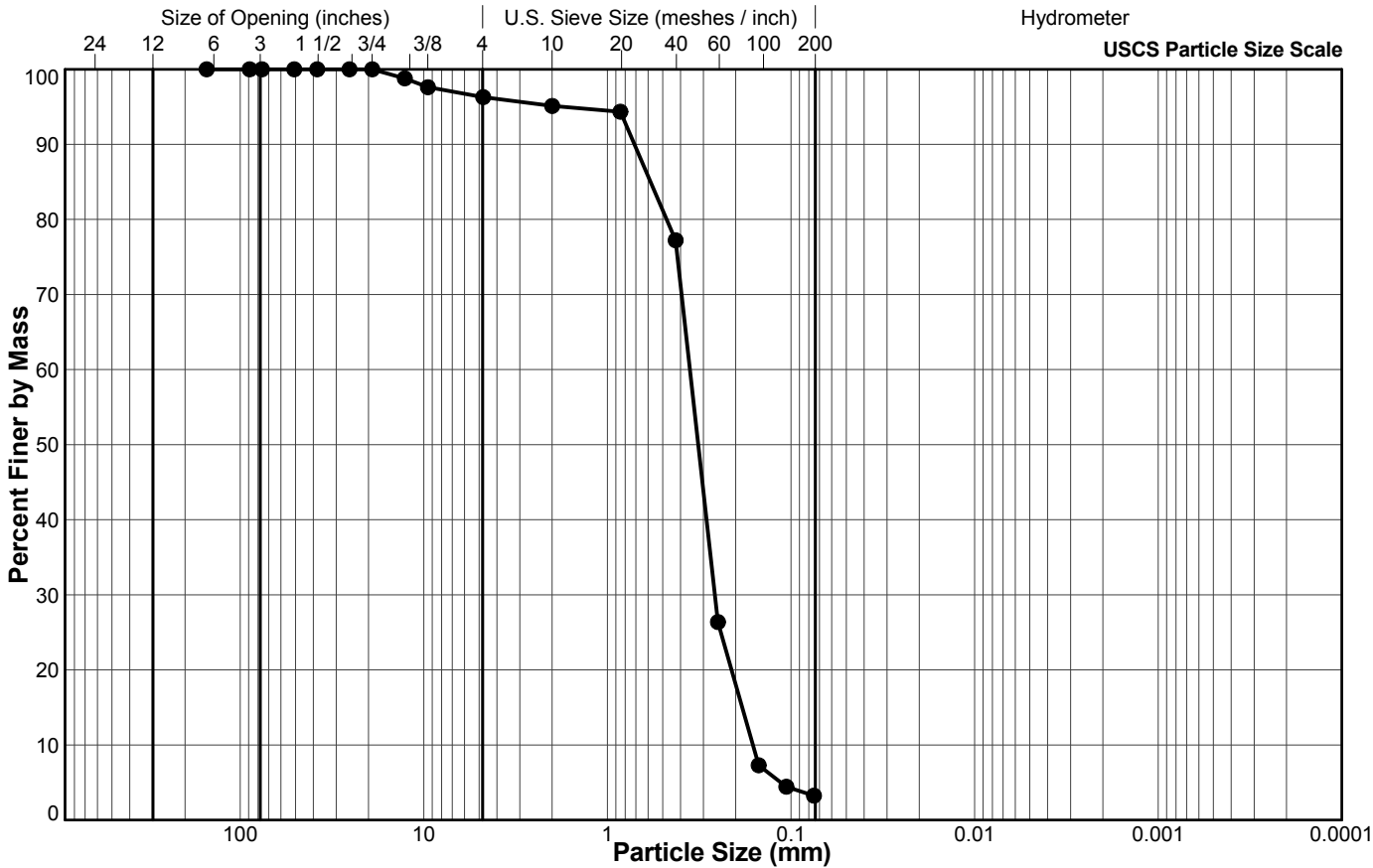


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-10
 Sample No.: 10
 Depth Interval (m): 13.82 to 14.43
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	98.8
3/8"	9.5	97.6
#4 US MESH	4.75	96.3
#10 US MESH	2	95.1
#20 US MESH	0.85	94.3
#40 US MESH	0.425	77.2
#60 US MESH	0.25	26.4
#100 US MESH	0.15	7.3
#140 US MESH	0.106	4.4
#200 US MESH	0.075	3.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

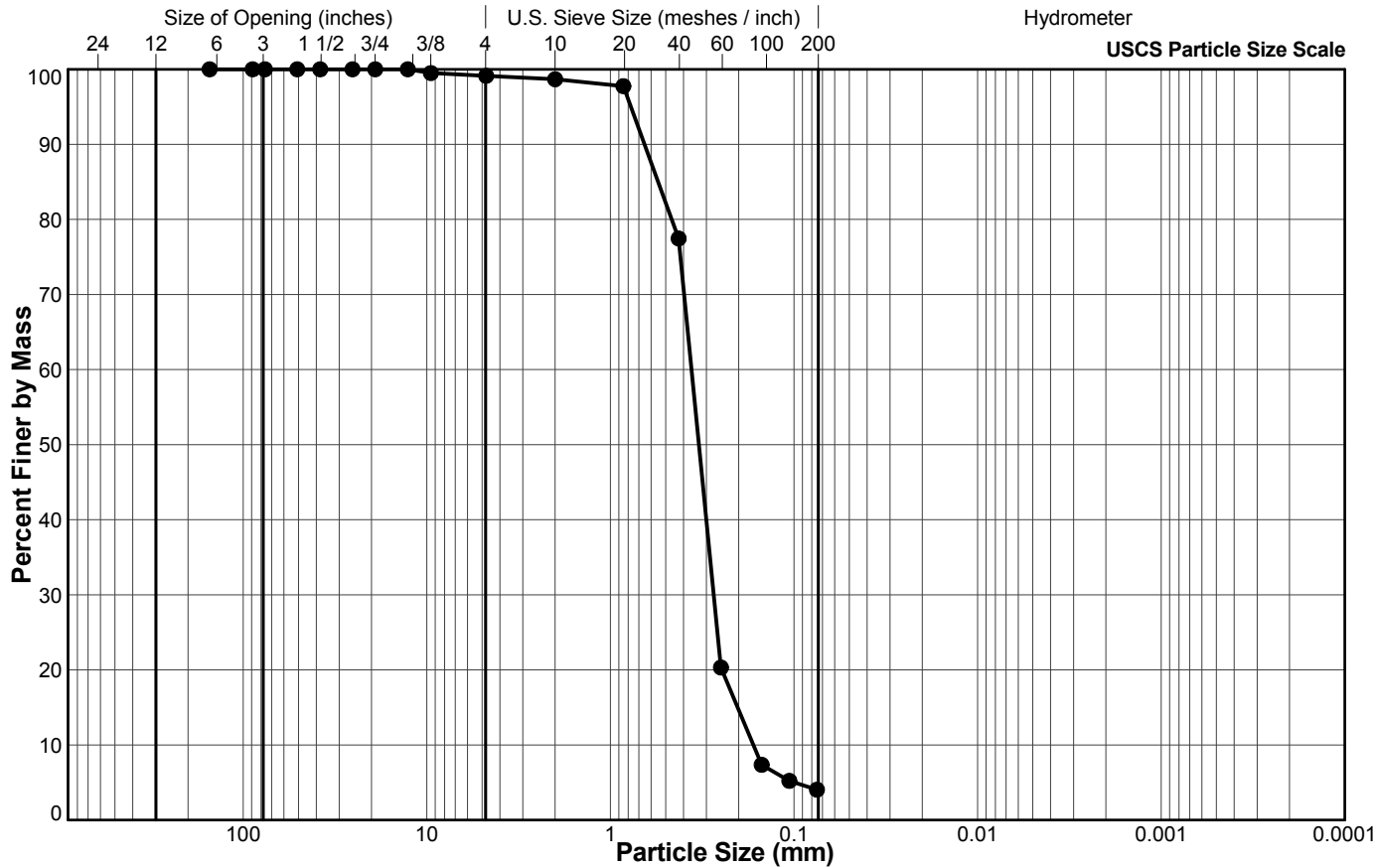


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-10
Sample No.: 12
Depth Interval (m): 16.76 to 17.37
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.5
#4 US MESH	4.75	99.1
#10 US MESH	2	98.7
#20 US MESH	0.85	97.8
#40 US MESH	0.425	77.5
#60 US MESH	0.25	20.3
#100 US MESH	0.15	7.4
#140 US MESH	0.106	5.2
#200 US MESH	0.075	4.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

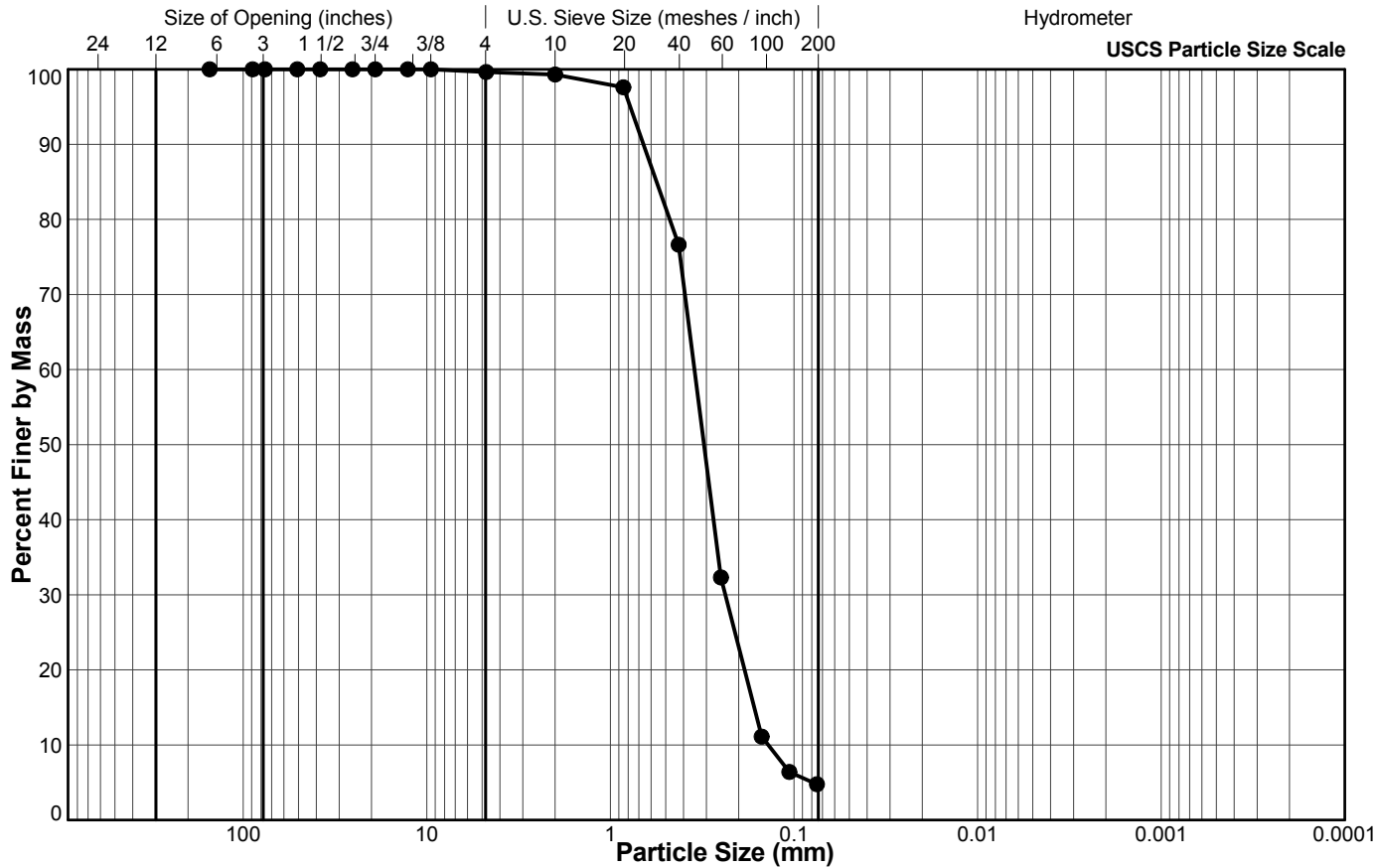


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-10
Sample No.: 14
Depth Interval (m): 19.71 to 20.32
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.6
#10 US MESH	2	99.3
#20 US MESH	0.85	97.6
#40 US MESH	0.425	76.6
#60 US MESH	0.25	32.3
#100 US MESH	0.15	11.1
#140 US MESH	0.106	6.4
#200 US MESH	0.075	4.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

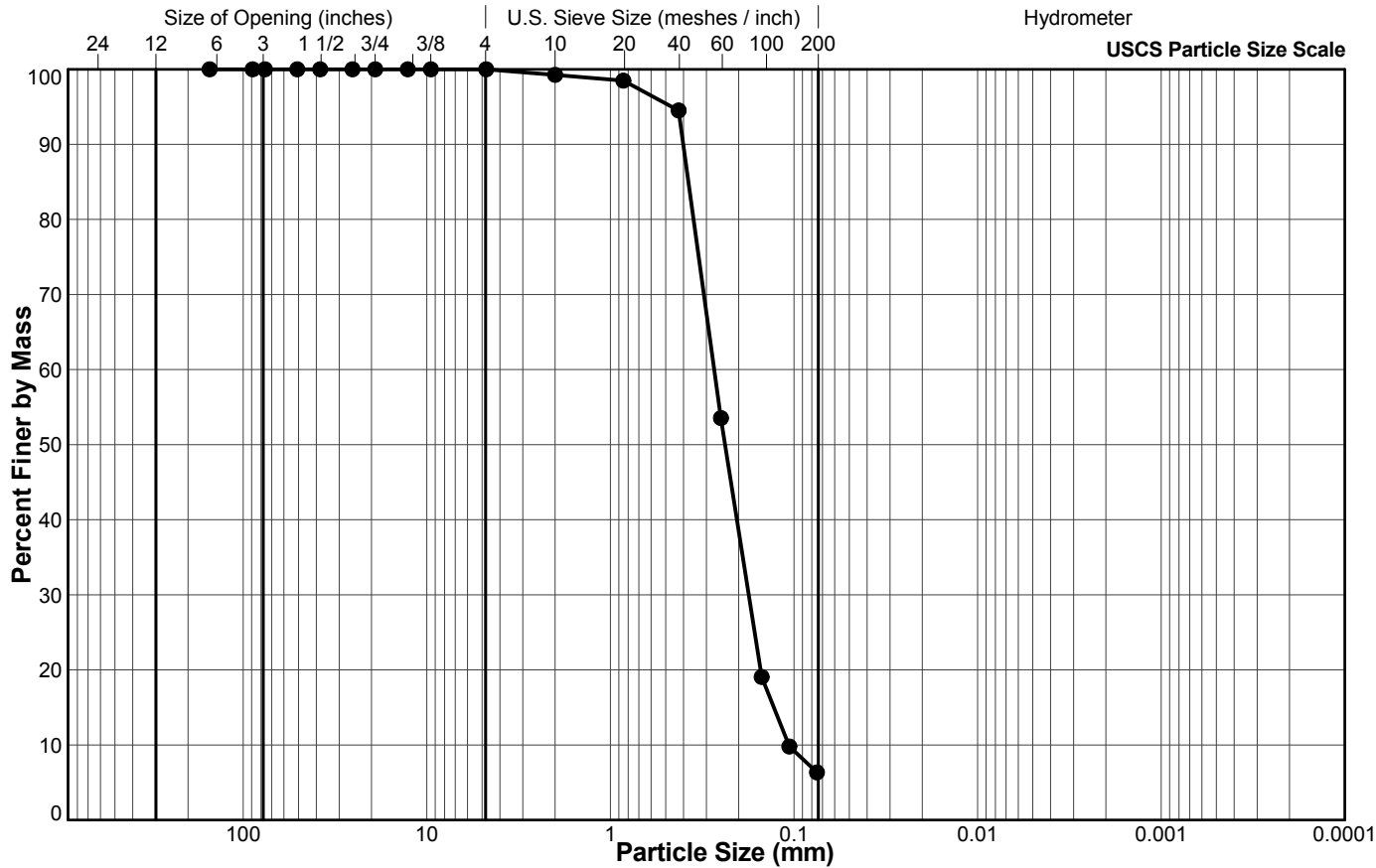


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-10
Sample No.: 16
Depth Interval (m): 22.81 to 23.42
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.3
#20 US MESH	0.85	98.5
#40 US MESH	0.425	94.5
#60 US MESH	0.25	53.5
#100 US MESH	0.15	19.1
#140 US MESH	0.106	9.8
#200 US MESH	0.075	6.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

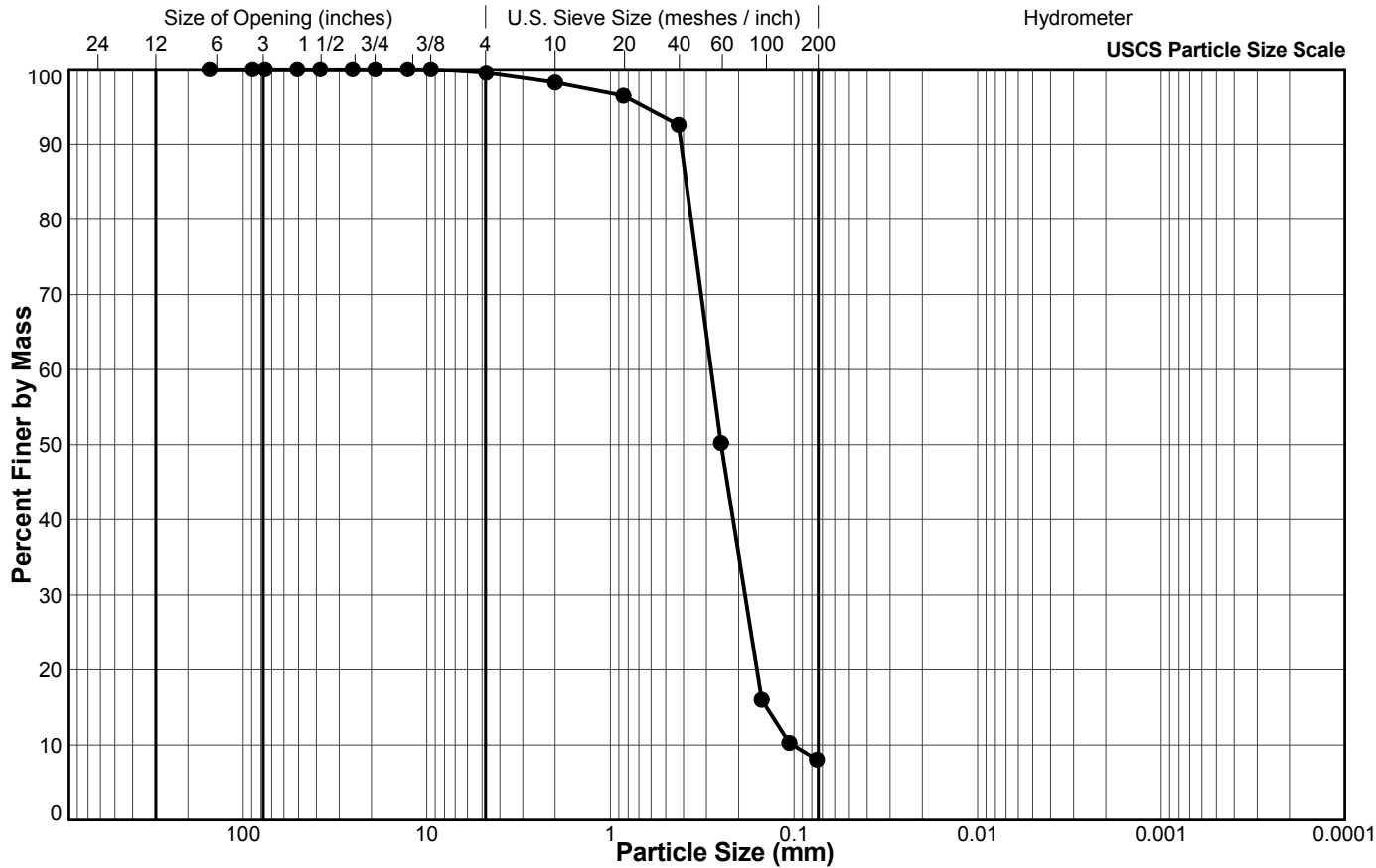


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-10
 Sample No.: 18
 Depth Interval (m): 25.91 to 26.52
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.5
#10 US MESH	2	98.2
#20 US MESH	0.85	96.5
#40 US MESH	0.425	92.6
#60 US MESH	0.25	50.2
#100 US MESH	0.15	16.0
#140 US MESH	0.106	10.3
#200 US MESH	0.075	8.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

RZ

11/3/2015

LH

11/4/2015

Tech

Date

Checked

Date

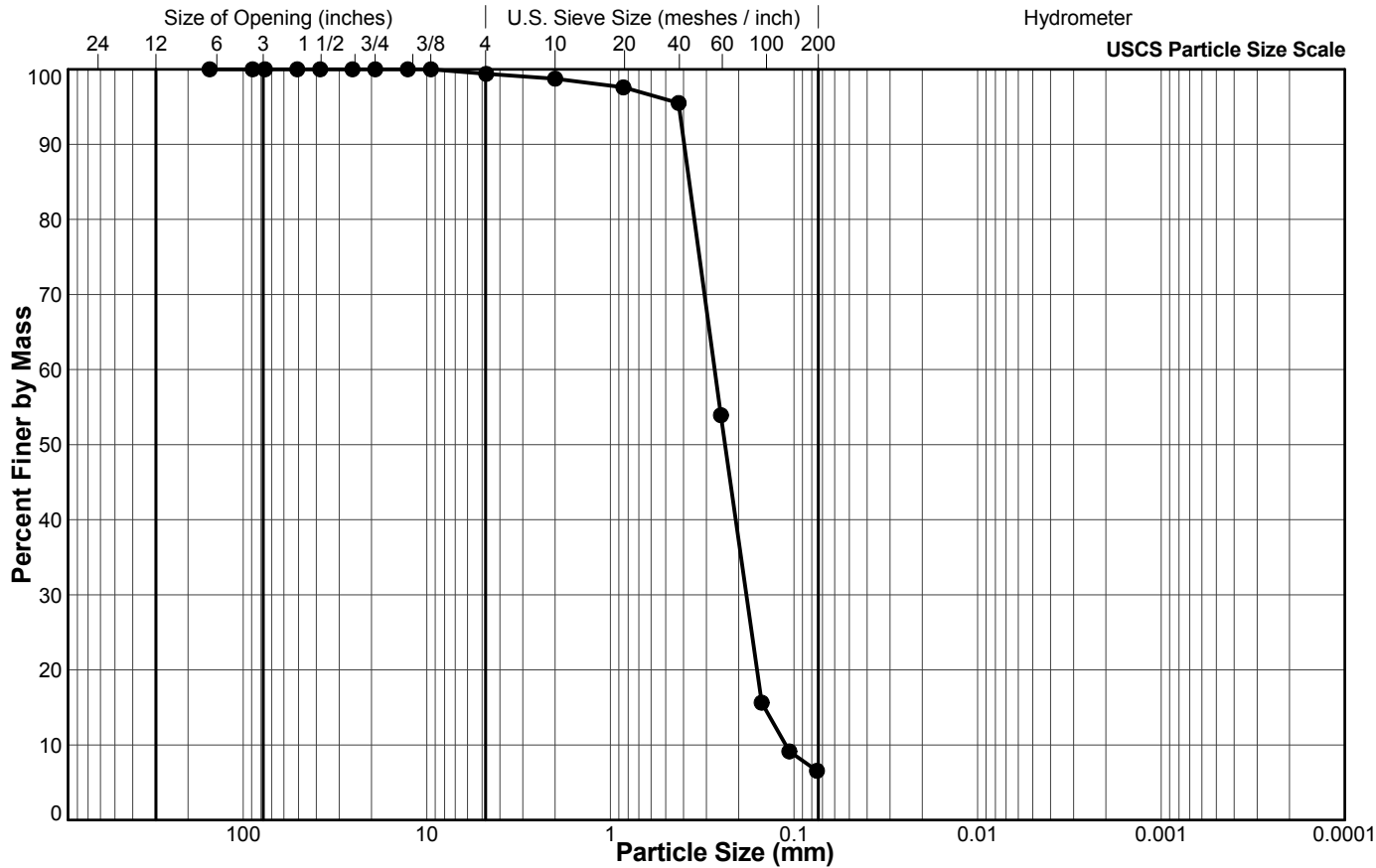


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-10
Sample No.: 19
Depth Interval (m): 27.38 to 27.99
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.4
#10 US MESH	2	98.8
#20 US MESH	0.85	97.6
#40 US MESH	0.425	95.5
#60 US MESH	0.25	53.9
#100 US MESH	0.15	15.6
#140 US MESH	0.106	9.1
#200 US MESH	0.075	6.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/DC

10/31/2015

LH

11/4/2015

Tech

Date

Checked

Date

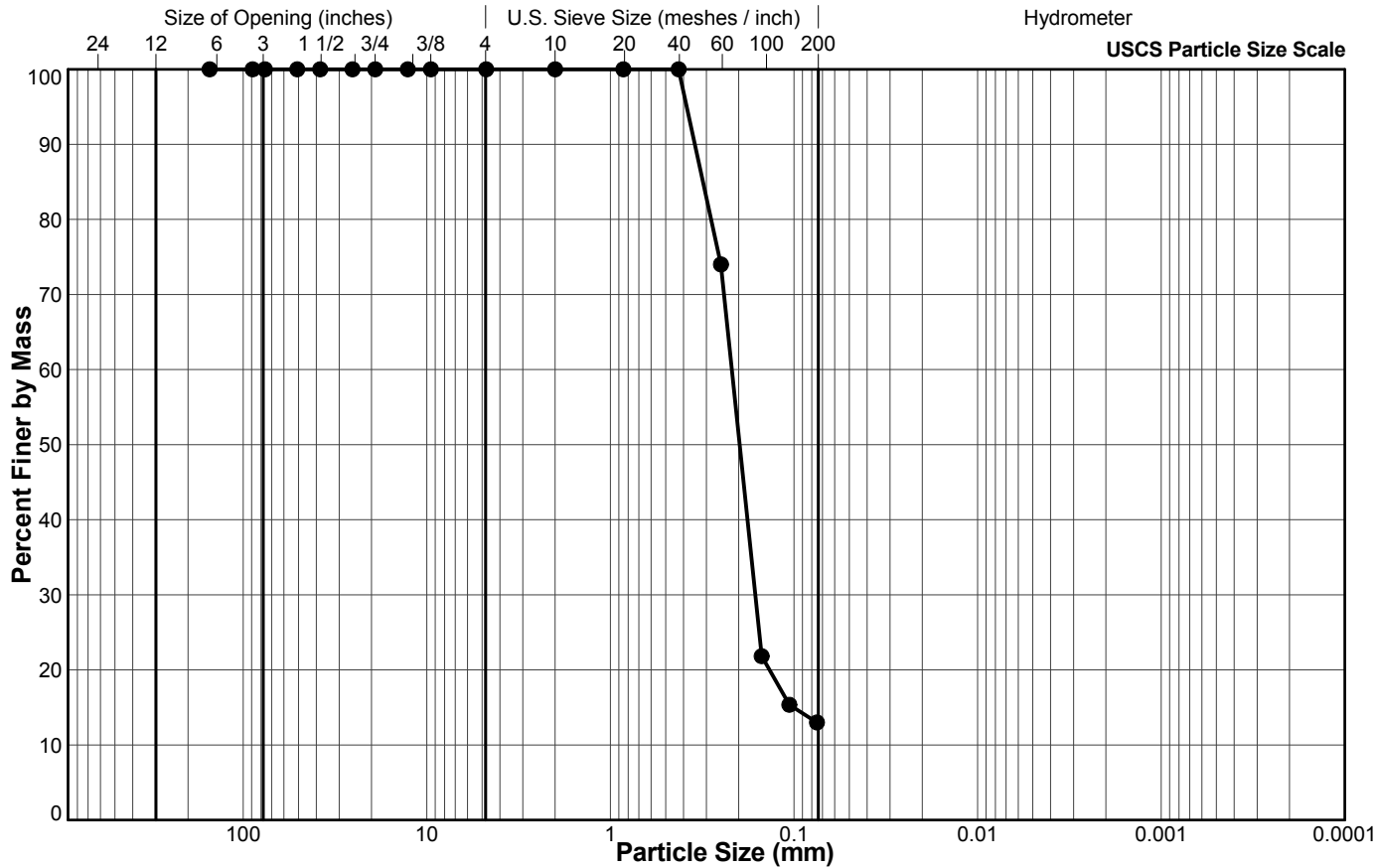


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-11
 Sample No.: 2
 Depth Interval (m): 4.27 to 4.88
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	74.0
#100 US MESH	0.15	21.8
#140 US MESH	0.106	15.4
#200 US MESH	0.075	13.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

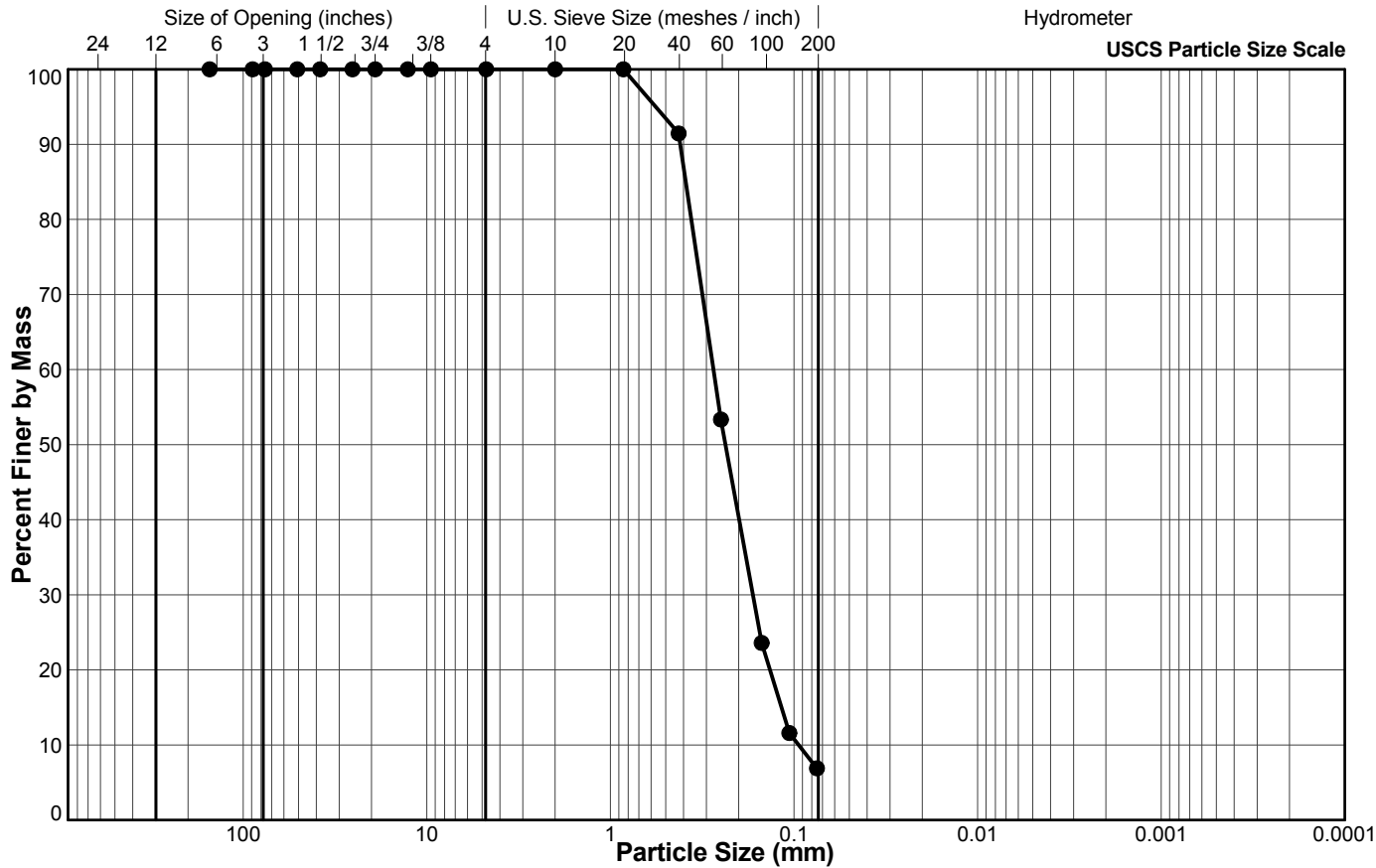


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-11
 Sample No.: 4
 Depth Interval (m): 7.32 to 7.92
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	91.5
#60 US MESH	0.25	53.3
#100 US MESH	0.15	23.6
#140 US MESH	0.106	11.6
#200 US MESH	0.075	6.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

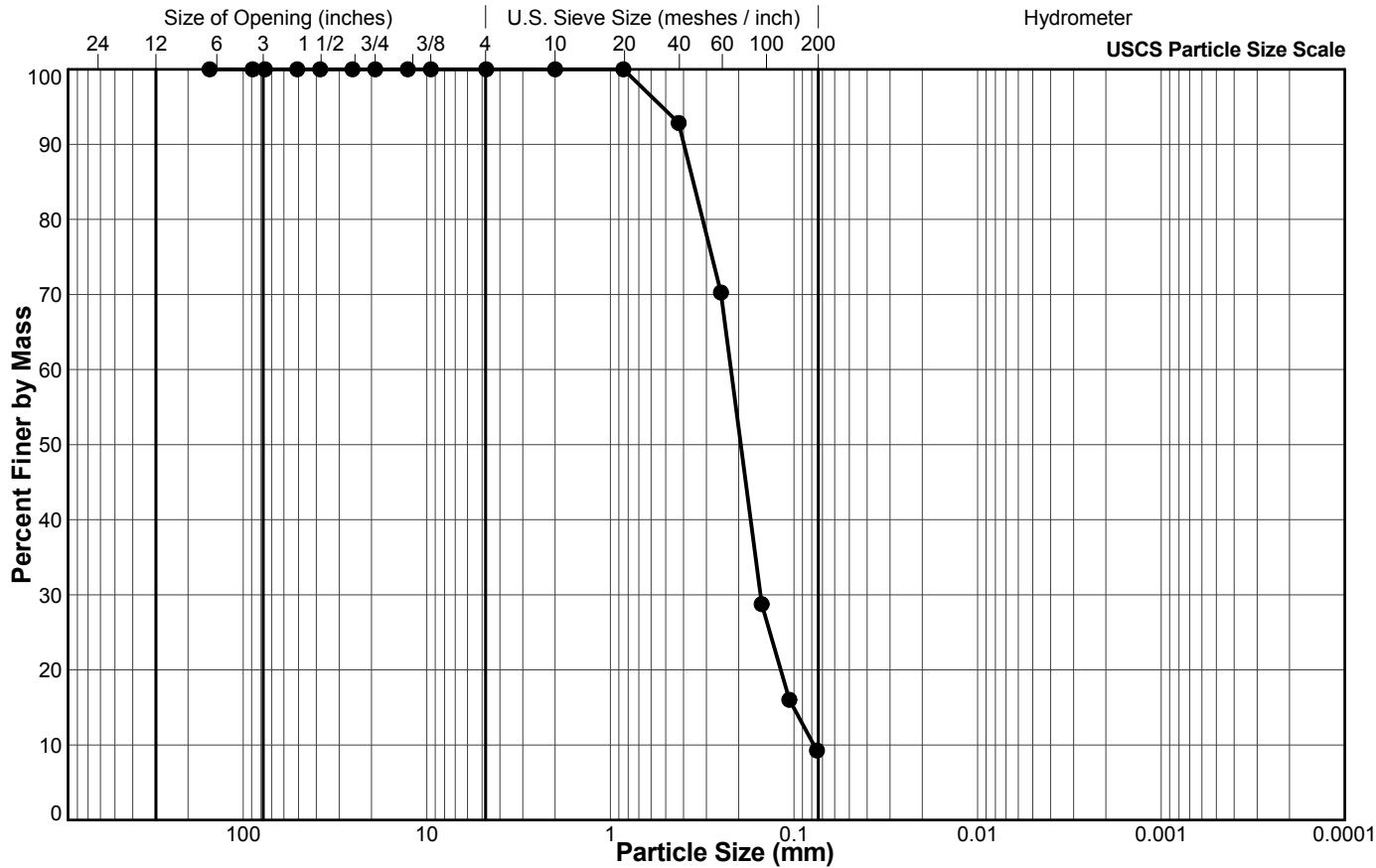


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 6
Depth Interval (m): 10.36 to 10.97
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	92.9
#60 US MESH	0.25	70.3
#100 US MESH	0.15	28.8
#140 US MESH	0.106	16.0
#200 US MESH	0.075	9.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

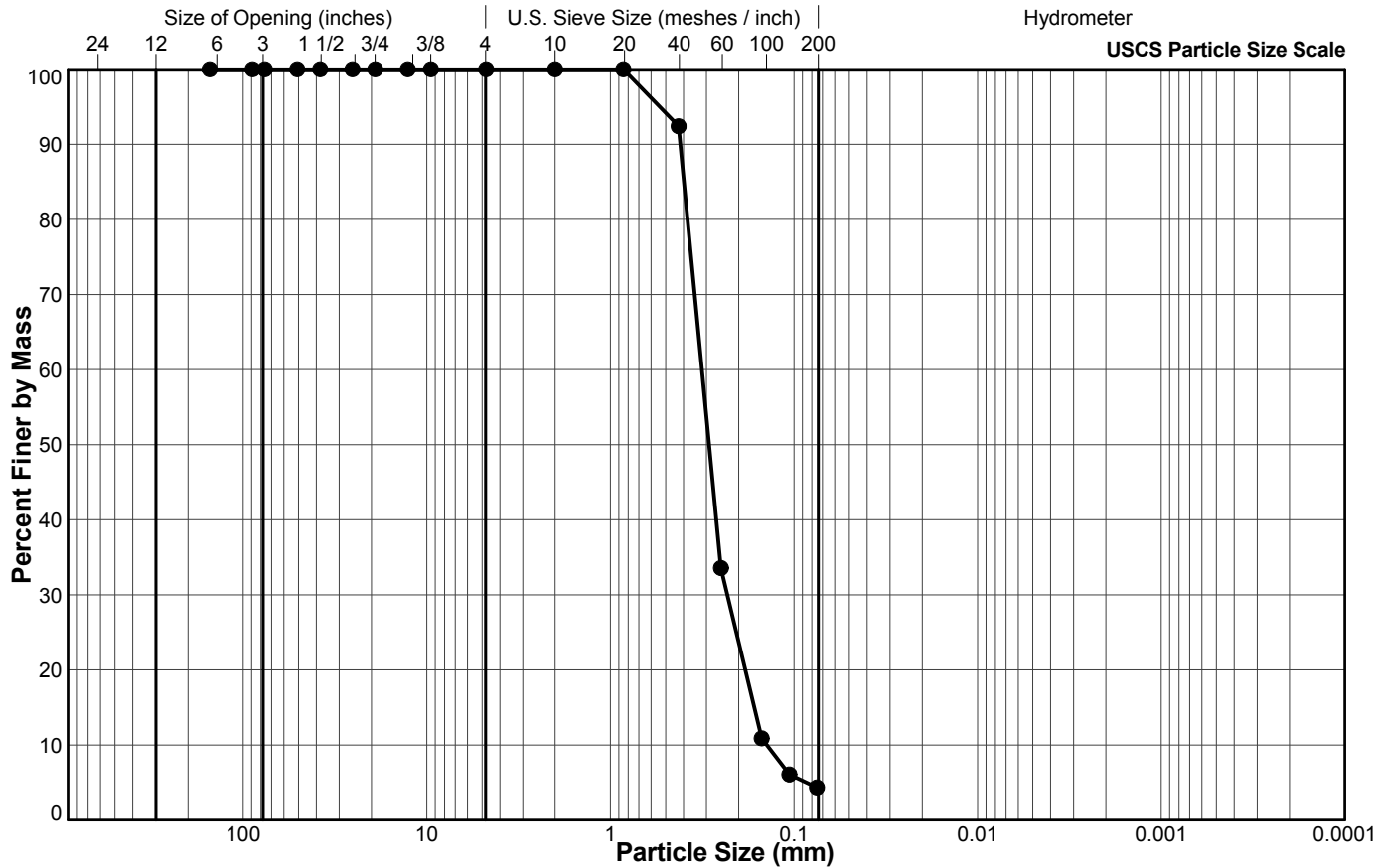


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-11
 Sample No.: 8
 Depth Interval (m): 13.41 to 14.02
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	92.4
#60 US MESH	0.25	33.6
#100 US MESH	0.15	10.9
#140 US MESH	0.106	6.1
#200 US MESH	0.075	4.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

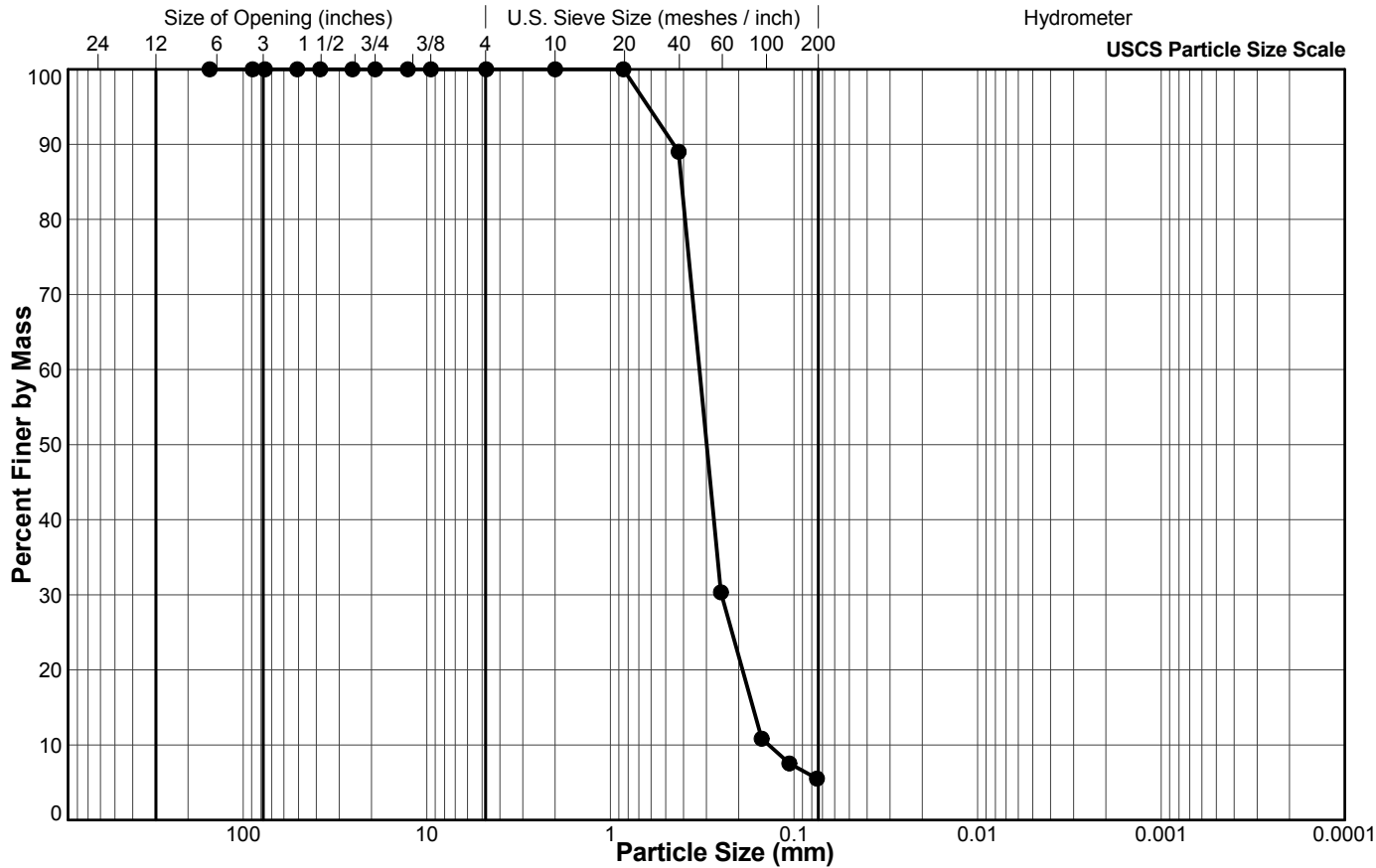


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 10
Depth Interval (m): 16.46 to 17.07
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	89.0
#60 US MESH	0.25	30.3
#100 US MESH	0.15	10.8
#140 US MESH	0.106	7.5
#200 US MESH	0.075	5.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

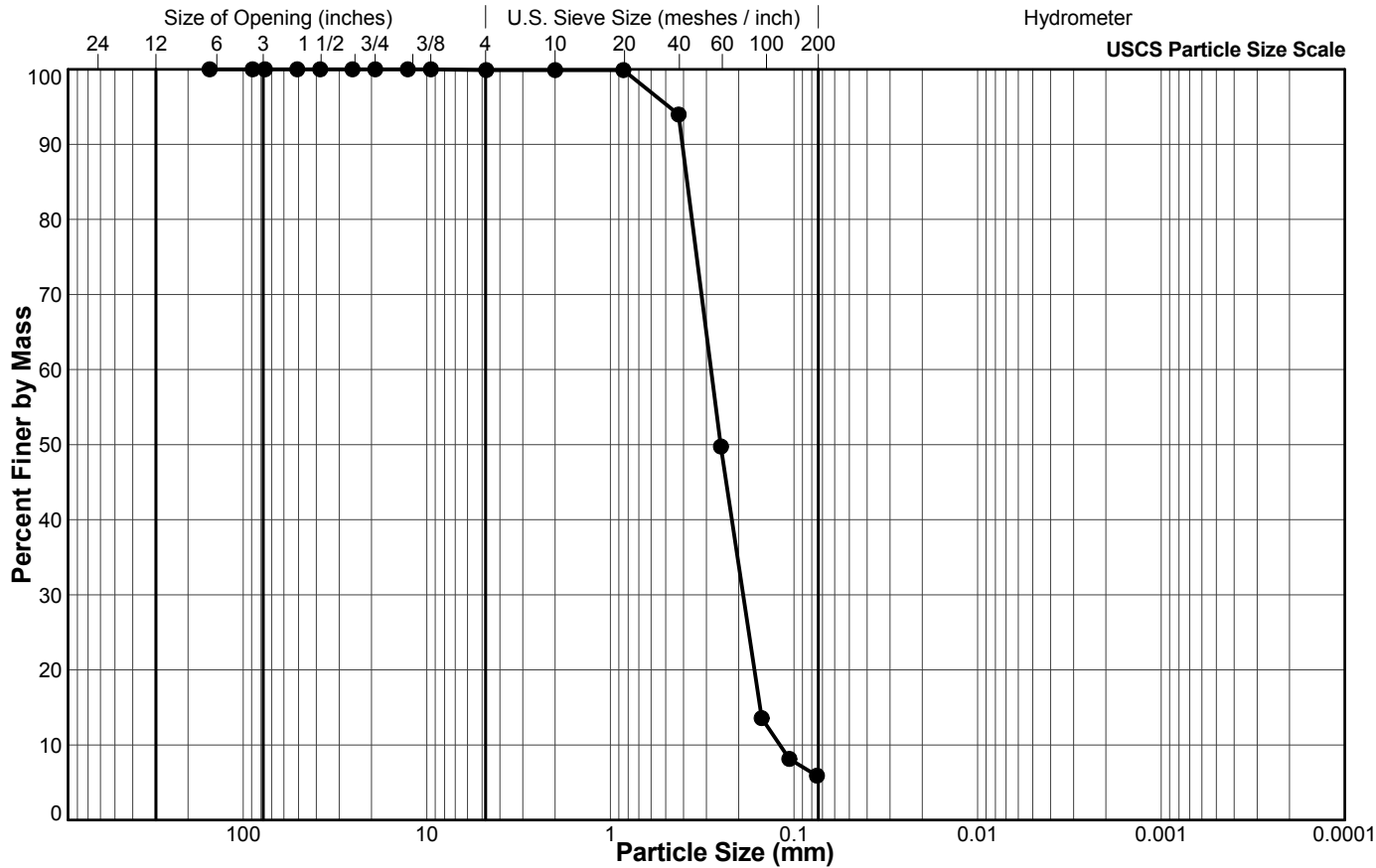


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 12
Depth Interval (m): 19.81 to 20.42
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.9
#10 US MESH	2	99.9
#20 US MESH	0.85	99.9
#40 US MESH	0.425	94.0
#60 US MESH	0.25	49.7
#100 US MESH	0.15	13.6
#140 US MESH	0.106	8.1
#200 US MESH	0.075	5.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

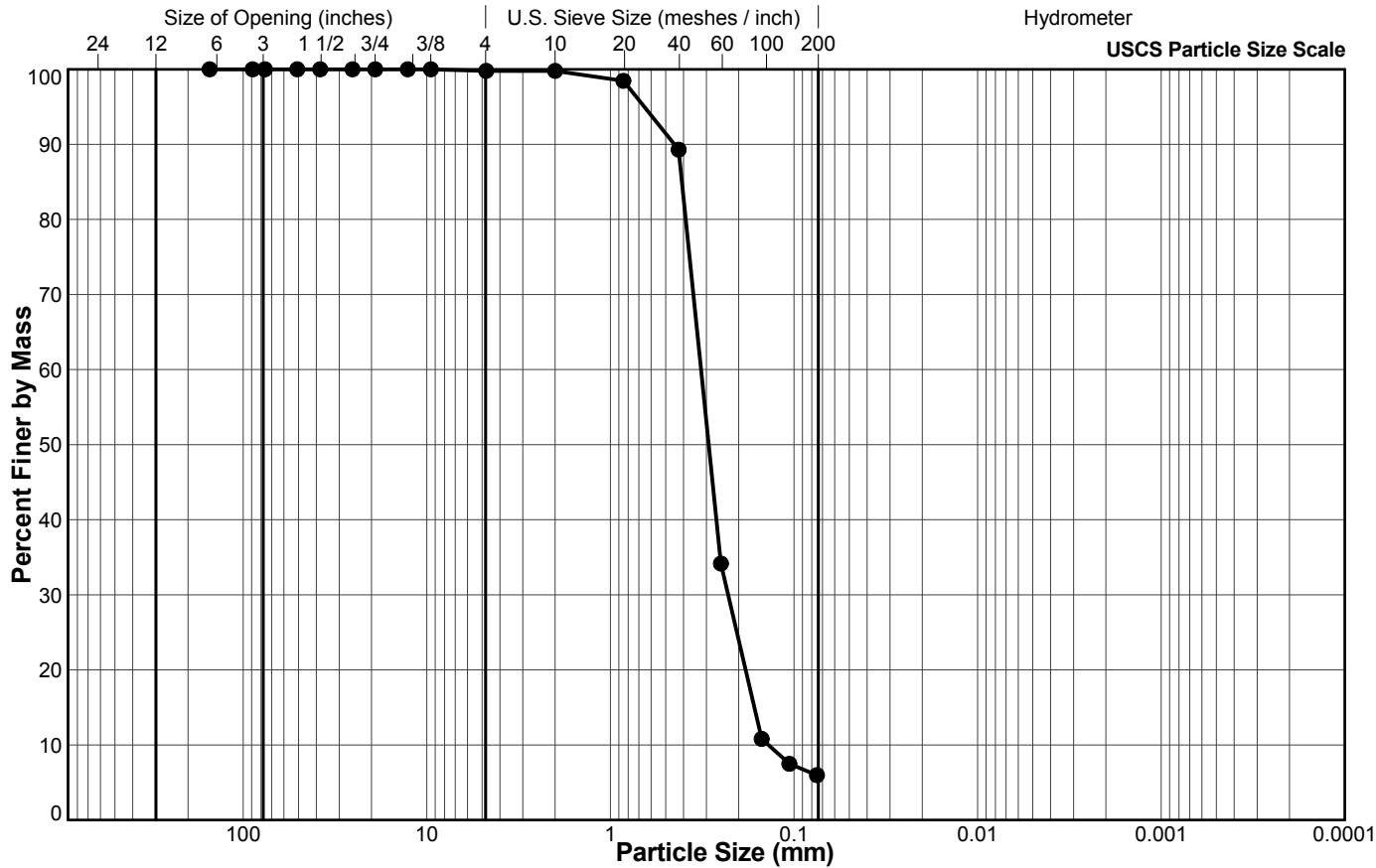


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 14
Depth Interval (m): 22.56 to 23.16
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.8
#10 US MESH	2	99.8
#20 US MESH	0.85	98.5
#40 US MESH	0.425	89.3
#60 US MESH	0.25	34.2
#100 US MESH	0.15	10.8
#140 US MESH	0.106	7.5
#200 US MESH	0.075	6.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

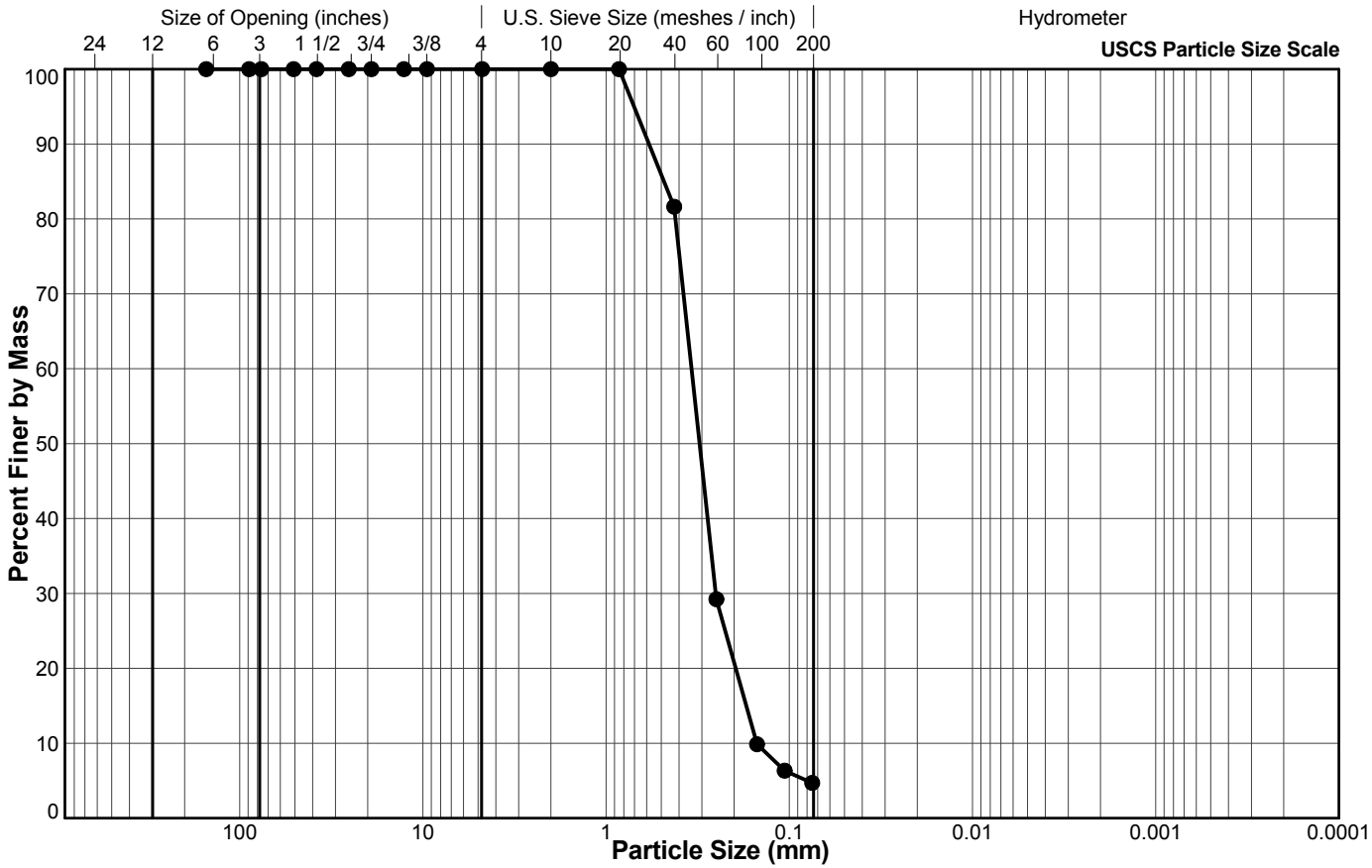


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-11
 Sample No.: 16
 Depth Interval (m): 25.60 to 26.21
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	81.6
#60 US MESH	0.25	29.2
#100 US MESH	0.15	9.9
#140 US MESH	0.106	6.3
#200 US MESH	0.075	4.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG 11/13/2015 LH 11/20/2015
 Tech Date Checked Date

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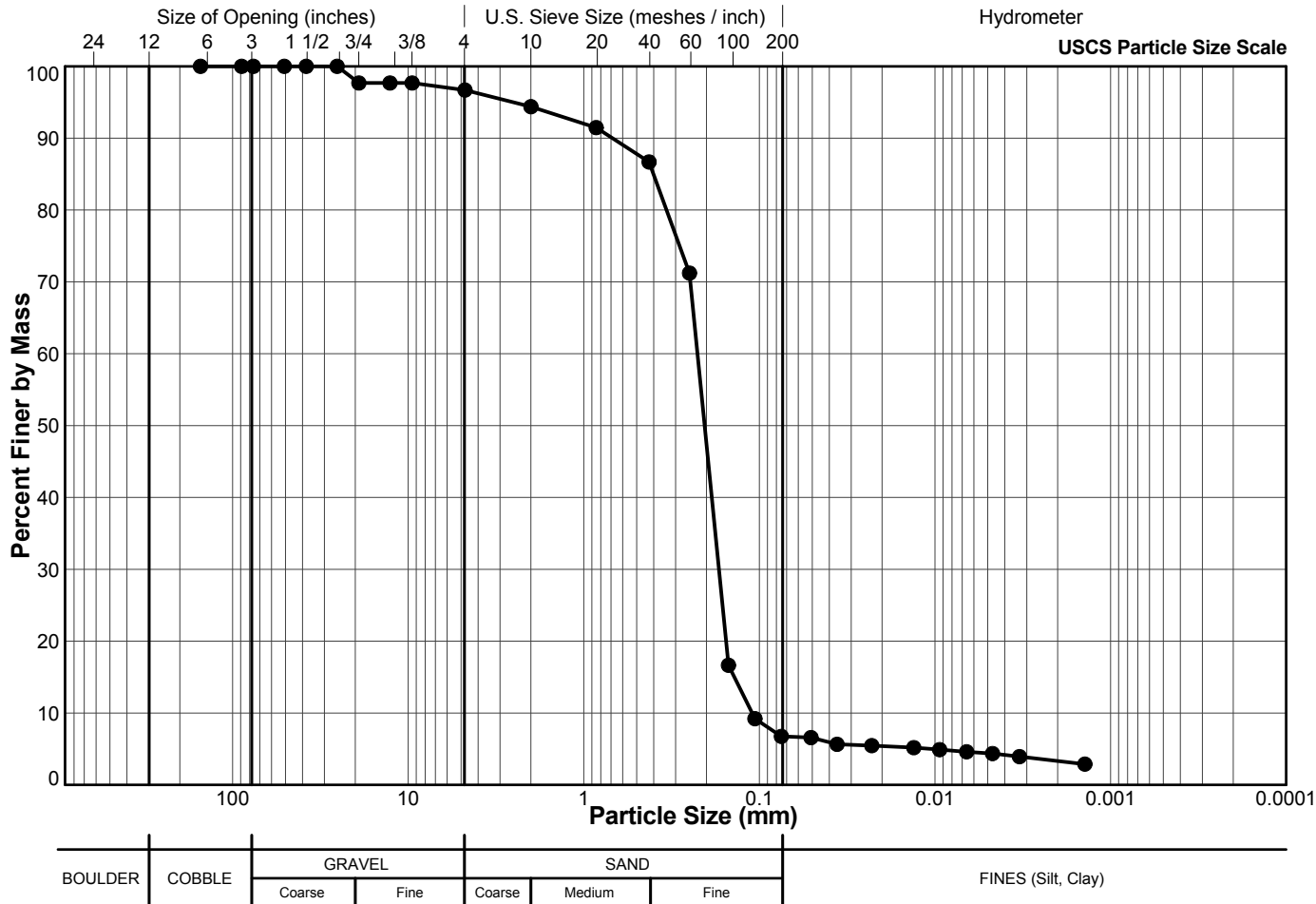


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 19
Depth Interval (m): 30.18 to 30.78
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	97.7
1/2"	12.7	97.7
3/8"	9.5	97.7
#4 US MESH	4.75	96.7
#10 US MESH	2	94.4
#20 US MESH	0.85	91.5
#40 US MESH	0.425	86.7
#60 US MESH	0.25	71.2
#100 US MESH	0.15	16.6
#140 US MESH	0.106	9.2
#200 US MESH	0.075	6.8
	0.0508	6.6
	0.0361	5.6
	0.0229	5.5
	0.0132	5.2
	0.0094	4.9
	0.0066	4.6
	0.0047	4.4
	0.0033	3.9
	0.0014	2.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

11/16/2015

LH

11/20/2015

Tech

Date

Checked

Date

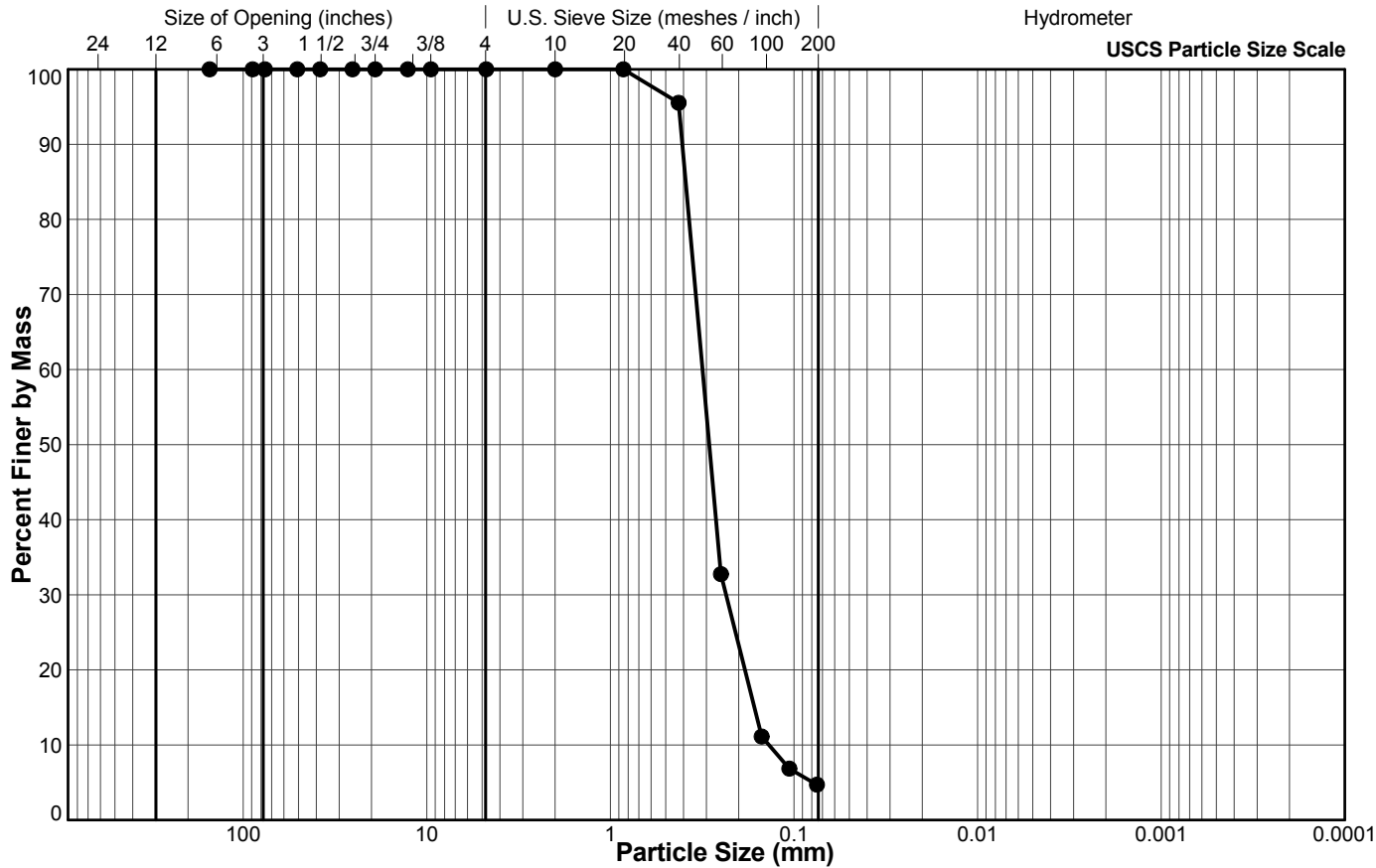


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH15-11
 Sample No.: 21
 Depth Interval (m): 33.22 to 33.83
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	95.5
#60 US MESH	0.25	32.8
#100 US MESH	0.15	11.1
#140 US MESH	0.106	6.8
#200 US MESH	0.075	4.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

Date

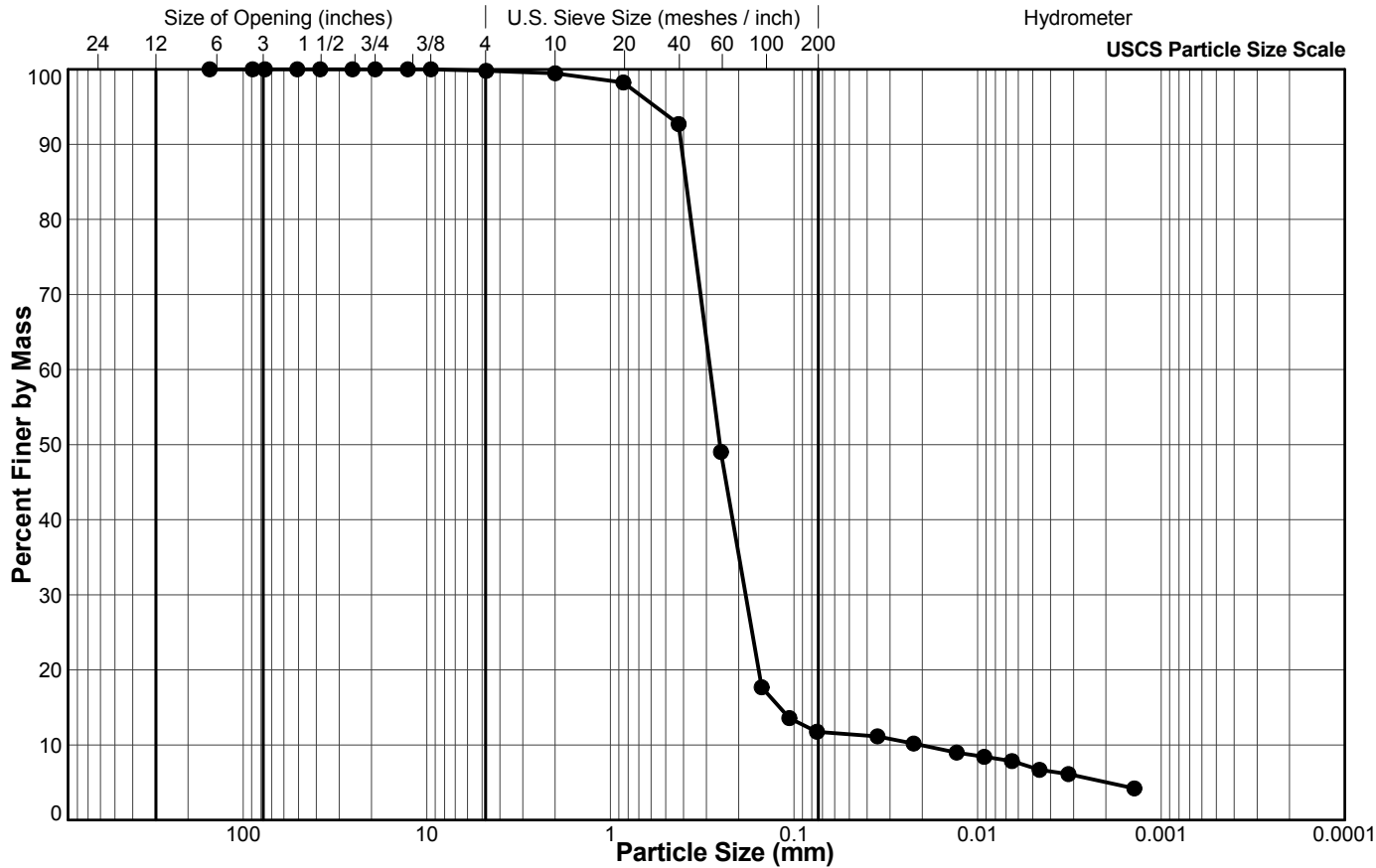


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 23
Depth Interval (m): 36.27 to 36.88
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.8
#10 US MESH	2	99.5
#20 US MESH	0.85	98.2
#40 US MESH	0.425	92.7
#60 US MESH	0.25	49.0
#100 US MESH	0.15	17.7
#140 US MESH	0.106	13.6
#200 US MESH	0.075	11.8
	0.0351	11.1
	0.0223	10.2
	0.0130	9.0
	0.0092	8.4
	0.0065	7.8
	0.0046	6.7
	0.0032	6.1
	0.0014	4.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

11/16/2015

LH

11/20/2015

Tech

Date

Checked

Date

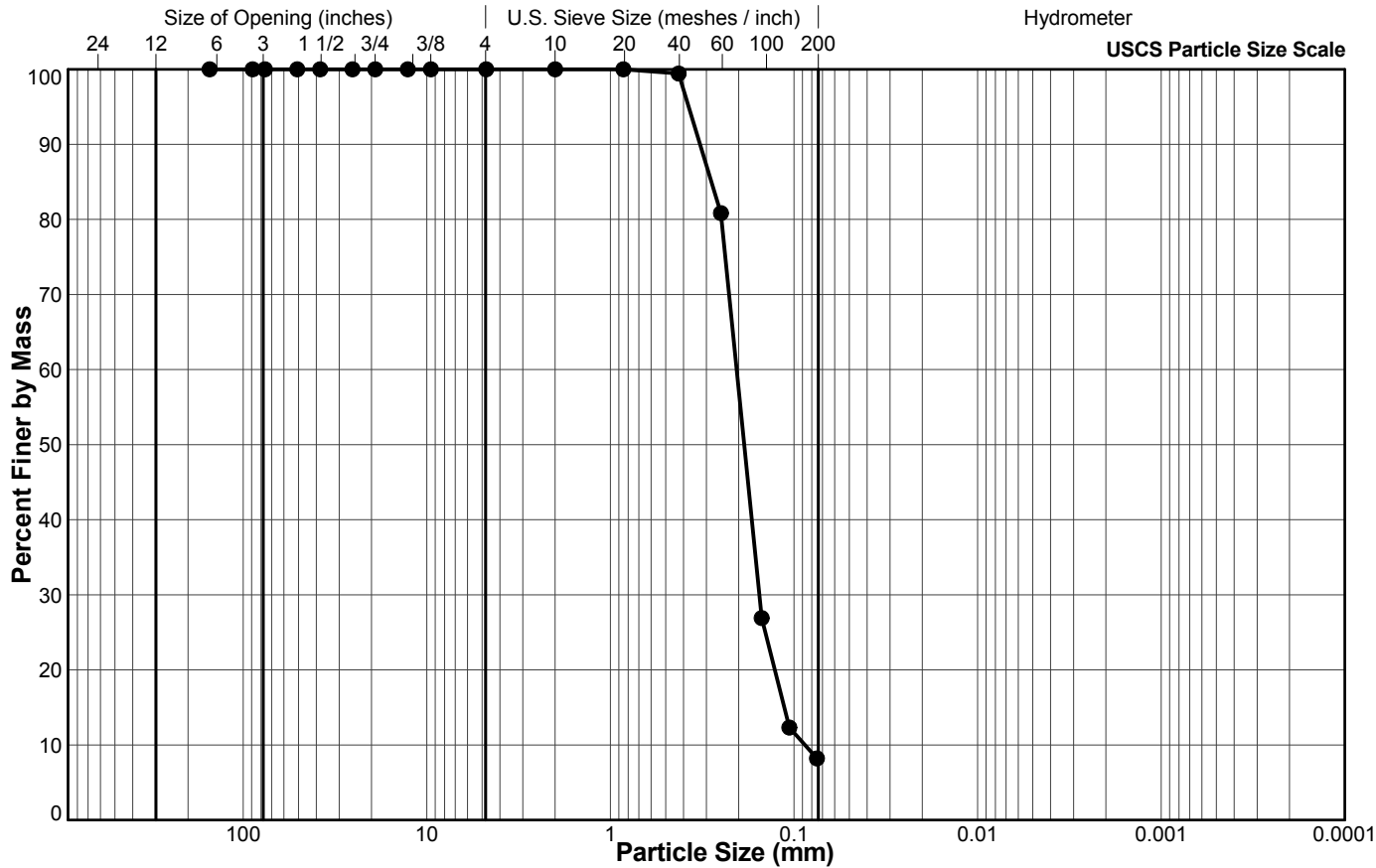


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH15-11
Sample No.: 25
Depth Interval (m): 39.32 to 39.93
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.4
#60 US MESH	0.25	80.8
#100 US MESH	0.15	26.9
#140 US MESH	0.106	12.3
#200 US MESH	0.075	8.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/KG

11/13/2015

LH

11/20/2015

Tech

Date

Checked

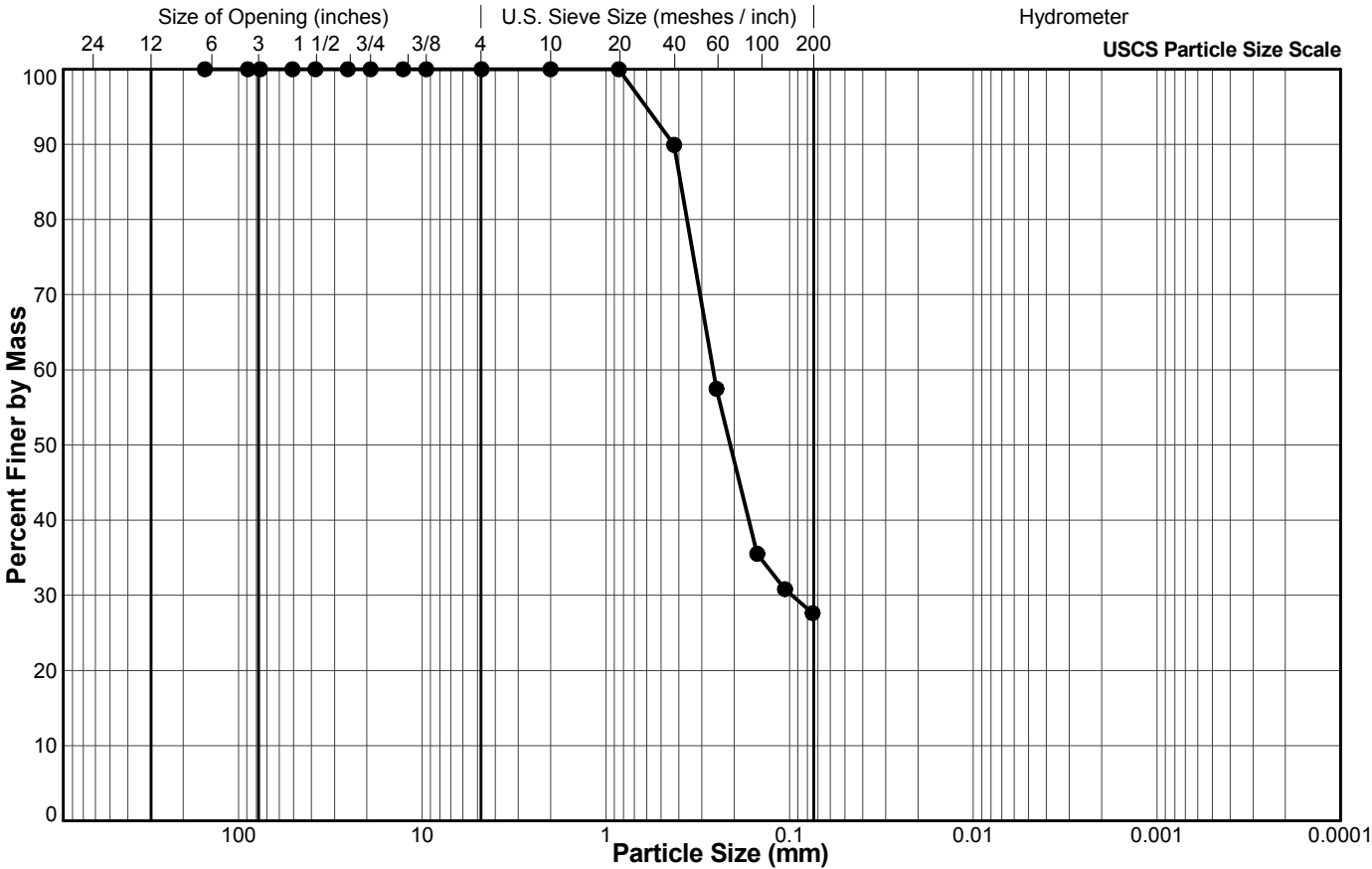
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SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-13
Sample No.: 4
Depth Interval (m): 5.49 to 6.10
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	89.9
#60 US MESH	0.25	57.5
#100 US MESH	0.15	35.5
#140 US MESH	0.106	30.8
#200 US MESH	0.075	27.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

AZ/RZ

8/14/2015

LP

8/19/2015

Tech

Date

Checked

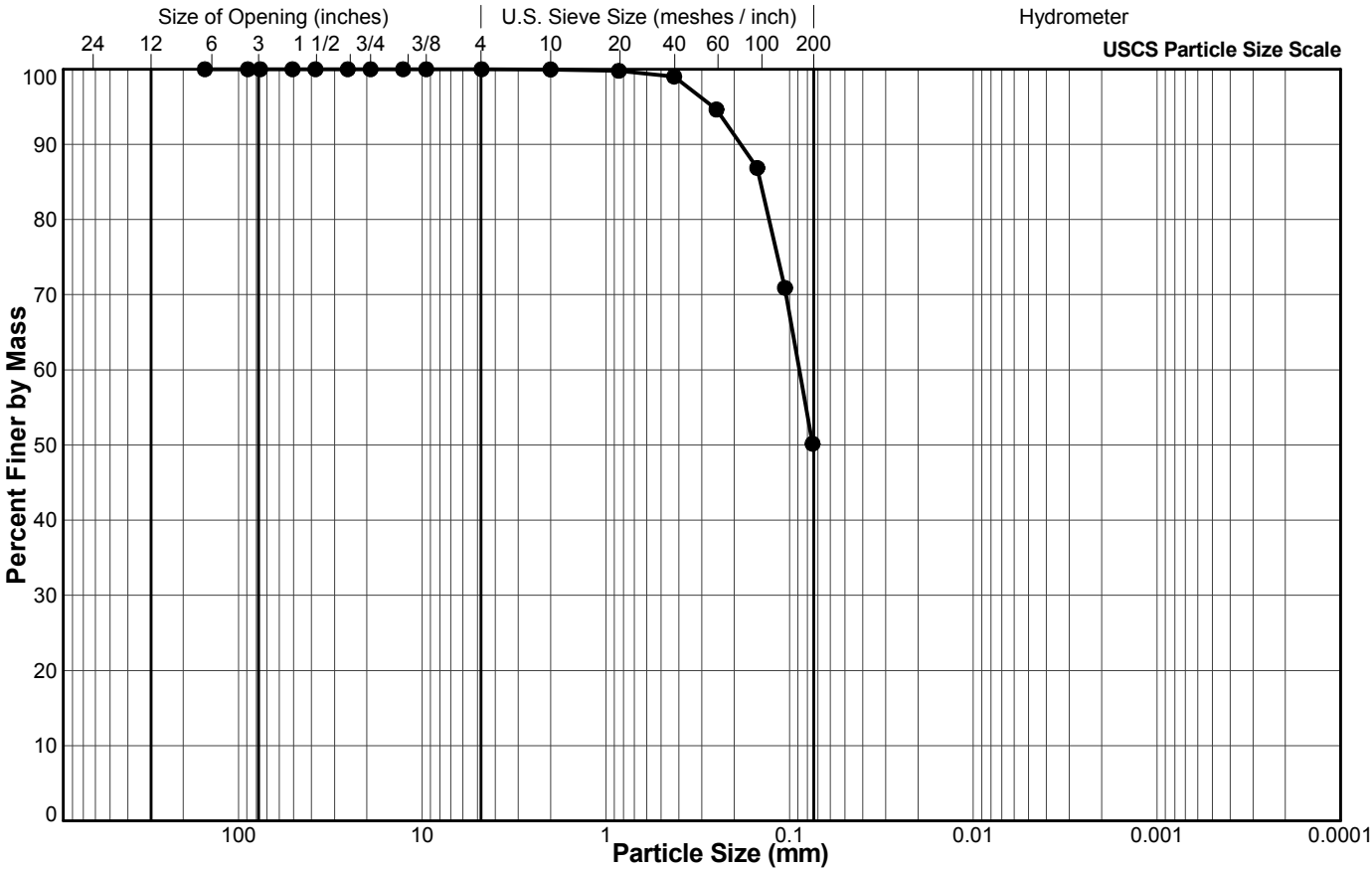
Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-13
Sample No.: 7
Depth Interval (m): 10.06 to 10.67
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	99.0
#60 US MESH	0.25	94.6
#100 US MESH	0.15	86.9
#140 US MESH	0.106	70.9
#200 US MESH	0.075	50.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

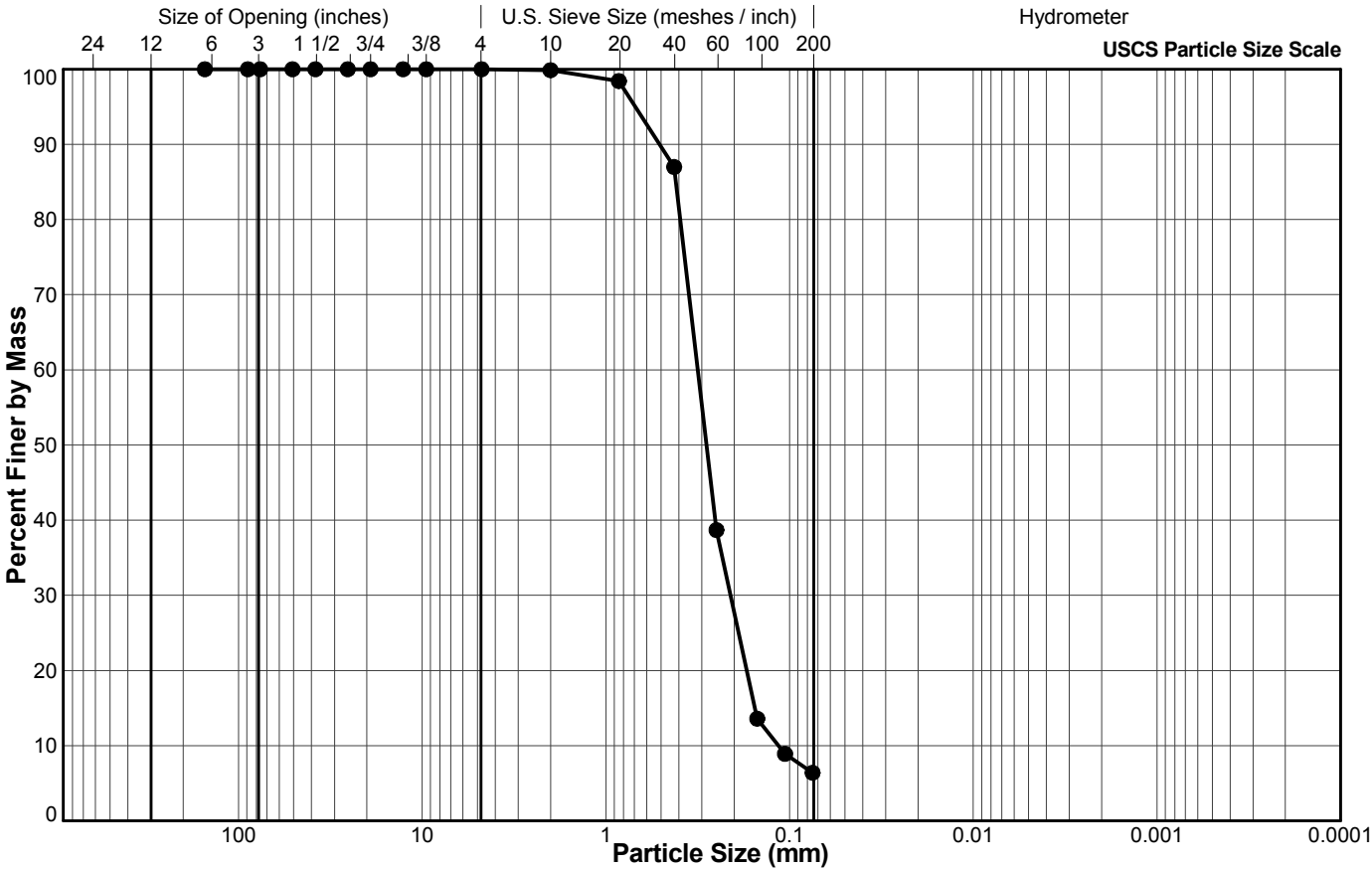
	AZ/RZ	8/14/2015	LP
	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-13
Sample No.: 14
Depth Interval (m): 20.73 to 21.34
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	98.4
#40 US MESH	0.425	87.0
#60 US MESH	0.25	38.7
#100 US MESH	0.15	13.6
#140 US MESH	0.106	8.9
#200 US MESH	0.075	6.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

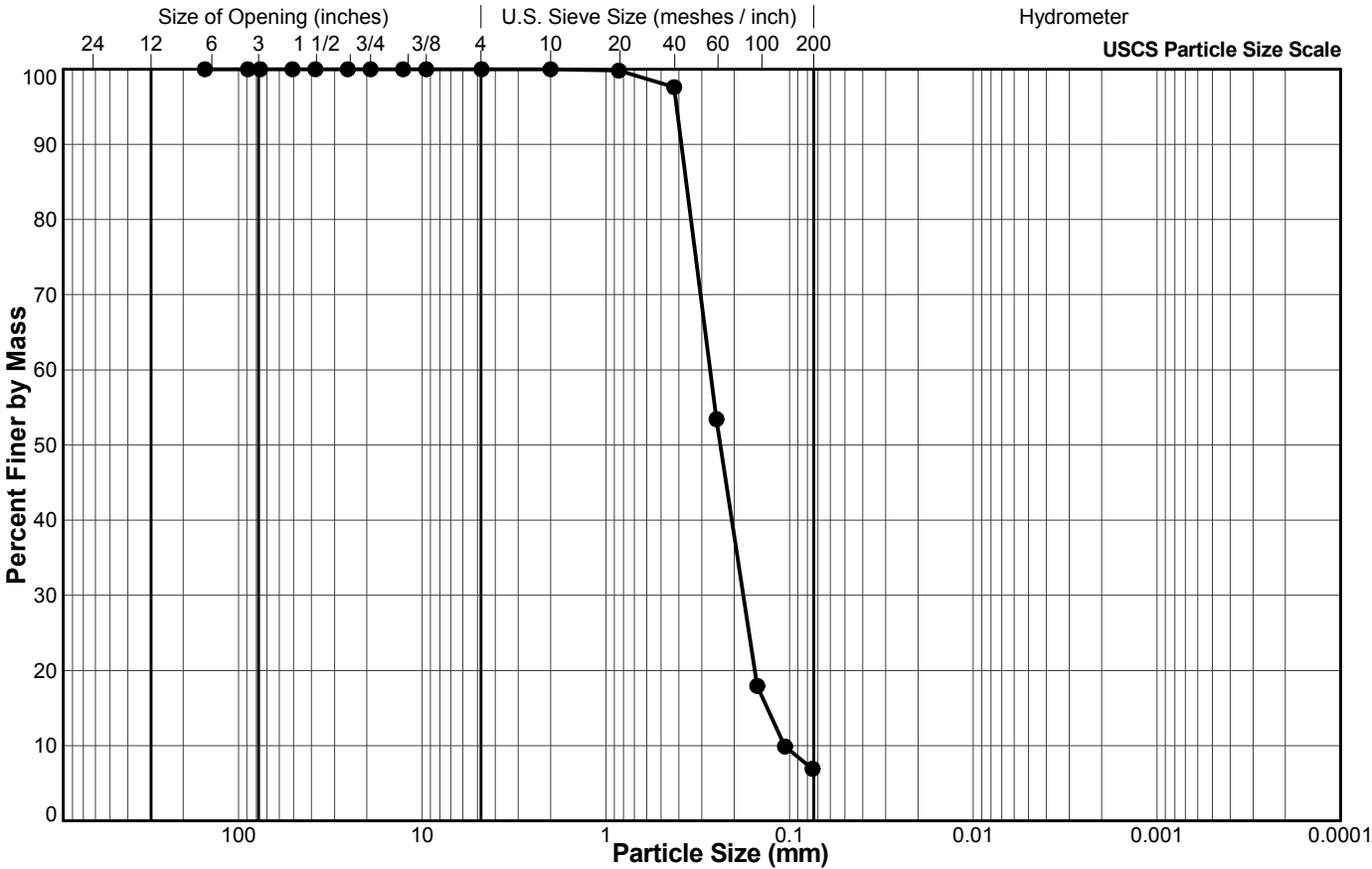
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	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-13
Sample No.: 24
Depth Interval (m): 35.97 to 36.58
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	97.6
#60 US MESH	0.25	53.4
#100 US MESH	0.15	18.0
#140 US MESH	0.106	9.9
#200 US MESH	0.075	6.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

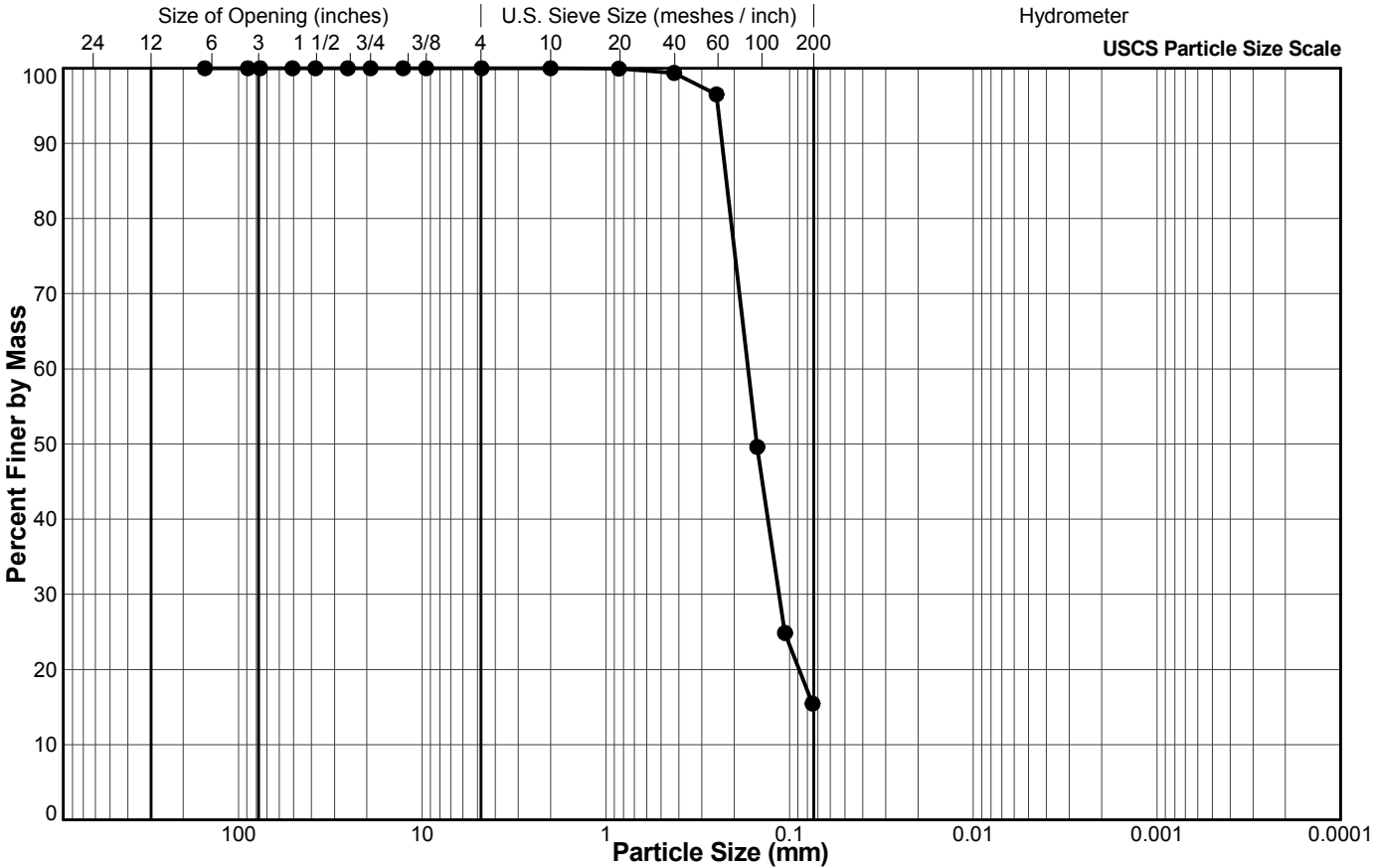
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	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-13
Sample No.: 29
Depth Interval (m): 43.59 to 44.20
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.4
#60 US MESH	0.25	96.5
#100 US MESH	0.15	49.6
#140 US MESH	0.106	24.9
#200 US MESH	0.075	15.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

	RZ	8/14/2015	LP	8/19/2015
	Tech	Date	Checked	Date

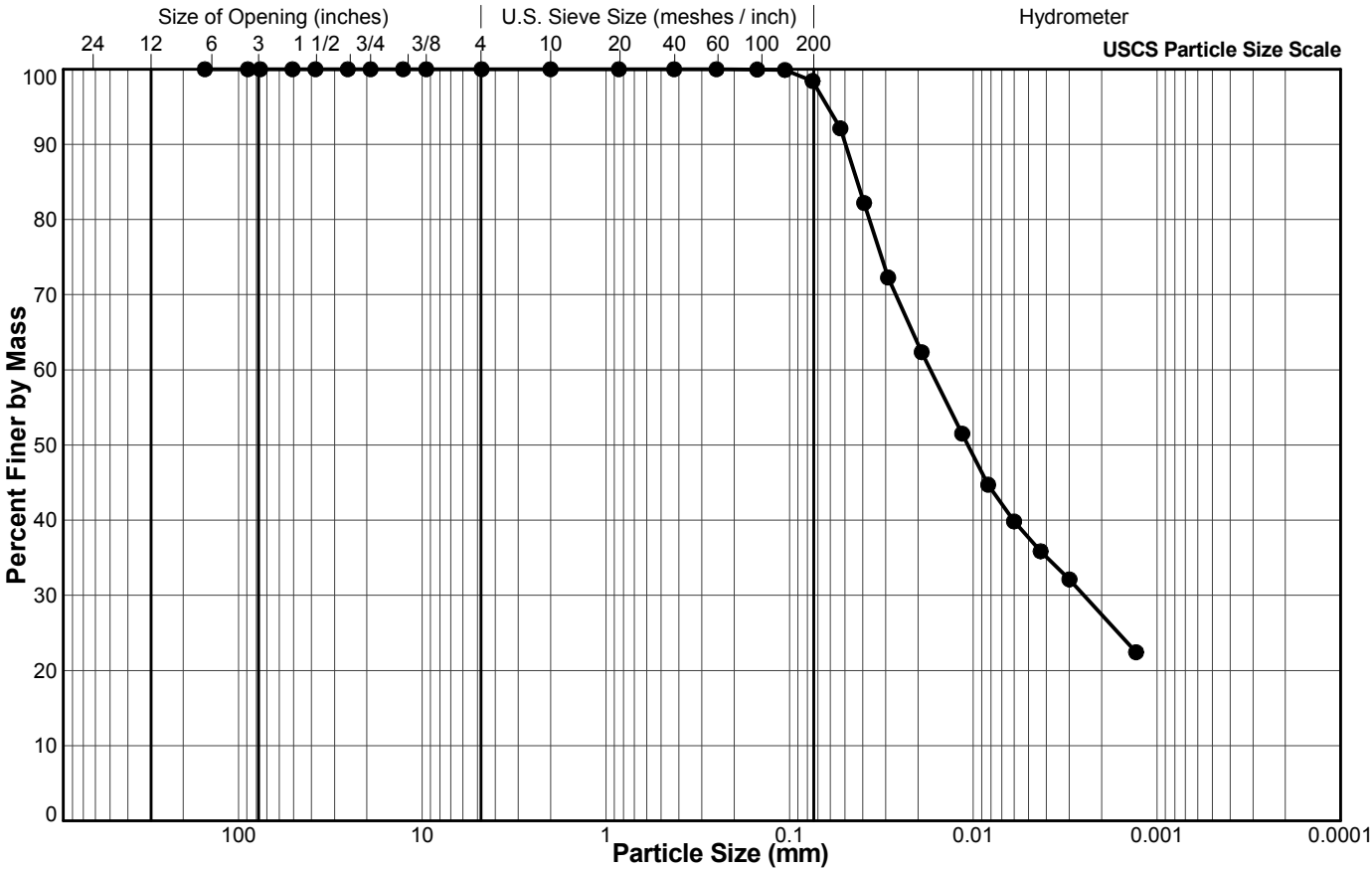


SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM D 422

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 Phase: 1000

Sample Location: BH15-13
Sample No.: 32
Depth Interval (m): 48.46 to 49.07
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	100.0
#100 US MESH	0.15	100.0
#140 US MESH	0.106	99.9
#200 US MESH	0.075	98.4
	0.0529	92.1
	0.0393	82.2
	0.0291	72.3
	0.0191	62.4
	0.0115	51.5
	0.0083	44.7
	0.0060	39.8
	0.0043	35.9
	0.0030	32.1
	0.0013	22.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

	OA	8/25/2015	LH	9/9/2015
	Tech	Date	Checked	Date

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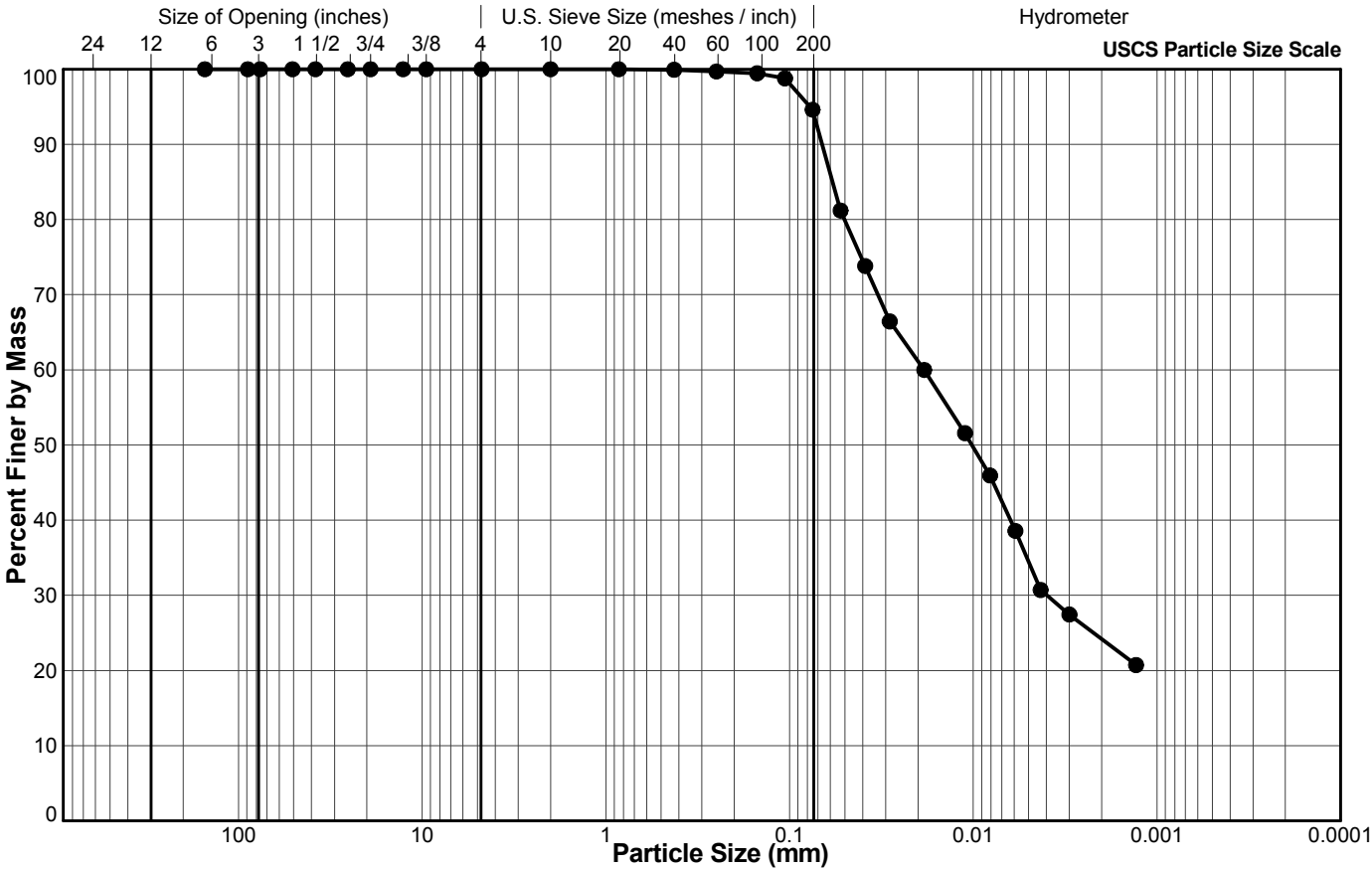


SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM D 422

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-13
Sample No.: 35
Depth Interval (m): 54.25 to 54.86
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	99.7
#100 US MESH	0.15	99.5
#140 US MESH	0.106	98.8
#200 US MESH	0.075	94.6
	0.0528	81.2
	0.0388	73.8
	0.0285	66.4
	0.0185	60.0
	0.0111	51.6
	0.0081	45.9
	0.0059	38.6
	0.0043	30.7
	0.0030	27.4
	0.0013	20.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

OA/AZ

8/17/2015

LP

8/20/2015

Tech

Date

Checked

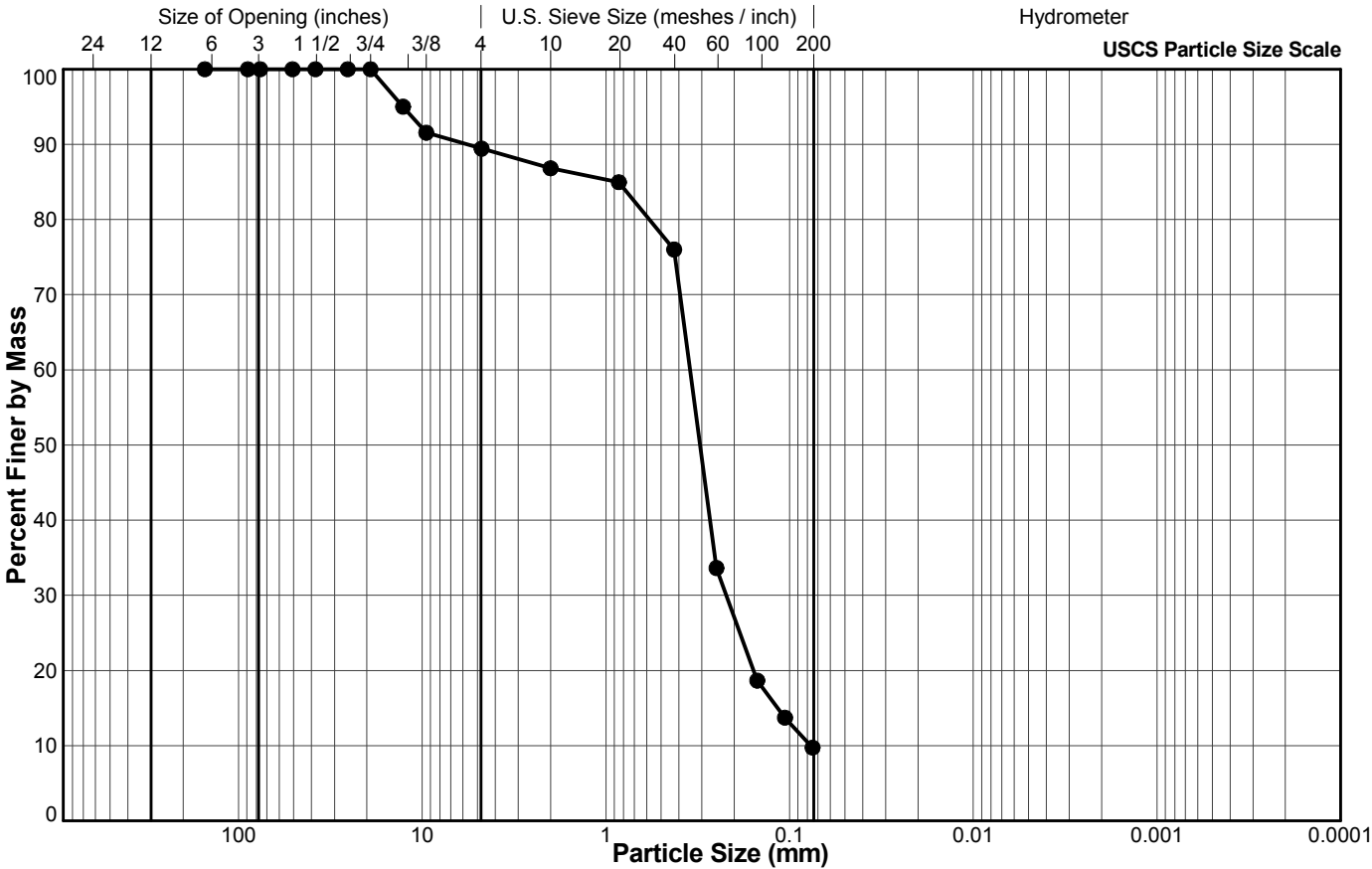
Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-14
Sample No.: 3 **Specimen:** 3B
Depth Interval (m): 3.96 to 4.57
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	95.0
3/8"	9.5	91.6
#4 US MESH	4.75	89.4
#10 US MESH	2	86.8
#20 US MESH	0.85	85.0
#40 US MESH	0.425	76.0
#60 US MESH	0.25	33.6
#100 US MESH	0.15	18.7
#140 US MESH	0.106	13.7
#200 US MESH	0.075	9.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

	OA	8/27/2015	LH
	Tech	Date	Checked
			9/9/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch

Sample Location: BH15-14

Project: Annacis Outfall

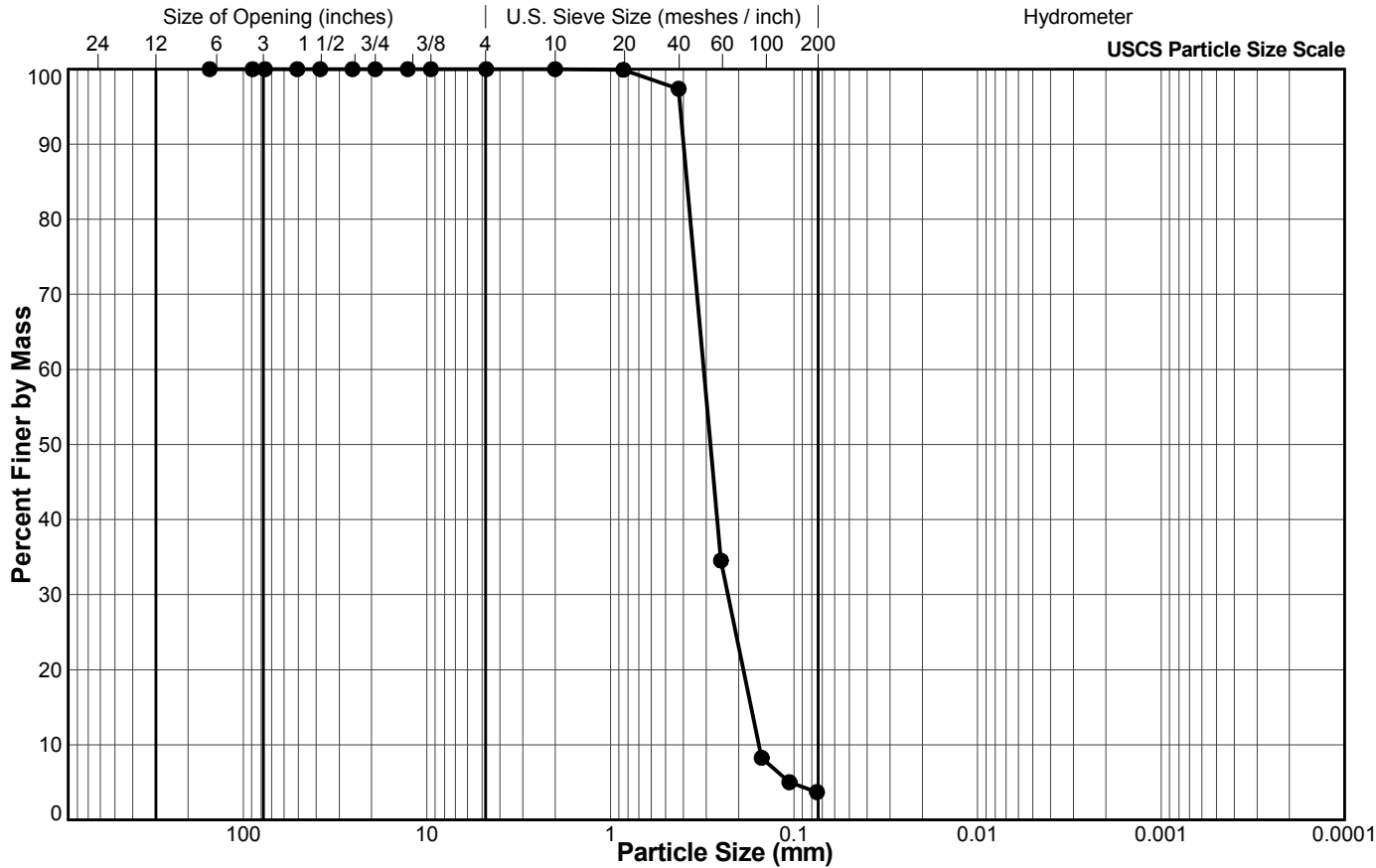
Sample No.: 11

Location: Annacis Island

Depth Interval (m): 16.15 to 16.76

Project No.: 1532895 **Phase:** 1000

Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	97.4
#60 US MESH	0.25	34.5
#100 US MESH	0.15	8.3
#140 US MESH	0.106	5.0
#200 US MESH	0.075	3.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

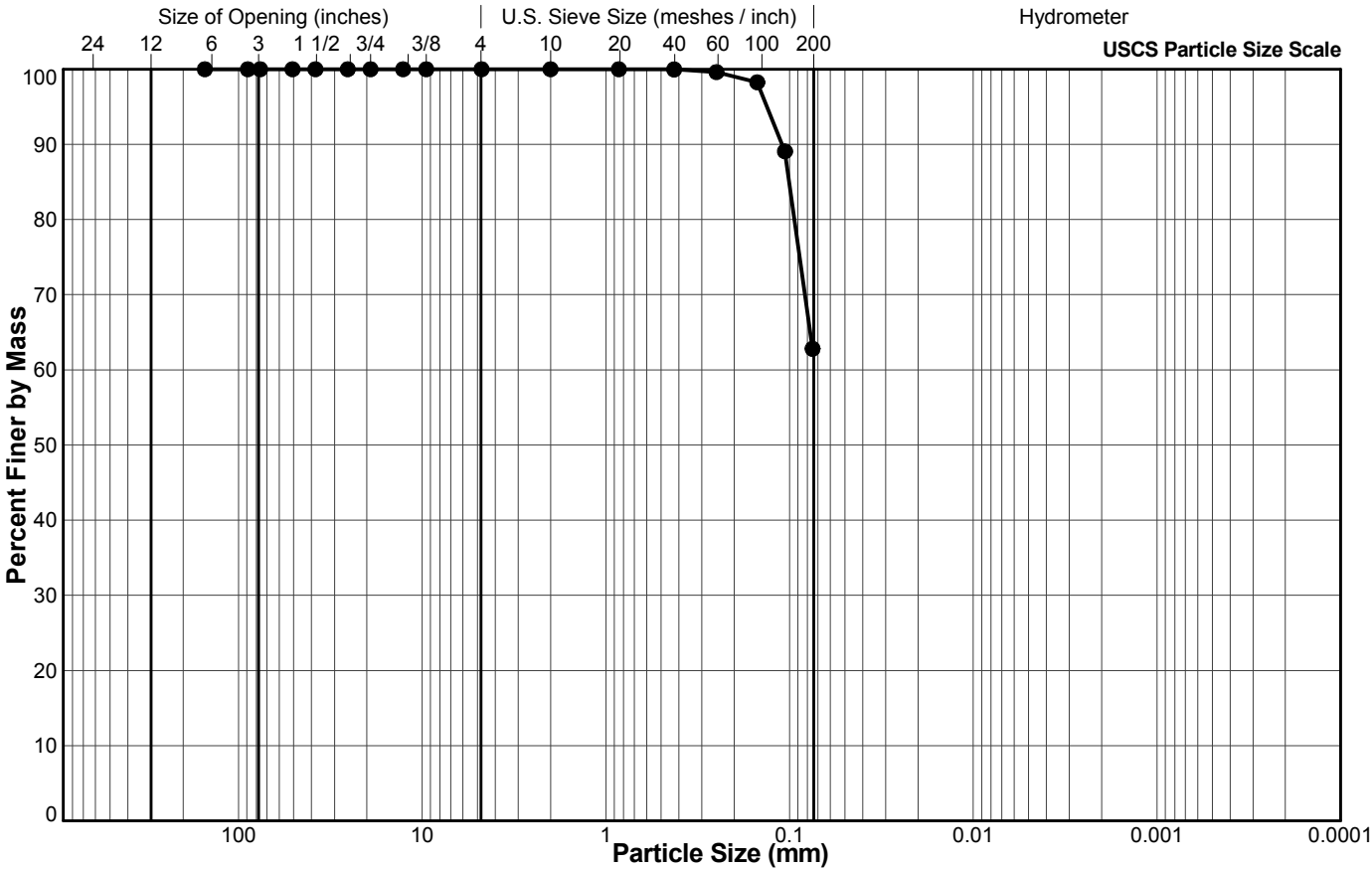
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	Tech	Date	Checked	Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-14
Sample No.: 17
Depth Interval (m): 25.30 to 25.91
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	99.6
#100 US MESH	0.15	98.3
#140 US MESH	0.106	89.1
#200 US MESH	0.075	62.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

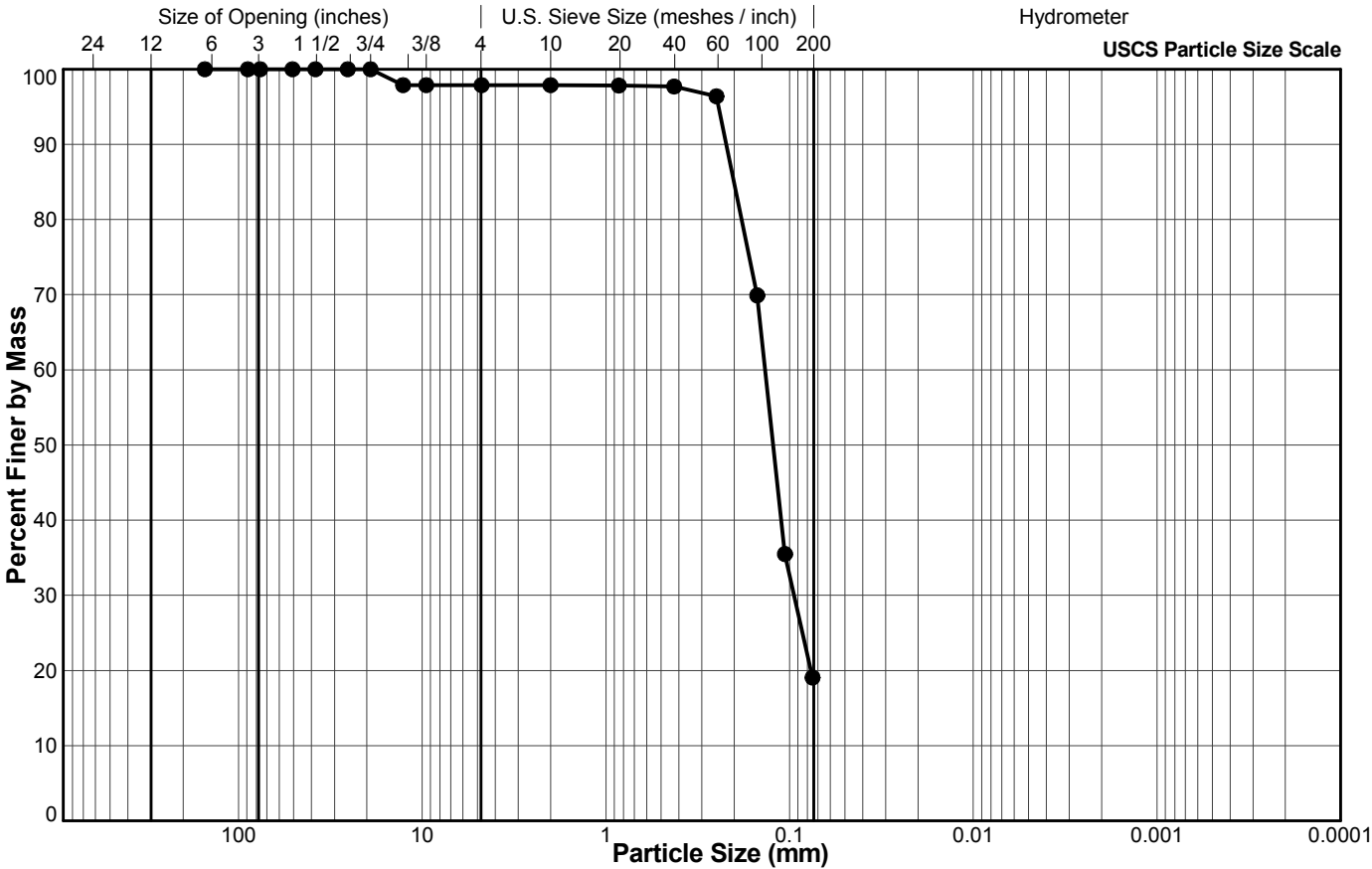
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	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-14
Sample No.: 20
Depth Interval (m): 29.87 to 30.48
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	97.9
3/8"	9.5	97.9
#4 US MESH	4.75	97.9
#10 US MESH	2	97.9
#20 US MESH	0.85	97.8
#40 US MESH	0.425	97.7
#60 US MESH	0.25	96.4
#100 US MESH	0.15	69.9
#140 US MESH	0.106	35.5
#200 US MESH	0.075	19.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

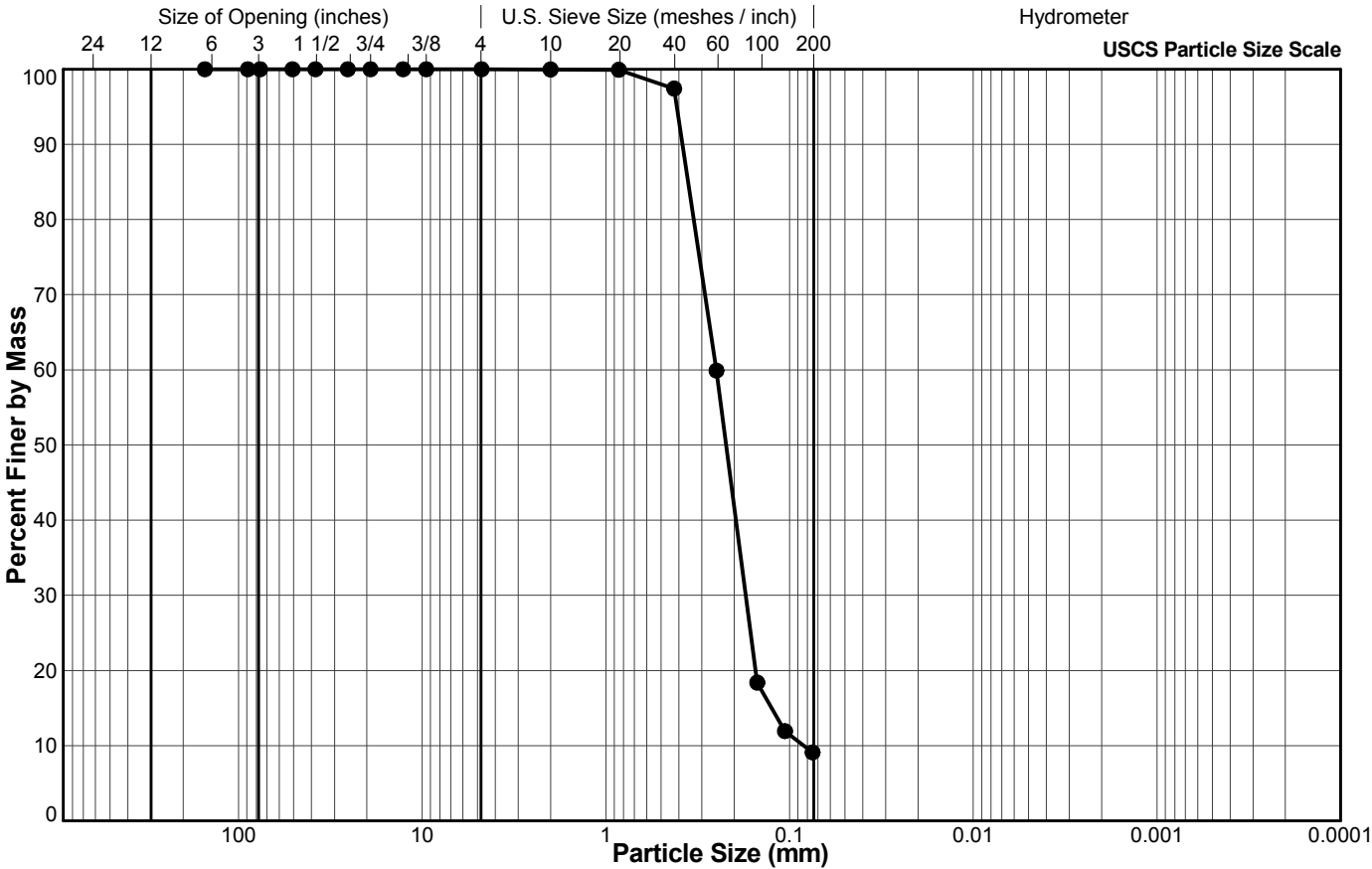
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	Tech	Date	Checked	Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-14
Sample No.: 23
Depth Interval (m): 34.44 to 35.05
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	97.4
#60 US MESH	0.25	59.9
#100 US MESH	0.15	18.4
#140 US MESH	0.106	11.9
#200 US MESH	0.075	9.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

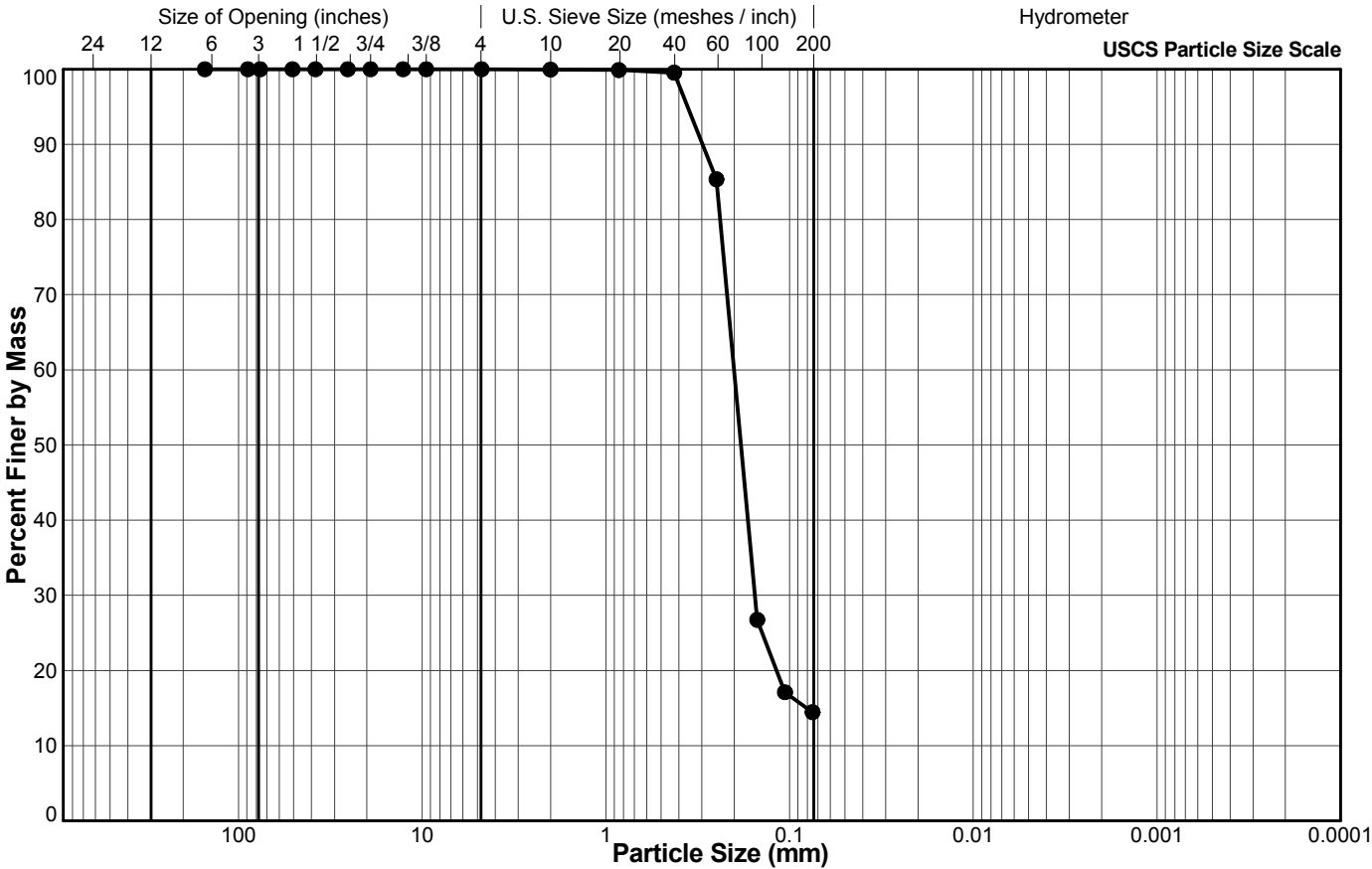
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	Tech	Date	Checked
			9/11/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM C136

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 Phase: 1000

Sample Location: BH15-14
Sample No.: 26
Depth Interval (m): 39.01 to 39.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.5
#60 US MESH	0.25	85.4
#100 US MESH	0.15	26.7
#140 US MESH	0.106	17.1
#200 US MESH	0.075	14.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

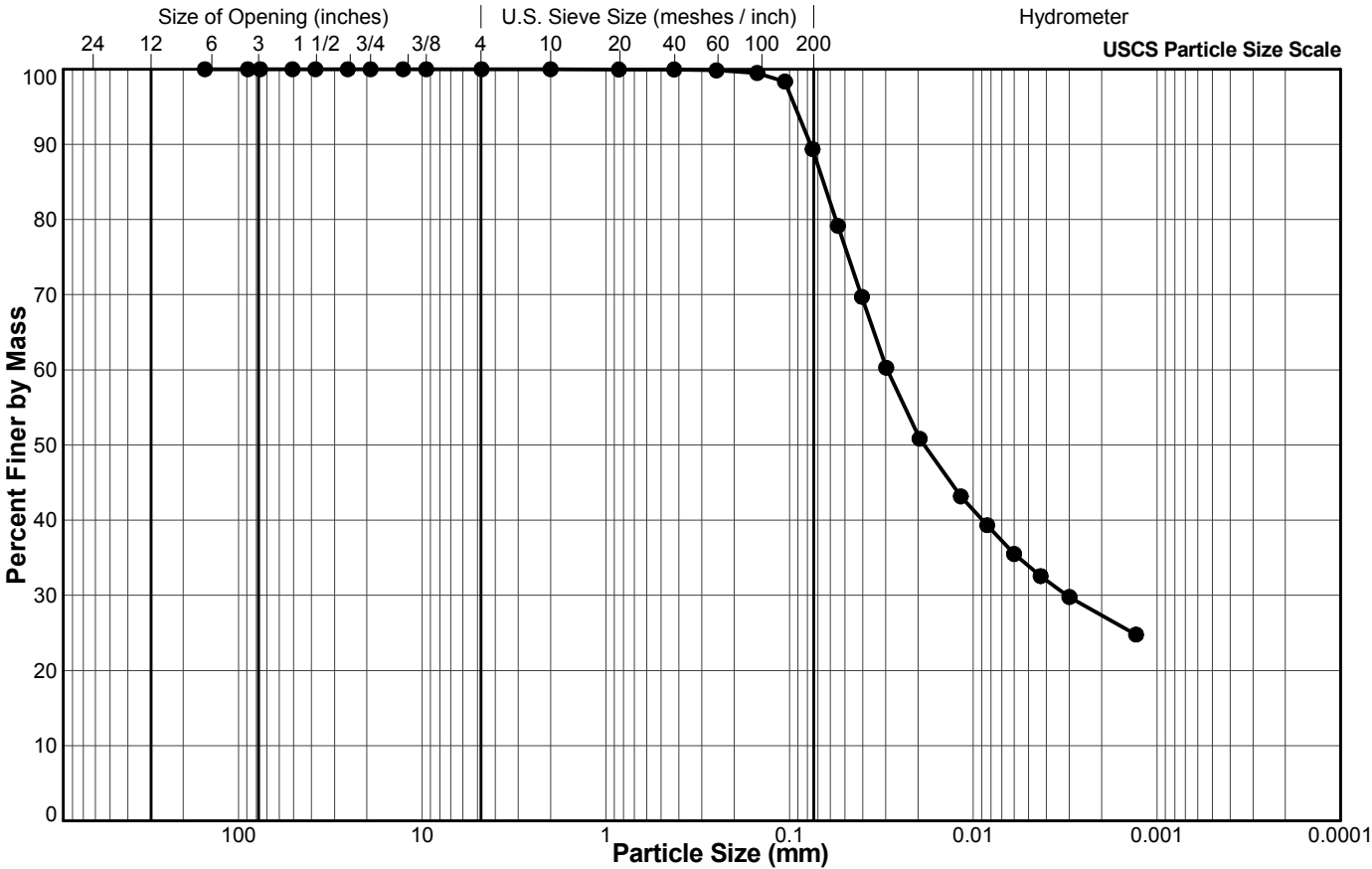
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	Tech	Date	Checked
			8/19/2015
			Date

SUMMARY OF PARTICLE SIZE DISTRIBUTION

Reference(s)
ASTM D 422

Client: Black & Veatch
Project: Annacis Outfall
Location: Annacis Island
Project No.: 1532895 **Phase:** 1000

Sample Location: BH15-14
Sample No.: 28
Depth Interval (m): 42.06 to 42.67
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	99.8
#100 US MESH	0.15	99.5
#140 US MESH	0.106	98.4
#200 US MESH	0.075	89.4
	0.0546	79.2
	0.0404	69.7
	0.0298	60.3
	0.0196	50.8
	0.0117	43.2
	0.0084	39.3
	0.0060	35.5
	0.0043	32.6
	0.0030	29.8
	0.0013	24.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

OA/AZ

8/17/2015

LP

8/20/2015

Tech

Date

Checked

Date

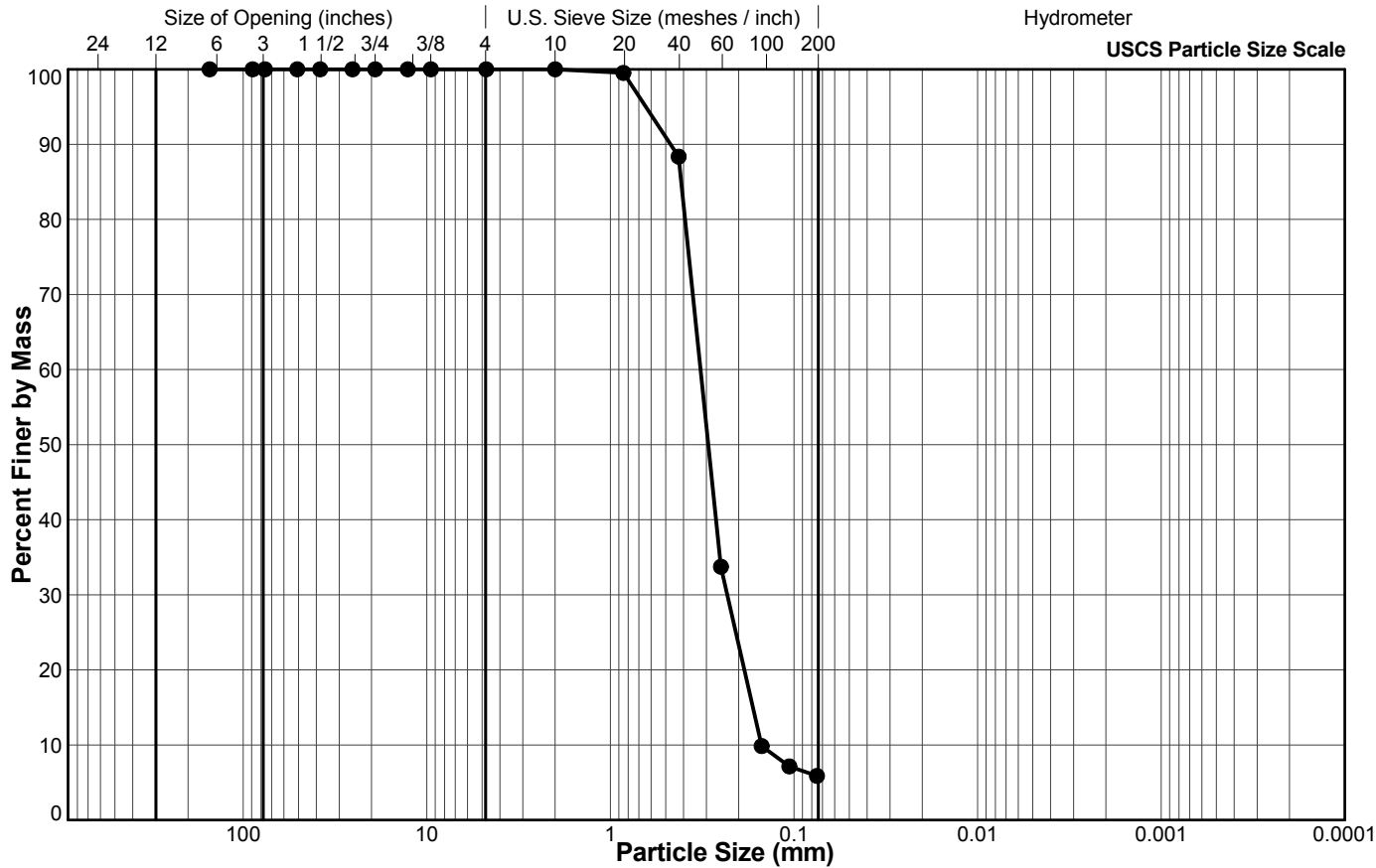


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 2
 Depth Interval (m): 3.07 to 3.68
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.5
#40 US MESH	0.425	88.4
#60 US MESH	0.25	33.7
#100 US MESH	0.15	9.8
#140 US MESH	0.106	7.1
#200 US MESH	0.075	5.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

Checked

Date

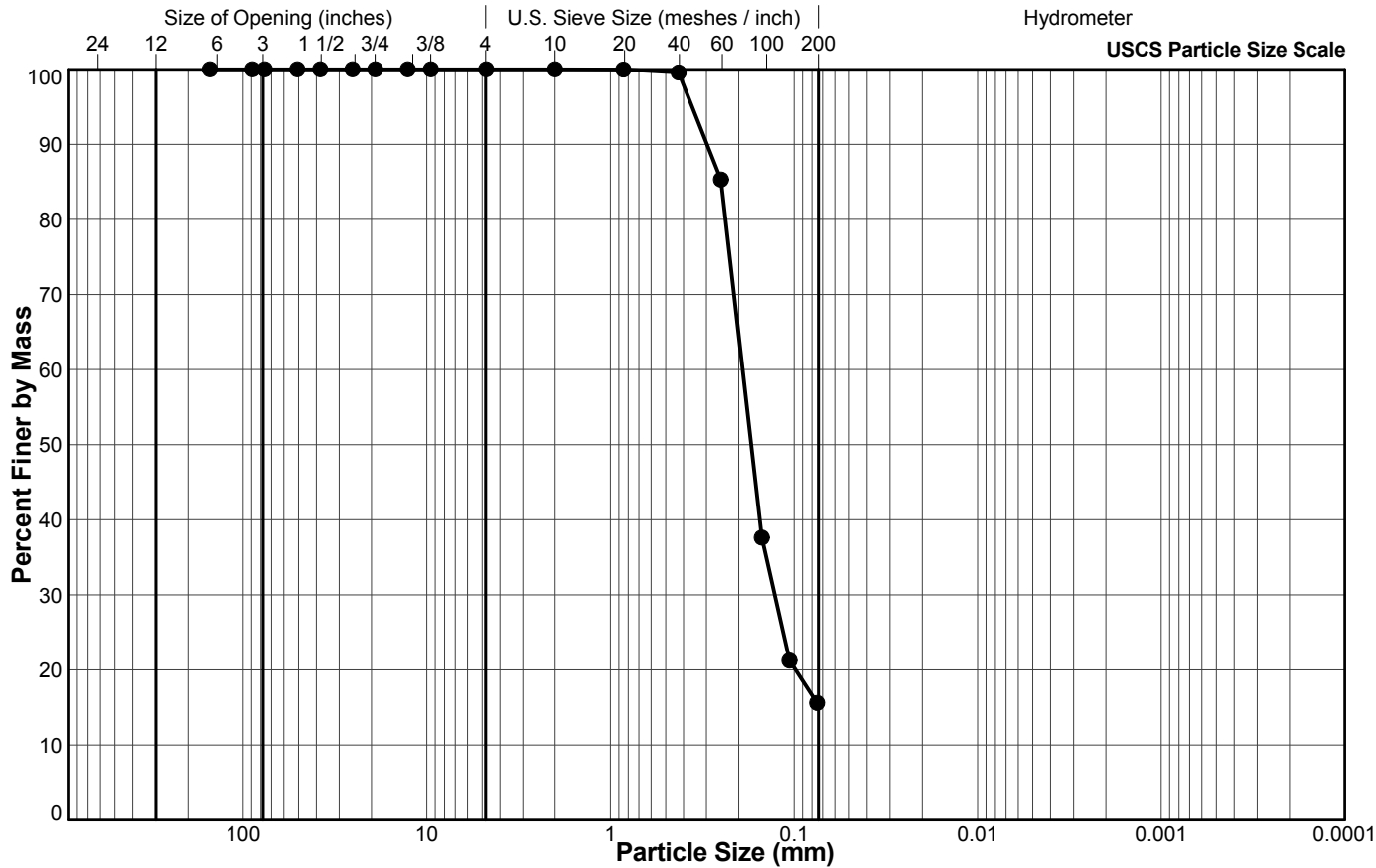


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 5
 Depth Interval (m): 7.82 to 8.28
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.6
#60 US MESH	0.25	85.3
#100 US MESH	0.15	37.6
#140 US MESH	0.106	21.2
#200 US MESH	0.075	15.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

Checked

Date

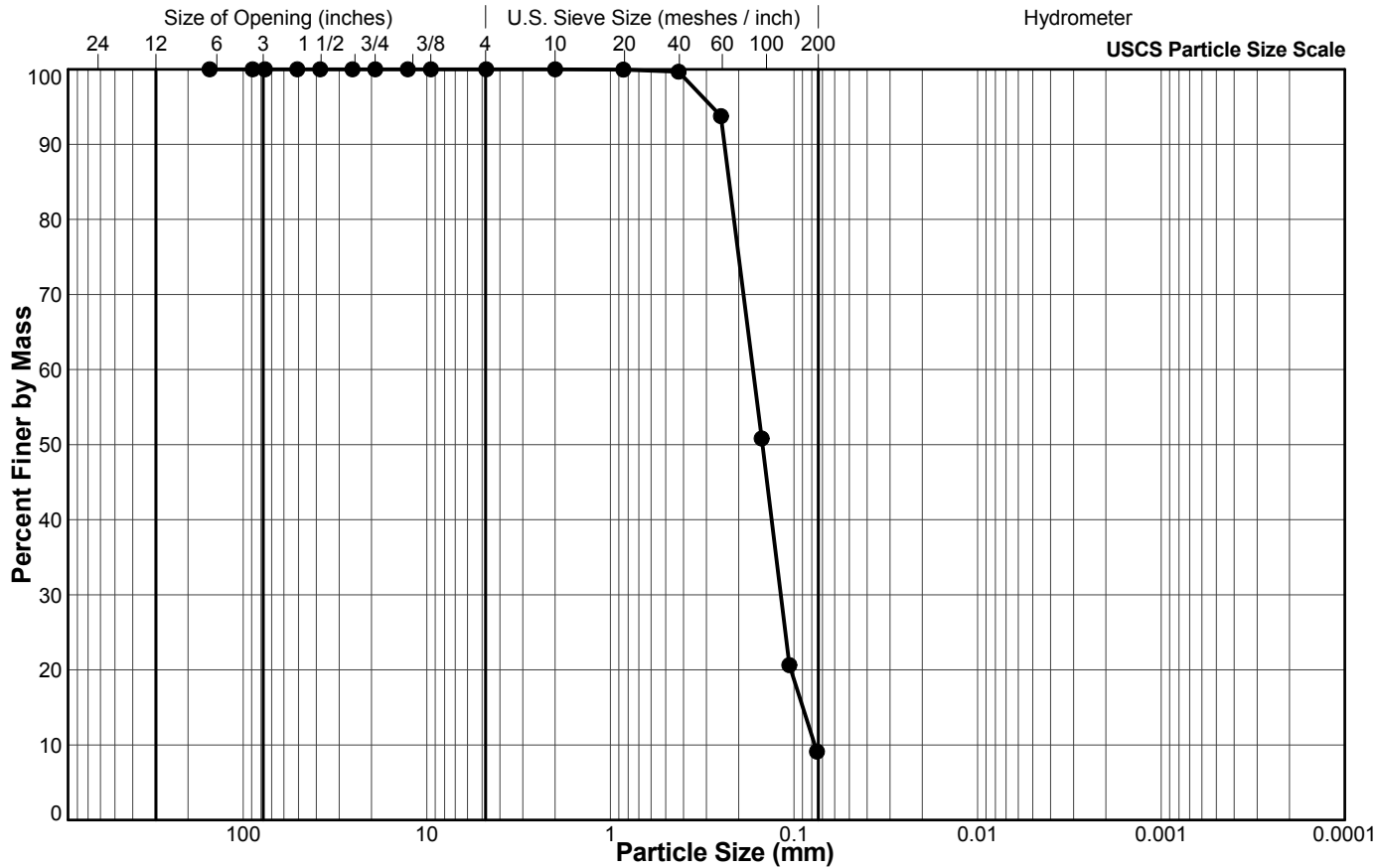


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-01
Sample No.: 8
Depth Interval (m): 12.19 to 12.80
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	93.8
#100 US MESH	0.15	50.8
#140 US MESH	0.106	20.6
#200 US MESH	0.075	9.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

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LH

5/10/2016

Tech

Date

Checked

Date

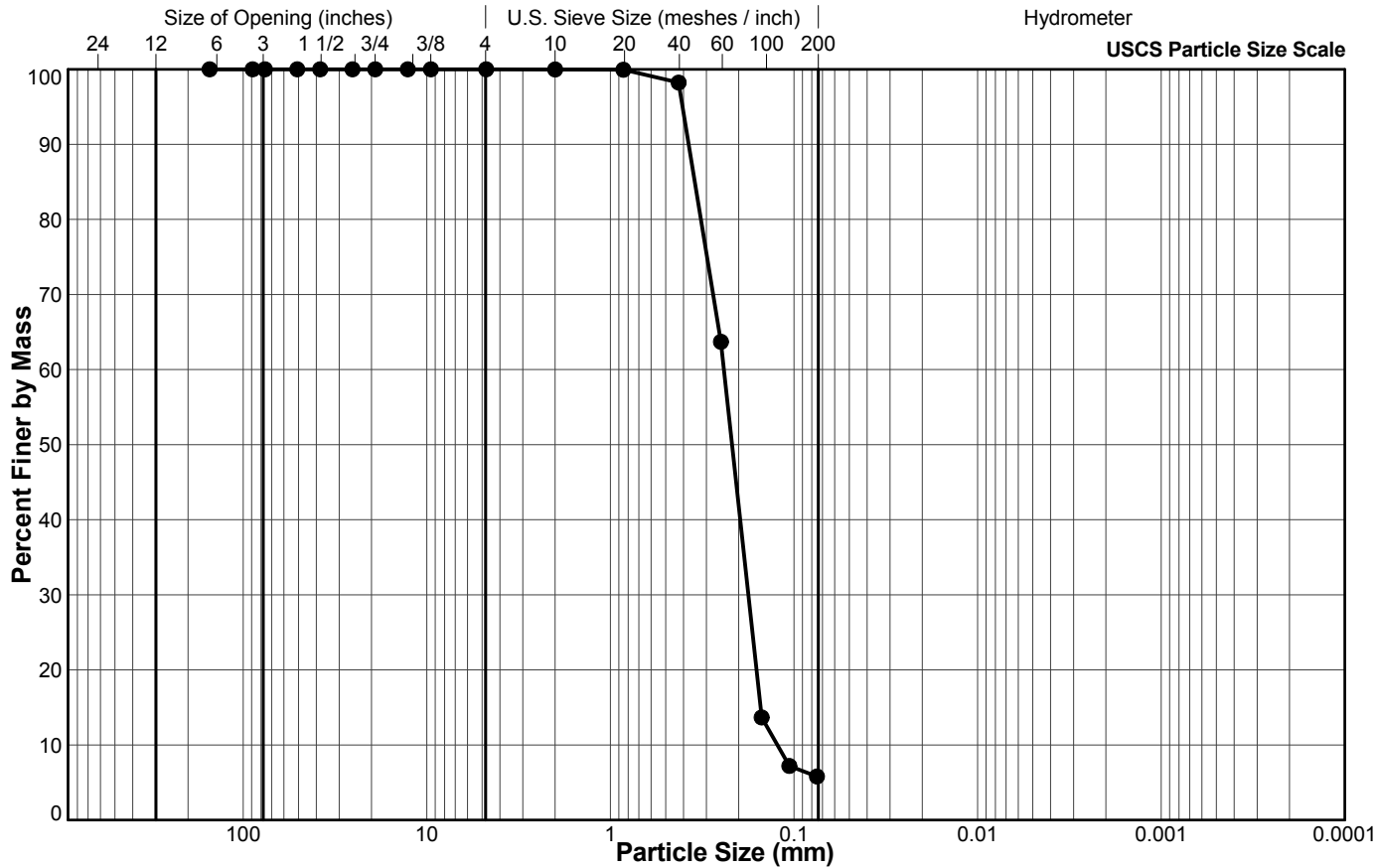


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 12
 Depth Interval (m): 18.29 to 18.90
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.2
#60 US MESH	0.25	63.7
#100 US MESH	0.15	13.7
#140 US MESH	0.106	7.2
#200 US MESH	0.075	5.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

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LH

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Tech

Date

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Date

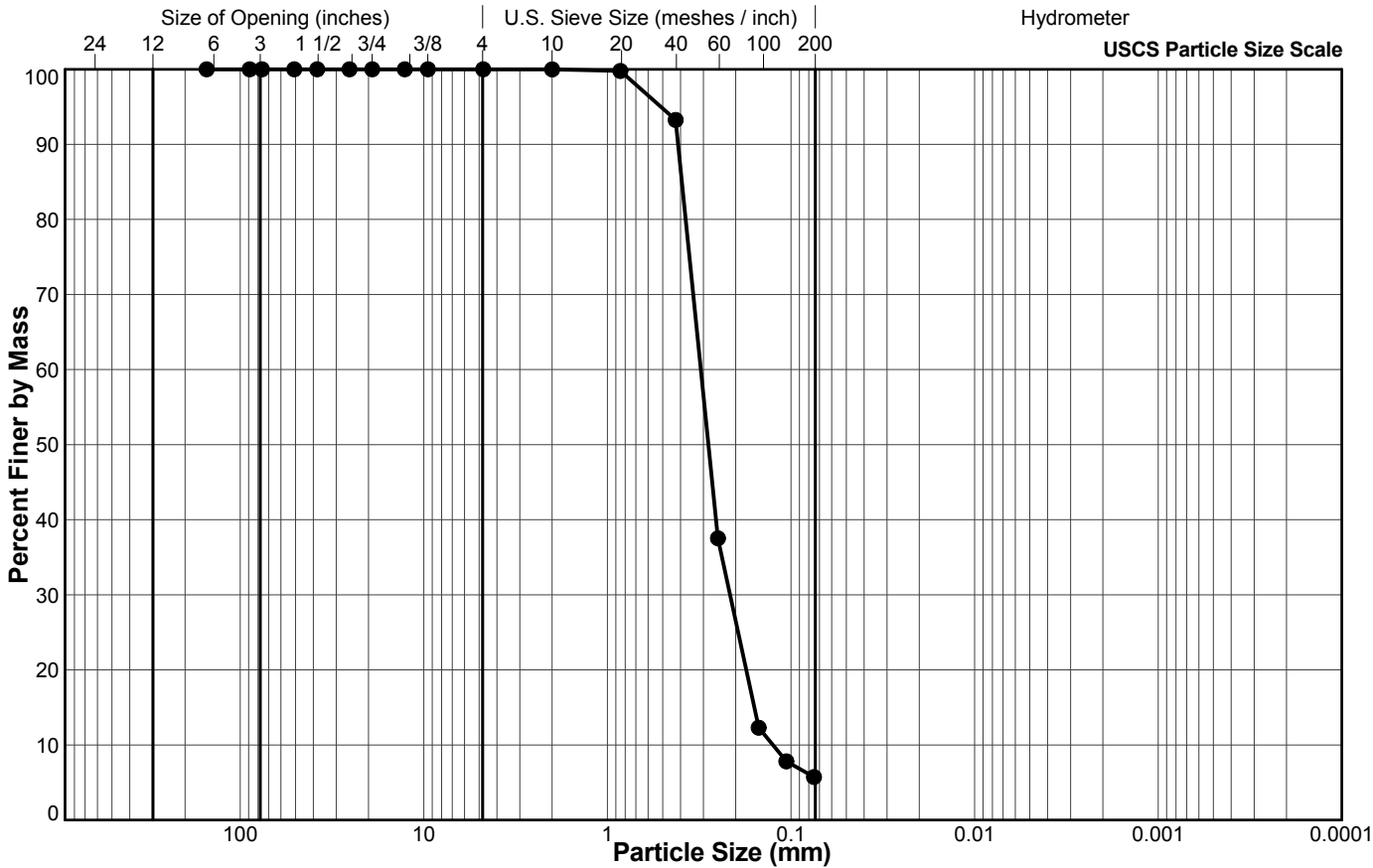


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 16
 Depth Interval (m): 24.46 to 25.07
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	93.3
#60 US MESH	0.25	37.5
#100 US MESH	0.15	12.3
#140 US MESH	0.106	7.8
#200 US MESH	0.075	5.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

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Date

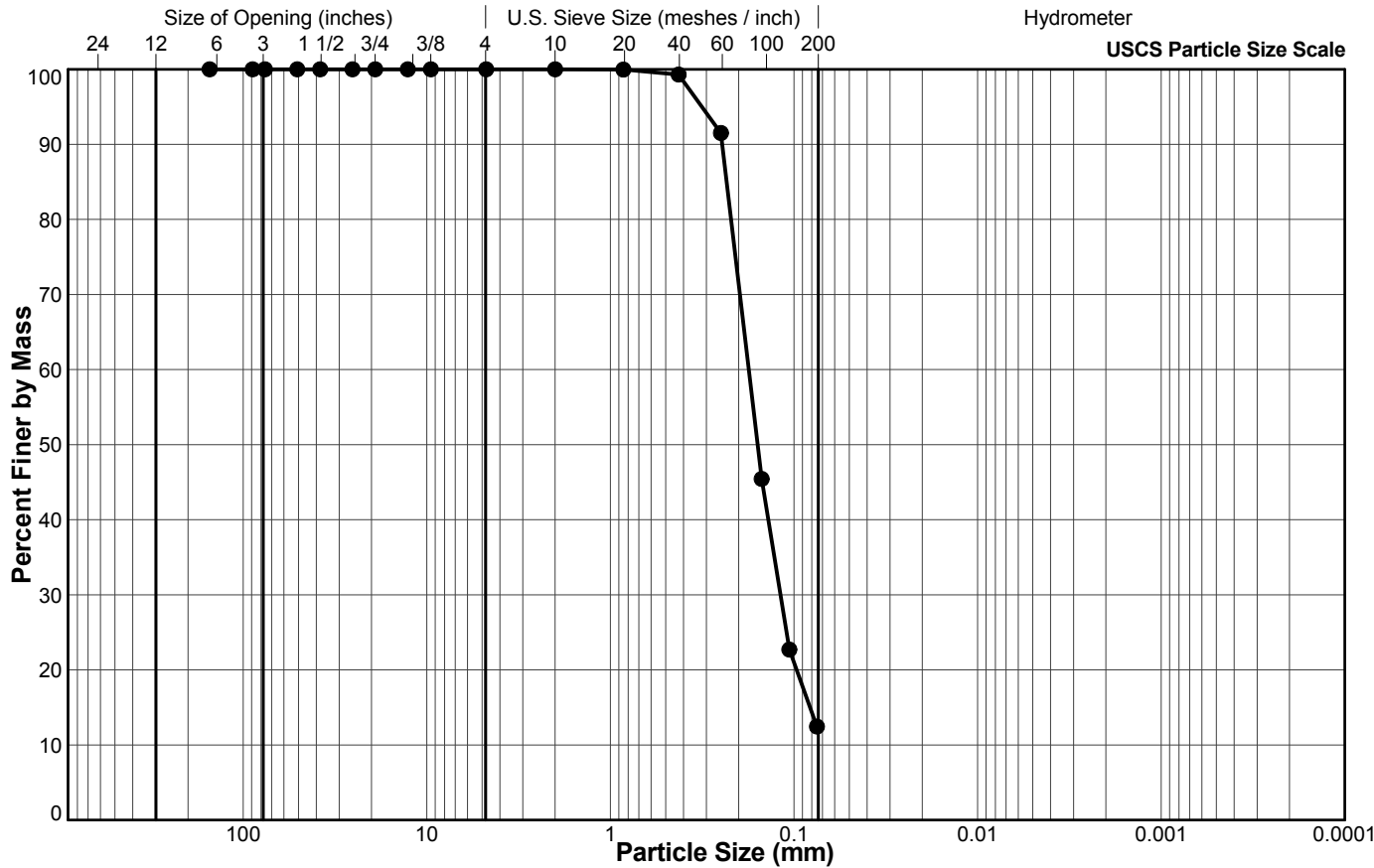


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 20
 Depth Interval (m): 30.48 to 31.09
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.3
#60 US MESH	0.25	91.5
#100 US MESH	0.15	45.4
#140 US MESH	0.106	22.7
#200 US MESH	0.075	12.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

Checked

Date

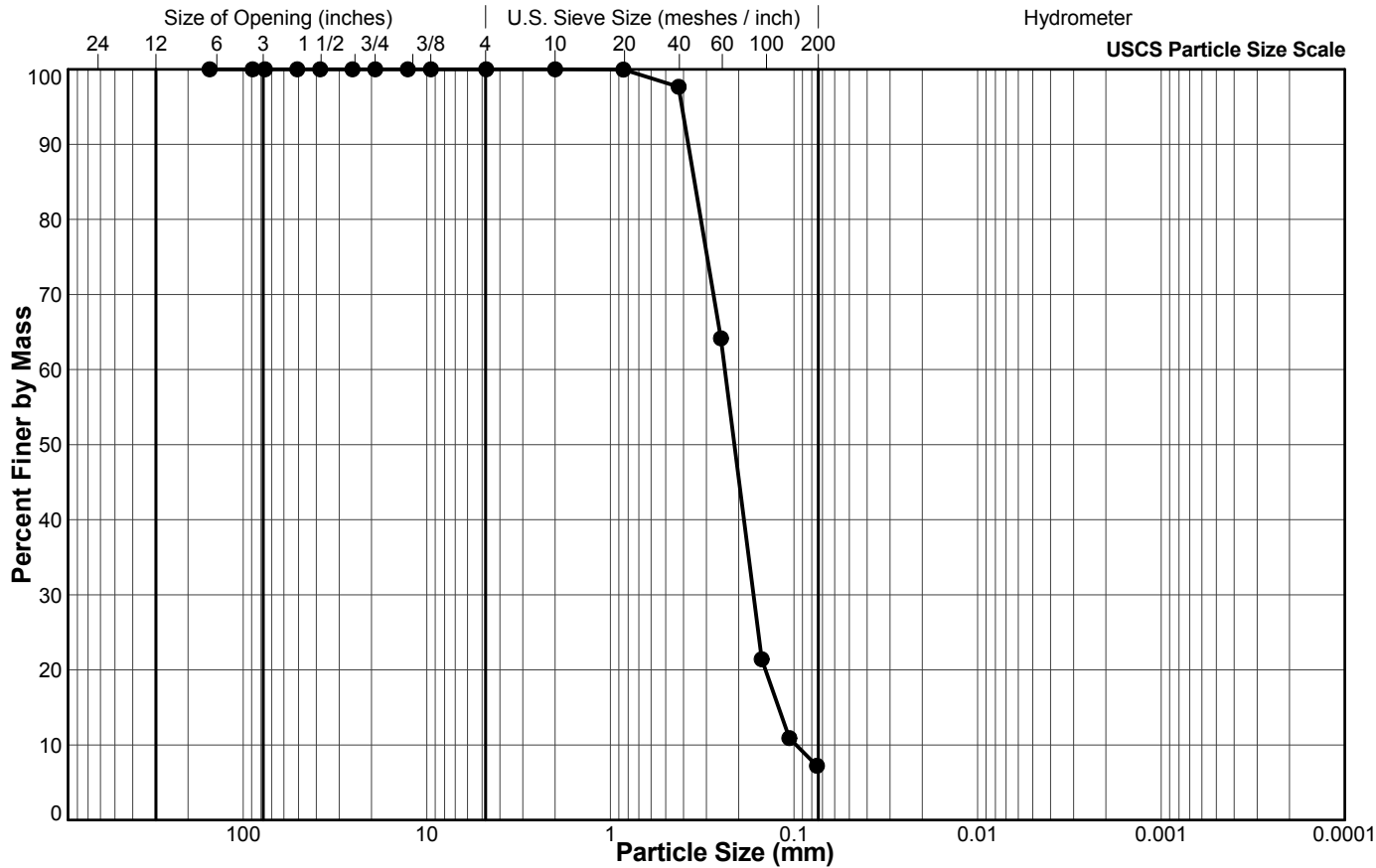


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 23
 Depth Interval (m): 35.05 to 35.66
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	97.7
#60 US MESH	0.25	64.2
#100 US MESH	0.15	21.4
#140 US MESH	0.106	10.9
#200 US MESH	0.075	7.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

Checked

Date

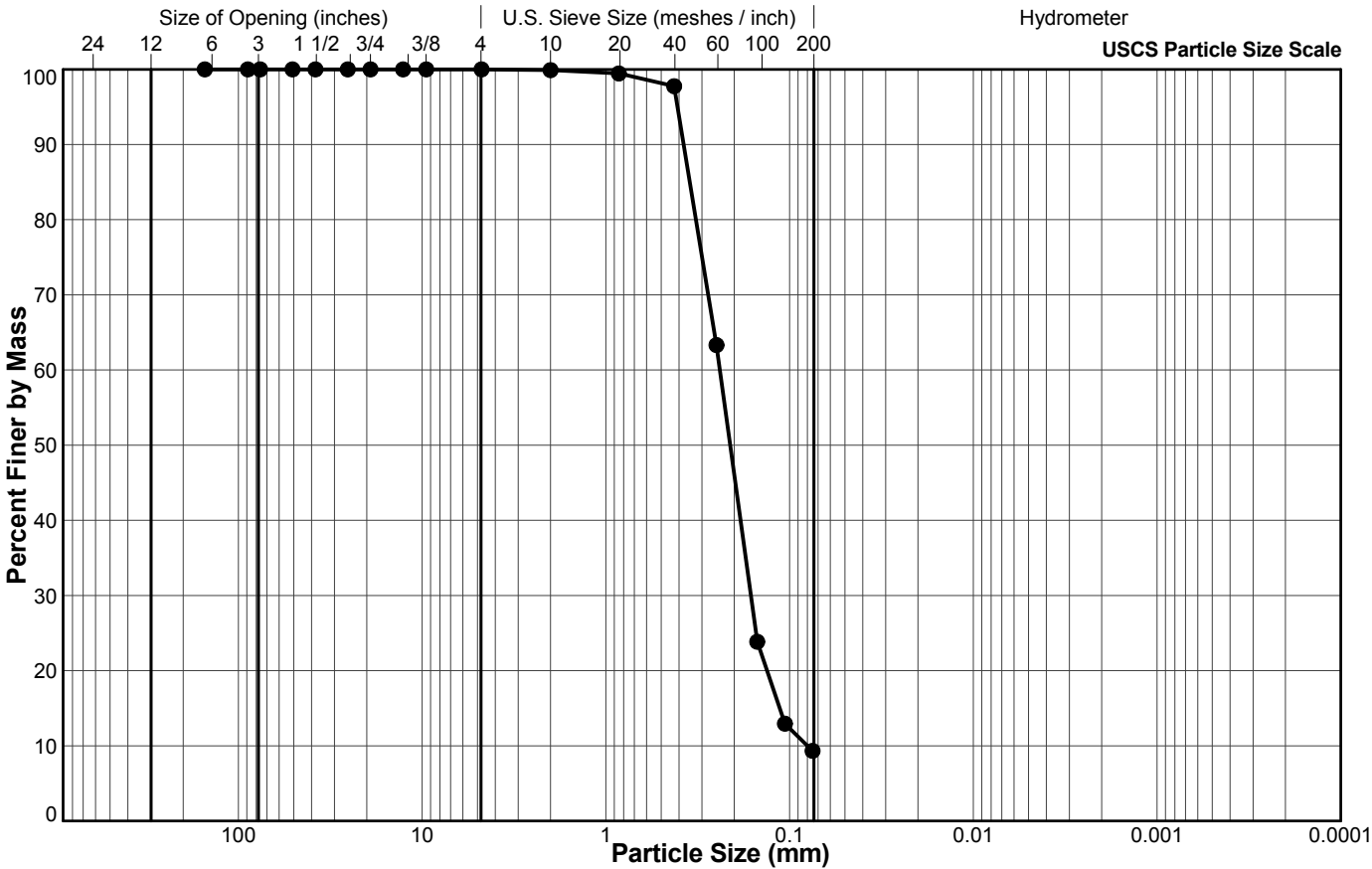


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 26
 Depth Interval (m): 39.62 to 40.23
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.5
#40 US MESH	0.425	97.8
#60 US MESH	0.25	63.3
#100 US MESH	0.15	23.8
#140 US MESH	0.106	12.9
#200 US MESH	0.075	9.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

Checked

Date

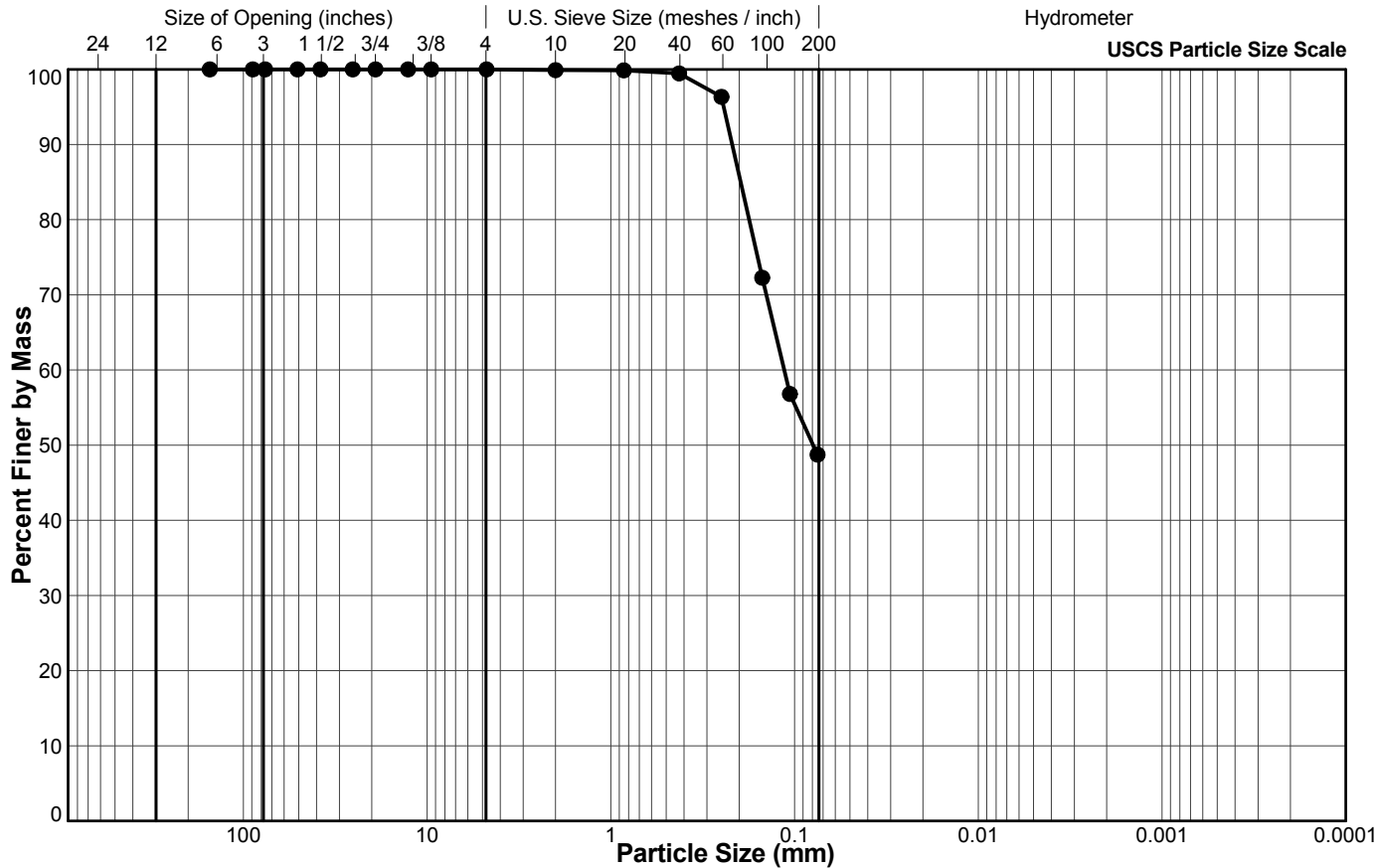


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 29
 Depth Interval (m): 44.35 to 44.96
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.5
#60 US MESH	0.25	96.3
#100 US MESH	0.15	72.3
#140 US MESH	0.106	56.8
#200 US MESH	0.075	48.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

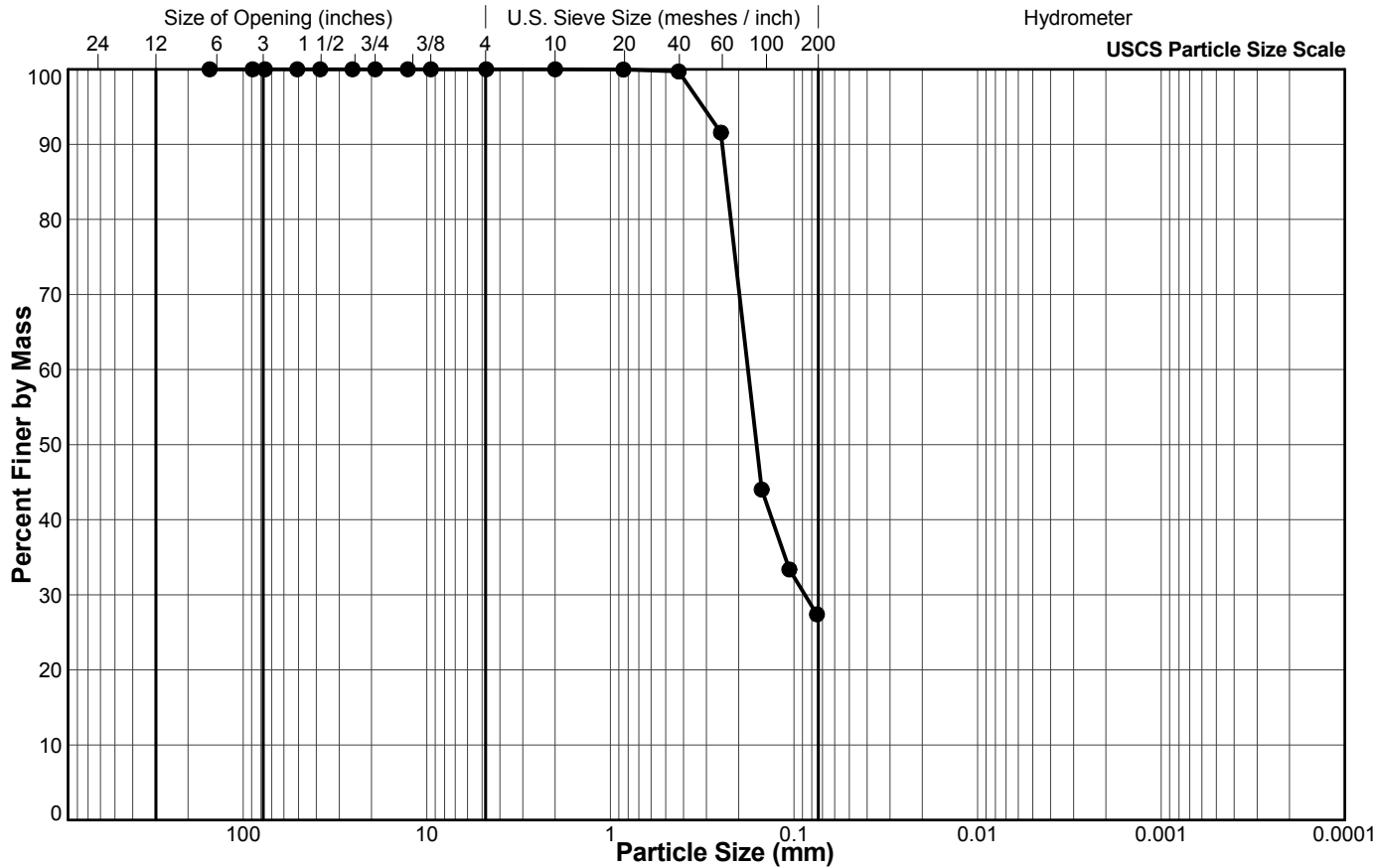


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 32
 Depth Interval (m): 48.77 to 49.38
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	91.6
#100 US MESH	0.15	44.0
#140 US MESH	0.106	33.4
#200 US MESH	0.075	27.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

4/29/2016

LH

5/10/2016

Tech

Date

Checked

Date

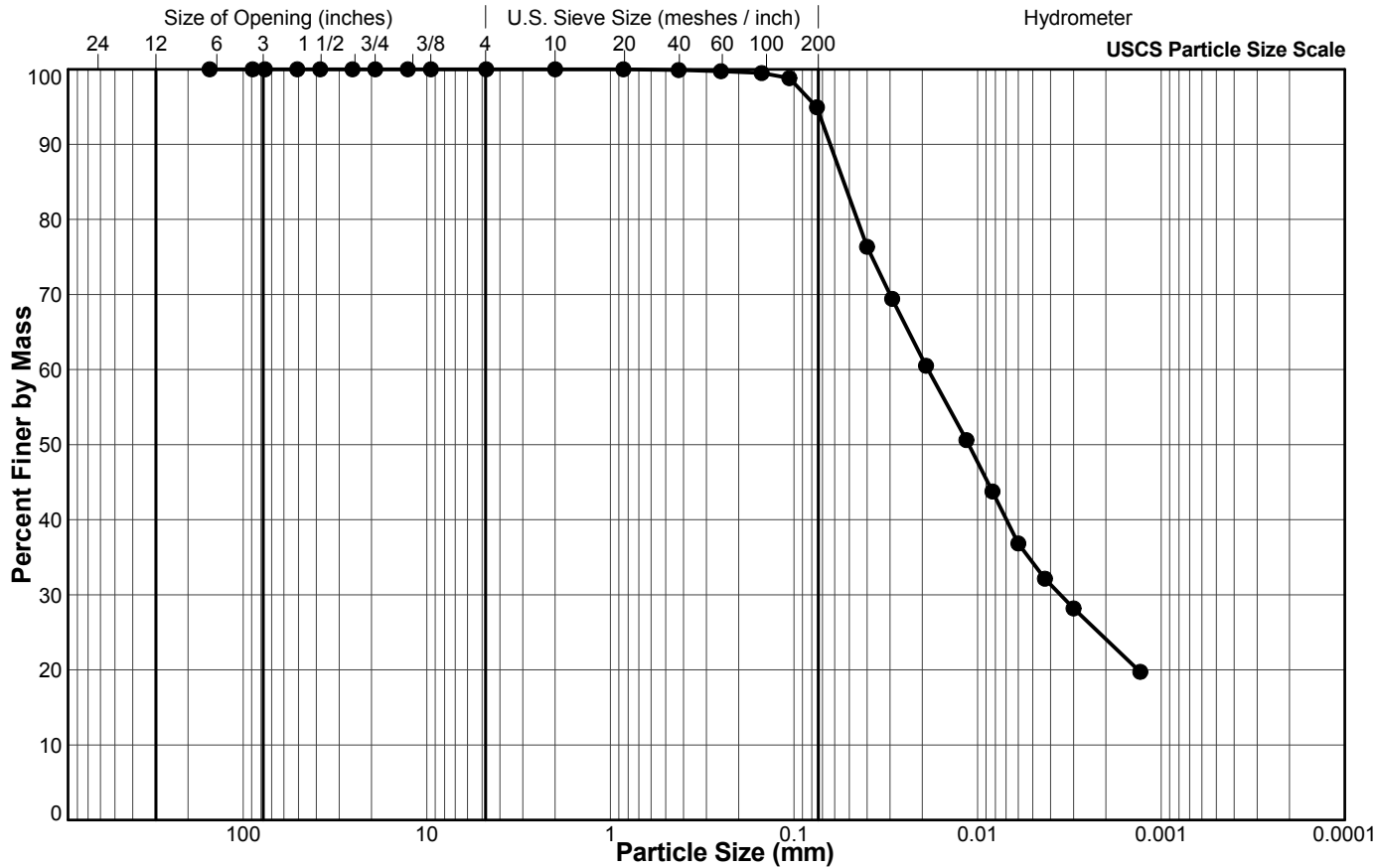


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-01
Sample No.: 34
Depth Interval (m): 51.82 to 52.43
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	99.7
#100 US MESH	0.15	99.5
#140 US MESH	0.106	98.8
#200 US MESH	0.075	94.9
	0.0400	76.4
	0.0292	69.4
	0.0191	60.5
	0.0115	50.6
	0.0083	43.8
	0.0060	36.8
	0.0043	32.1
	0.0030	28.2
	0.0013	19.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

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5/10/2016

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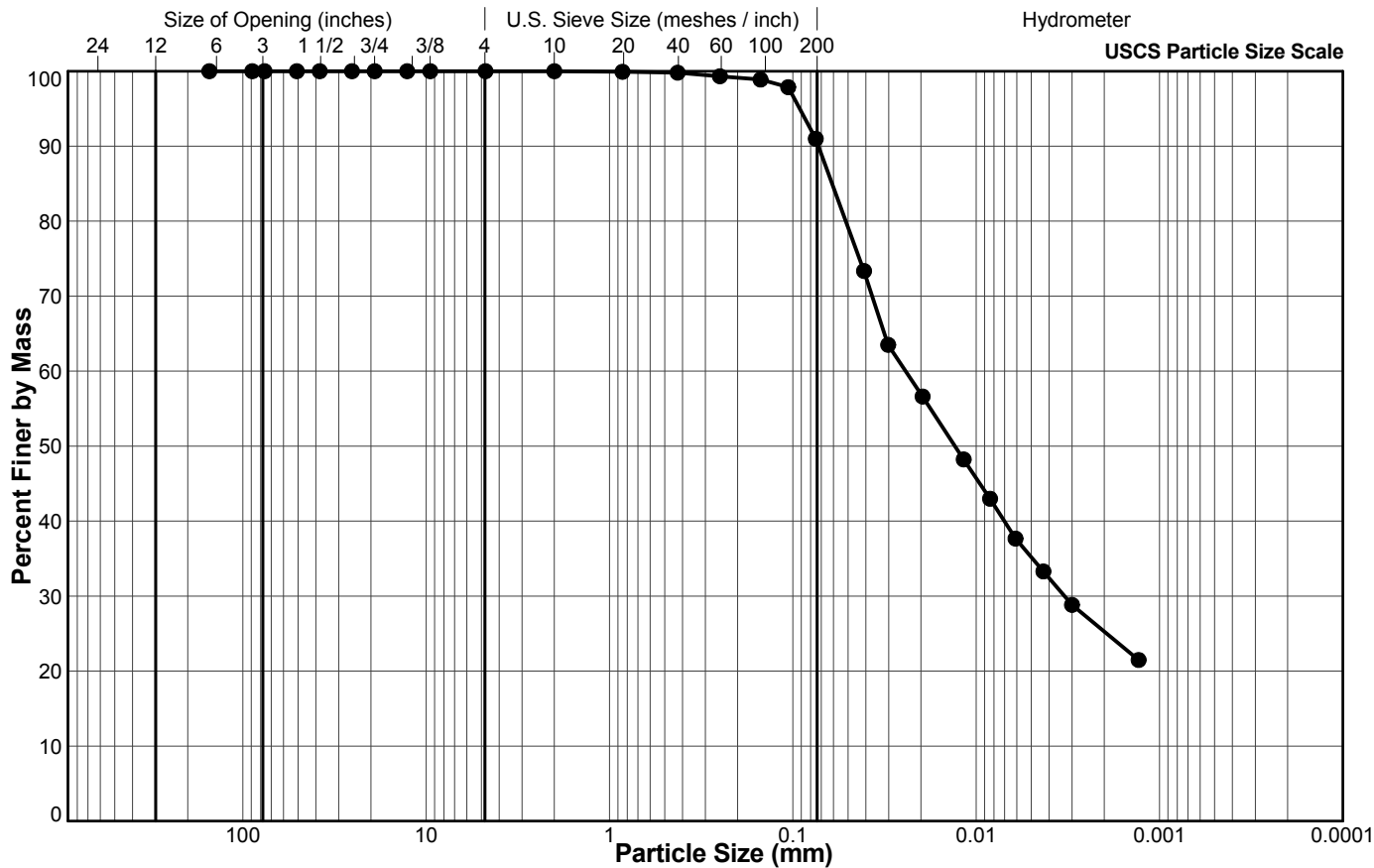


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-01
 Sample No.: 36
 Depth Interval (m): 54.86 to 55.47
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.3
#100 US MESH	0.15	98.9
#140 US MESH	0.106	97.9
#200 US MESH	0.075	91.0
	0.0409	73.4
	0.0302	63.5
	0.0196	56.6
	0.0117	48.2
	0.0084	43.0
	0.0061	37.7
	0.0043	33.3
	0.0030	28.8
	0.0013	21.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

5/2/2016

LH

5/10/2016

Tech

Date

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Date

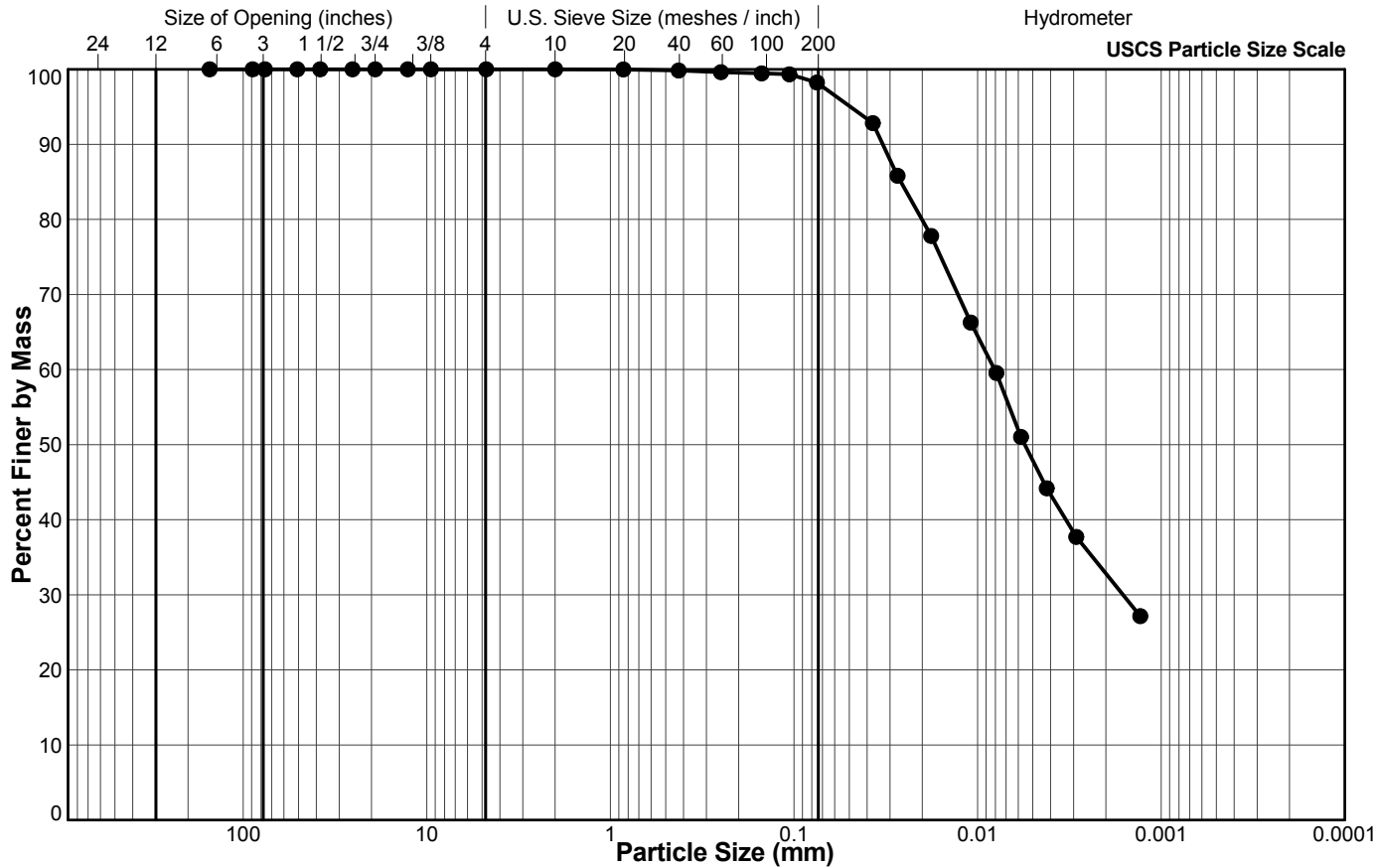


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-01
Sample No.: 42
Depth Interval (m): 64.01 to 64.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.6
#100 US MESH	0.15	99.5
#140 US MESH	0.106	99.3
#200 US MESH	0.075	98.2
	0.0372	92.8
	0.0273	85.8
	0.0179	77.8
	0.0109	66.3
	0.0079	59.5
	0.0058	51.0
	0.0042	44.2
	0.0029	37.7
	0.0013	27.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

5/2/2016

LH

5/10/2016

Tech

Date

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Date

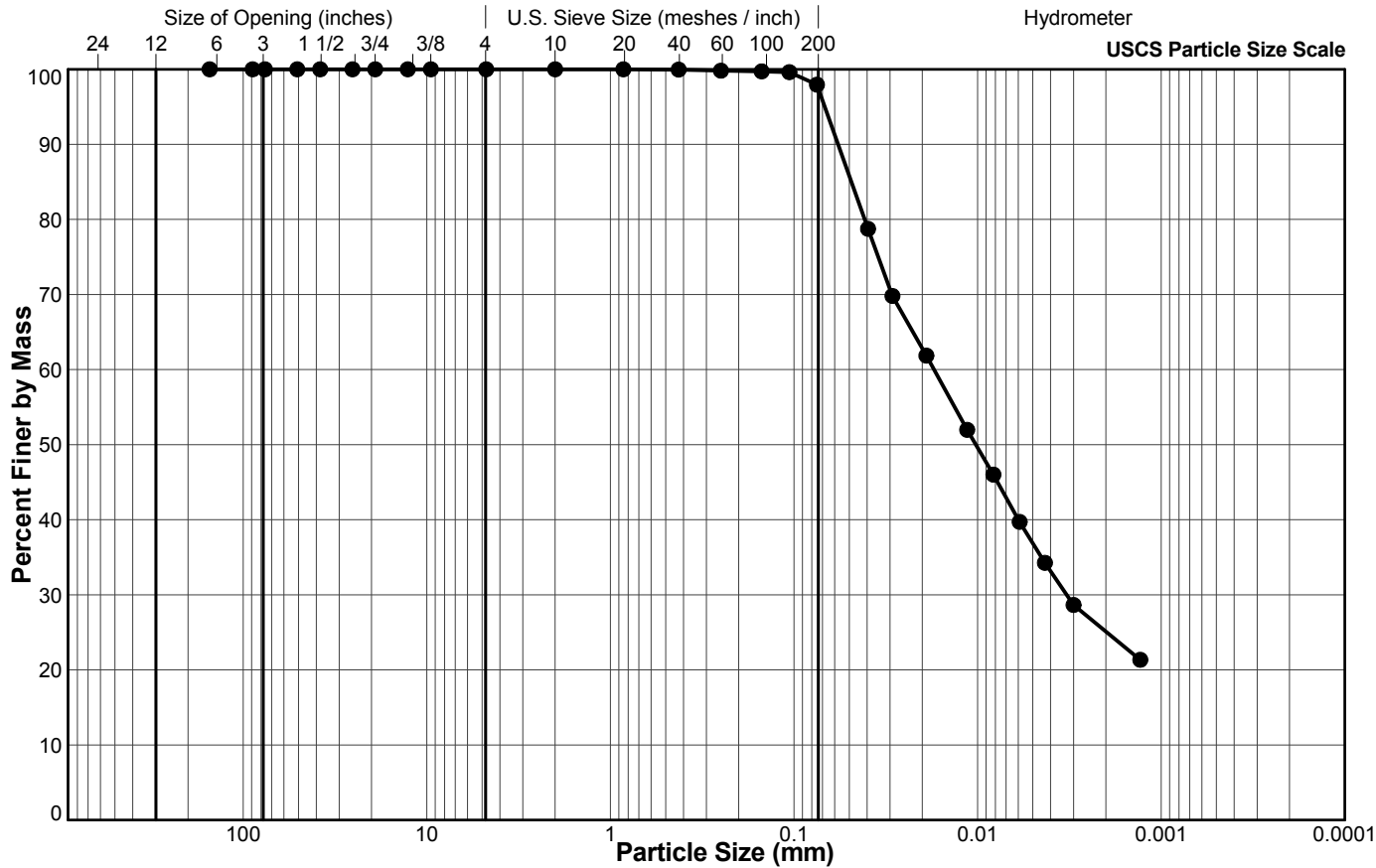


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-01
Sample No.: 48
Depth Interval (m): 76.20 to 76.81
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	99.8
#100 US MESH	0.15	99.7
#140 US MESH	0.106	99.6
#200 US MESH	0.075	98.0
	0.0395	78.8
	0.0291	69.8
	0.0190	61.9
	0.0114	52.0
	0.0082	46.0
	0.0059	39.7
	0.0043	34.3
	0.0030	28.6
	0.0013	21.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

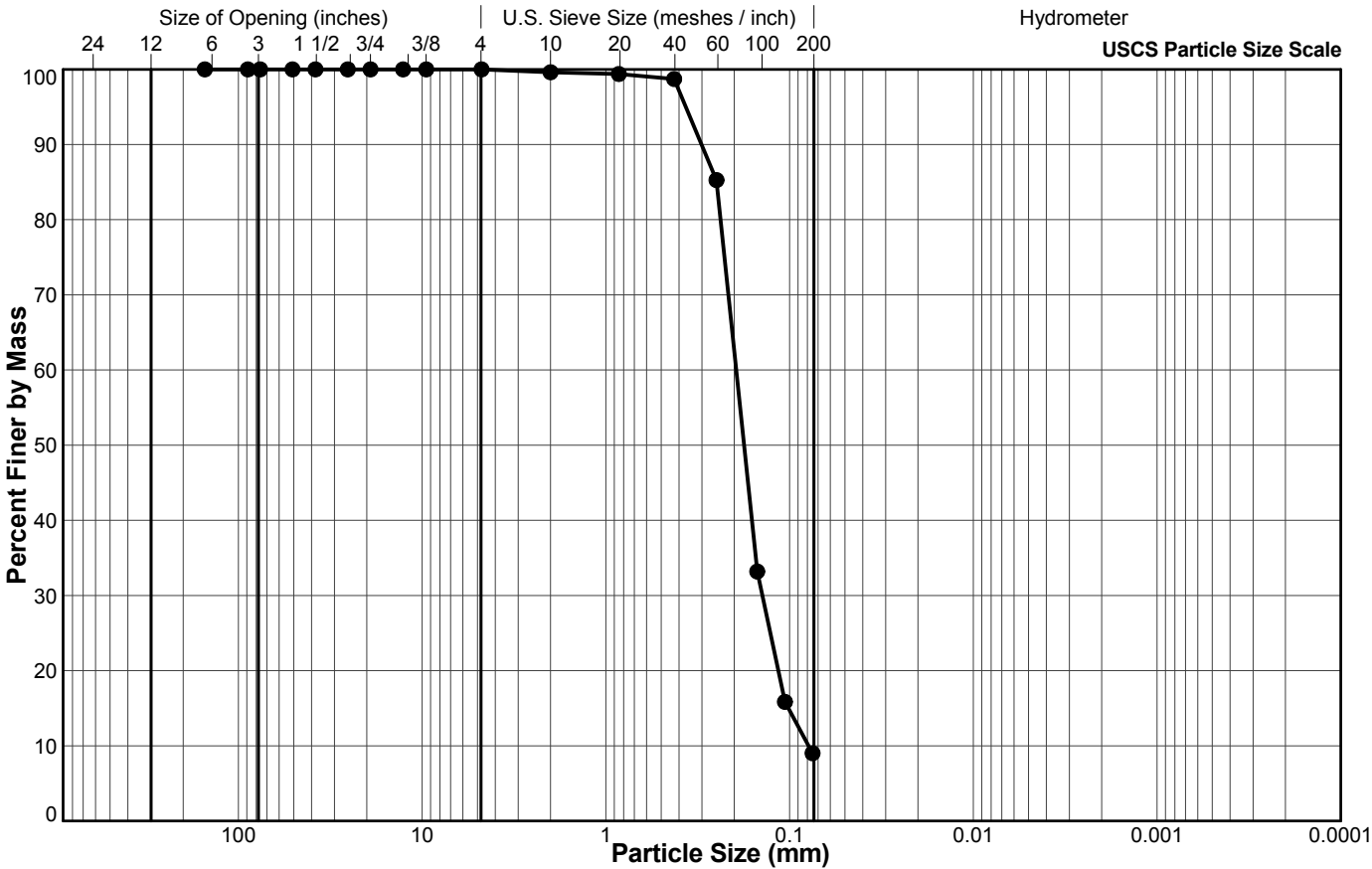


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-02
Sample No.: 4
Depth Interval (m): 8.50 to 9.11
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.6
#20 US MESH	0.85	99.4
#40 US MESH	0.425	98.7
#60 US MESH	0.25	85.3
#100 US MESH	0.15	33.2
#140 US MESH	0.106	15.8
#200 US MESH	0.075	9.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

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Date

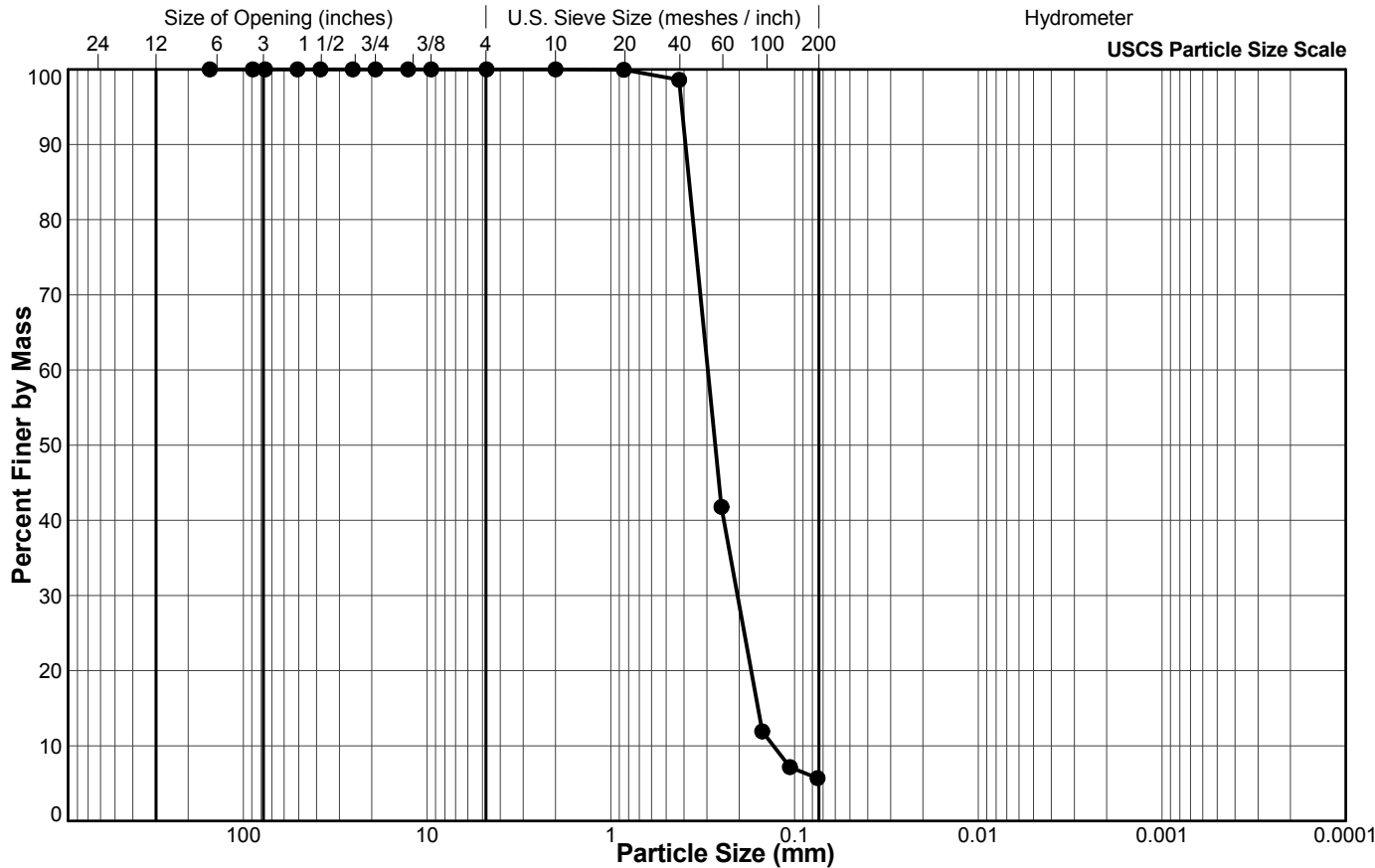


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-02
 Sample No.: 8
 Depth Interval (m): 14.60 to 15.21
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.6
#60 US MESH	0.25	41.8
#100 US MESH	0.15	11.9
#140 US MESH	0.106	7.2
#200 US MESH	0.075	5.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

National IM Server:GINT_GAL_NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 m:maceachern 21/9/17

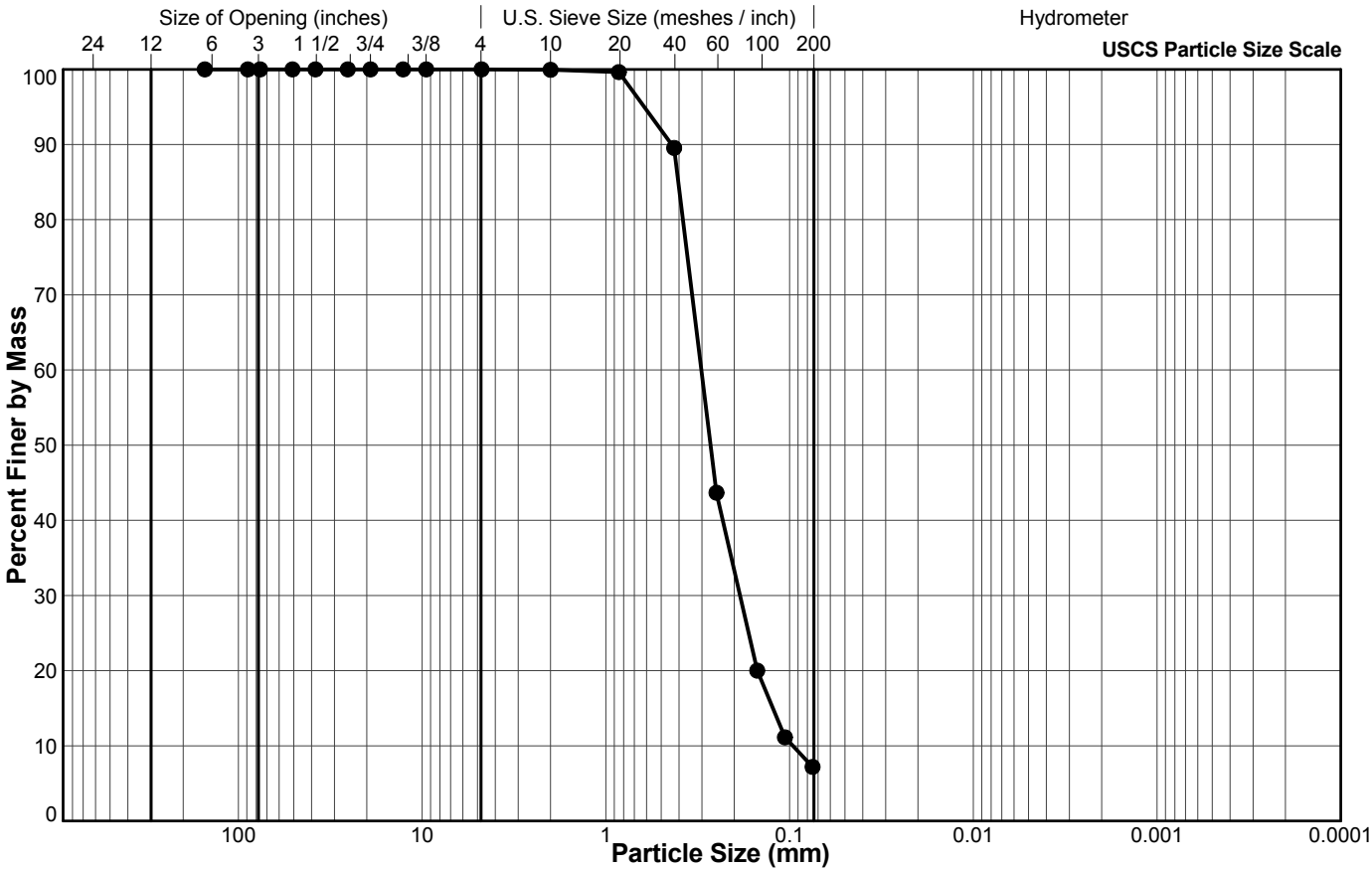


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-02
Sample No.: 12
Depth Interval (m): 20.73 to 21.34
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.6
#40 US MESH	0.425	89.5
#60 US MESH	0.25	43.7
#100 US MESH	0.15	20.0
#140 US MESH	0.106	11.1
#200 US MESH	0.075	7.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

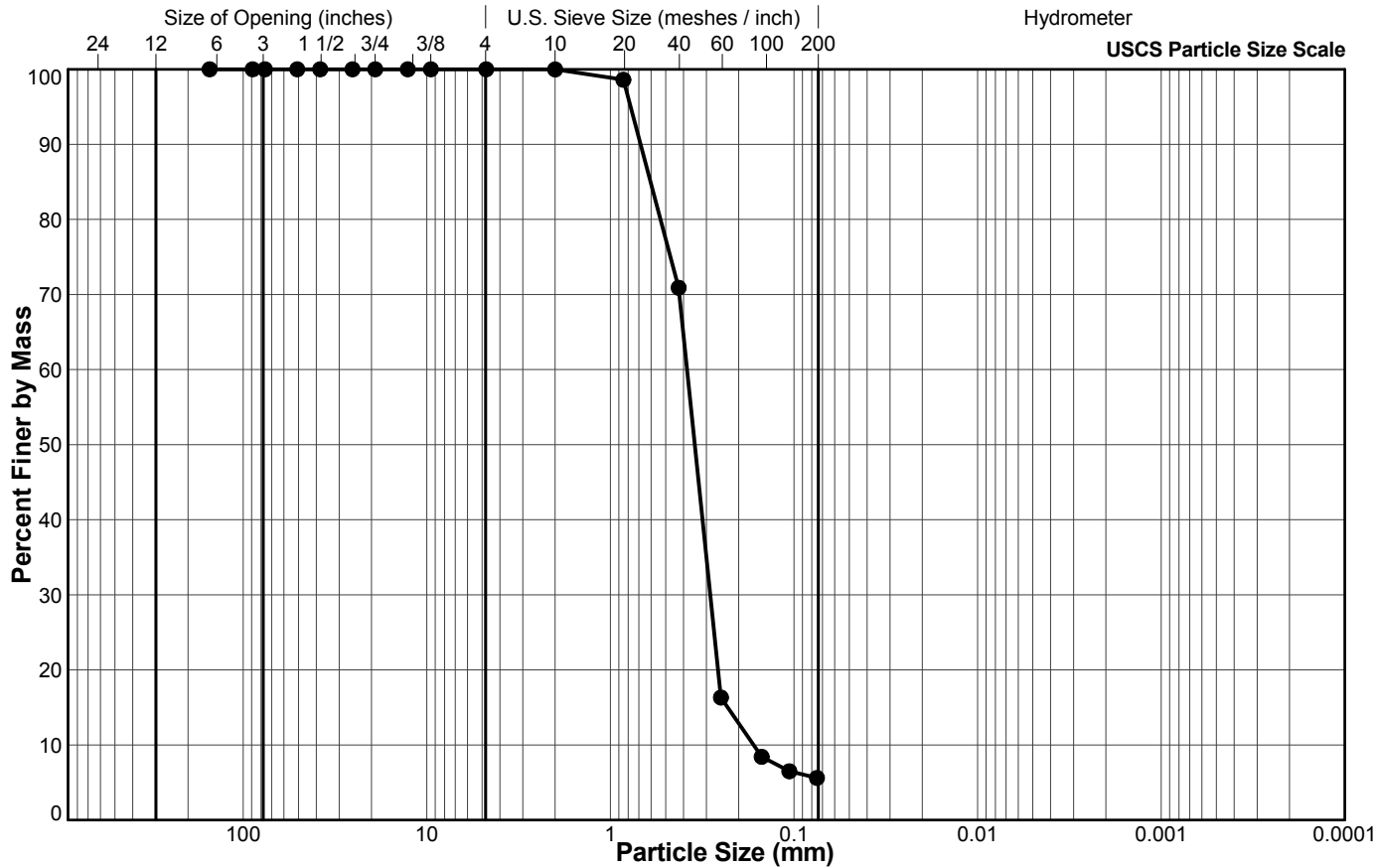


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-02
 Sample No.: 16
 Depth Interval (m): 26.82 to 27.43
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	98.6
#40 US MESH	0.425	70.9
#60 US MESH	0.25	16.3
#100 US MESH	0.15	8.4
#140 US MESH	0.106	6.5
#200 US MESH	0.075	5.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

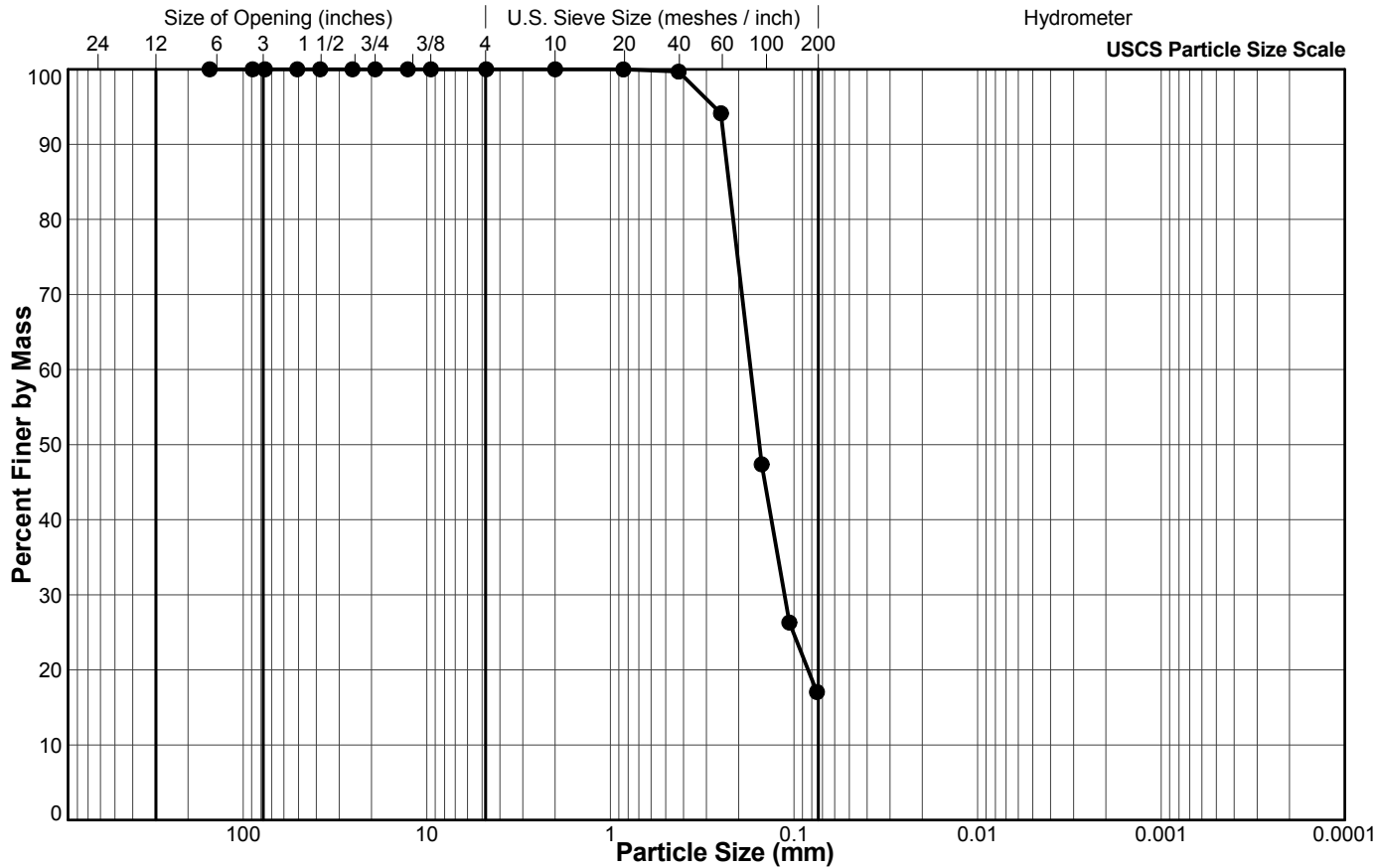


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-02
 Sample No.: 20
 Depth Interval (m): 32.92 to 33.53
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	94.1
#100 US MESH	0.15	47.4
#140 US MESH	0.106	26.3
#200 US MESH	0.075	17.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

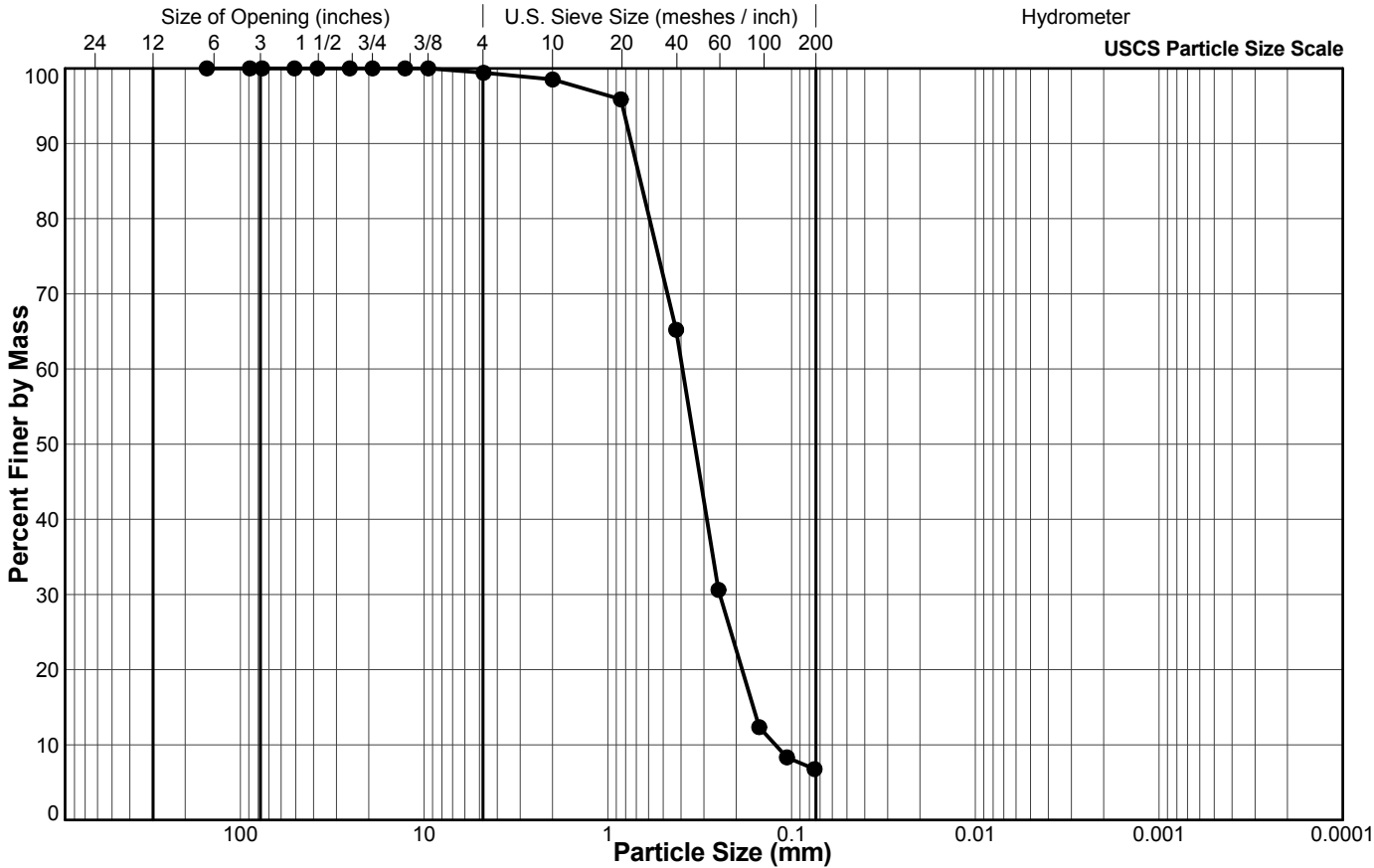


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-02
Sample No.: 24
Depth Interval (m): 39.01 to 39.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.4
#10 US MESH	2	98.5
#20 US MESH	0.85	95.9
#40 US MESH	0.425	65.2
#60 US MESH	0.25	30.6
#100 US MESH	0.15	12.3
#140 US MESH	0.106	8.3
#200 US MESH	0.075	6.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

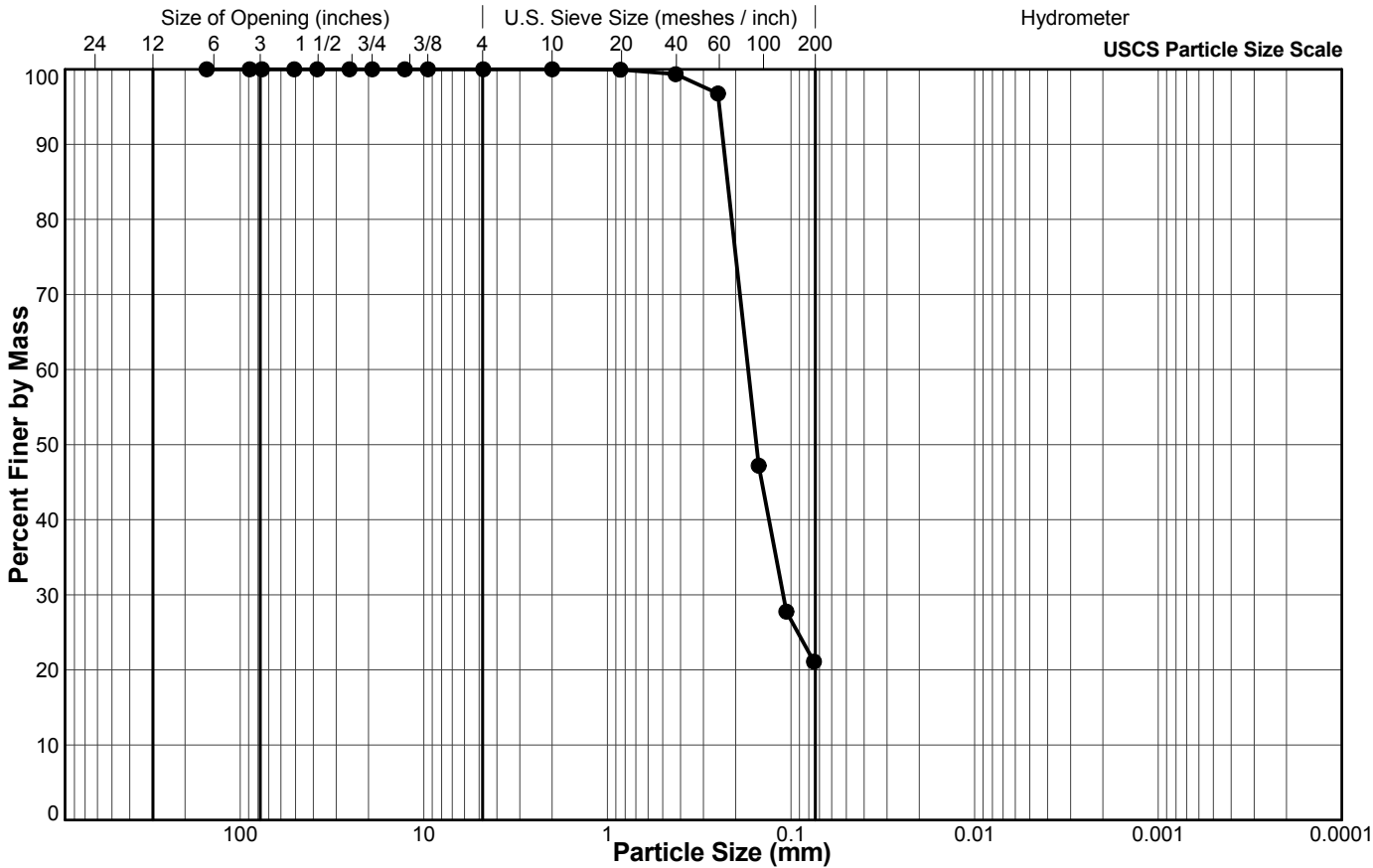


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-02
Sample No.: 29
Depth Interval (m): 46.63 to 47.24
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.3
#60 US MESH	0.25	96.8
#100 US MESH	0.15	47.2
#140 US MESH	0.106	27.8
#200 US MESH	0.075	21.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

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LH

5/10/2016

Tech

Date

Checked

Date

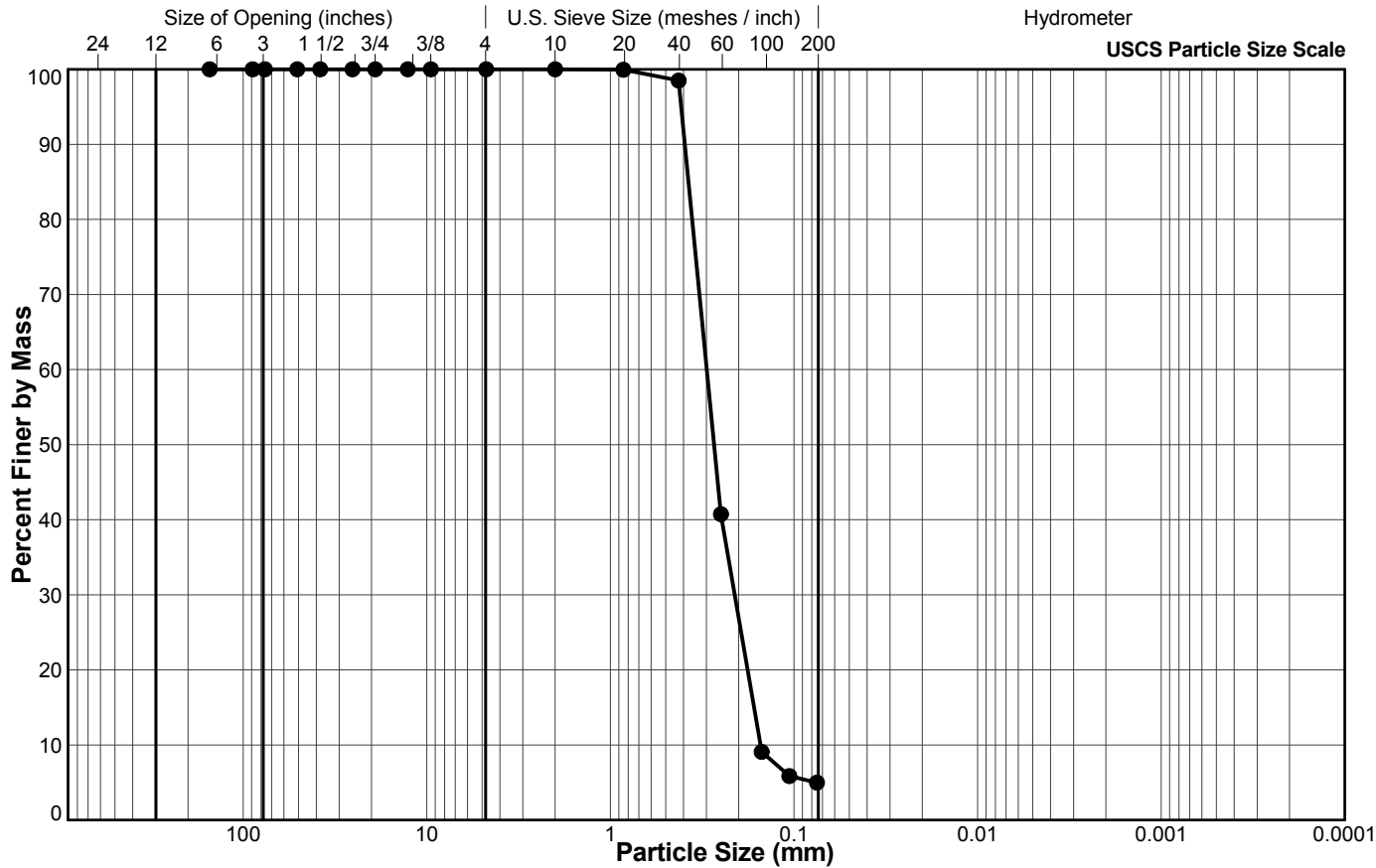


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-03
 Sample No.: 5
 Depth Interval (m): 7.01 to 7.62
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.5
#60 US MESH	0.25	40.7
#100 US MESH	0.15	9.1
#140 US MESH	0.106	5.9
#200 US MESH	0.075	5.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

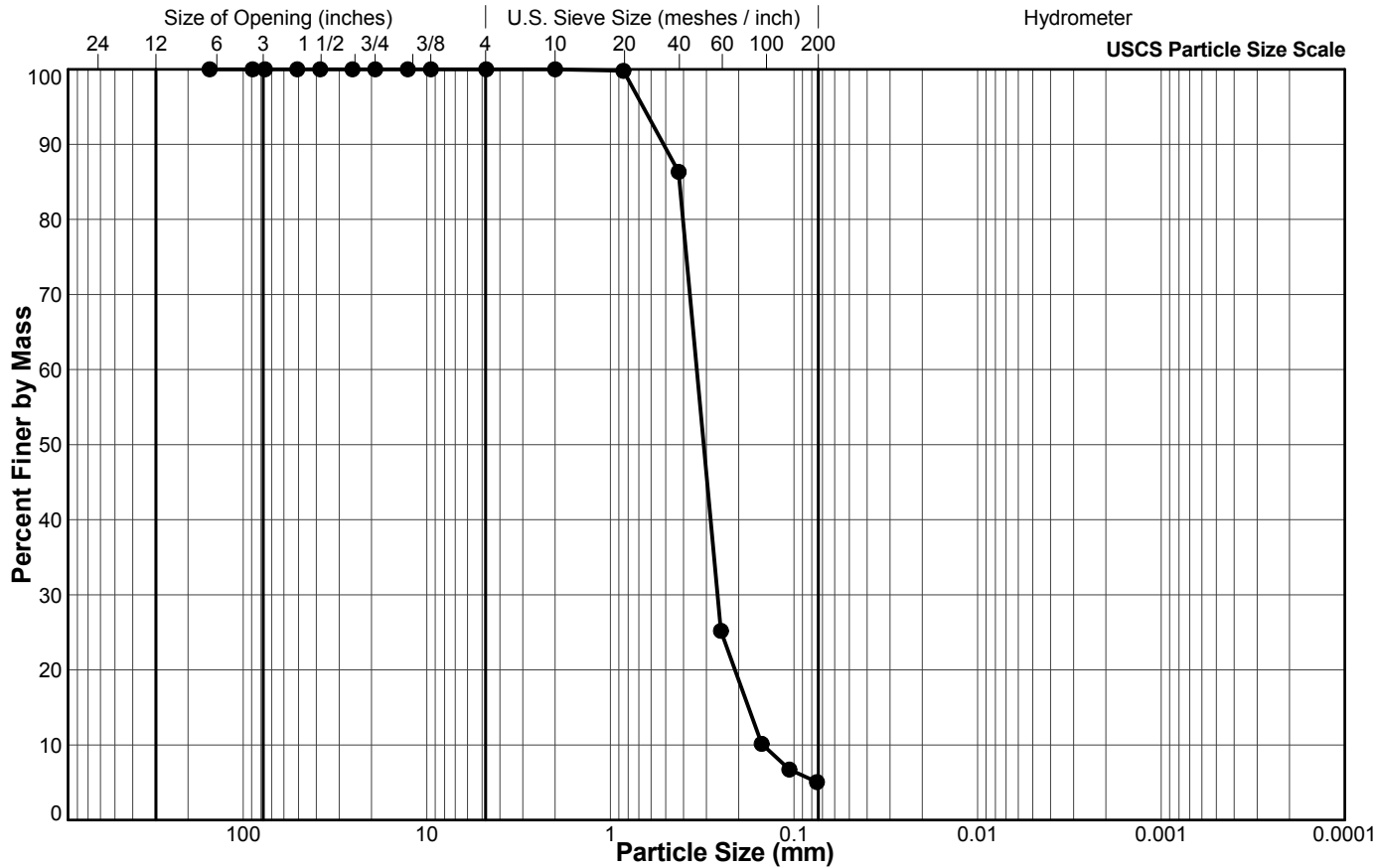


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-03
Sample No.: 10
Depth Interval (m): 14.63 to 15.24
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	86.3
#60 US MESH	0.25	25.2
#100 US MESH	0.15	10.1
#140 US MESH	0.106	6.7
#200 US MESH	0.075	5.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

National IM Server:GINT_GAL_NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 m:maceachern 21/9/17

Golder Associates Ltd.

Suite 200 - 2920 Virtual Way Vancouver, BC, V5M 0C4 CANADA
 Tel: +1 (604) 296 4200 Fax: +1 (604) 298 5253 www.golder.com

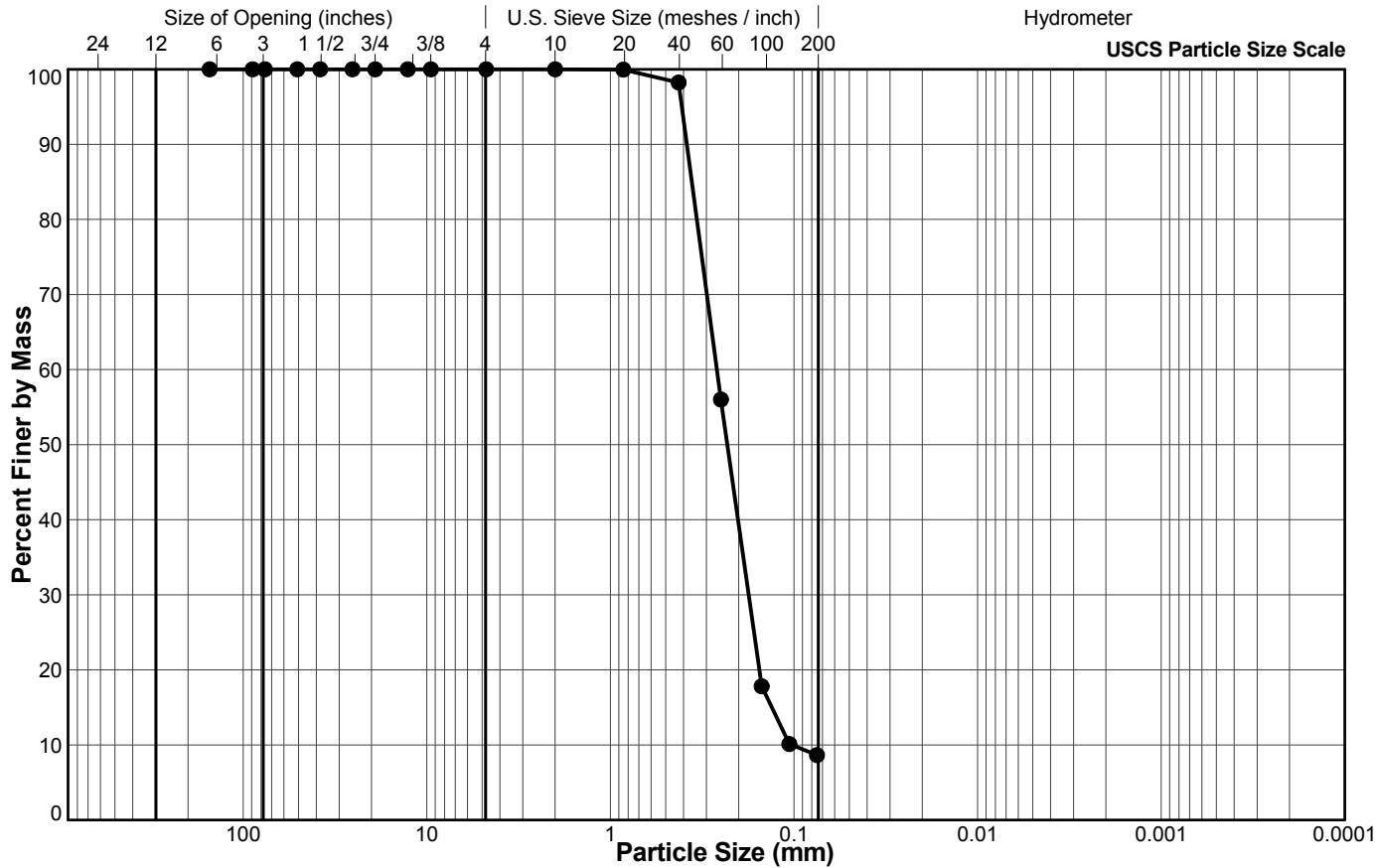


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-03
 Sample No.: 13
 Depth Interval (m): 19.20 to 19.81
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	98.2
#60 US MESH	0.25	56.0
#100 US MESH	0.15	17.8
#140 US MESH	0.106	10.1
#200 US MESH	0.075	8.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

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5/10/2016

Tech

Date

Checked

Date

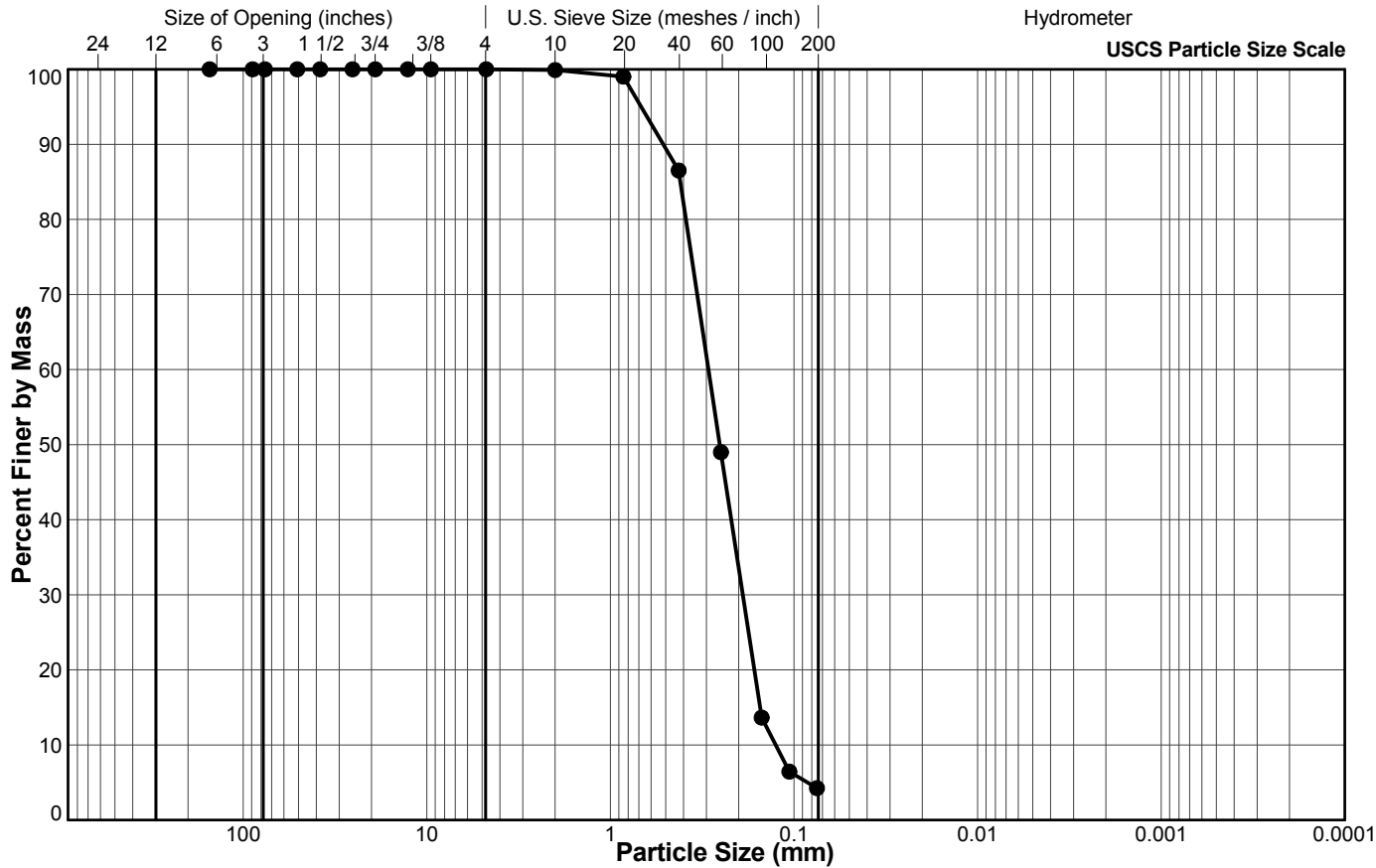


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-03
 Sample No.: 16
 Depth Interval (m): 23.77 to 24.38
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.0
#40 US MESH	0.425	86.5
#60 US MESH	0.25	49.0
#100 US MESH	0.15	13.6
#140 US MESH	0.106	6.4
#200 US MESH	0.075	4.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

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LH

5/10/2016

Tech

Date

Checked

Date

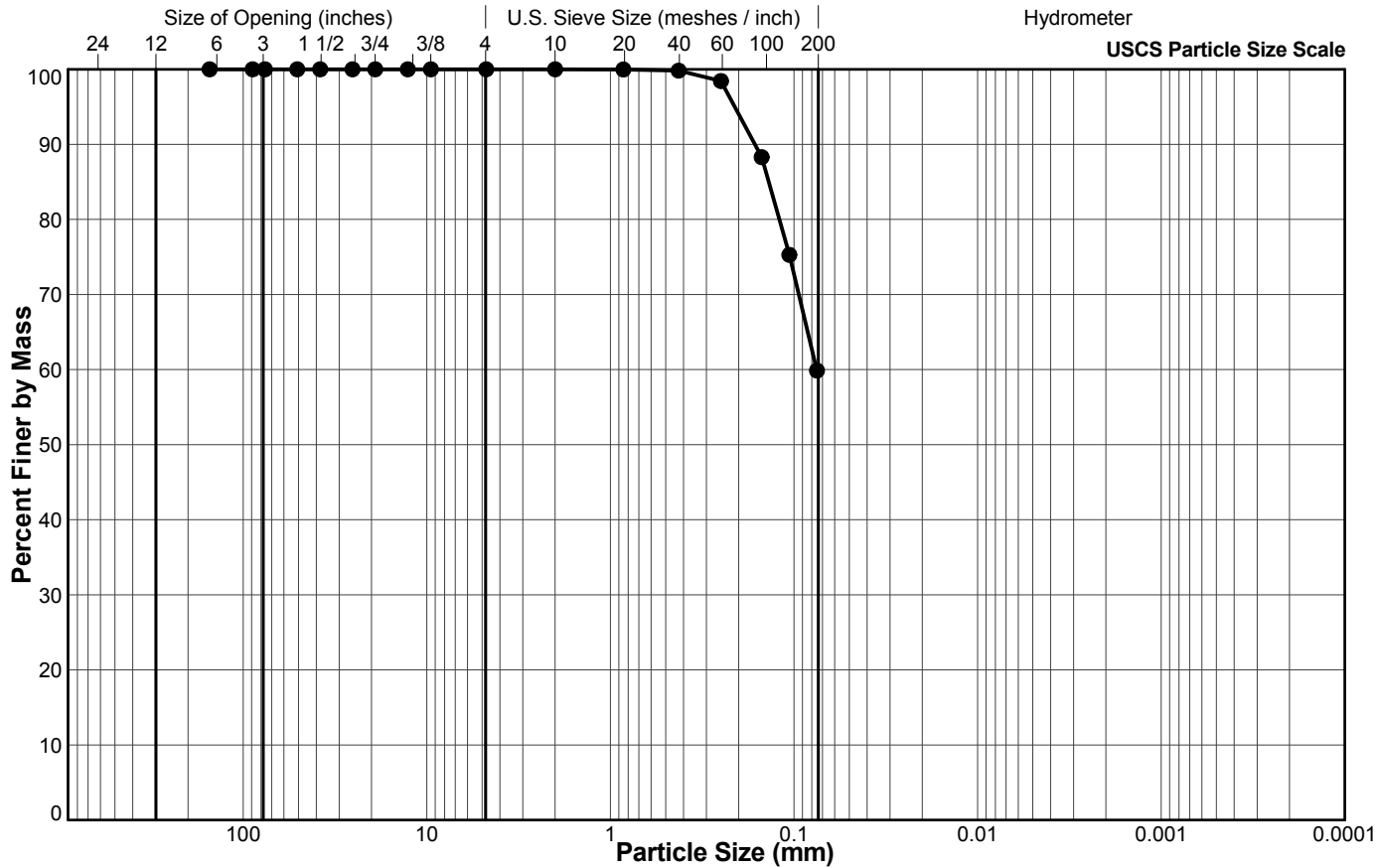


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-03
Sample No.: 21
Depth Interval (m): 31.39 to 32.00
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	98.4
#100 US MESH	0.15	88.3
#140 US MESH	0.106	75.3
#200 US MESH	0.075	59.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

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LH

5/10/2016

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Date

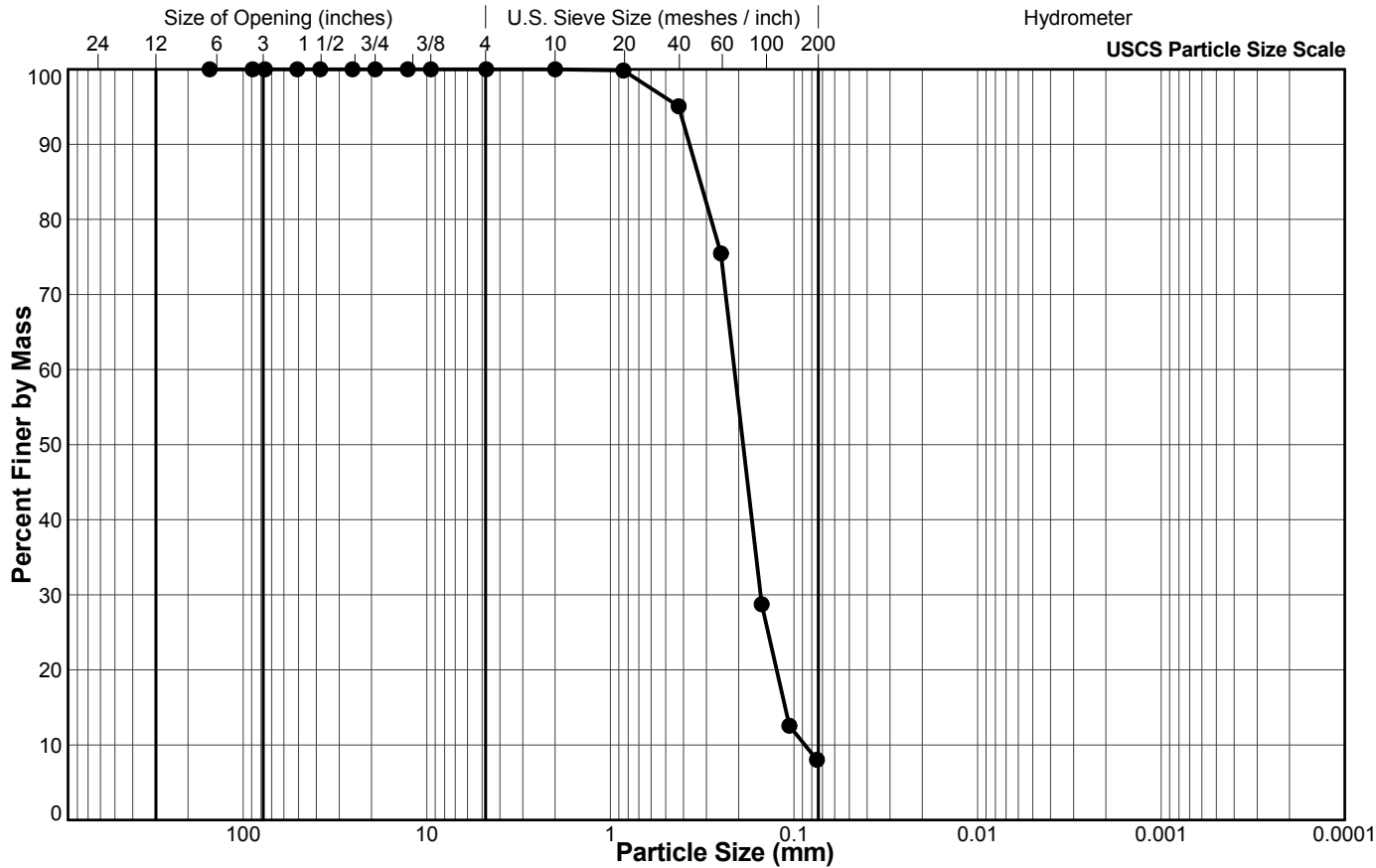


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-03
Sample No.: 24
Depth Interval (m): 35.92 to 36.53
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	95.1
#60 US MESH	0.25	75.5
#100 US MESH	0.15	28.7
#140 US MESH	0.106	12.6
#200 US MESH	0.075	8.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

Checked

Date

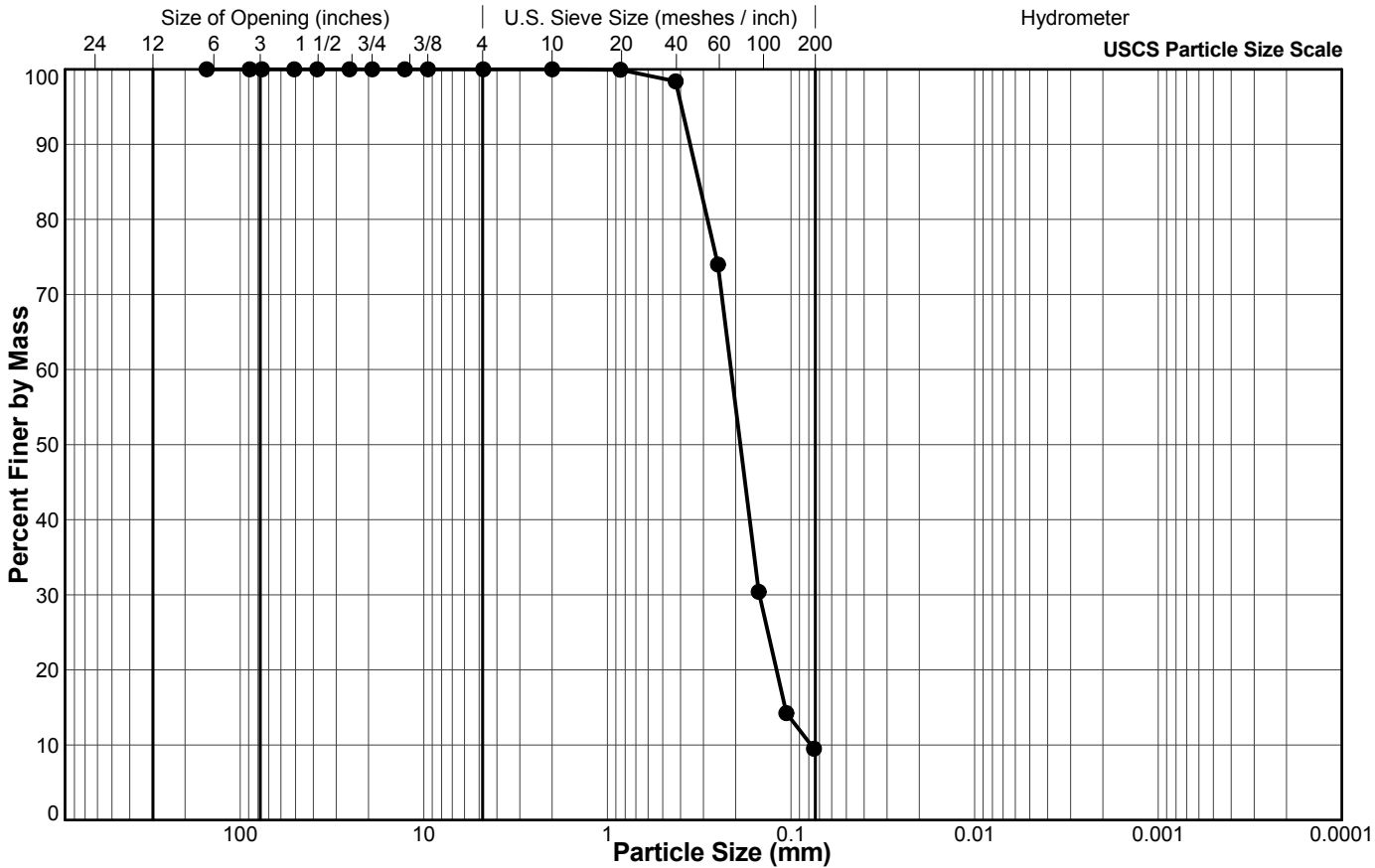


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-03
Sample No.: 28
Depth Interval (m): 42.01 to 42.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.4
#60 US MESH	0.25	74.0
#100 US MESH	0.15	30.4
#140 US MESH	0.106	14.2
#200 US MESH	0.075	9.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

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Date

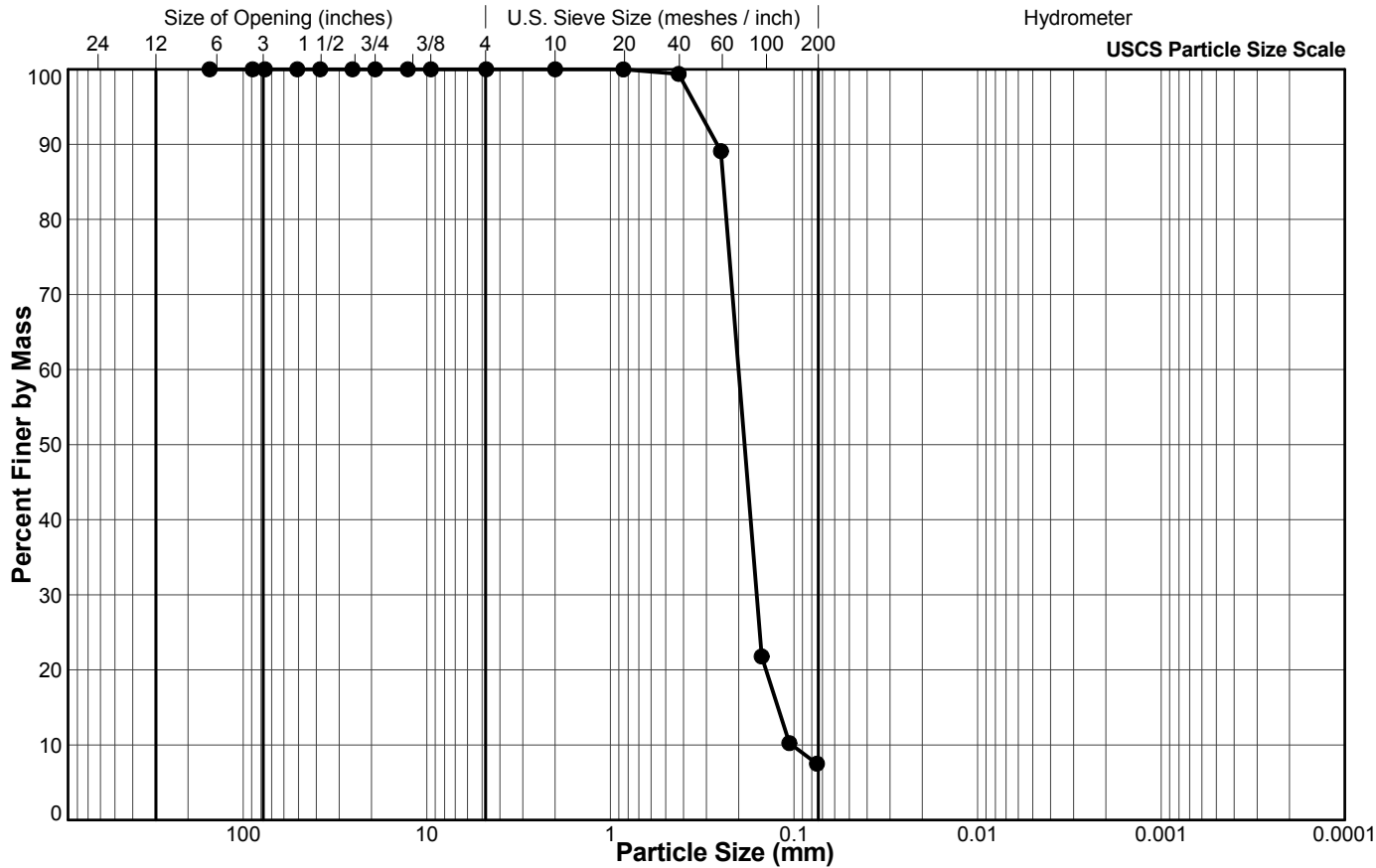


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-03
 Sample No.: 31
 Depth Interval (m): 46.63 to 47.24
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.4
#60 US MESH	0.25	89.1
#100 US MESH	0.15	21.8
#140 US MESH	0.106	10.2
#200 US MESH	0.075	7.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP/DC

5/2/2016

LH

5/10/2016

Tech

Date

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Date

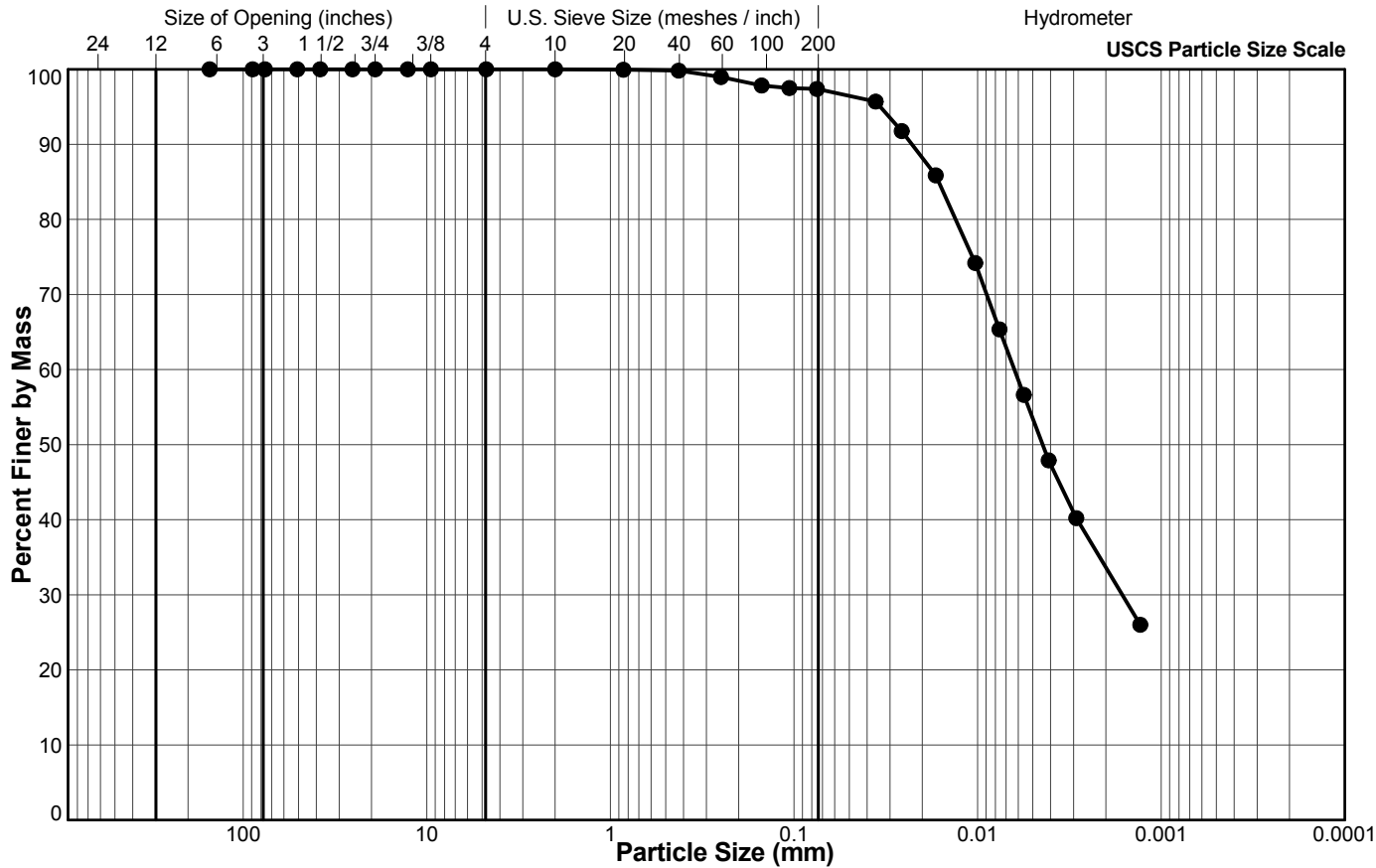


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-03
 Sample No.: 43
 Depth Interval (m): 64.92 to 65.53
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.0
#100 US MESH	0.15	97.8
#140 US MESH	0.106	97.5
#200 US MESH	0.075	97.4
	0.0359	95.7
	0.0259	91.8
	0.0169	85.9
	0.0103	74.2
	0.0076	65.4
	0.0056	56.6
	0.0041	47.9
	0.0029	40.2
	0.0013	26.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

5/3/2016

LH

5/10/2016

Tech

Date

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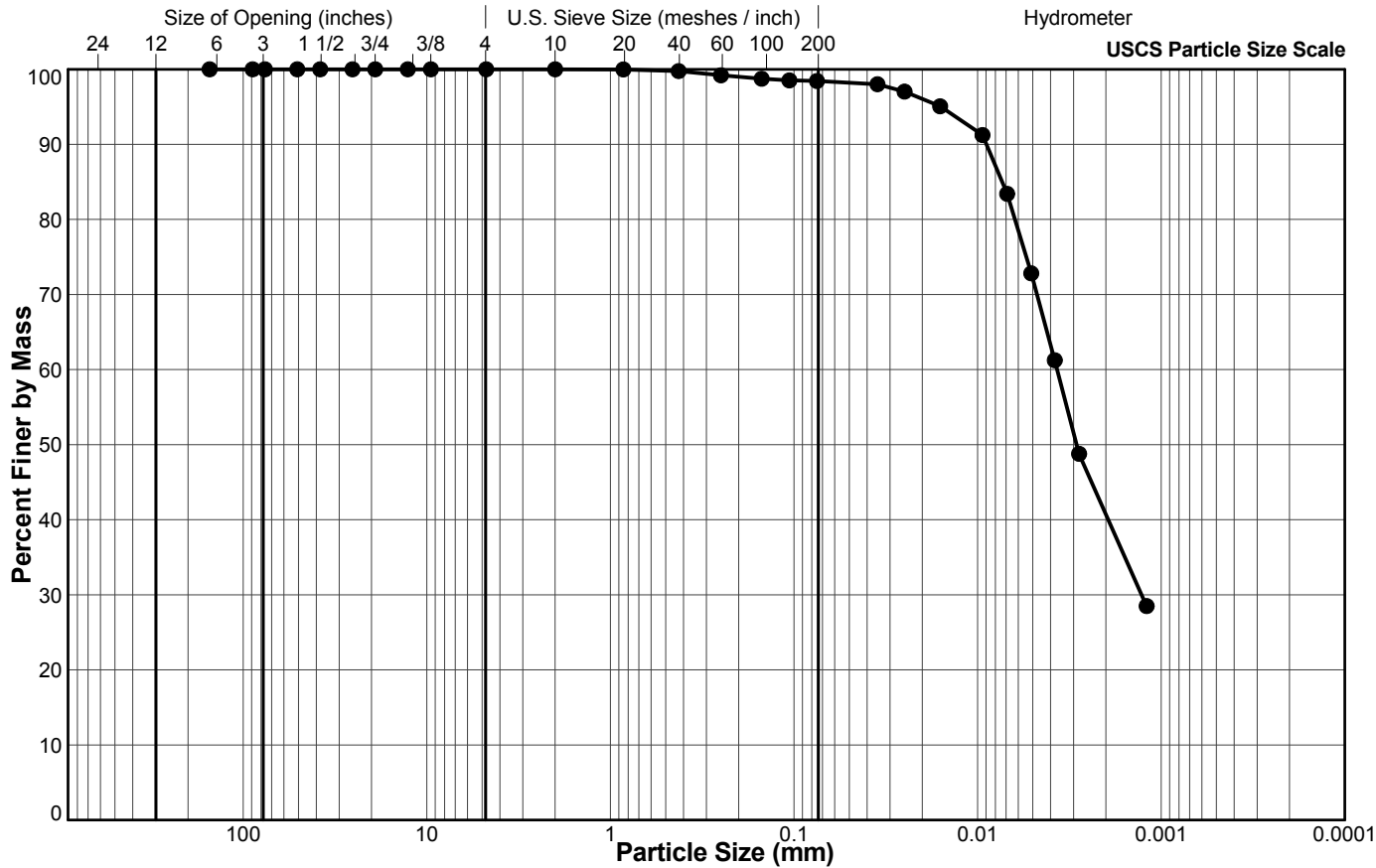


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-03
Sample No.: 47
Depth Interval (m): 72.54 to 73.15
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.2
#100 US MESH	0.15	98.7
#140 US MESH	0.106	98.5
#200 US MESH	0.075	98.4
	0.0351	98.0
	0.0250	97.0
	0.0160	95.1
	0.0094	91.2
	0.0069	83.4
	0.0051	72.8
	0.0038	61.2
	0.0028	48.8
	0.0012	28.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

5/3/2016

LH

5/10/2016

Tech

Date

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Date

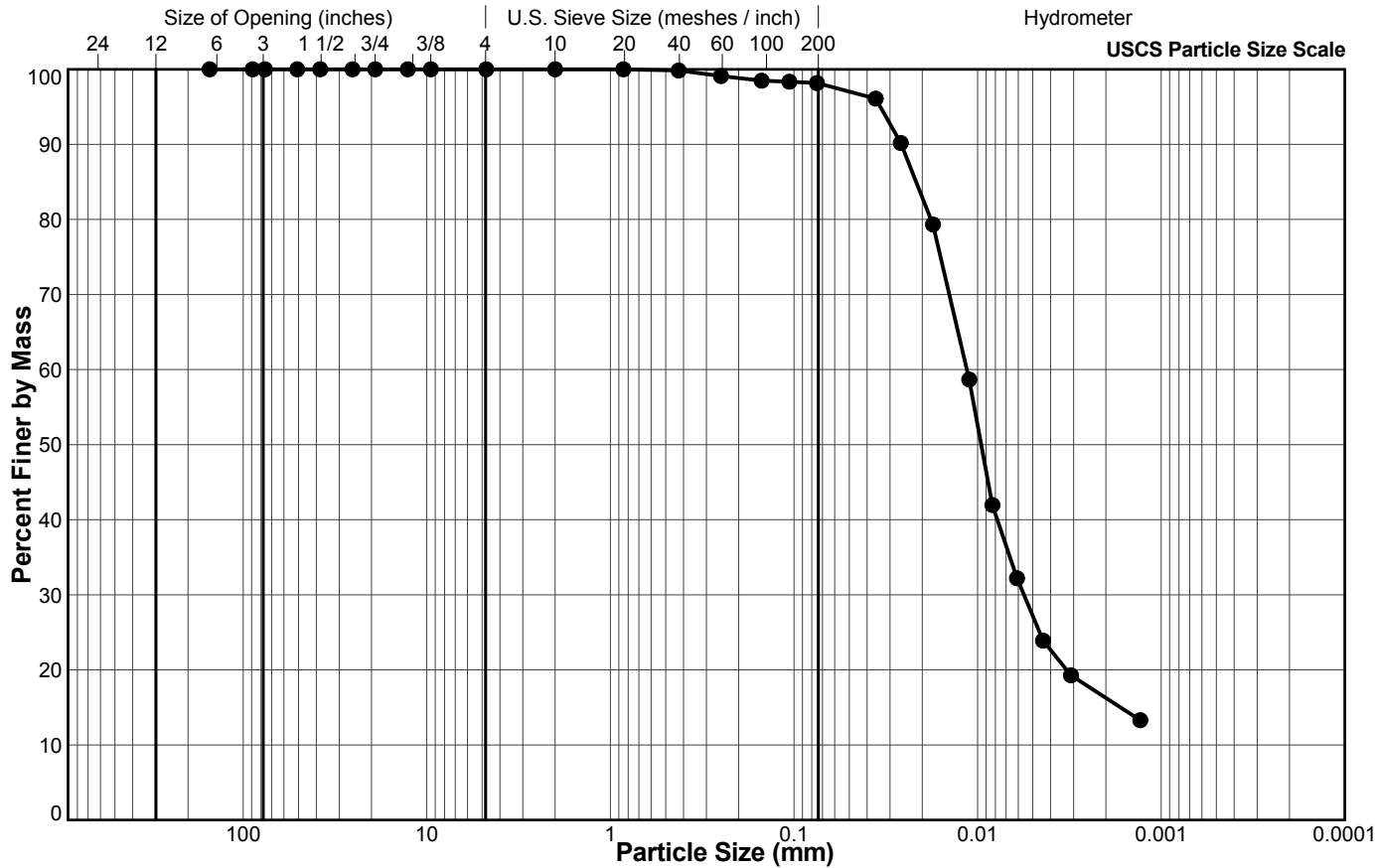


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-03
 Sample No.: 49
 Depth Interval (m): 77.11 to 77.72
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.1
#100 US MESH	0.15	98.5
#140 US MESH	0.106	98.3
#200 US MESH	0.075	98.2
	0.0359	96.1
	0.0262	90.2
	0.0175	79.3
	0.0111	58.7
	0.0083	42.0
	0.0061	32.2
	0.0044	23.9
	0.0031	19.3
	0.0013	13.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/OA

5/3/2016

LH

5/10/2016

Tech

Date

Checked

Date

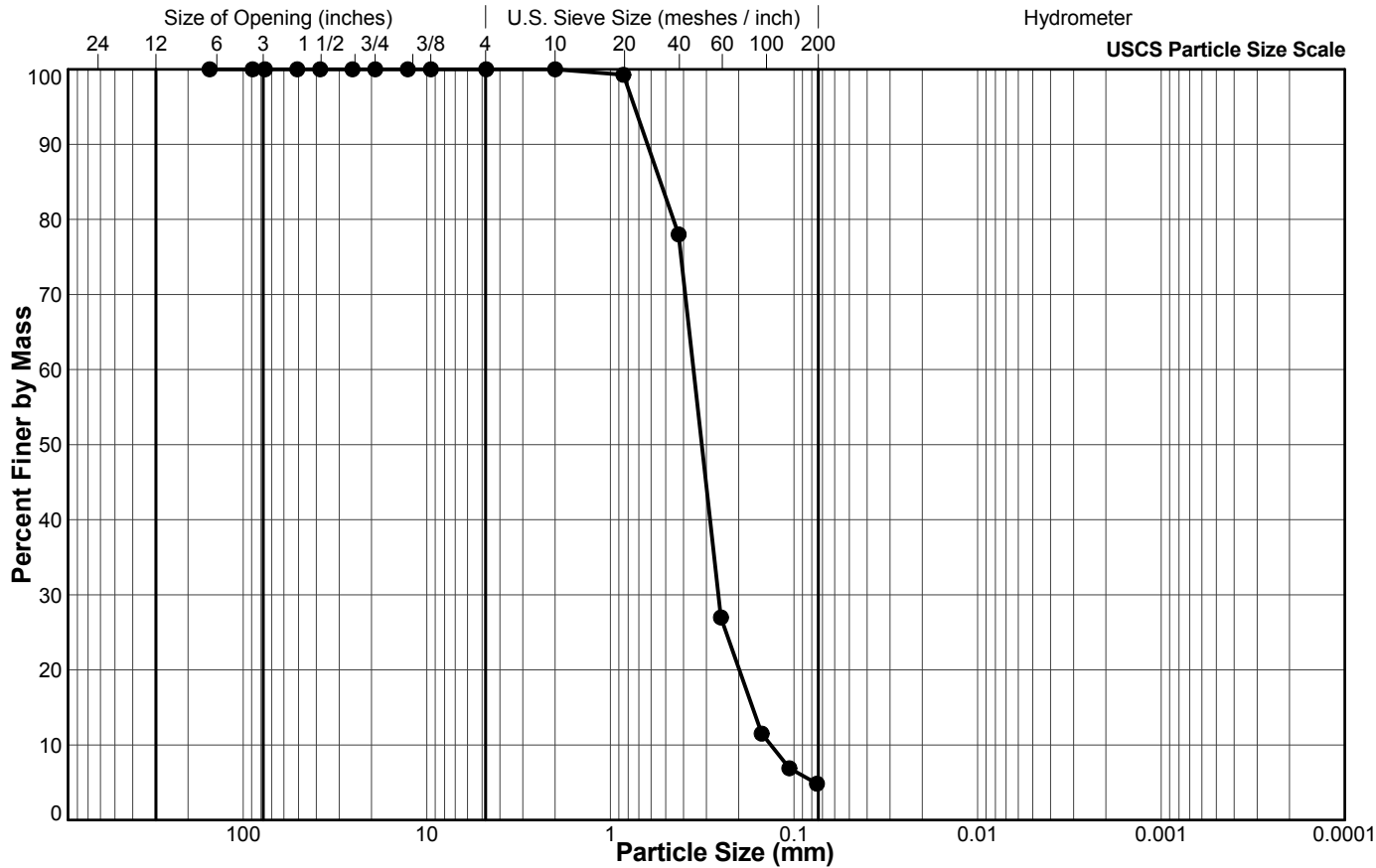


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-04
 Sample No.: 6
 Depth Interval (m): 10.97 to 11.58
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.3
#40 US MESH	0.425	78.0
#60 US MESH	0.25	27.0
#100 US MESH	0.15	11.5
#140 US MESH	0.106	6.9
#200 US MESH	0.075	4.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

Checked

Date

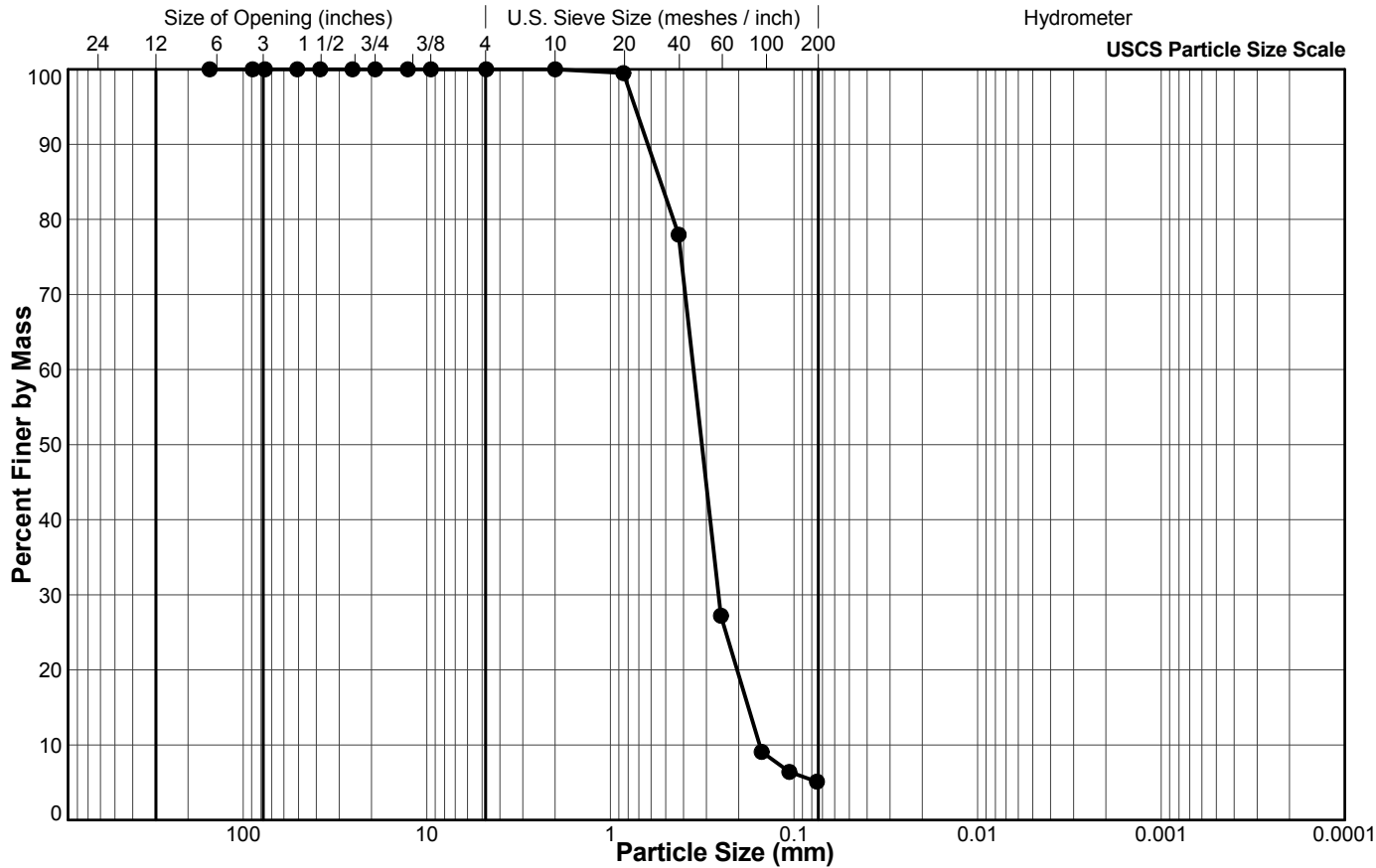


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-04
Sample No.: 12
Depth Interval (m): 20.73 to 21.34
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.5
#40 US MESH	0.425	78.0
#60 US MESH	0.25	27.2
#100 US MESH	0.15	9.1
#140 US MESH	0.106	6.4
#200 US MESH	0.075	5.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

Checked

Date

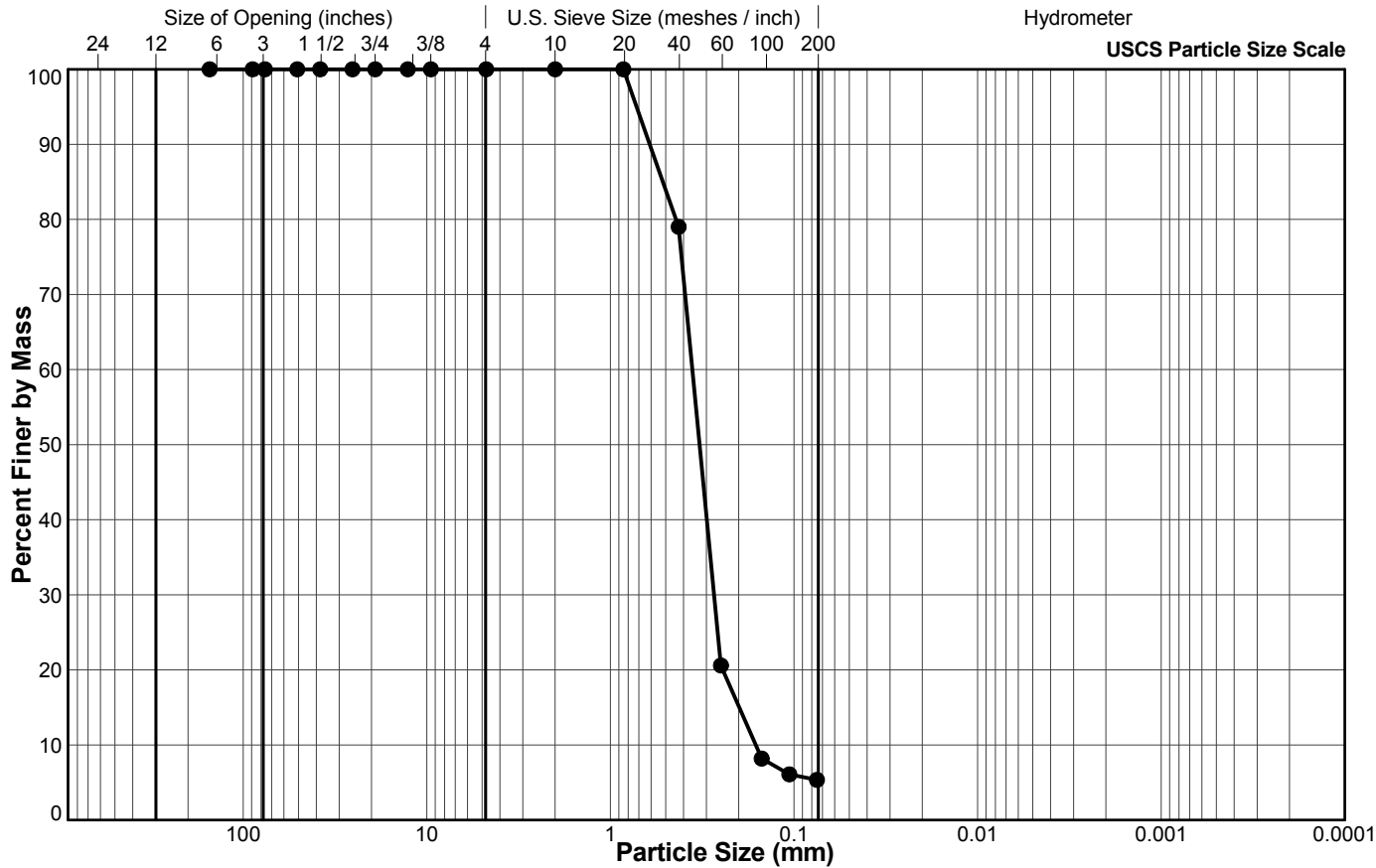


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-04
 Sample No.: 18
 Depth Interval (m): 29.92 to 30.53
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	79.0
#60 US MESH	0.25	20.6
#100 US MESH	0.15	8.2
#140 US MESH	0.106	6.1
#200 US MESH	0.075	5.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

Checked

Date

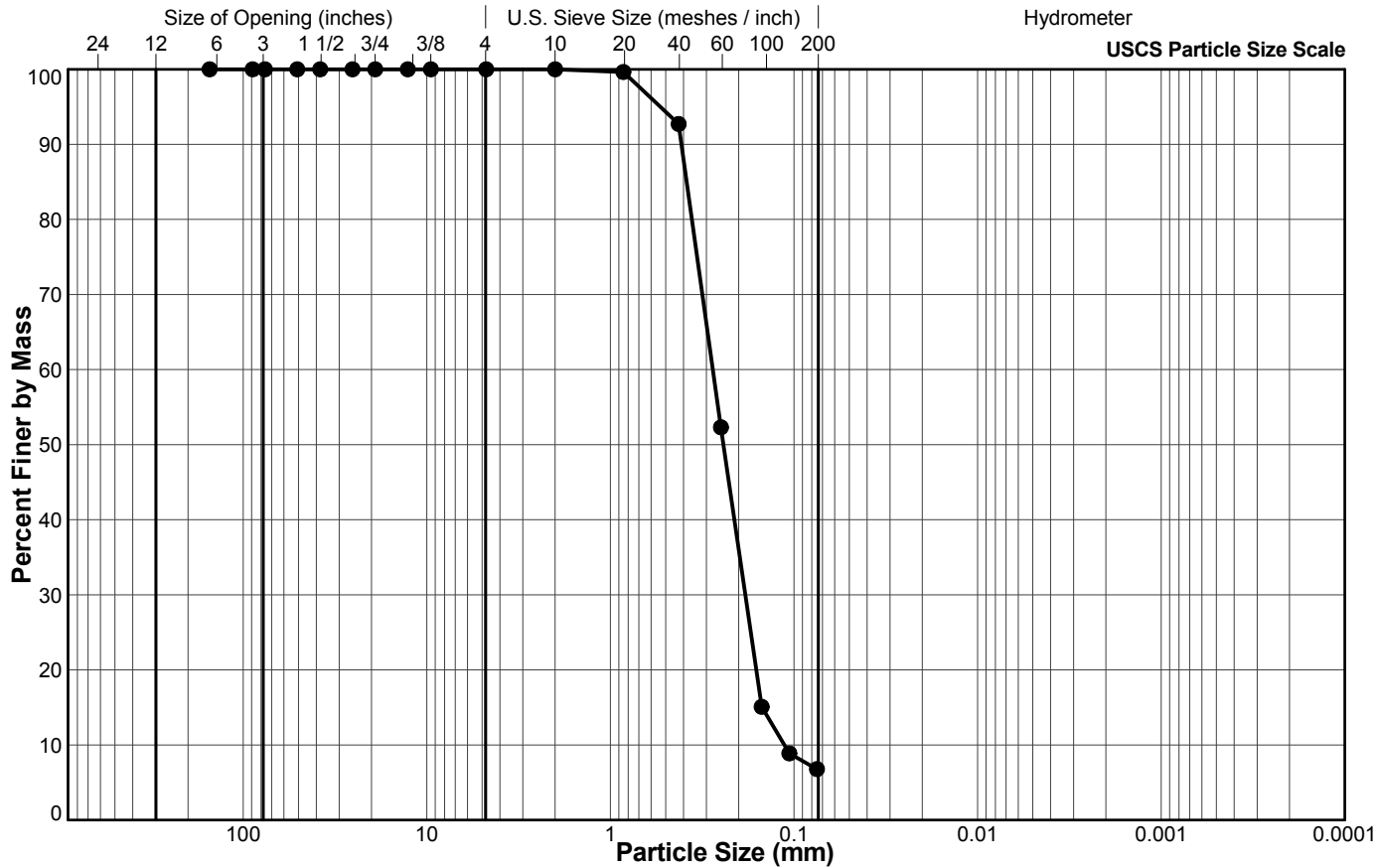


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-04
Sample No.: 25
Depth Interval (m): 40.54 to 41.15
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.6
#40 US MESH	0.425	92.7
#60 US MESH	0.25	52.3
#100 US MESH	0.15	15.1
#140 US MESH	0.106	8.9
#200 US MESH	0.075	6.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

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Date

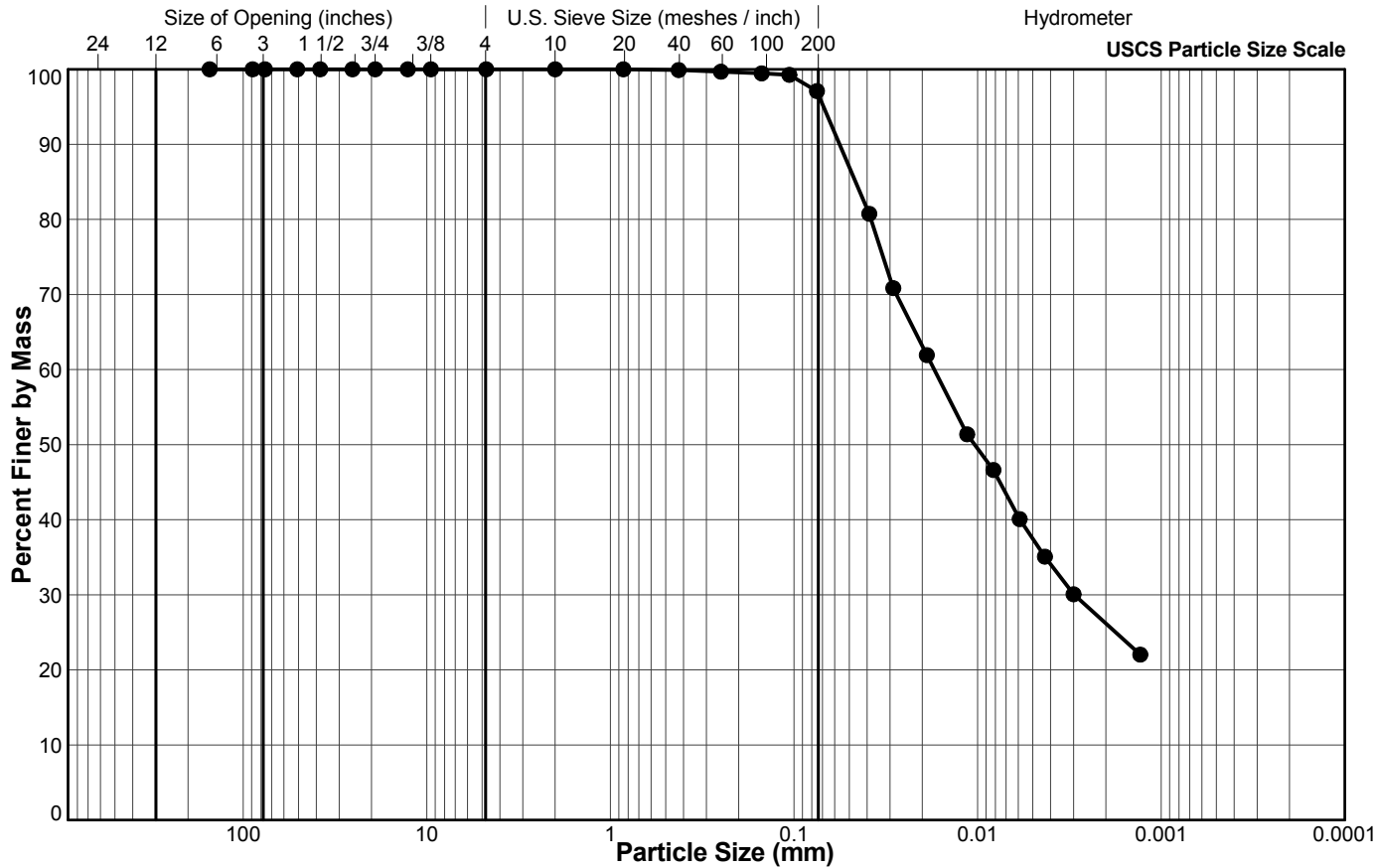


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-04
Sample No.: 32
Depth Interval (m): 51.21 to 51.82
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	99.7
#100 US MESH	0.15	99.5
#140 US MESH	0.106	99.3
#200 US MESH	0.075	97.1
	0.0389	80.8
	0.0288	70.8
	0.0189	61.9
	0.0114	51.4
	0.0082	46.6
	0.0059	40.1
	0.0043	35.1
	0.0030	30.1
	0.0013	22.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

LH/OA

5/26/2016

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5/27/2016

Tech

Date

Checked

Date

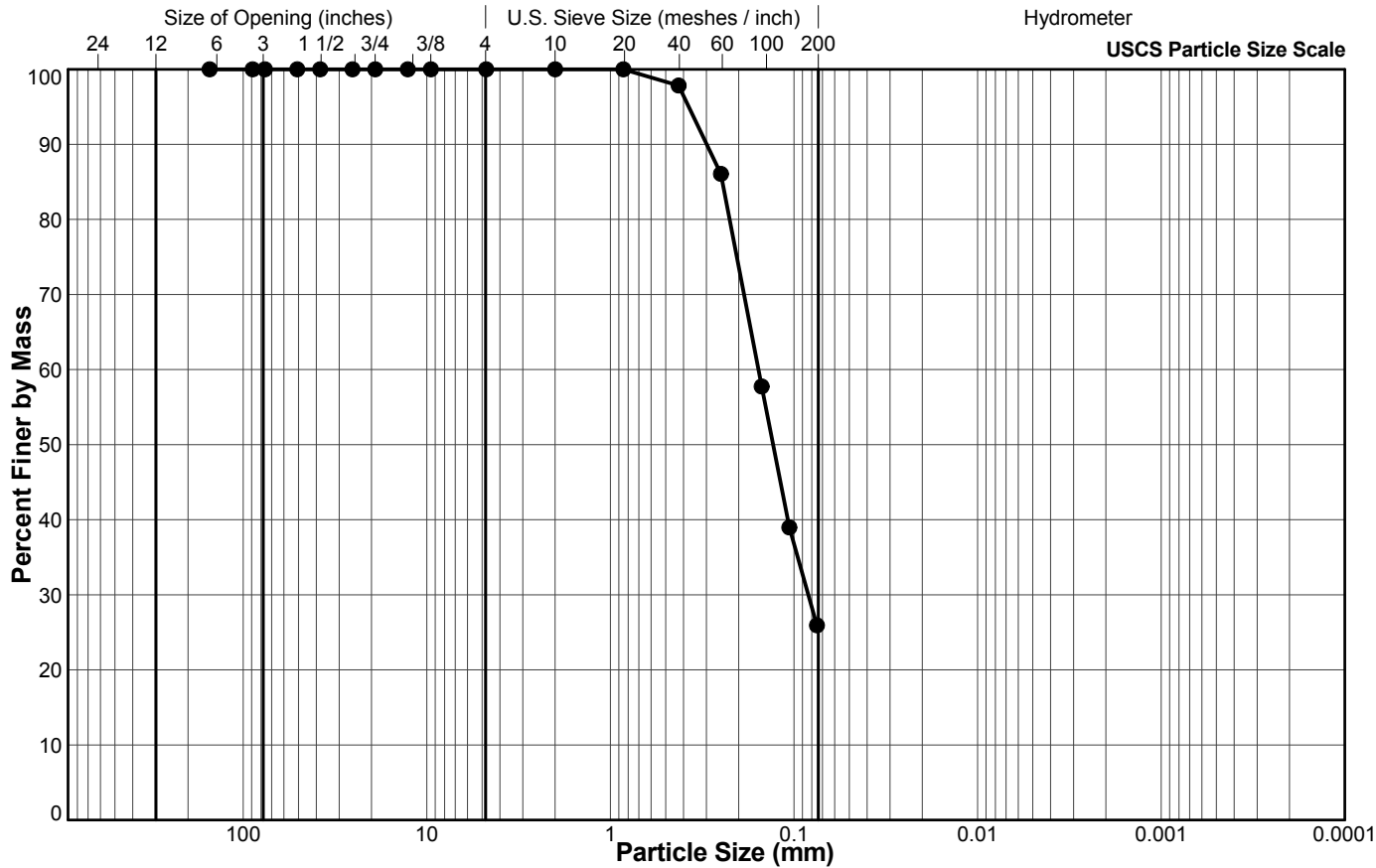


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-05
 Sample No.: 2
 Depth Interval (m): 5.49 to 6.10
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	97.8
#60 US MESH	0.25	86.1
#100 US MESH	0.15	57.7
#140 US MESH	0.106	39.0
#200 US MESH	0.075	25.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ 5/25/2016 LH 5/27/2016
 Tech Date Checked Date

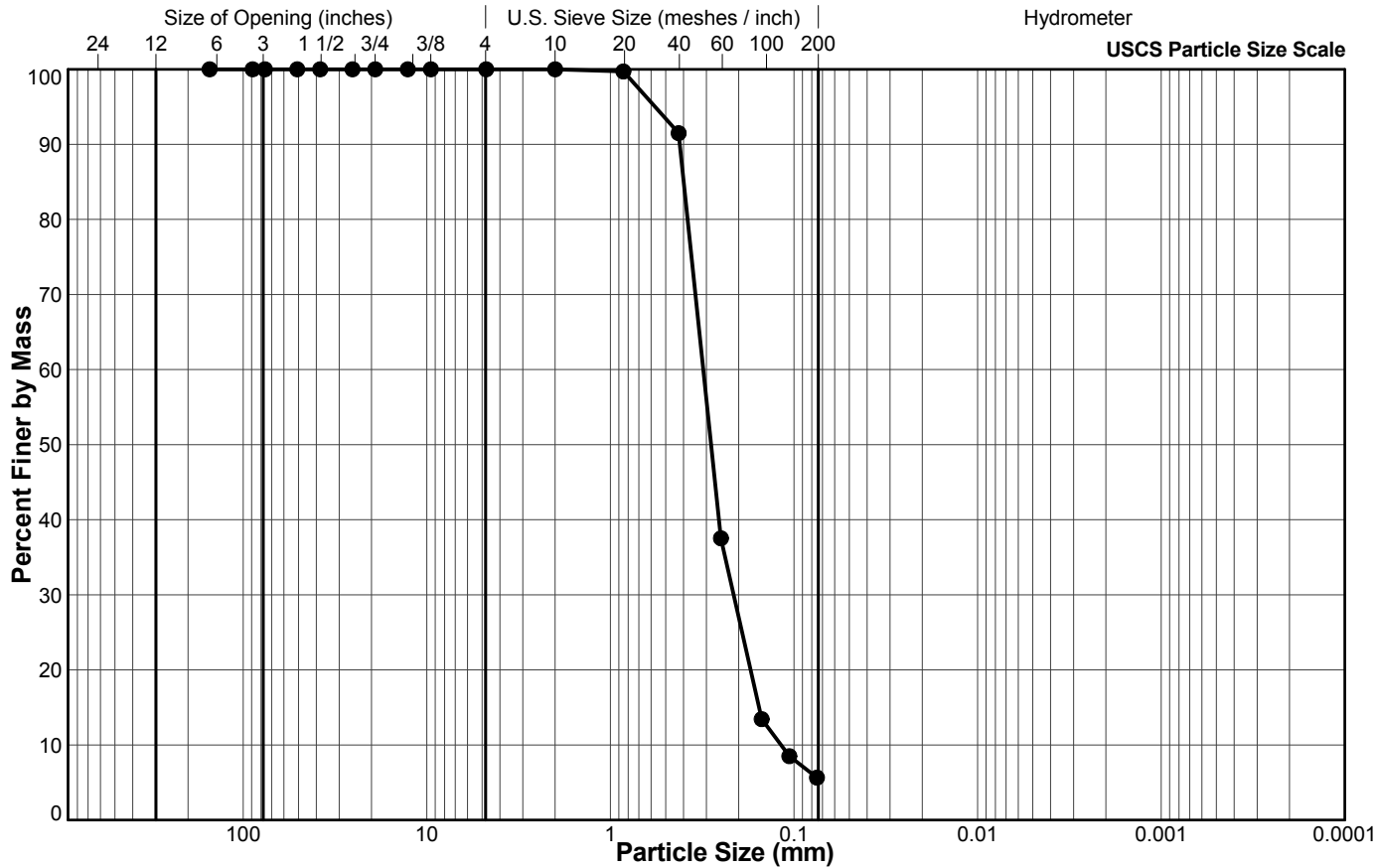


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-05
Sample No.: 8
Depth Interval (m): 14.60 to 15.21
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.7
#40 US MESH	0.425	91.5
#60 US MESH	0.25	37.5
#100 US MESH	0.15	13.4
#140 US MESH	0.106	8.5
#200 US MESH	0.075	5.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

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Date

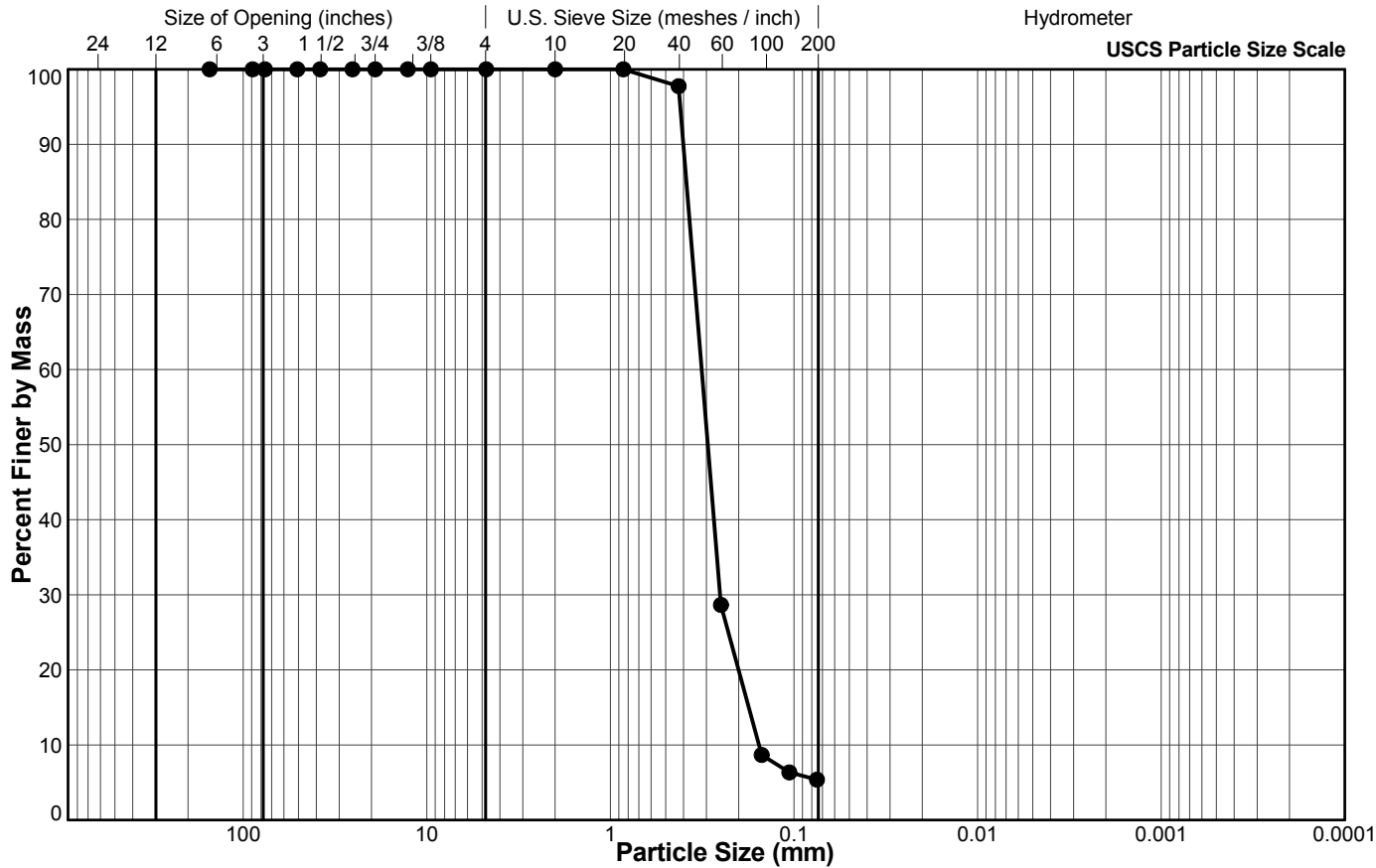


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-05
Sample No.: 15
Depth Interval (m): 25.30 to 25.91
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	97.8
#60 US MESH	0.25	28.7
#100 US MESH	0.15	8.7
#140 US MESH	0.106	6.3
#200 US MESH	0.075	5.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

Checked

Date

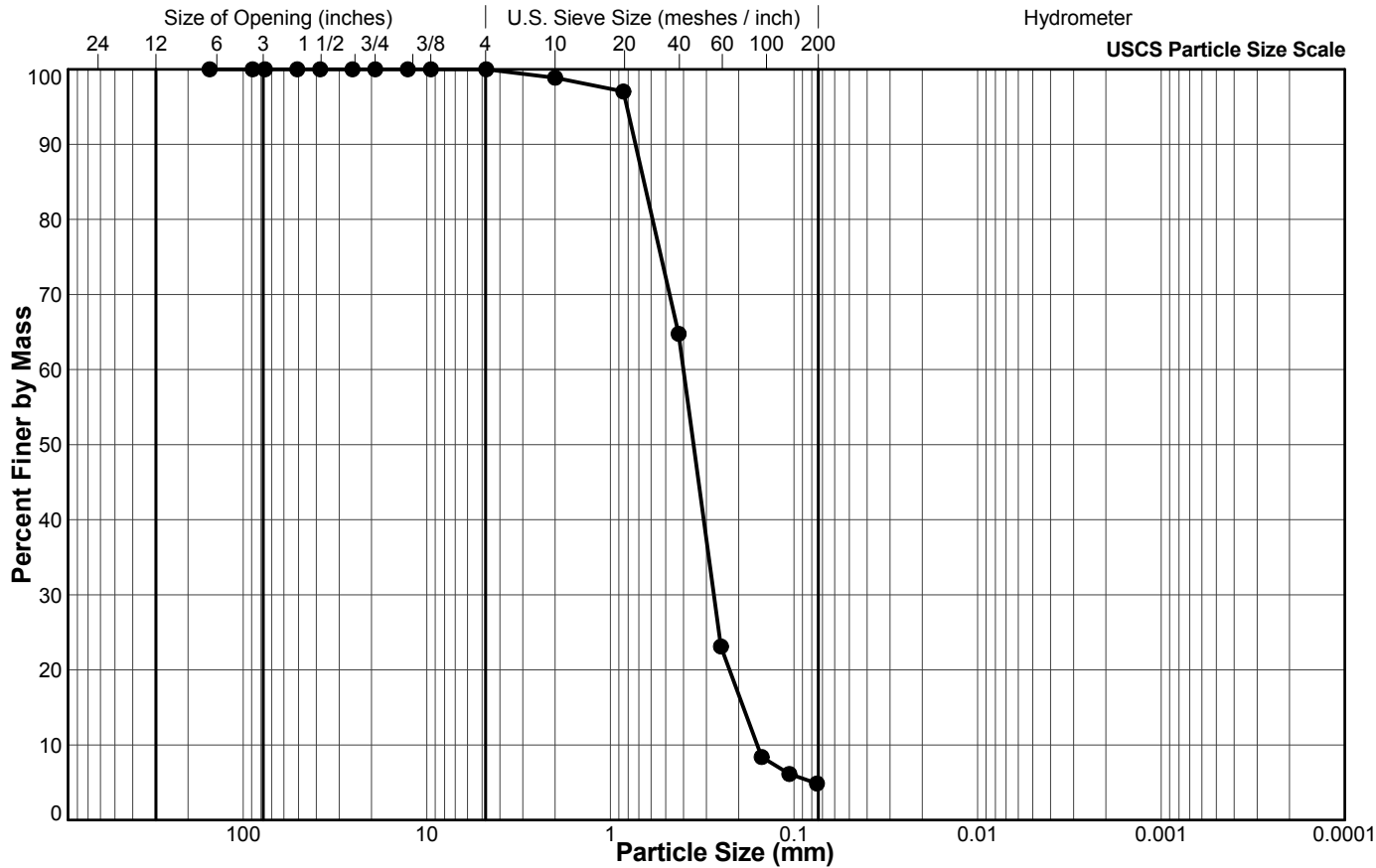


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-05
 Sample No.: 21
 Depth Interval (m): 34.44 to 35.05
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	98.9
#20 US MESH	0.85	97.0
#40 US MESH	0.425	64.8
#60 US MESH	0.25	23.1
#100 US MESH	0.15	8.4
#140 US MESH	0.106	6.1
#200 US MESH	0.075	4.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ

5/25/2016

LH

5/27/2016

Tech

Date

Checked

Date

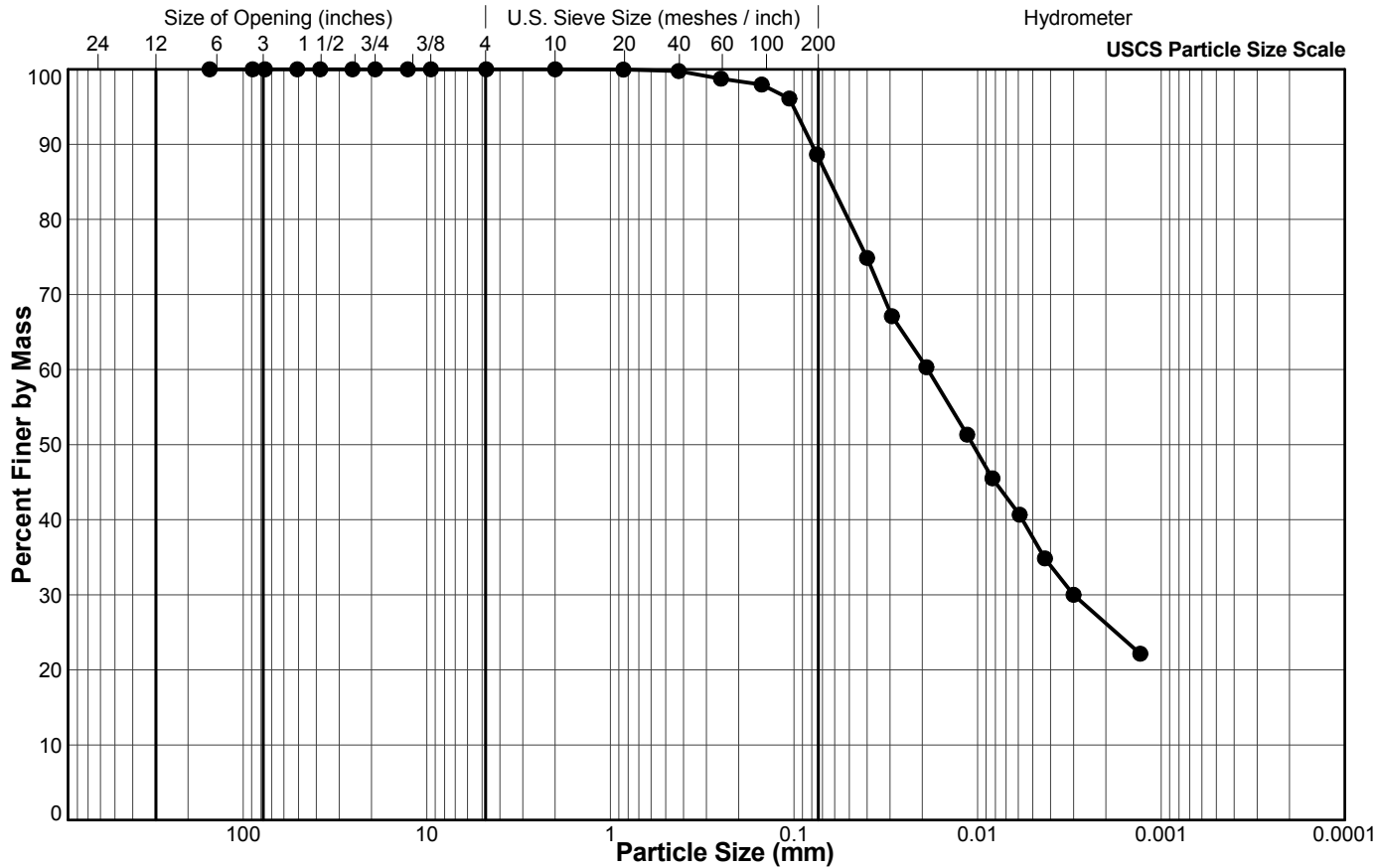


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-05
Sample No.: 24
Depth Interval (m): 39.01 to 39.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	98.7
#100 US MESH	0.15	98.0
#140 US MESH	0.106	96.1
#200 US MESH	0.075	88.7
	0.0400	74.9
	0.0293	67.1
	0.0190	60.3
	0.0114	51.3
	0.0083	45.5
	0.0059	40.7
	0.0043	34.8
	0.0030	30.0
	0.0013	22.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

LH/OA

5/26/2016

LH

5/27/2016

Tech

Date

Checked

Date

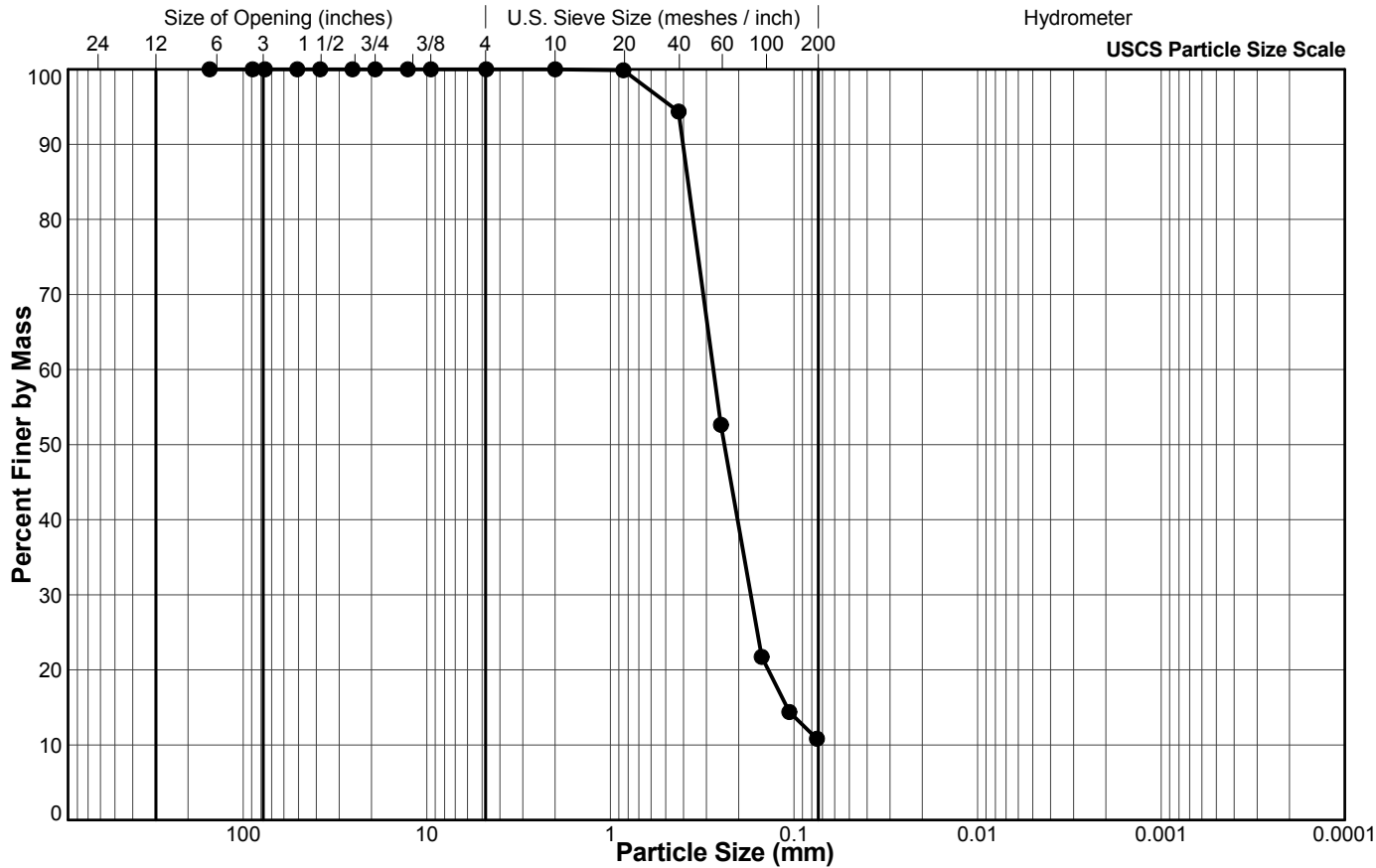


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-06
Sample No.: 3
Depth Interval (m): 4.57 to 5.18
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	94.4
#60 US MESH	0.25	52.6
#100 US MESH	0.15	21.7
#140 US MESH	0.106	14.4
#200 US MESH	0.075	10.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

Checked

Date

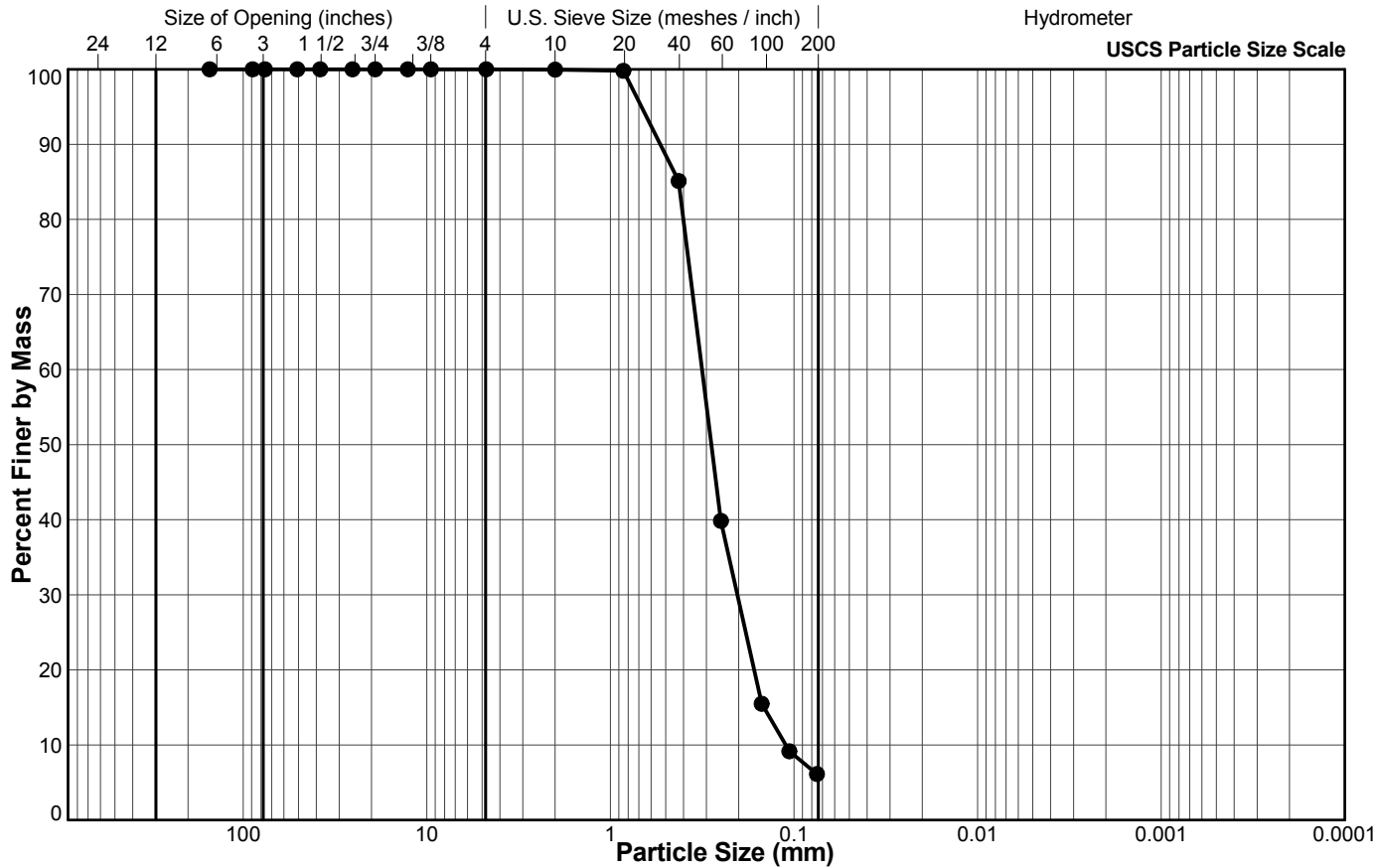


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 4
 Depth Interval (m): 5.49 to 6.10
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	85.1
#60 US MESH	0.25	39.8
#100 US MESH	0.15	15.5
#140 US MESH	0.106	9.2
#200 US MESH	0.075	6.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/1/2017

LH

2/10/2017

Tech

Date

Checked

Date

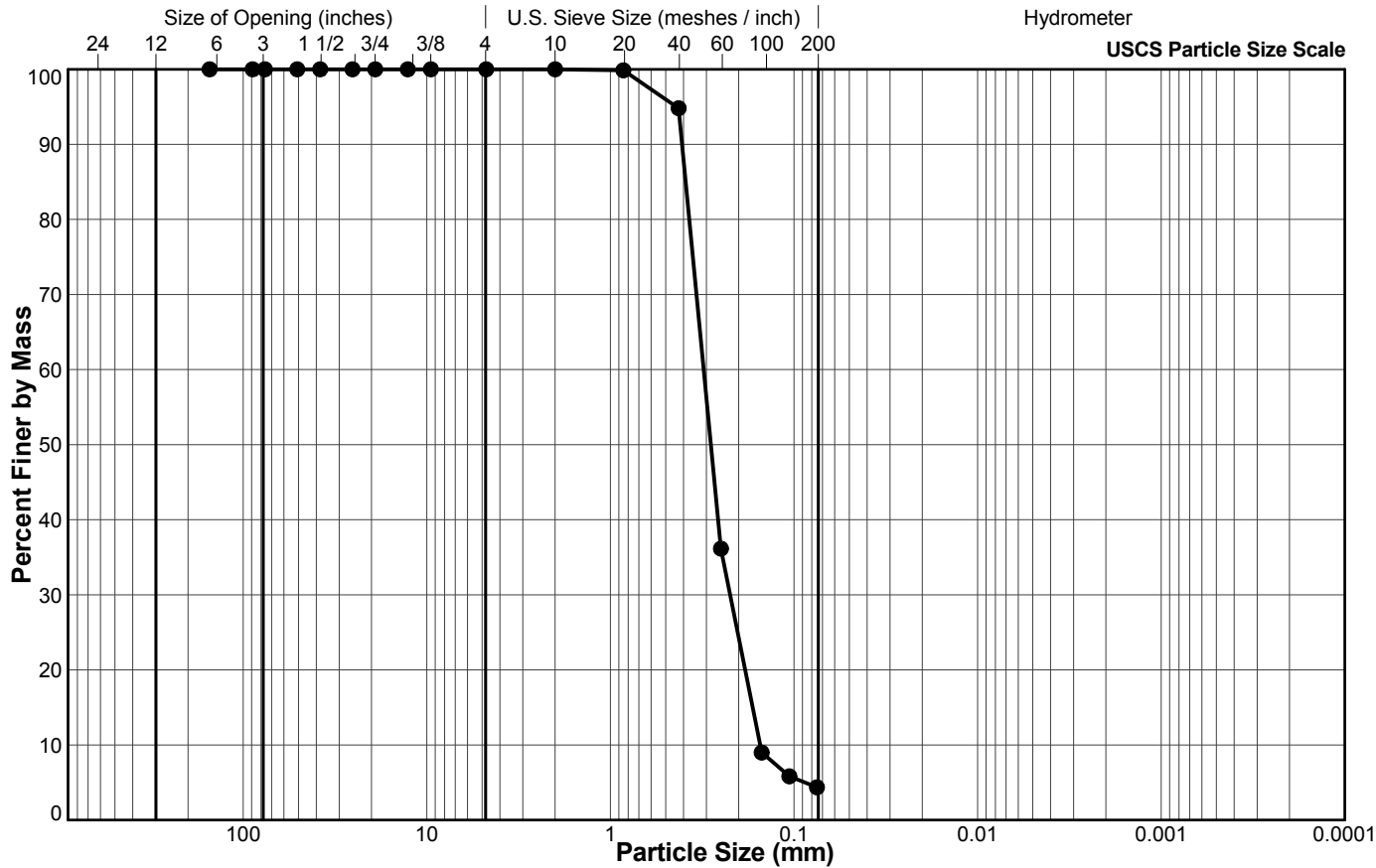


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 6
 Depth Interval (m): 8.53 to 9.14
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	94.8
#60 US MESH	0.25	36.2
#100 US MESH	0.15	9.0
#140 US MESH	0.106	5.8
#200 US MESH	0.075	4.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

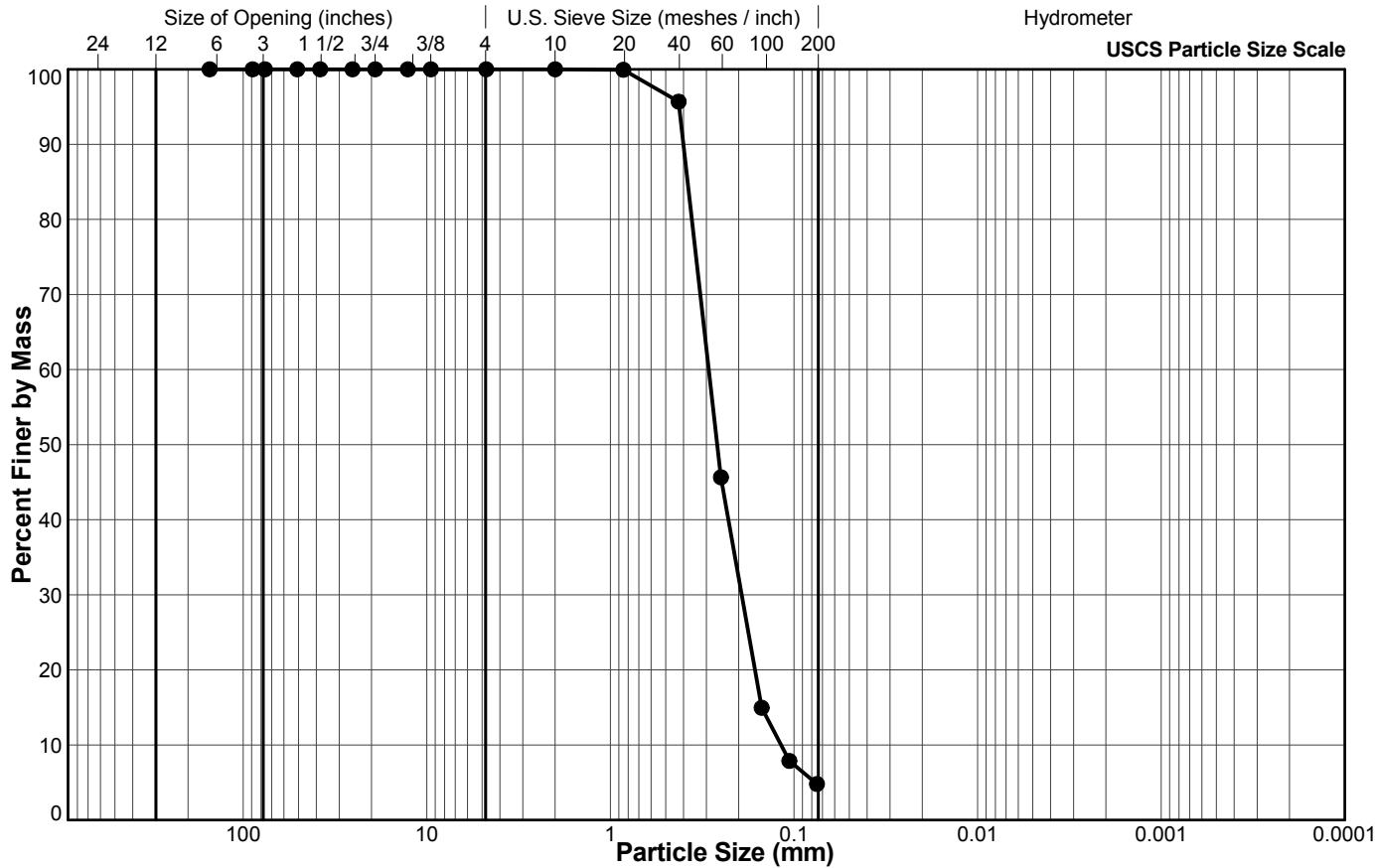


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-06
Sample No.: 8
Depth Interval (m): 11.58 to 12.19
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	95.7
#60 US MESH	0.25	45.7
#100 US MESH	0.15	14.9
#140 US MESH	0.106	7.9
#200 US MESH	0.075	4.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

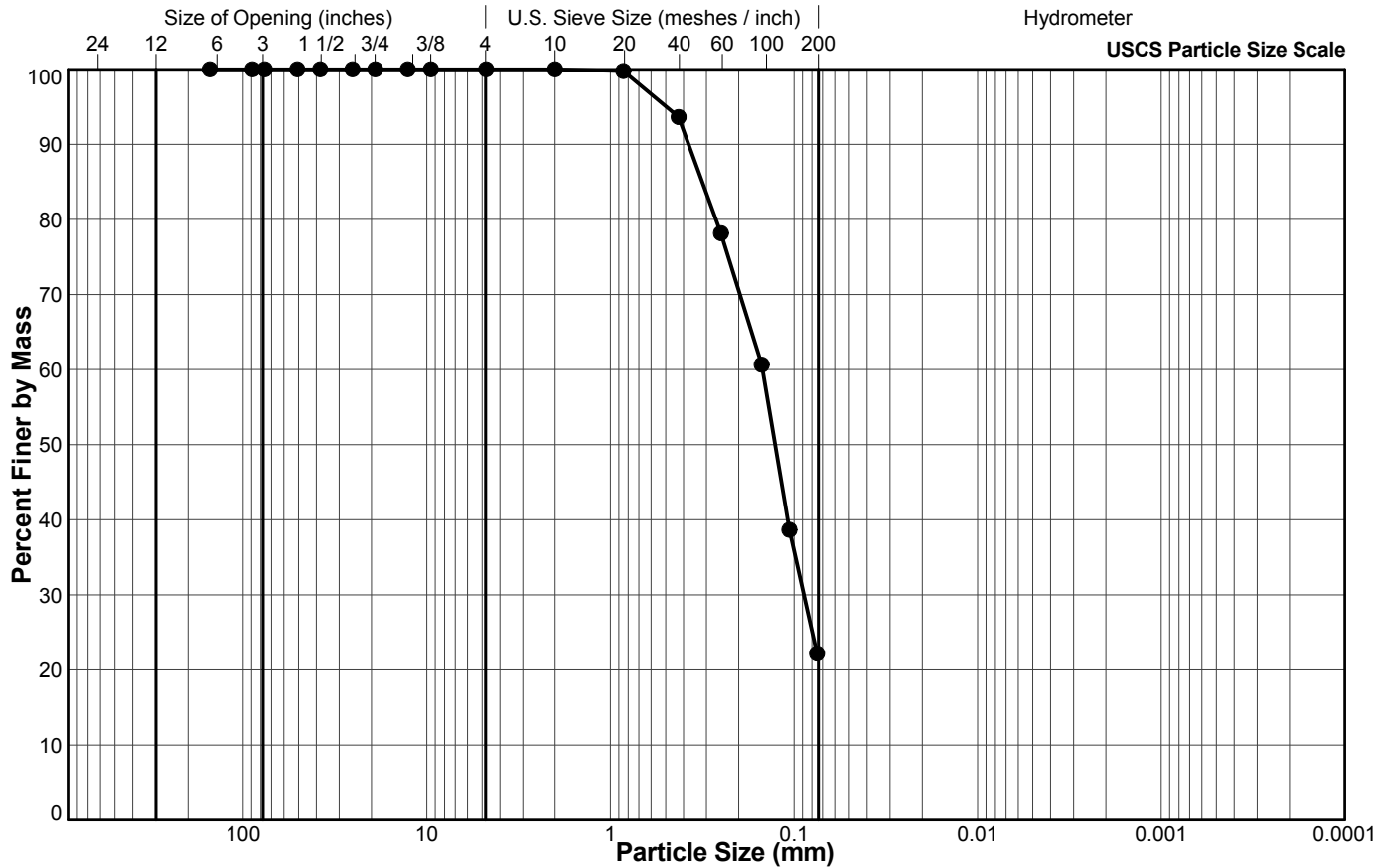


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 10
 Depth Interval (m): 14.63 to 15.24
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	93.6
#60 US MESH	0.25	78.2
#100 US MESH	0.15	60.6
#140 US MESH	0.106	38.7
#200 US MESH	0.075	22.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

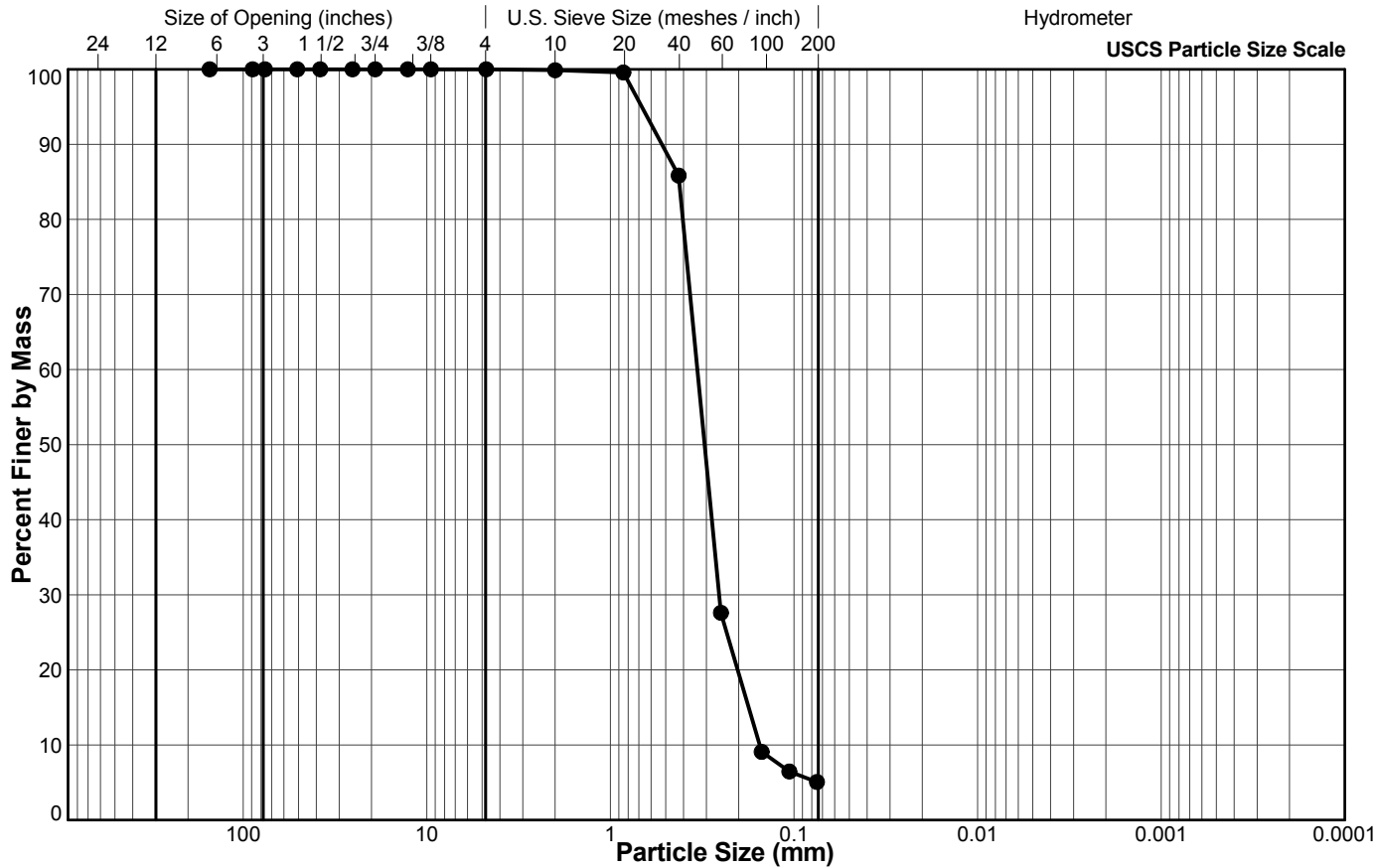


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 12
 Depth Interval (m): 17.68 to 18.29
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.6
#40 US MESH	0.425	85.8
#60 US MESH	0.25	27.6
#100 US MESH	0.15	9.1
#140 US MESH	0.106	6.5
#200 US MESH	0.075	5.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

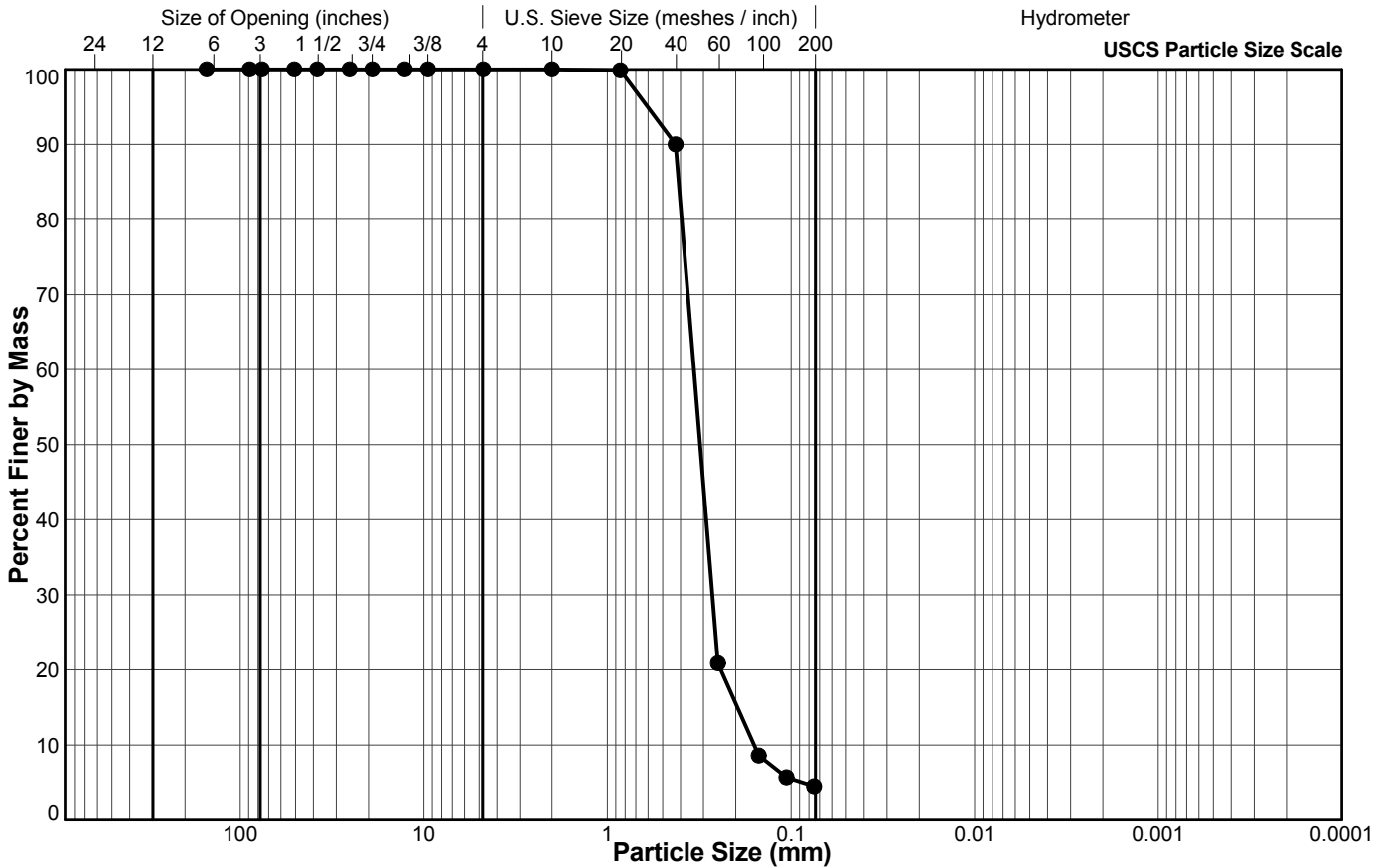


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 14
 Depth Interval (m): 20.73 to 21.34
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	90.0
#60 US MESH	0.25	20.9
#100 US MESH	0.15	8.6
#140 US MESH	0.106	5.7
#200 US MESH	0.075	4.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

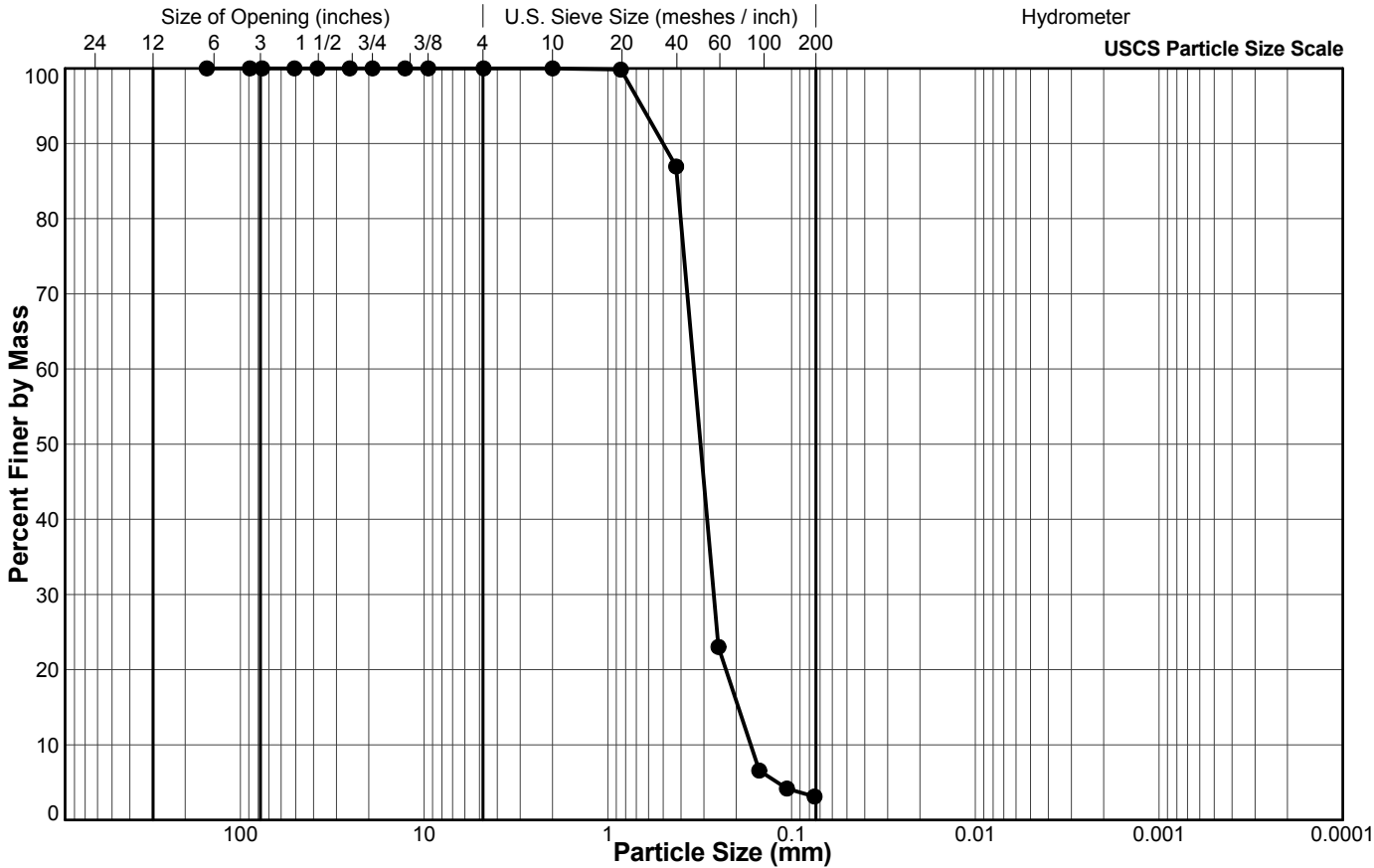


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-06
Sample No.: 16
Depth Interval (m): 23.77 to 24.38
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.8
#40 US MESH	0.425	86.9
#60 US MESH	0.25	23.0
#100 US MESH	0.15	6.6
#140 US MESH	0.106	4.2
#200 US MESH	0.075	3.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

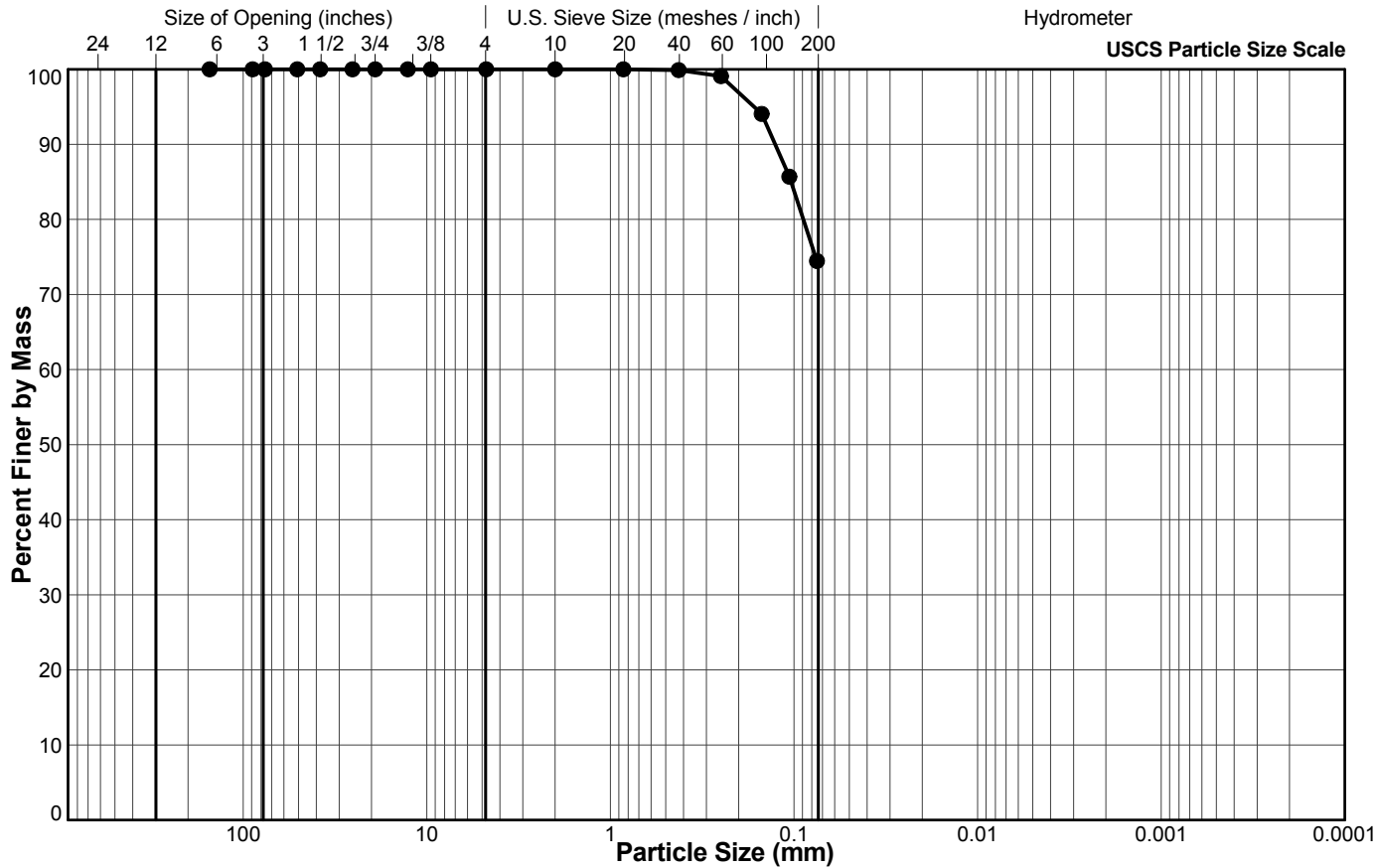


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 18
 Depth Interval (m): 26.82 to 27.43
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	99.1
#100 US MESH	0.15	94.1
#140 US MESH	0.106	85.7
#200 US MESH	0.075	74.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP 2/3/2017 LH 2/10/2017
 Tech Date Checked Date

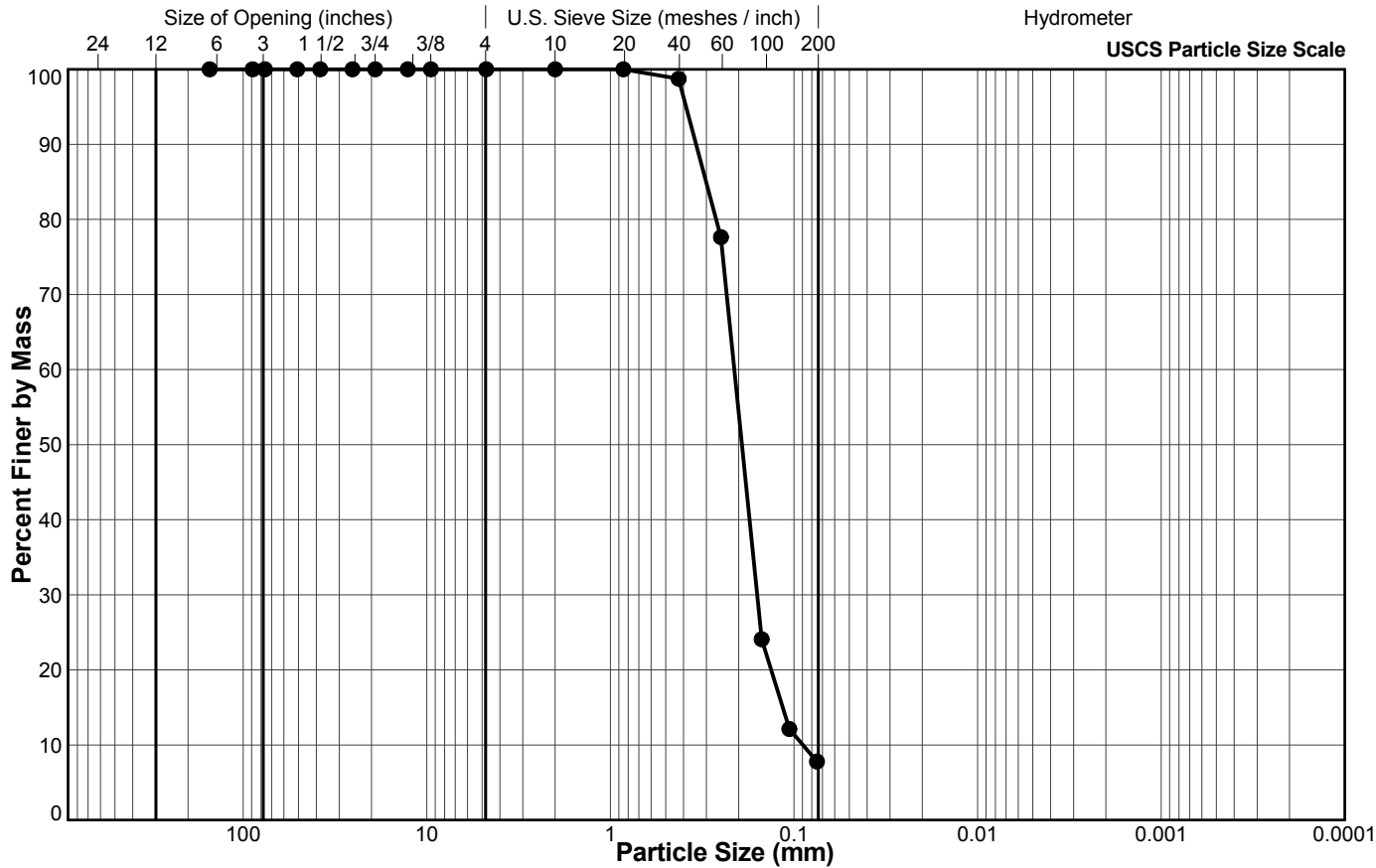


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 21
 Depth Interval (m): 31.39 to 32.00
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	98.7
#60 US MESH	0.25	77.6
#100 US MESH	0.15	24.1
#140 US MESH	0.106	12.1
#200 US MESH	0.075	7.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP 2/3/2017 LH 2/10/2017
 Tech Date Checked Date

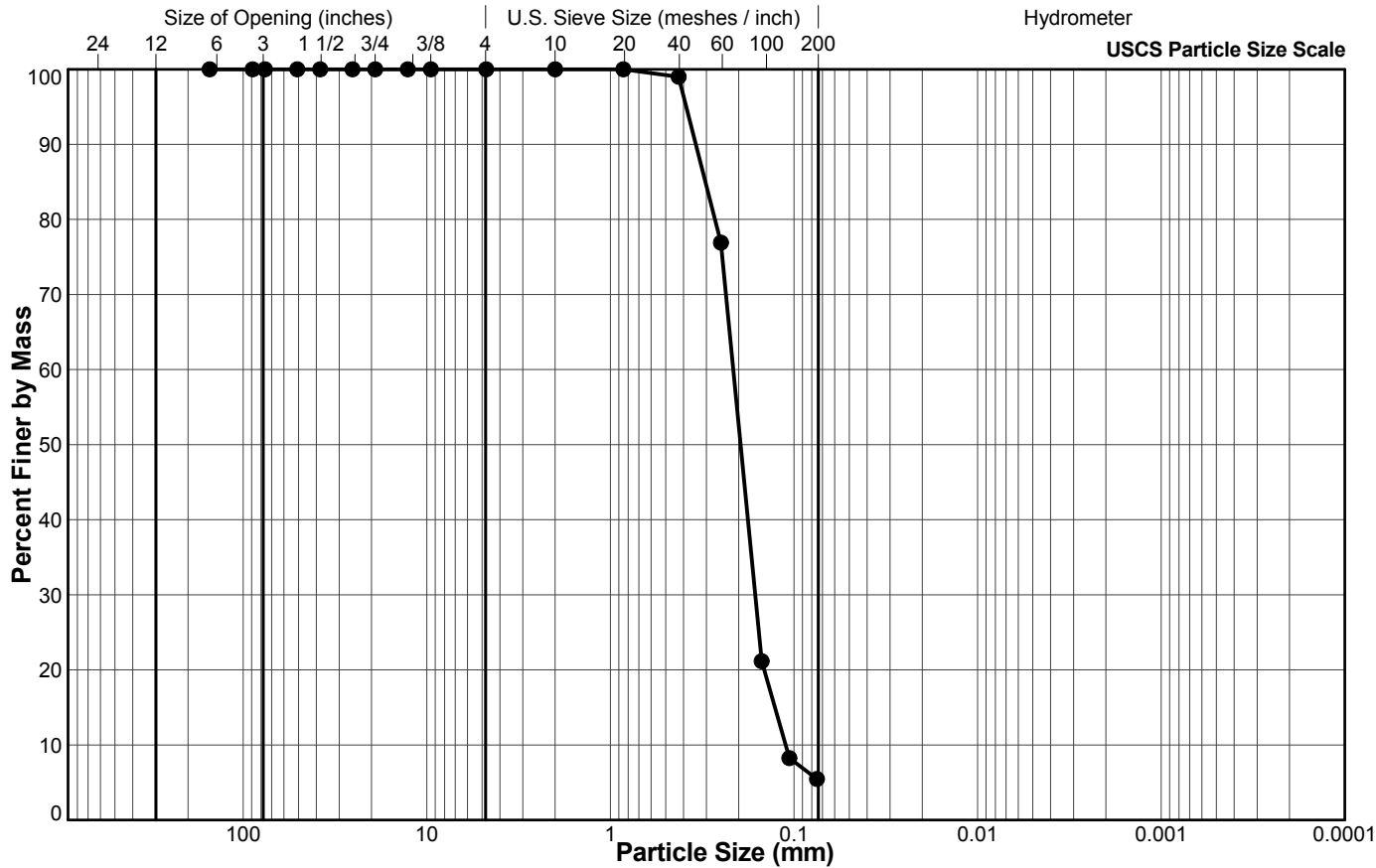


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-06
Sample No.: 23
Depth Interval (m): 34.44 to 35.05
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.0
#60 US MESH	0.25	76.9
#100 US MESH	0.15	21.2
#140 US MESH	0.106	8.2
#200 US MESH	0.075	5.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/3/2017

LH

2/10/2017

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Date

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Date

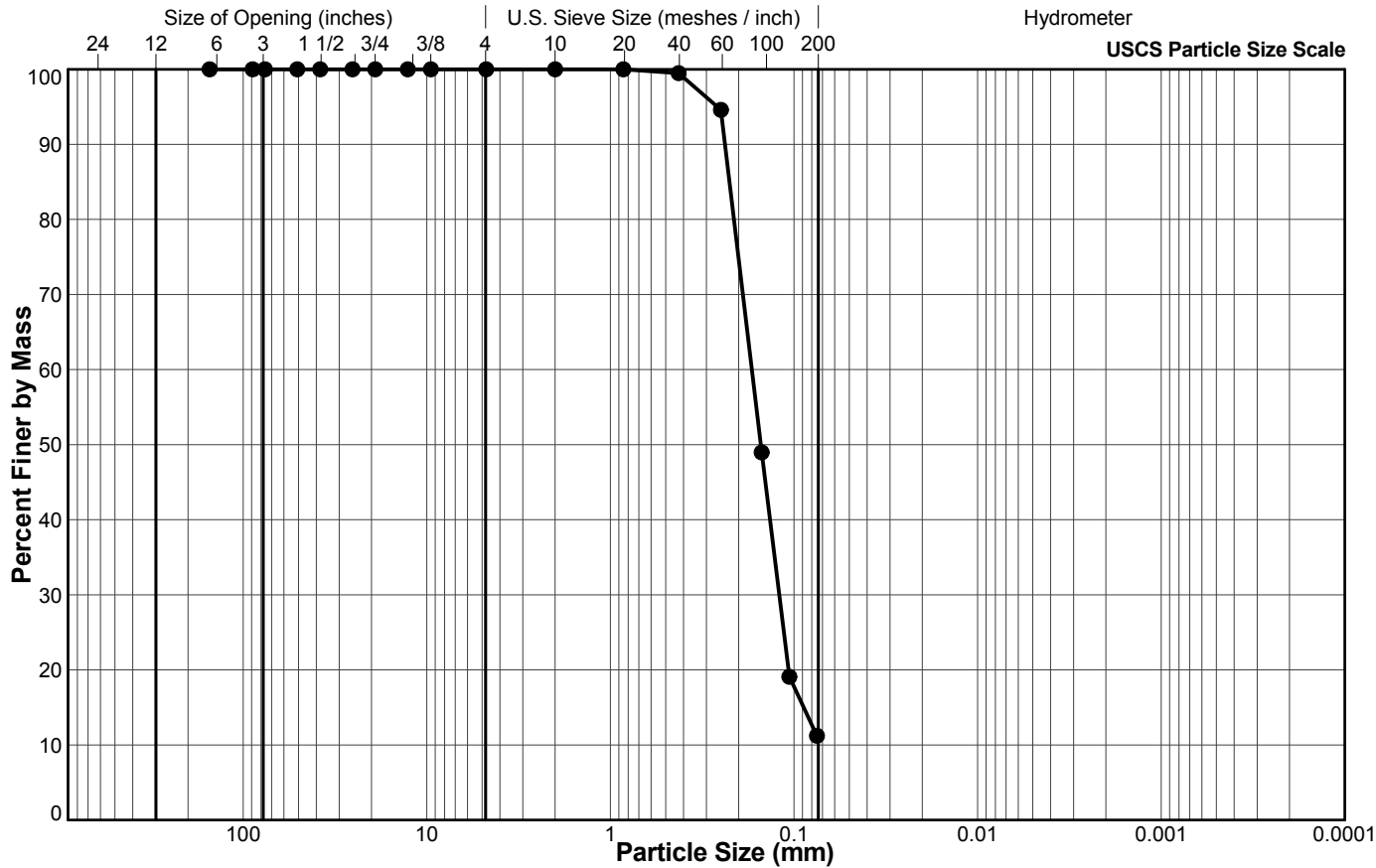


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-06
Sample No.: 25
Depth Interval (m): 37.49 to 38.10
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.5
#60 US MESH	0.25	94.6
#100 US MESH	0.15	49.0
#140 US MESH	0.106	19.1
#200 US MESH	0.075	11.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/3/2017

LH

2/10/2017

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Date

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Date

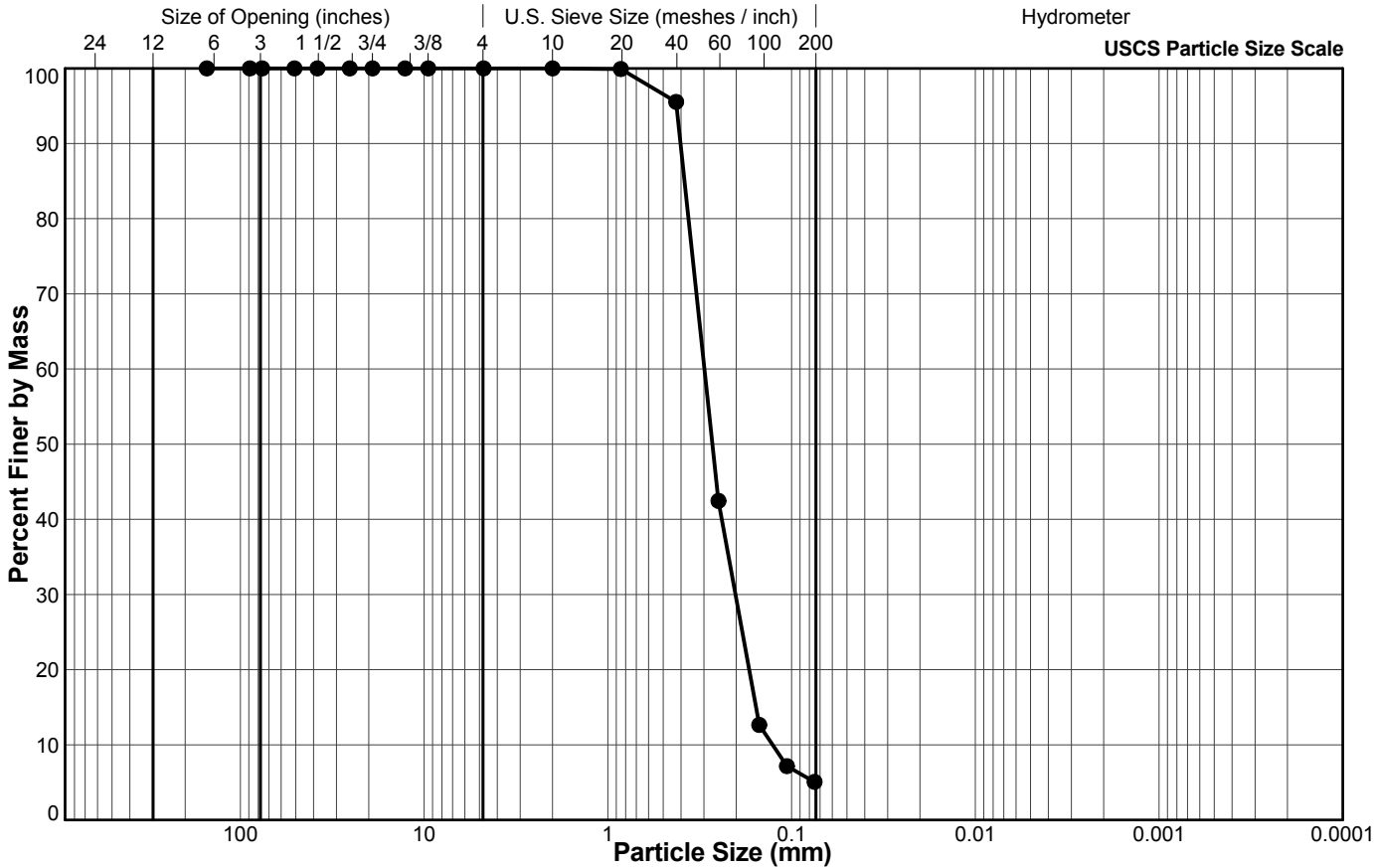


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 27
 Depth Interval (m): 40.54 to 41.15
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	95.5
#60 US MESH	0.25	42.5
#100 US MESH	0.15	12.6
#140 US MESH	0.106	7.2
#200 US MESH	0.075	5.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

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Date

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Date

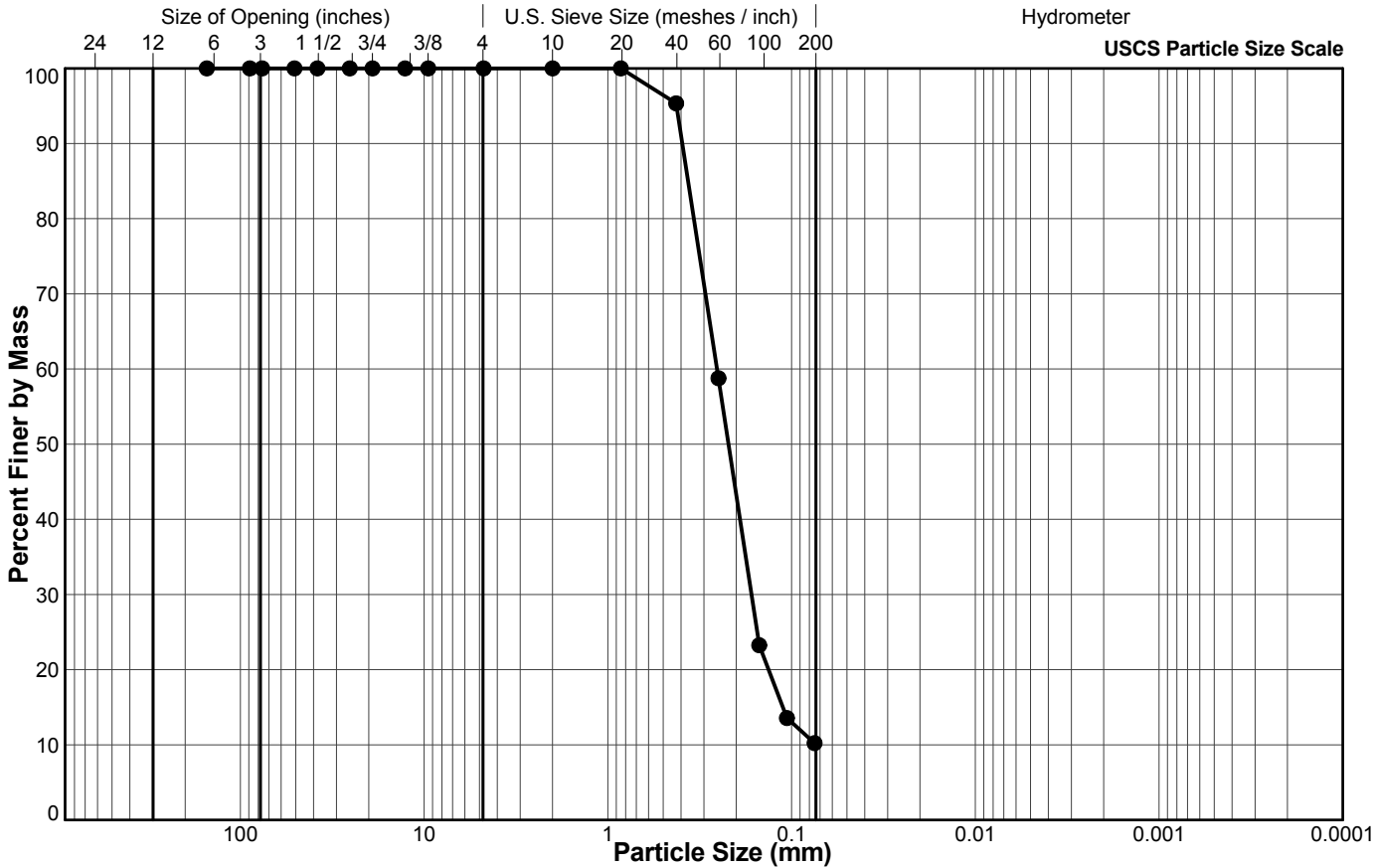


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

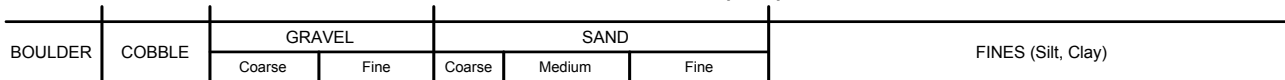
Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
Sample No.: 29
Depth Interval (m): 43.59 to 44.20
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	95.3
#60 US MESH	0.25	58.8
#100 US MESH	0.15	23.2
#140 US MESH	0.106	13.6
#200 US MESH	0.075	10.2



JP
Tech

2/2/2017
Date

LH
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2/10/2017
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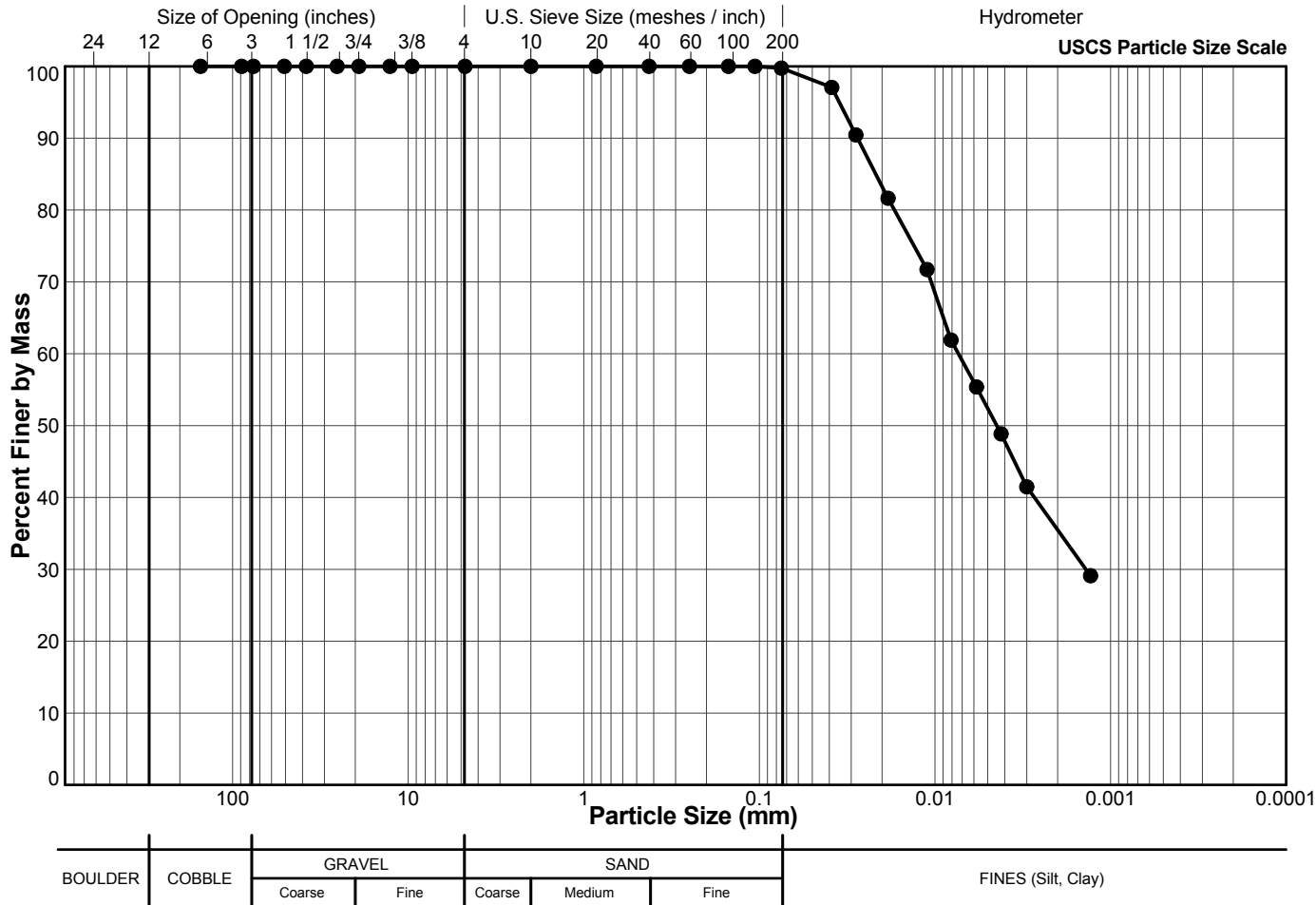


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-06
 Sample No.: 33
 Depth Interval (m): 49.99 to 50.60
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	100.0
#100 US MESH	0.15	100.0
#140 US MESH	0.106	100.0
#200 US MESH	0.075	99.8
	0.0387	97.1
	0.0282	90.5
	0.0185	81.6
	0.0111	71.7
	0.0081	61.9
	0.0058	55.4
	0.0042	48.9
	0.0030	41.5
	0.0013	29.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/VN

3/1/2017

DRAFT

Tech

Date

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Date

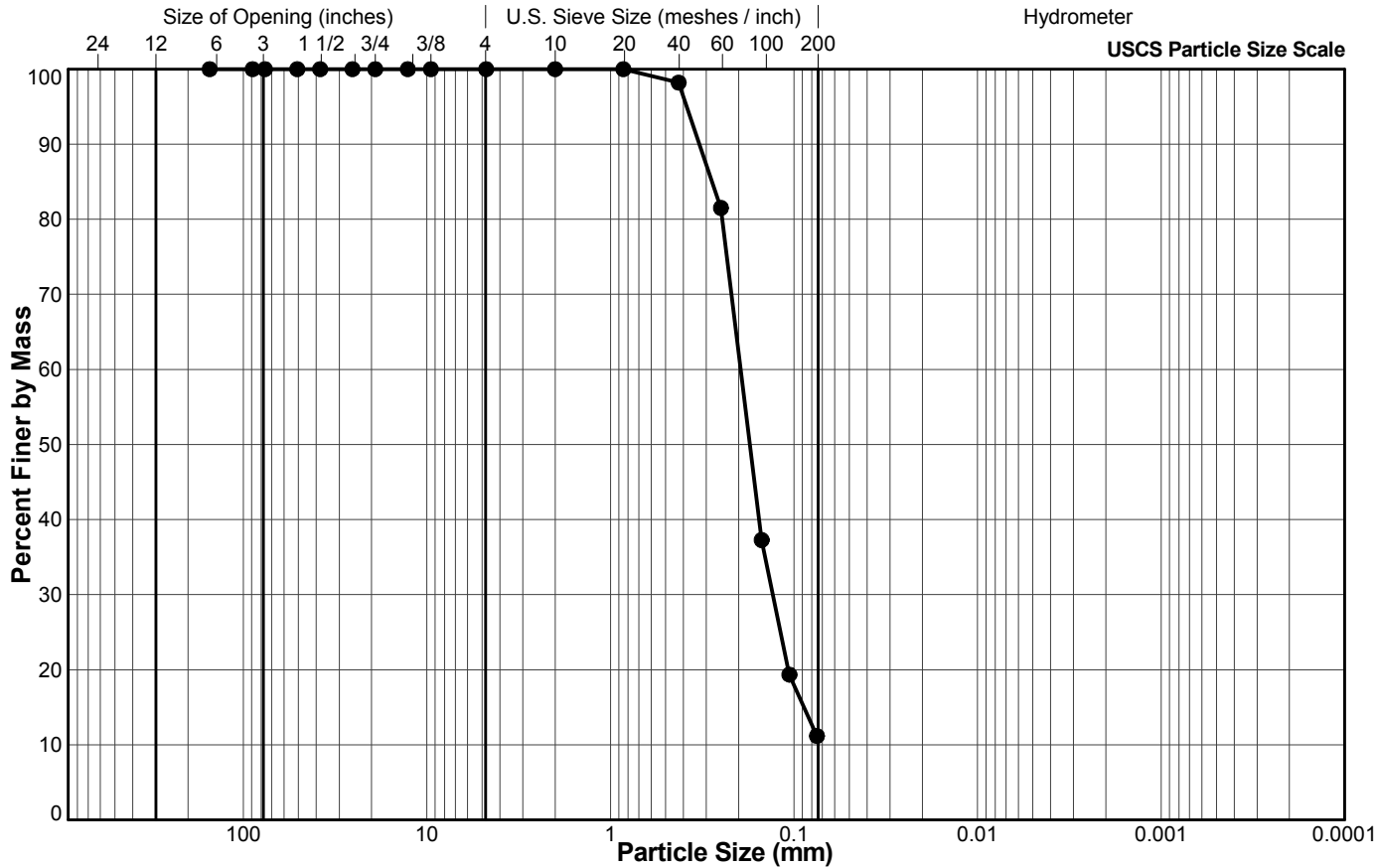


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 5
Depth Interval (m): 8.53 to 9.14
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	98.2
#60 US MESH	0.25	81.5
#100 US MESH	0.15	37.3
#140 US MESH	0.106	19.4
#200 US MESH	0.075	11.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

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Date

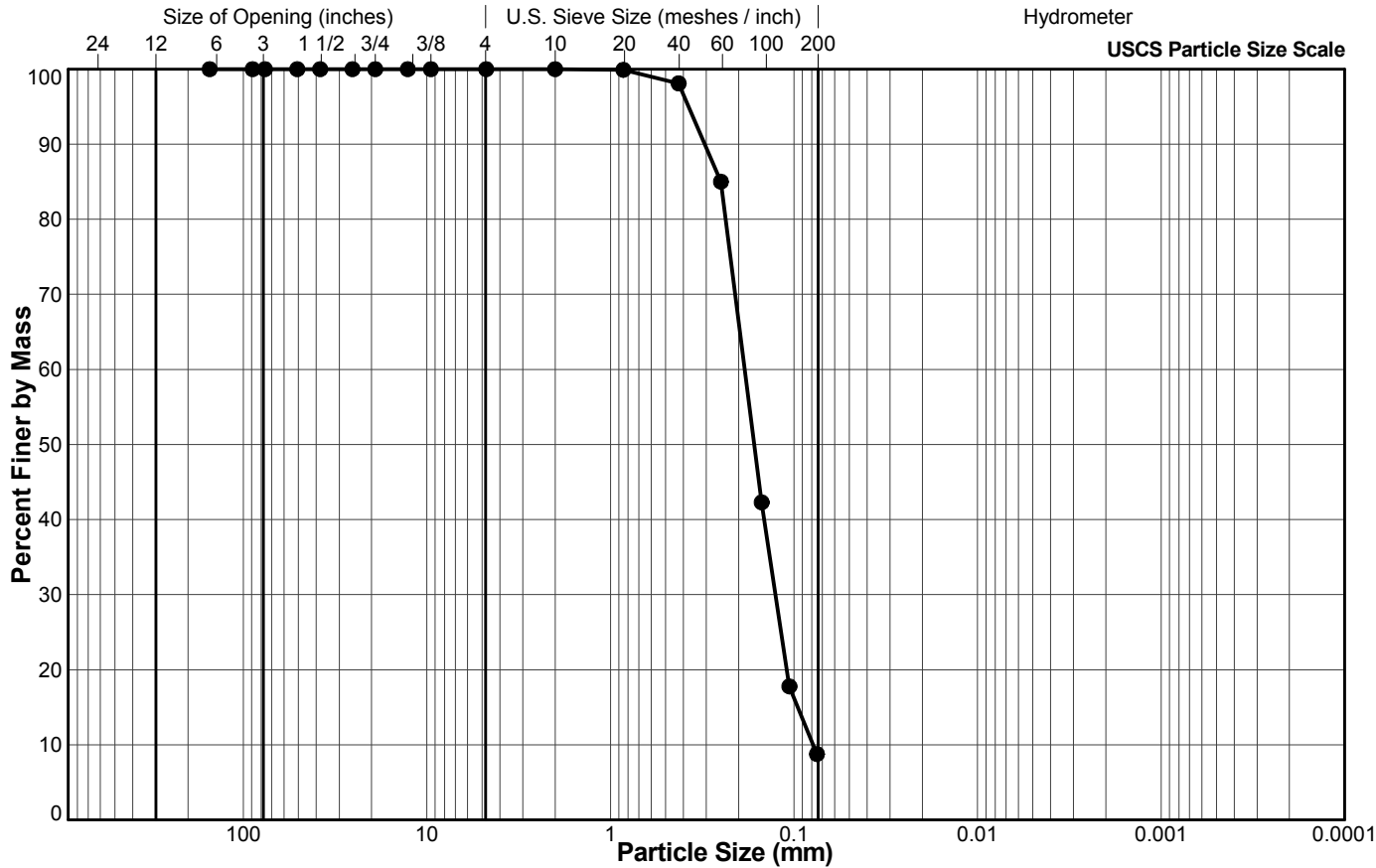


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 7
Depth Interval (m): 11.58 to 12.19
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.1
#60 US MESH	0.25	85.0
#100 US MESH	0.15	42.3
#140 US MESH	0.106	17.8
#200 US MESH	0.075	8.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

Checked

Date

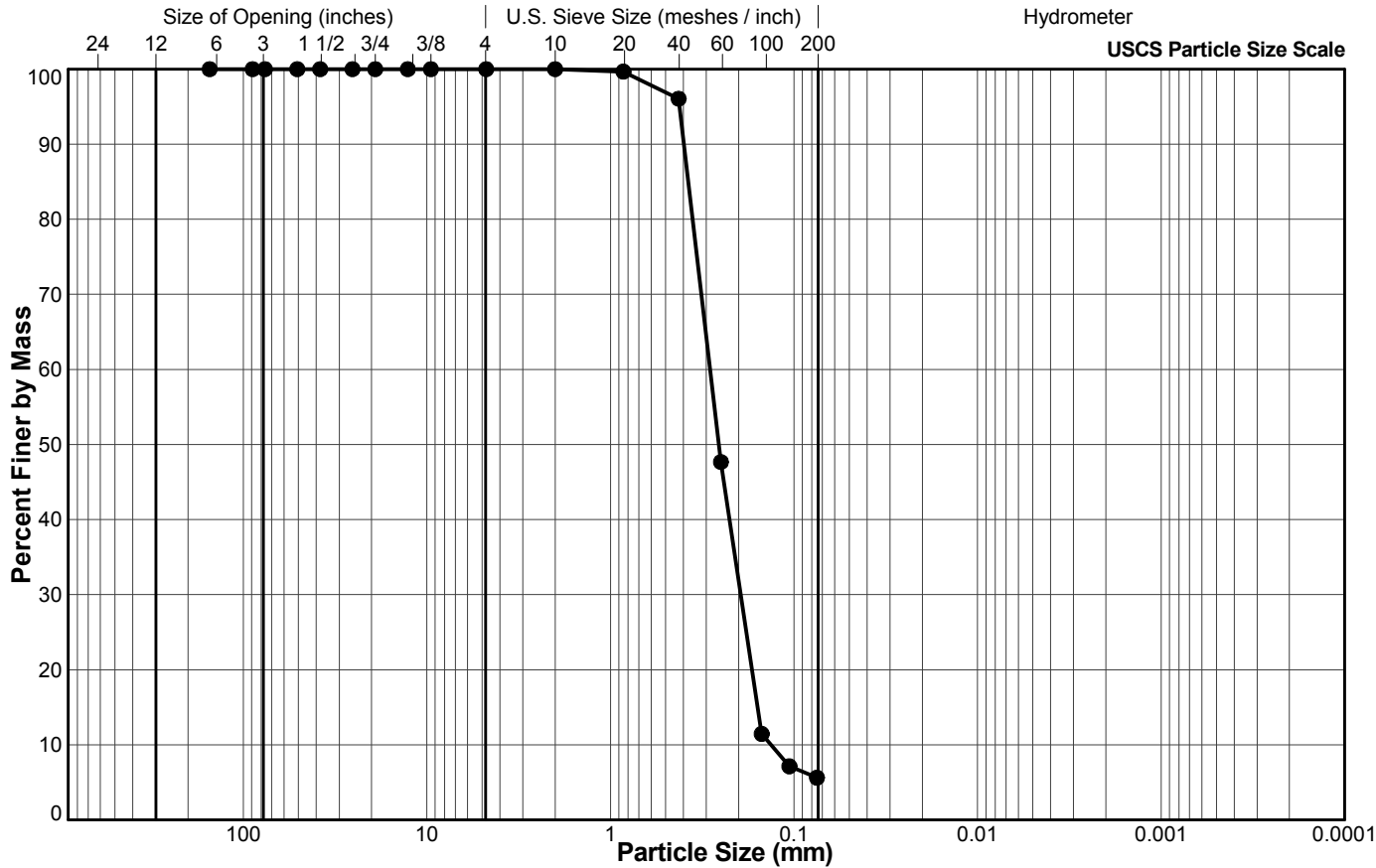


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-07
 Sample No.: 10
 Depth Interval (m): 16.15 to 16.76
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.7
#40 US MESH	0.425	96.1
#60 US MESH	0.25	47.7
#100 US MESH	0.15	11.5
#140 US MESH	0.106	7.1
#200 US MESH	0.075	5.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

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Date

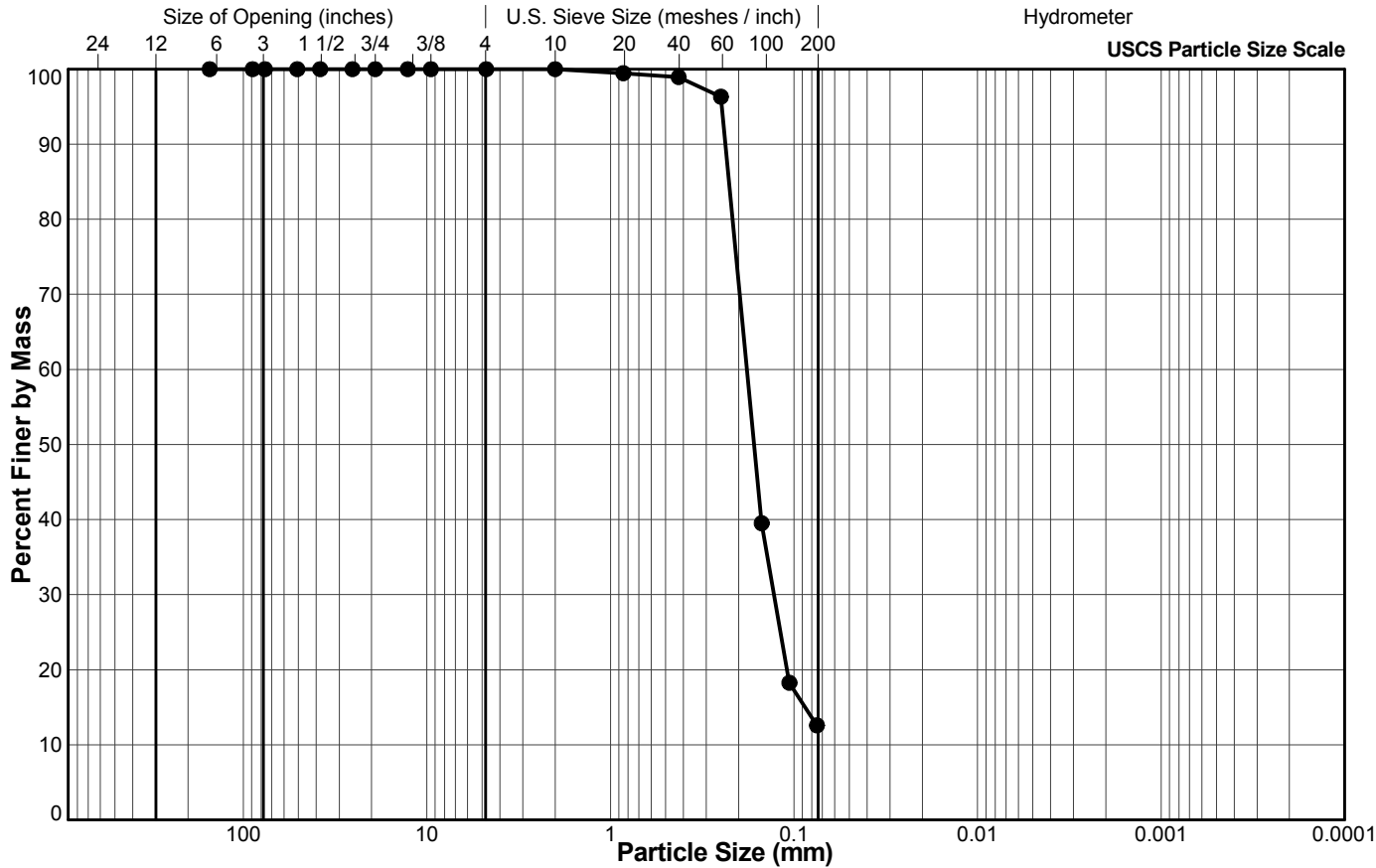


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 13
Depth Interval (m): 20.73 to 21.34
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.5
#40 US MESH	0.425	98.9
#60 US MESH	0.25	96.3
#100 US MESH	0.15	39.5
#140 US MESH	0.106	18.3
#200 US MESH	0.075	12.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

Checked

Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

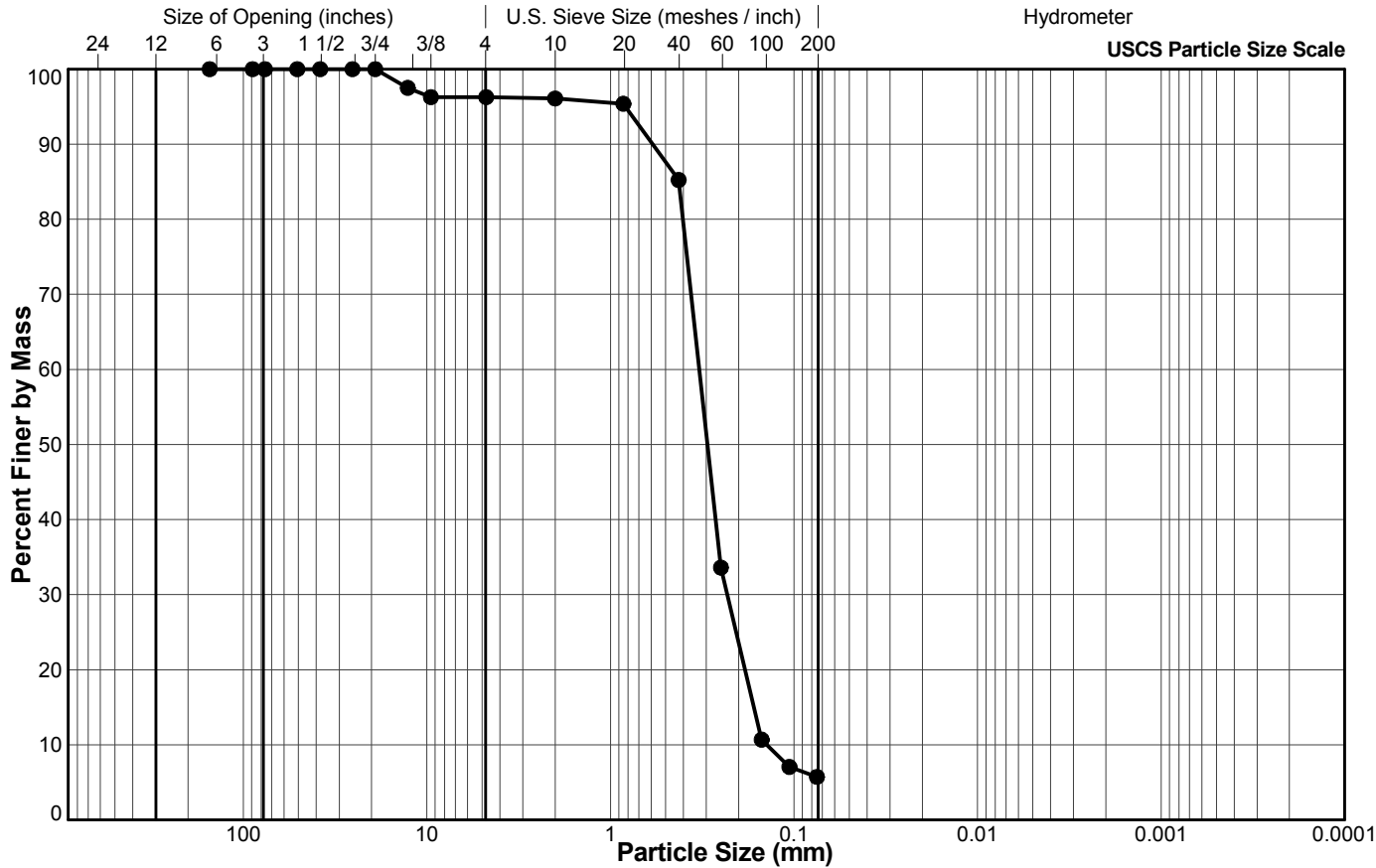


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 16
Depth Interval (m): 25.30 to 25.91
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	97.5
3/8"	9.5	96.3
#4 US MESH	4.75	96.3
#10 US MESH	2	96.1
#20 US MESH	0.85	95.4
#40 US MESH	0.425	85.2
#60 US MESH	0.25	33.6
#100 US MESH	0.15	10.7
#140 US MESH	0.106	7.1
#200 US MESH	0.075	5.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

Checked

Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

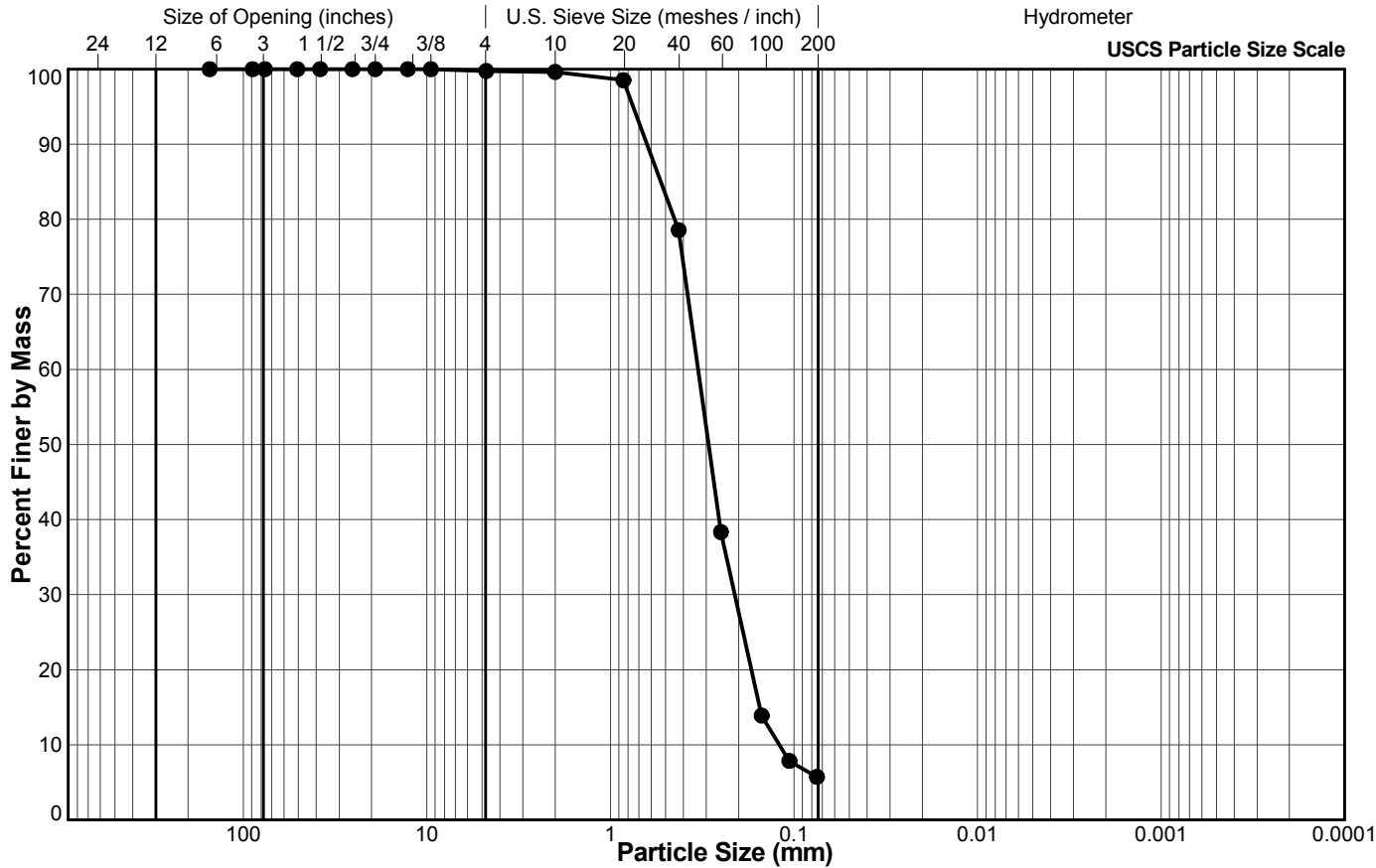


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 19
Depth Interval (m): 29.87 to 30.48
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.8
#10 US MESH	2	99.6
#20 US MESH	0.85	98.5
#40 US MESH	0.425	78.6
#60 US MESH	0.25	38.3
#100 US MESH	0.15	13.9
#140 US MESH	0.106	7.9
#200 US MESH	0.075	5.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

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Date

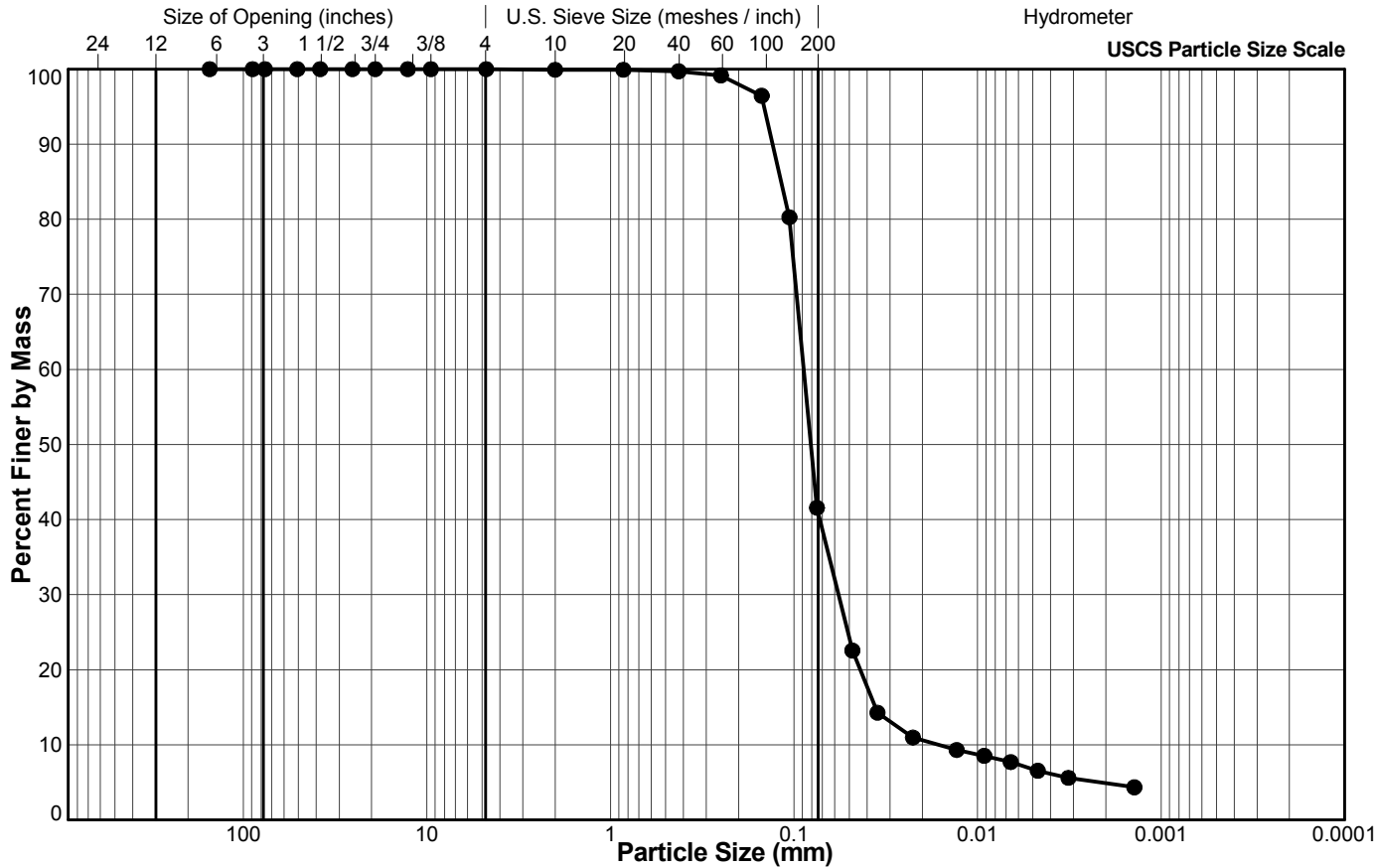


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 21
Depth Interval (m): 32.92 to 33.53
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.7
#60 US MESH	0.25	99.2
#100 US MESH	0.15	96.5
#140 US MESH	0.106	80.3
#200 US MESH	0.075	41.6
	0.0481	22.6
	0.0351	14.3
	0.0225	11.0
	0.0130	9.3
	0.0092	8.5
	0.0066	7.7
	0.0047	6.5
	0.0032	5.6
	0.0014	4.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

OAVN

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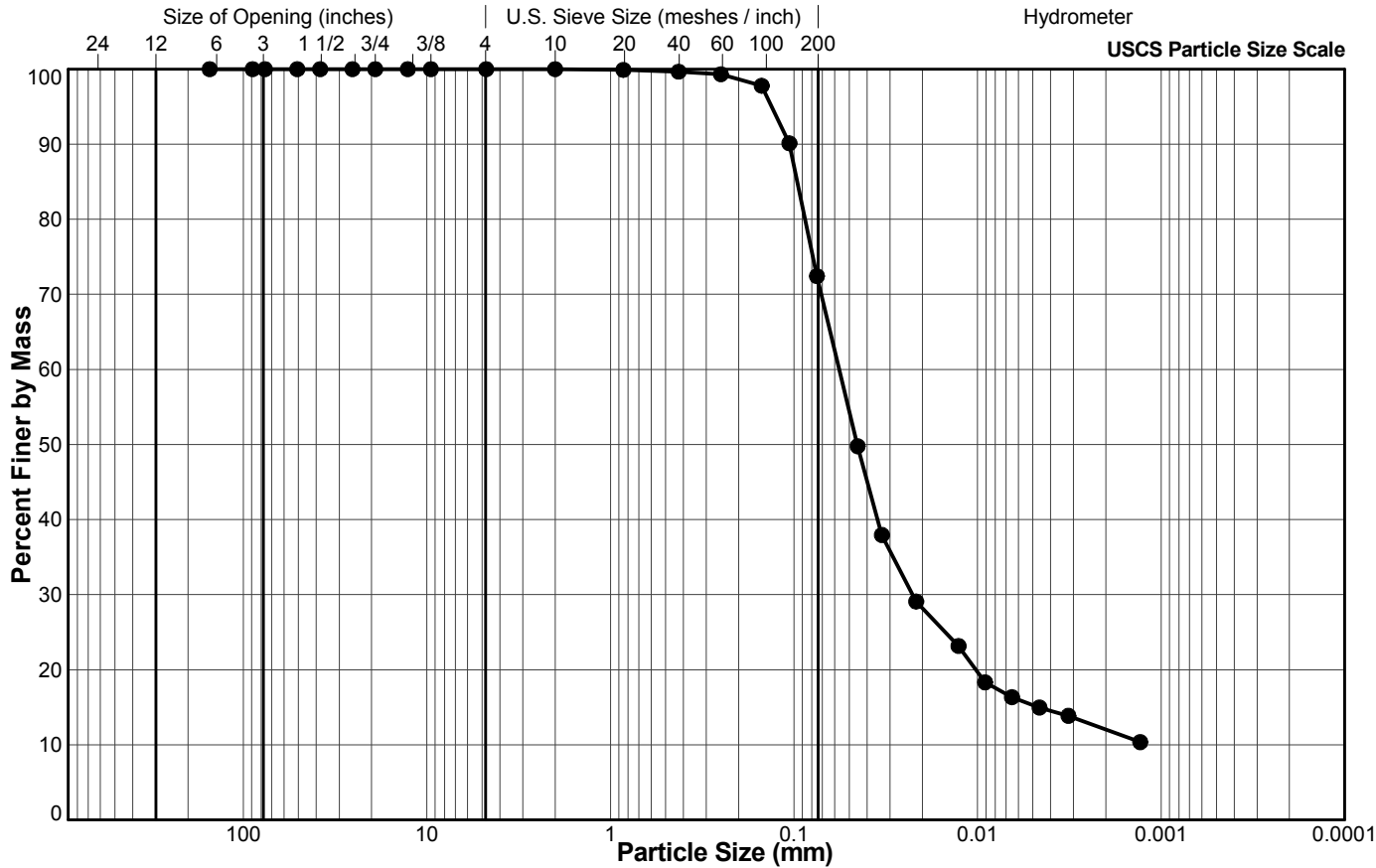


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM D 422

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 22
Depth Interval (m): 34.44 to 35.05
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.7
#60 US MESH	0.25	99.3
#100 US MESH	0.15	97.8
#140 US MESH	0.106	90.1
#200 US MESH	0.075	72.4
	0.0450	49.8
	0.0332	37.9
	0.0216	29.1
	0.0127	23.2
	0.0091	18.3
	0.0065	16.3
	0.0046	15.0
	0.0032	13.9
	0.0013	10.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

OAVN

3/2/2017

LH

3/7/2017

Tech

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Checked

Date

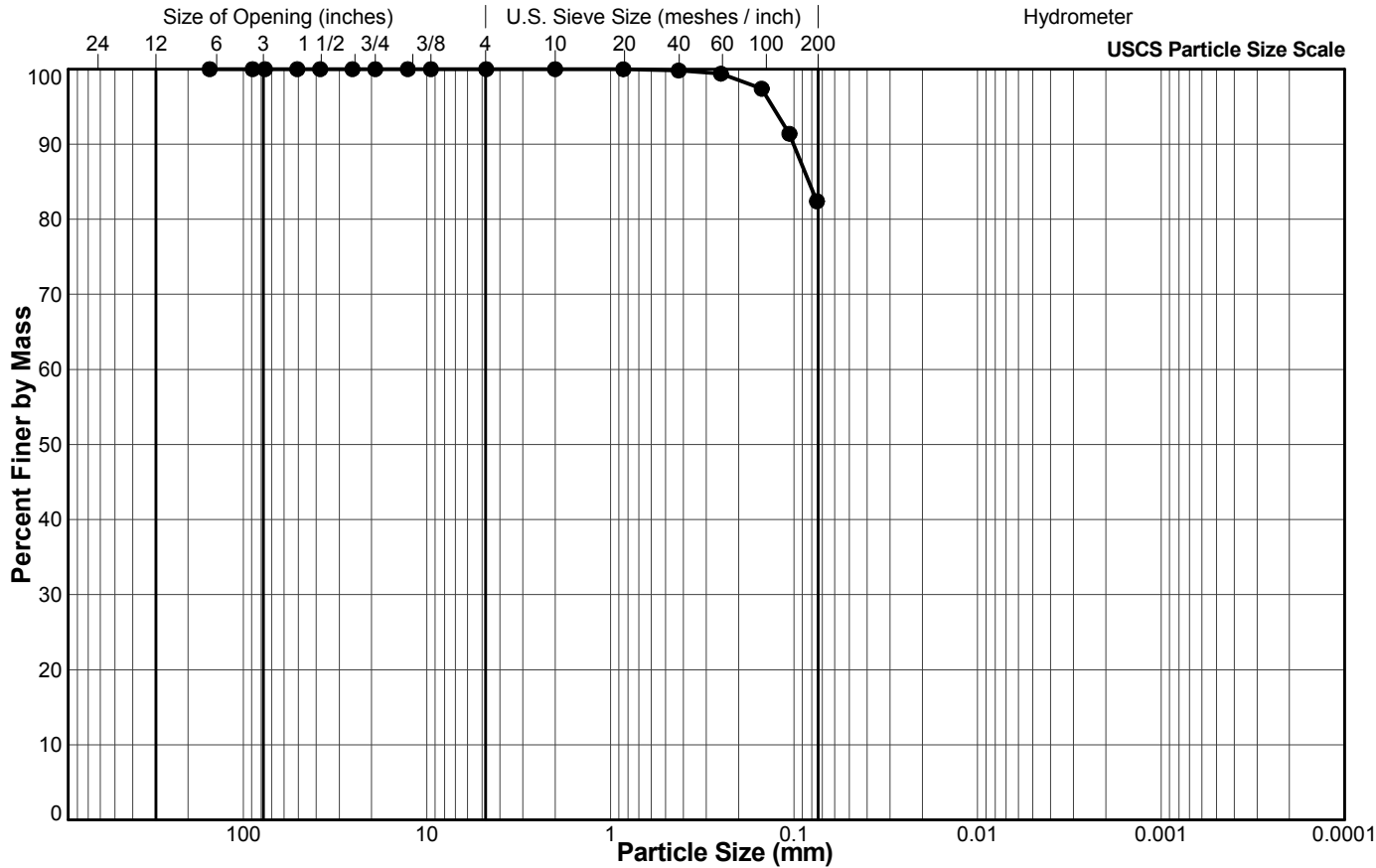


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 25
Depth Interval (m): 39.01 to 39.62
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	99.4
#100 US MESH	0.15	97.4
#140 US MESH	0.106	91.4
#200 US MESH	0.075	82.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

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2/10/2017

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Date

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Date

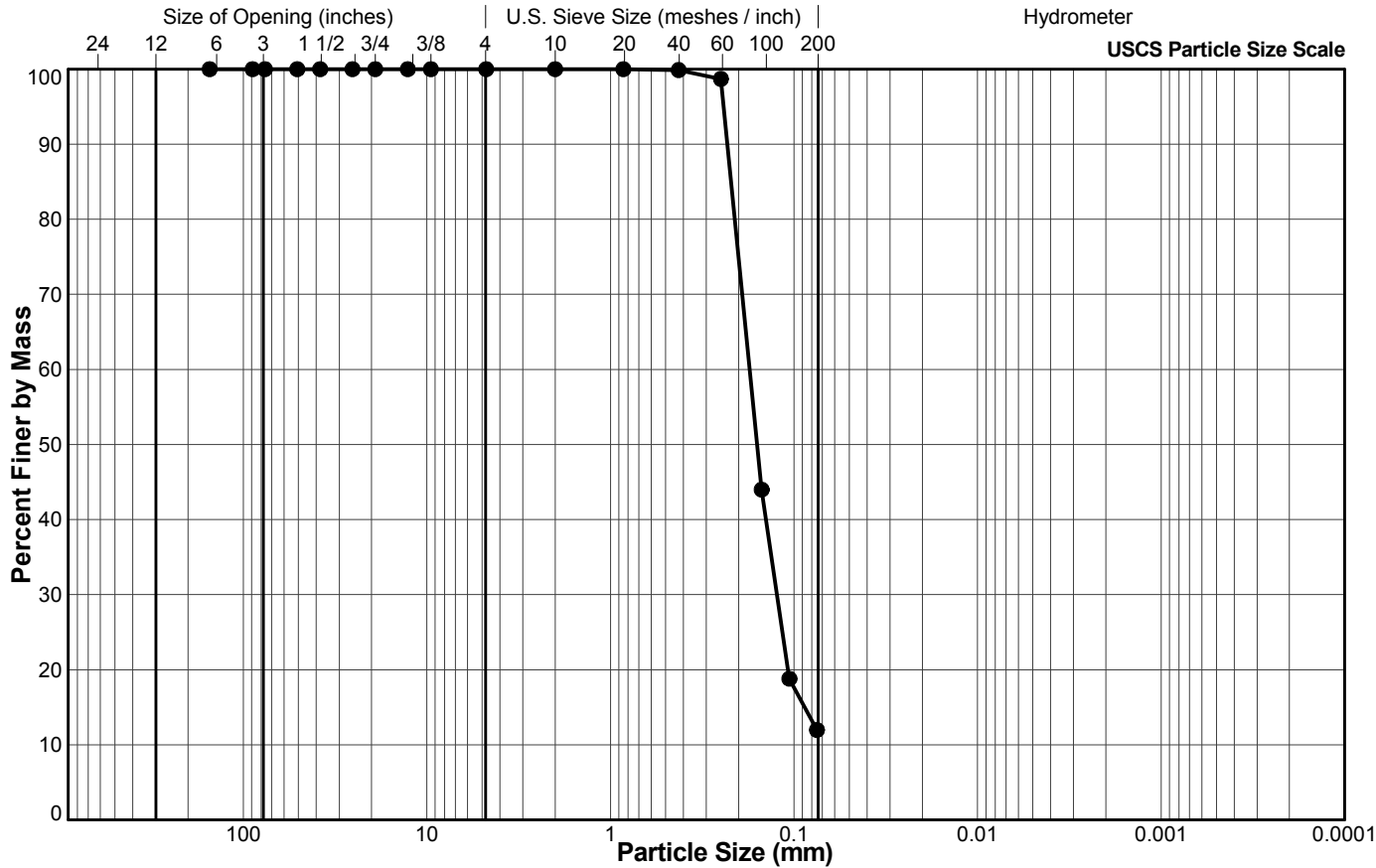


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-07
 Sample No.: 27
 Depth Interval (m): 42.06 to 42.67
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	98.7
#100 US MESH	0.15	44.0
#140 US MESH	0.106	18.8
#200 US MESH	0.075	12.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

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Tech

Date

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Date

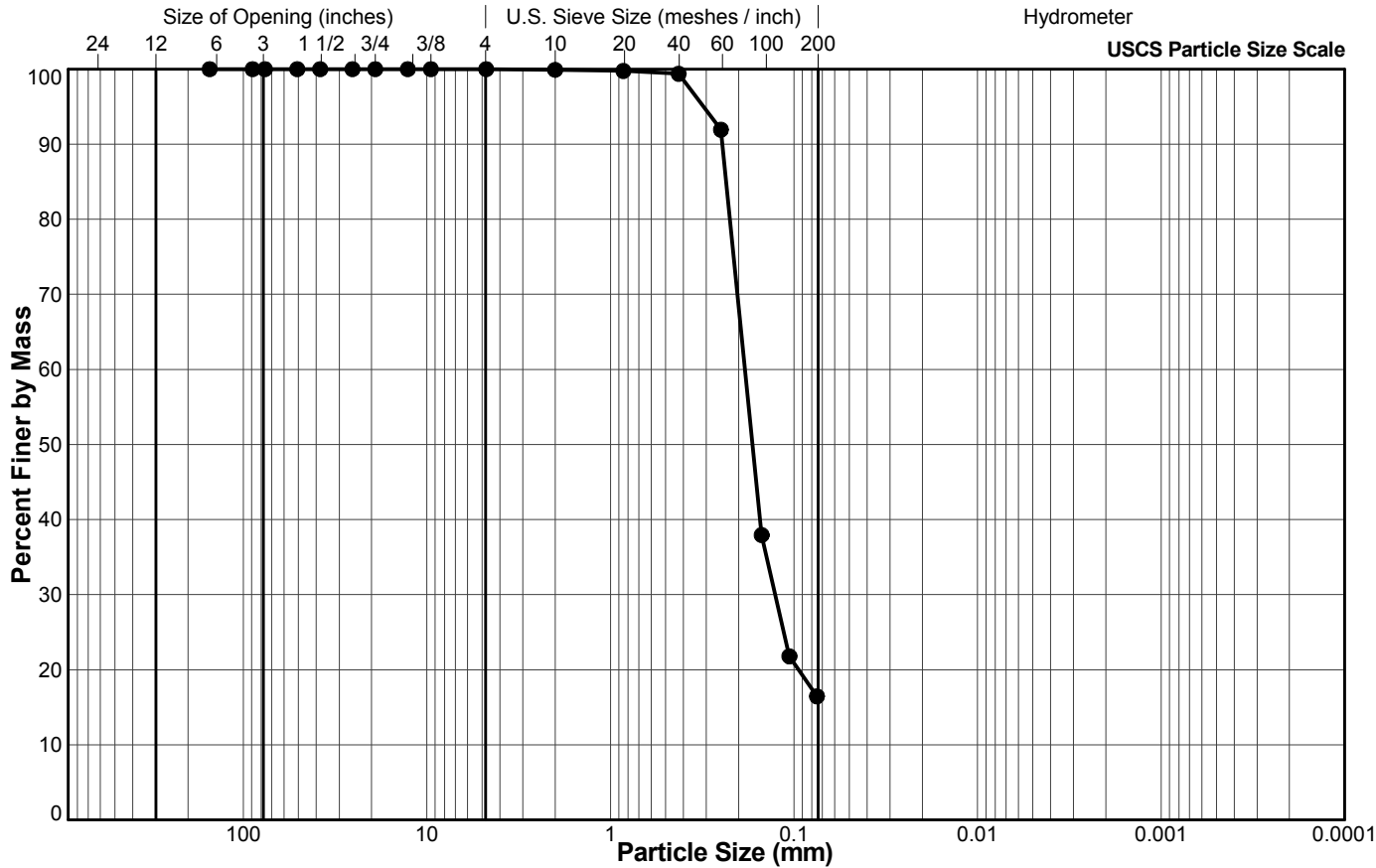


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 30
Depth Interval (m): 46.63 to 47.24
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.8
#40 US MESH	0.425	99.4
#60 US MESH	0.25	91.9
#100 US MESH	0.15	37.9
#140 US MESH	0.106	21.8
#200 US MESH	0.075	16.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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Tech

Date

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Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

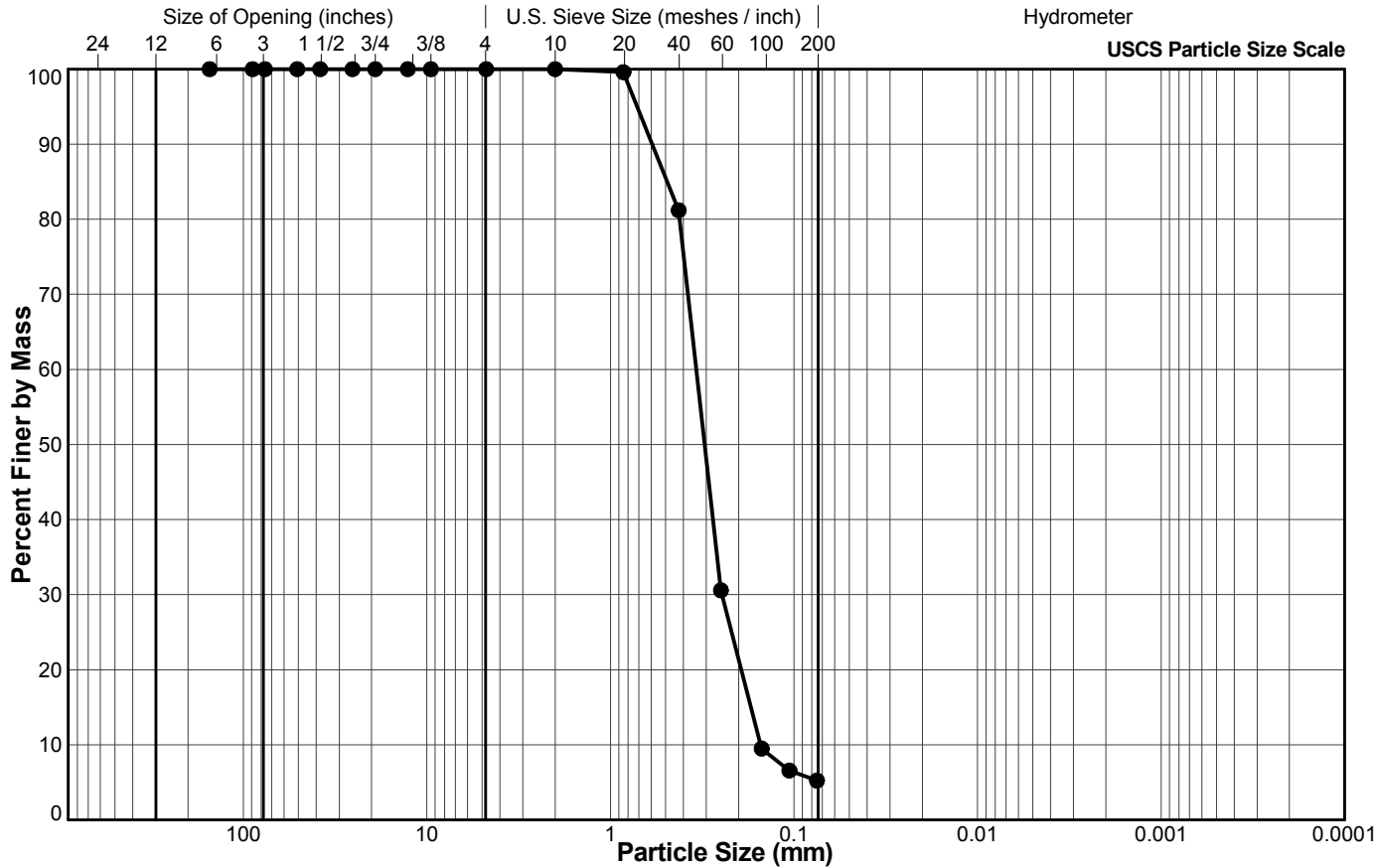


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 33
Depth Interval (m): 51.21 to 51.82
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.6
#40 US MESH	0.425	81.2
#60 US MESH	0.25	30.6
#100 US MESH	0.15	9.5
#140 US MESH	0.106	6.6
#200 US MESH	0.075	5.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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LH

2/10/2017

Tech

Date

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Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

Golder Associates Ltd.

#300 - 3811 North Fraser Way Burnaby, British Columbia, Canada V5J 5J2
 Tel: +1 (604) 412 6899 Fax: +1 (604) 412 6816 www.golder.com

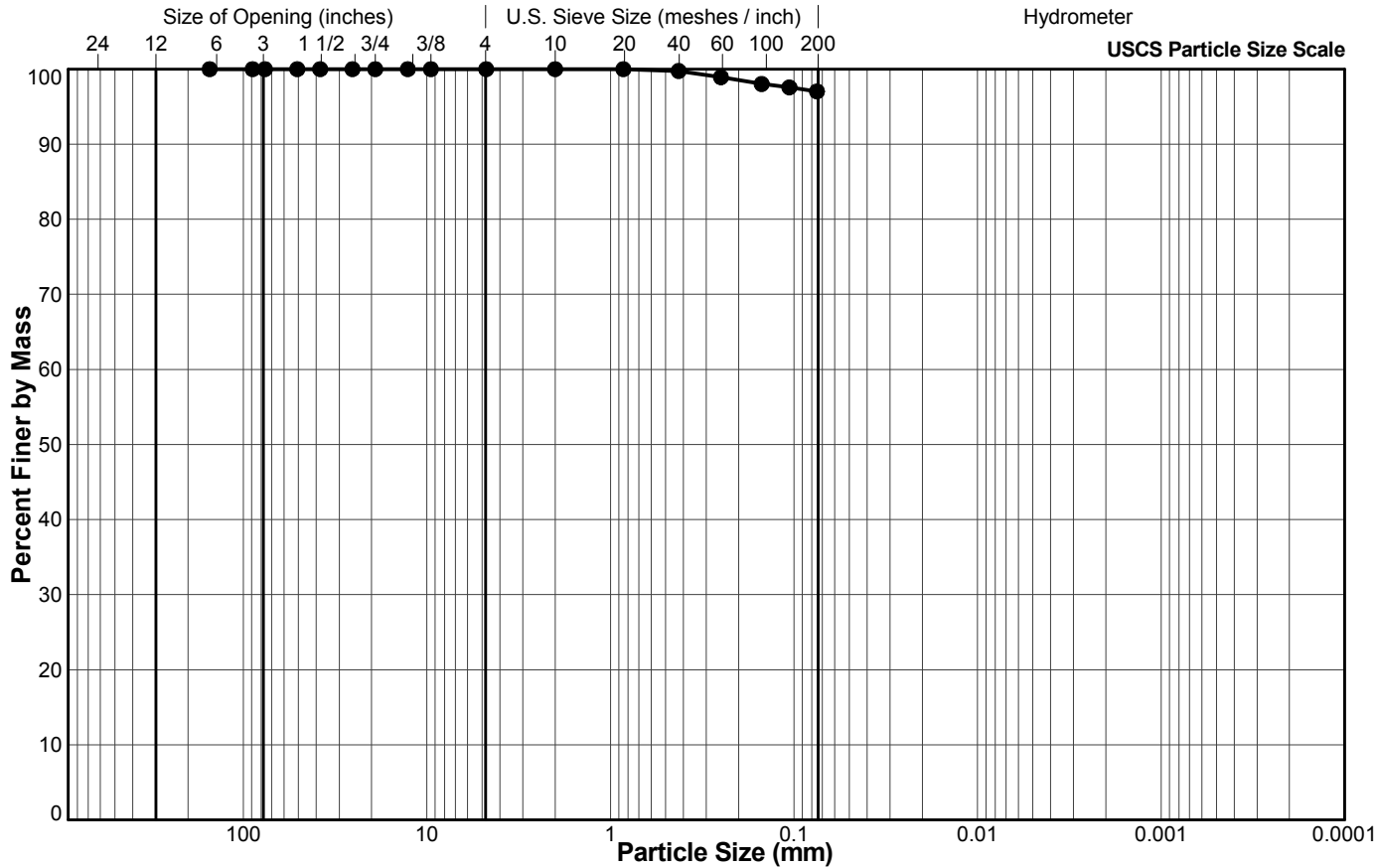


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 38
Depth Interval (m): 69.49 to 70.10
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	98.9
#100 US MESH	0.15	98.0
#140 US MESH	0.106	97.6
#200 US MESH	0.075	97.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

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Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

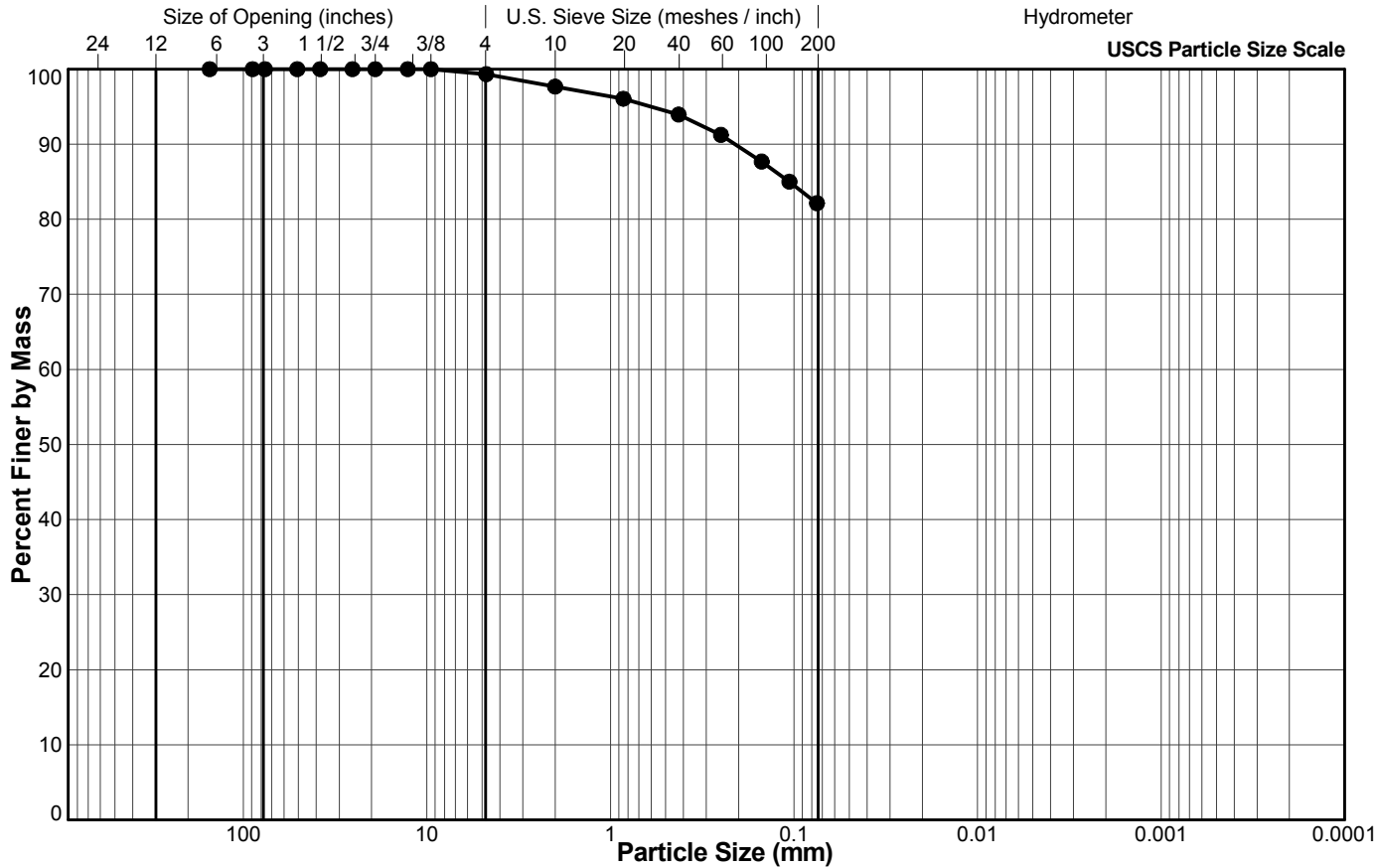


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-07
Sample No.: 39
Depth Interval (m): 77.11 to 77.72
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.3
#10 US MESH	2	97.7
#20 US MESH	0.85	96.1
#40 US MESH	0.425	93.9
#60 US MESH	0.25	91.2
#100 US MESH	0.15	87.7
#140 US MESH	0.106	85.0
#200 US MESH	0.075	82.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

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Date

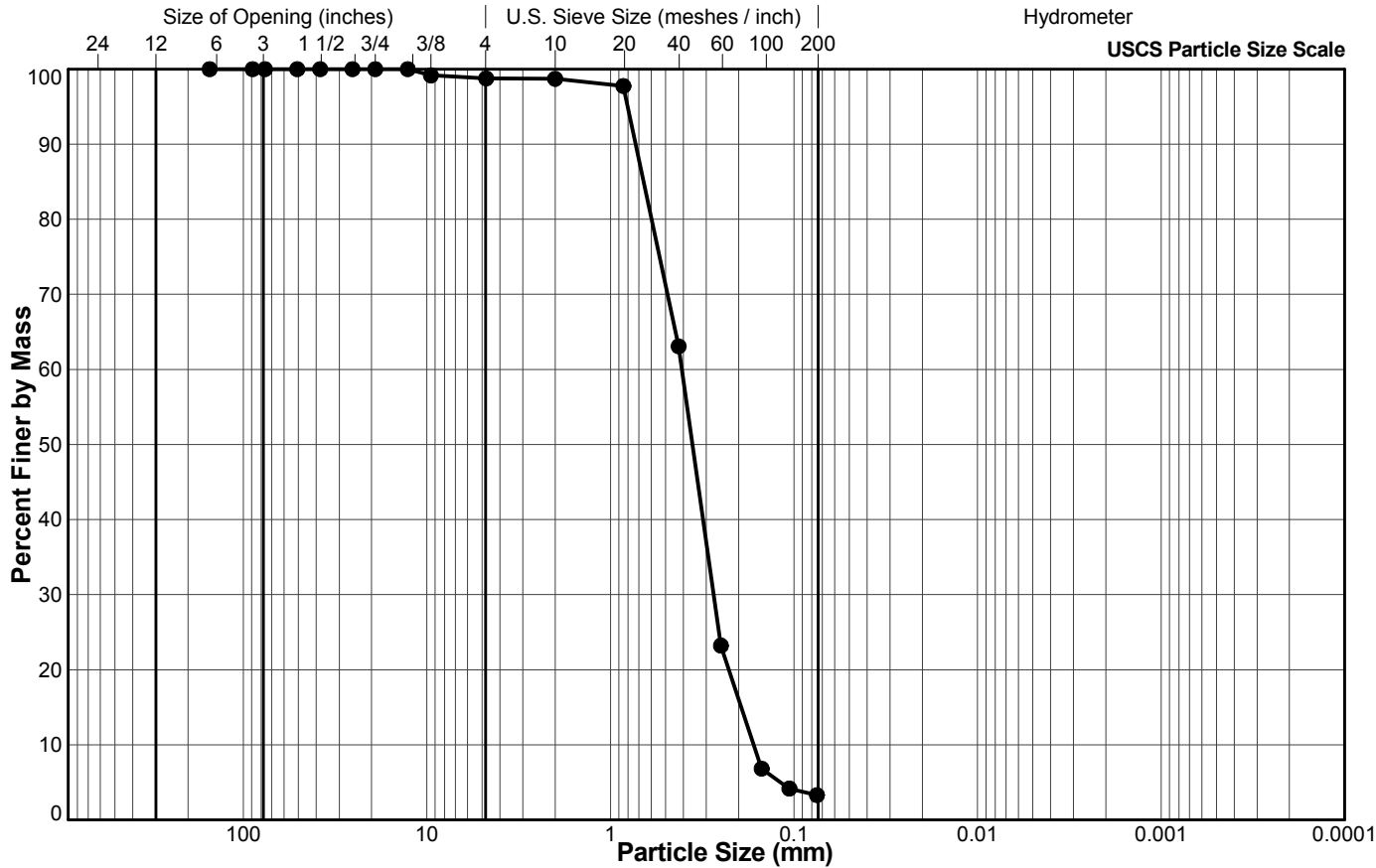


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 3
Depth Interval (m): 4.57 to 5.18
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.2
#4 US MESH	4.75	98.8
#10 US MESH	2	98.7
#20 US MESH	0.85	97.8
#40 US MESH	0.425	63.1
#60 US MESH	0.25	23.2
#100 US MESH	0.15	6.8
#140 US MESH	0.106	4.2
#200 US MESH	0.075	3.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

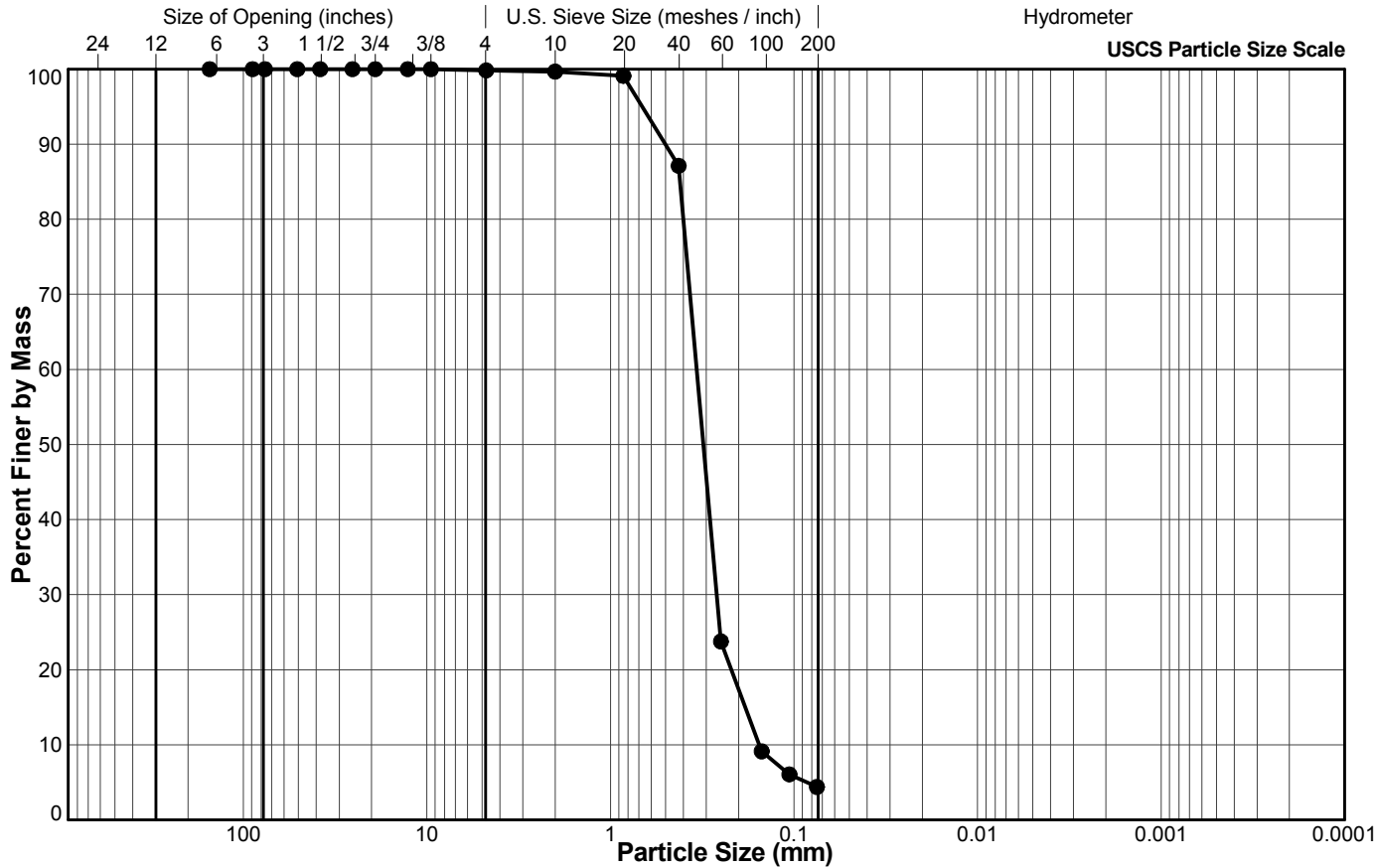


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: BH16-08
 Sample No.: 4
 Depth Interval (m): 6.10 to 6.71
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.8
#10 US MESH	2	99.7
#20 US MESH	0.85	99.1
#40 US MESH	0.425	87.1
#60 US MESH	0.25	23.8
#100 US MESH	0.15	9.1
#140 US MESH	0.106	6.1
#200 US MESH	0.075	4.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

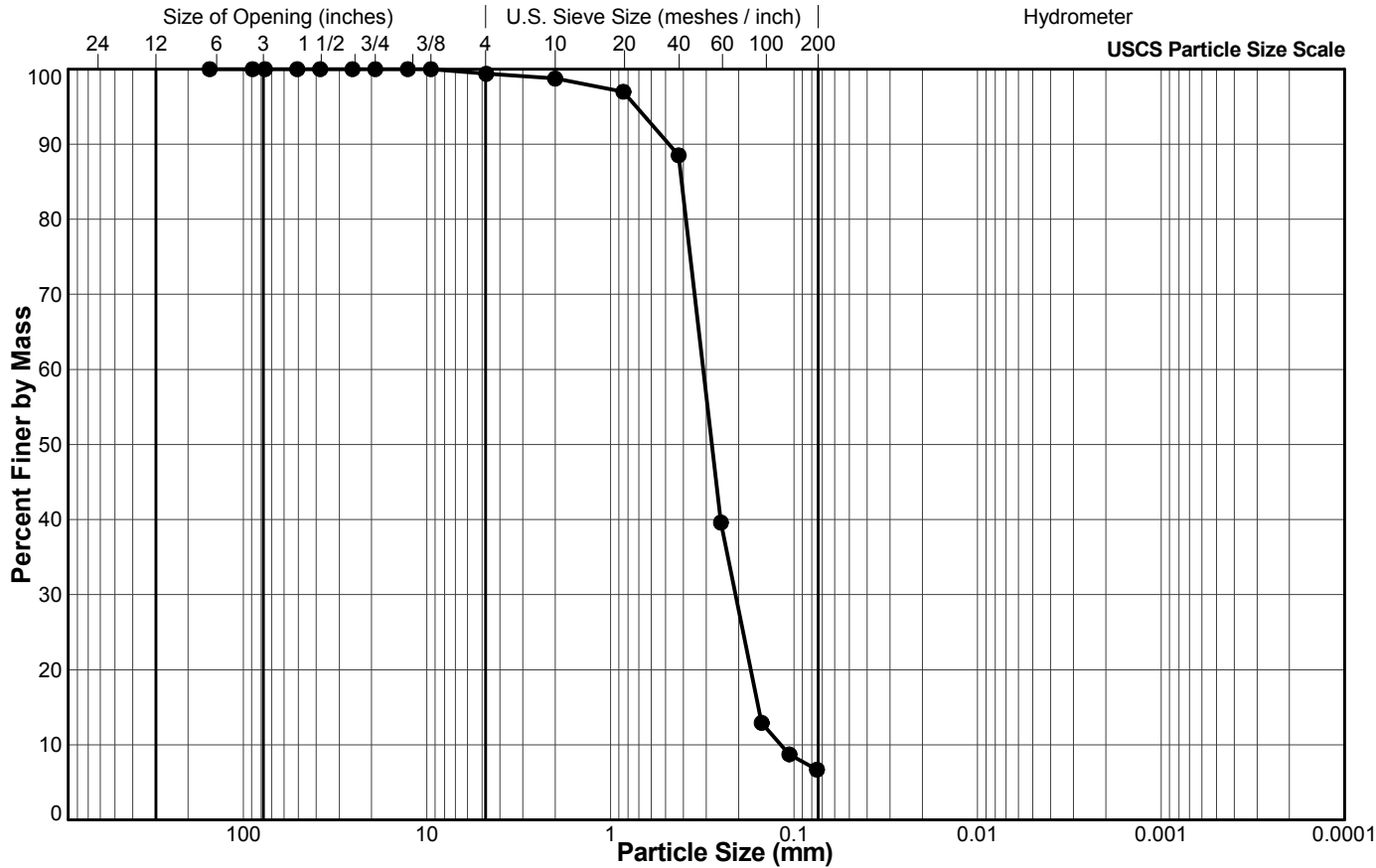


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 6
Depth Interval (m): 9.14 to 9.75
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.4
#10 US MESH	2	98.7
#20 US MESH	0.85	97.0
#40 US MESH	0.425	88.5
#60 US MESH	0.25	39.6
#100 US MESH	0.15	12.9
#140 US MESH	0.106	8.7
#200 US MESH	0.075	6.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

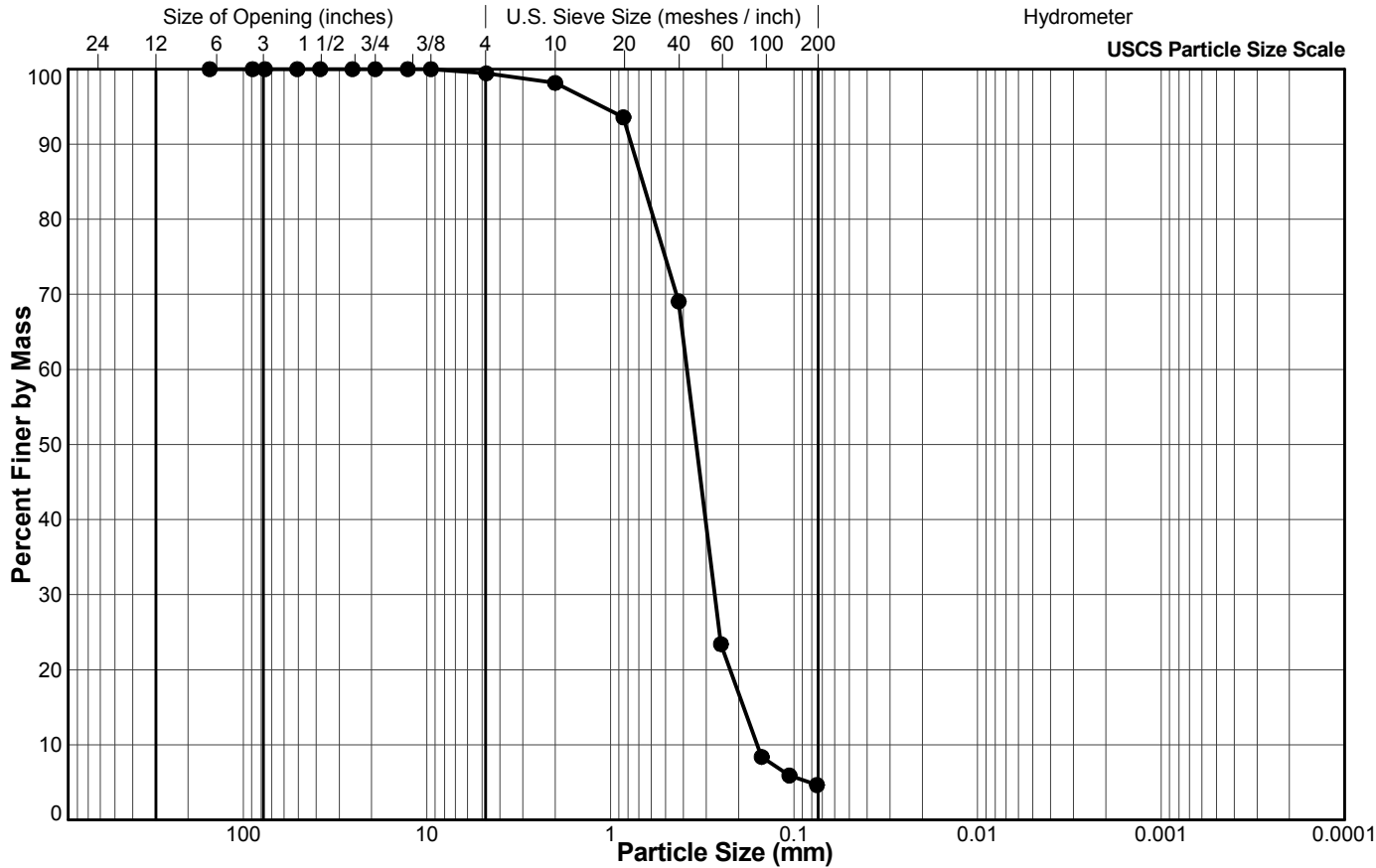


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 8
Depth Interval (m): 12.19 to 12.80
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.4
#10 US MESH	2	98.2
#20 US MESH	0.85	93.6
#40 US MESH	0.425	69.1
#60 US MESH	0.25	23.4
#100 US MESH	0.15	8.4
#140 US MESH	0.106	5.9
#200 US MESH	0.075	4.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

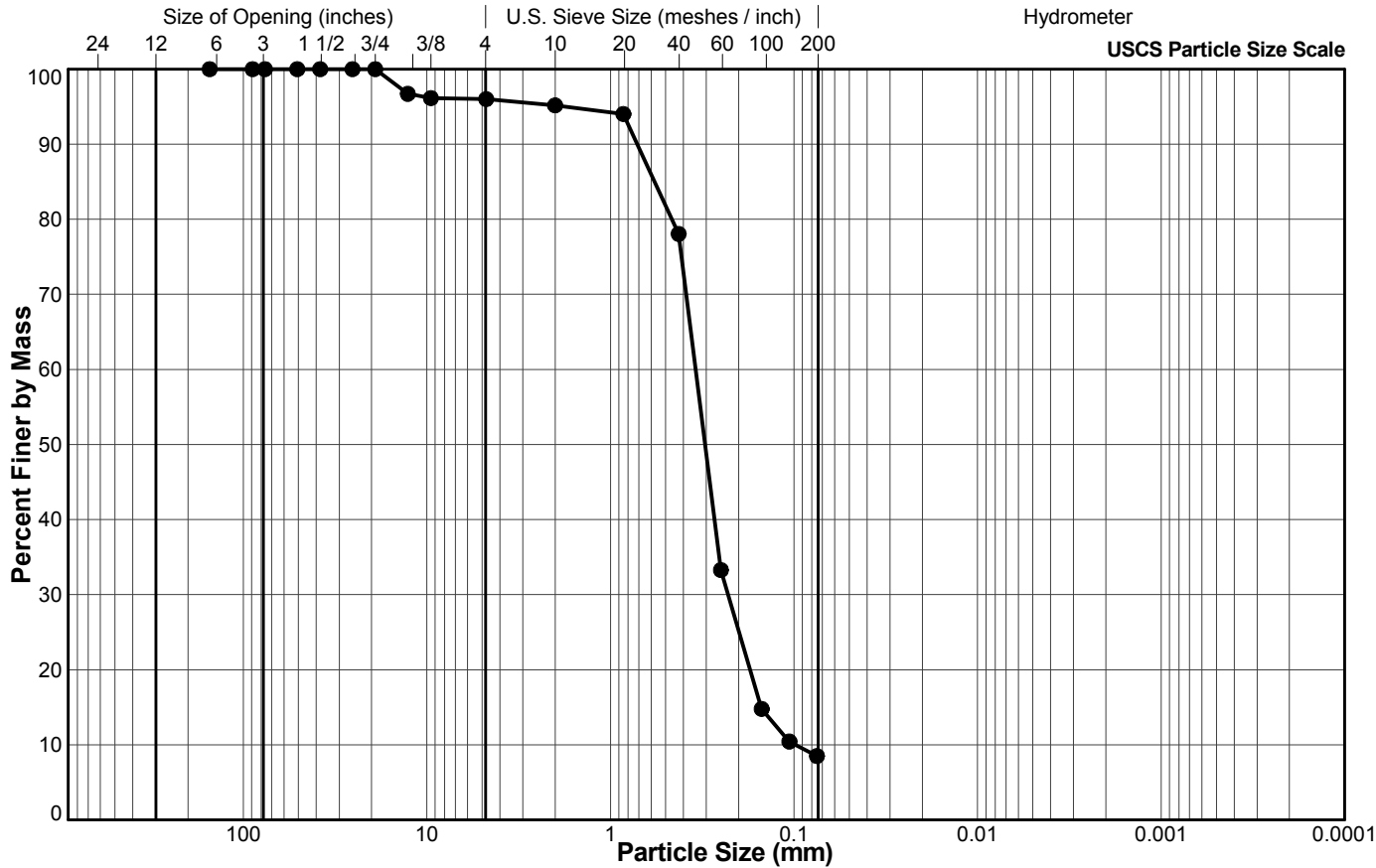


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 10
Depth Interval (m): 15.24 to 15.85
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	96.7
3/8"	9.5	96.1
#4 US MESH	4.75	96.0
#10 US MESH	2	95.2
#20 US MESH	0.85	94.0
#40 US MESH	0.425	78.1
#60 US MESH	0.25	33.3
#100 US MESH	0.15	14.8
#140 US MESH	0.106	10.4
#200 US MESH	0.075	8.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

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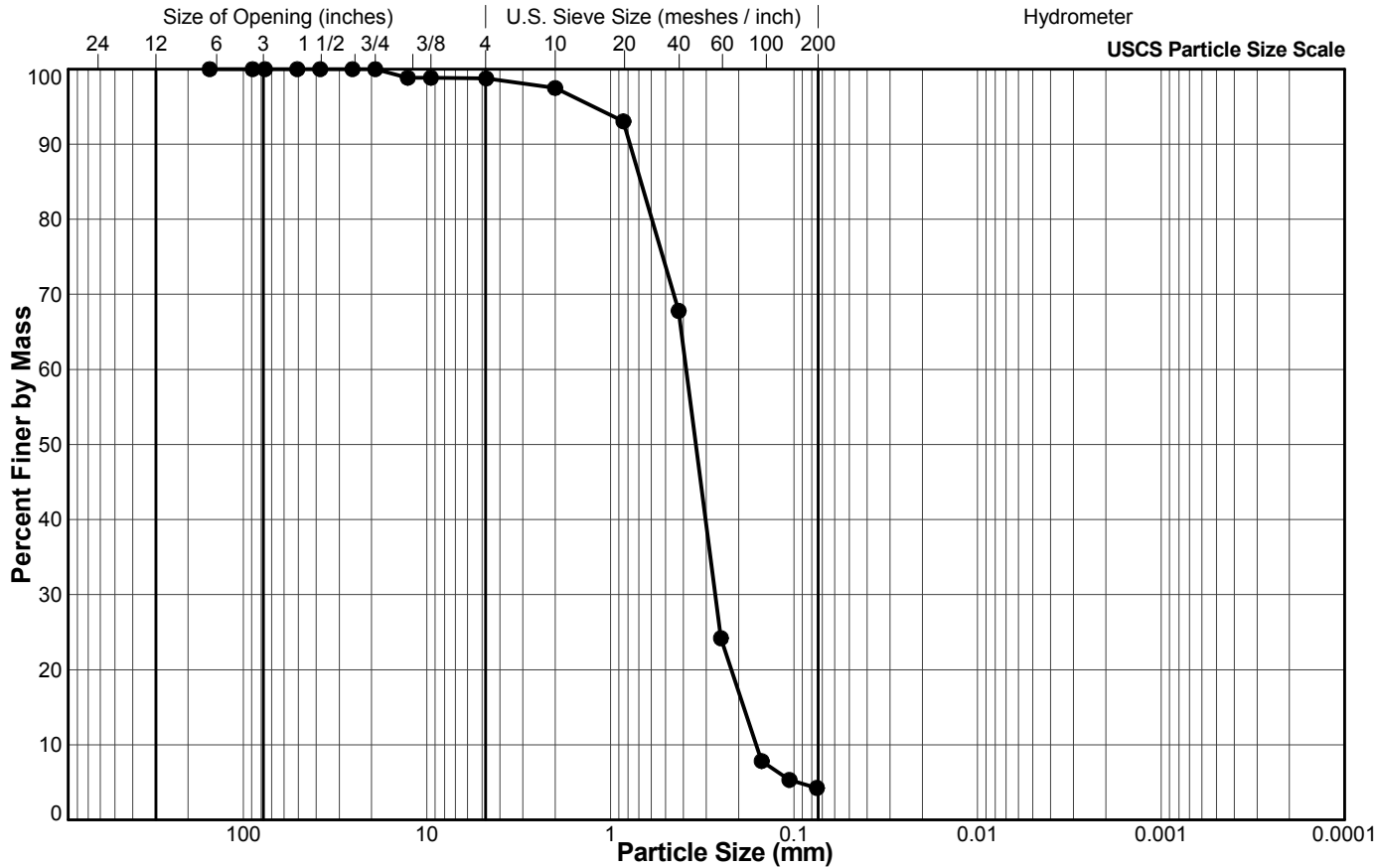


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 12
Depth Interval (m): 18.29 to 18.90
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	98.8
3/8"	9.5	98.8
#4 US MESH	4.75	98.8
#10 US MESH	2	97.5
#20 US MESH	0.85	93.1
#40 US MESH	0.425	67.8
#60 US MESH	0.25	24.2
#100 US MESH	0.15	7.8
#140 US MESH	0.106	5.3
#200 US MESH	0.075	4.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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2/10/2017

Tech

Date

Checked

Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

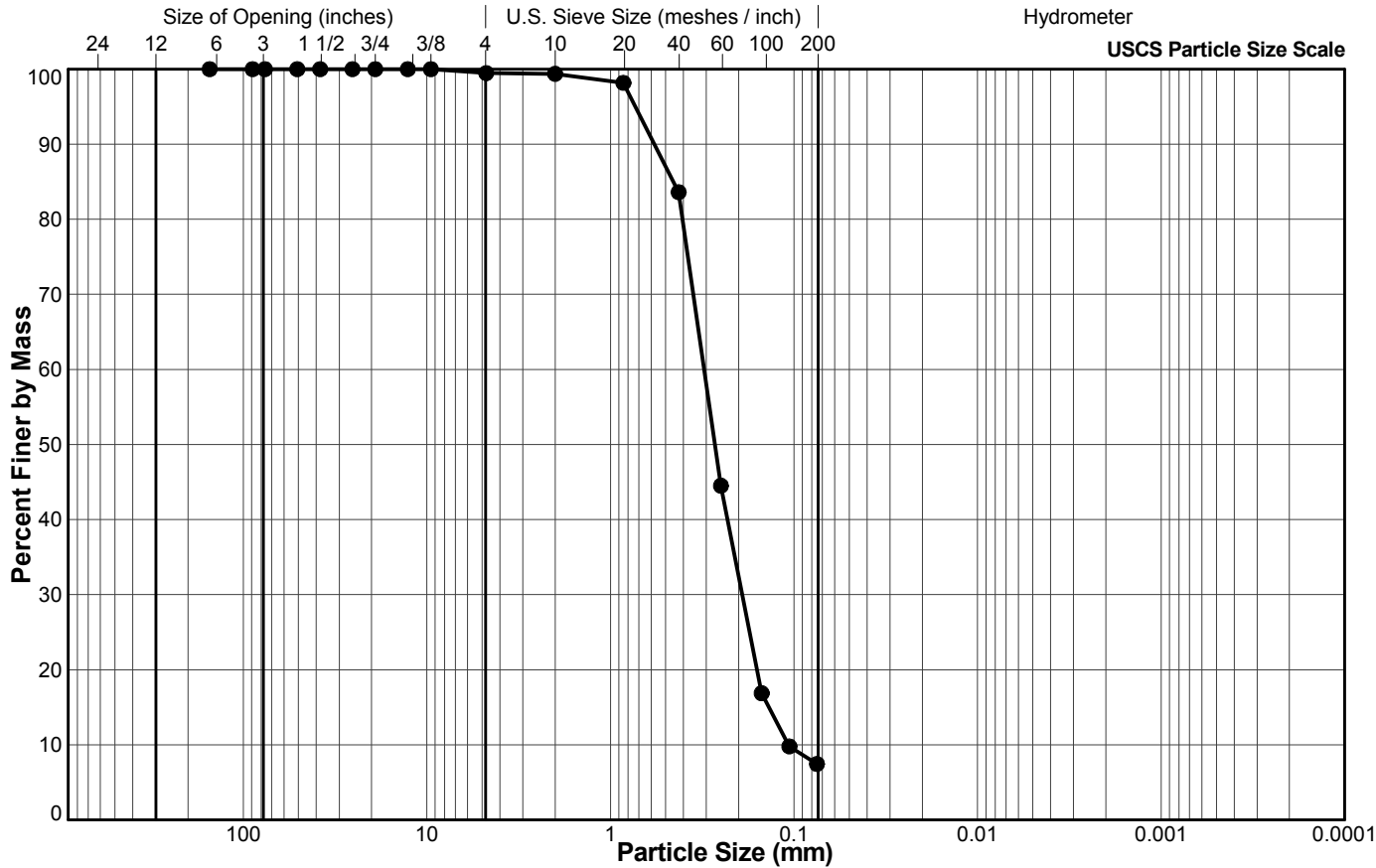


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 13
Depth Interval (m): 19.81 to 20.42
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.5
#10 US MESH	2	99.4
#20 US MESH	0.85	98.2
#40 US MESH	0.425	83.6
#60 US MESH	0.25	44.5
#100 US MESH	0.15	16.9
#140 US MESH	0.106	9.8
#200 US MESH	0.075	7.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

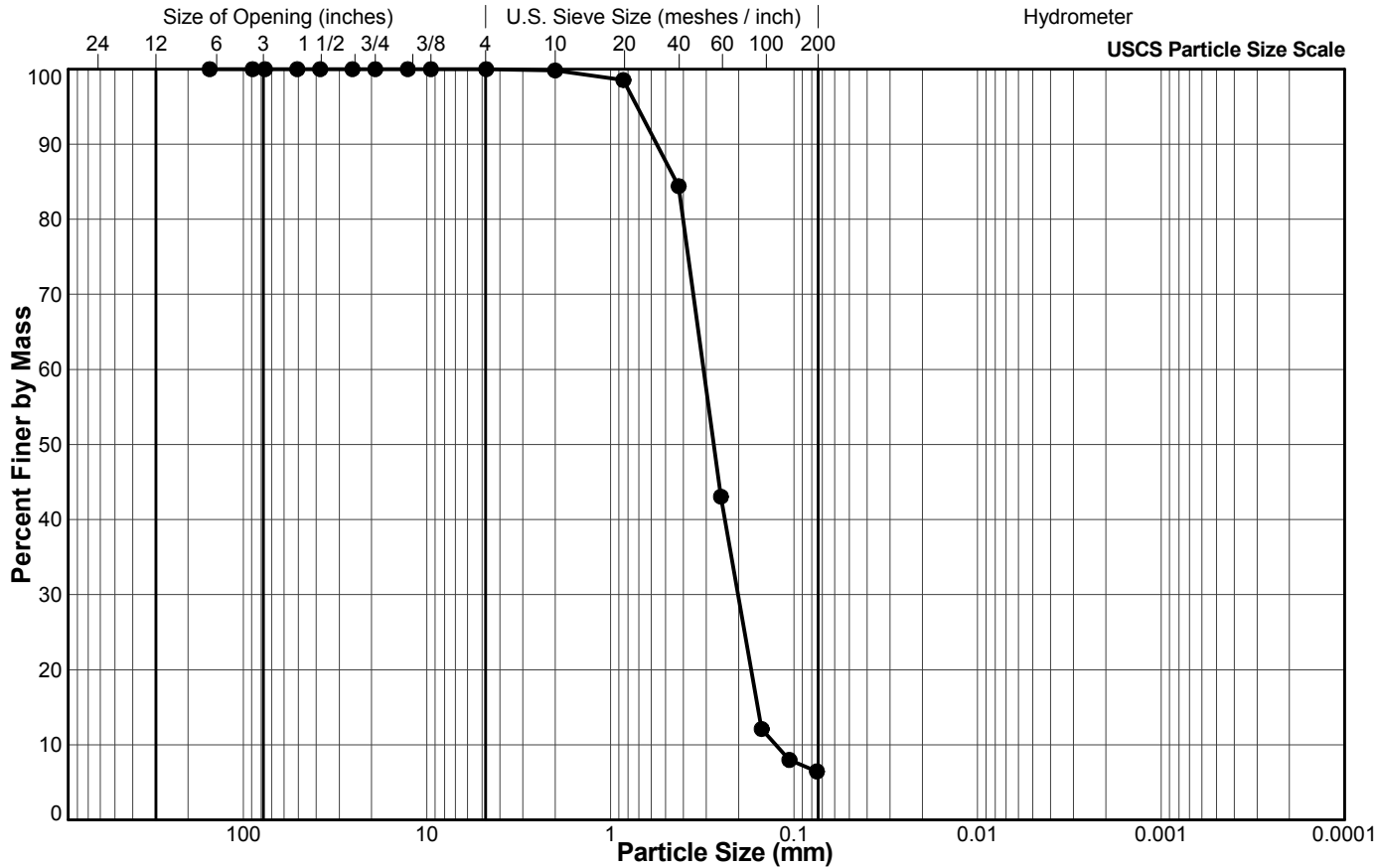


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 14
Depth Interval (m): 21.34 to 21.95
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.8
#20 US MESH	0.85	98.5
#40 US MESH	0.425	84.4
#60 US MESH	0.25	43.1
#100 US MESH	0.15	12.1
#140 US MESH	0.106	8.0
#200 US MESH	0.075	6.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

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Date

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Date

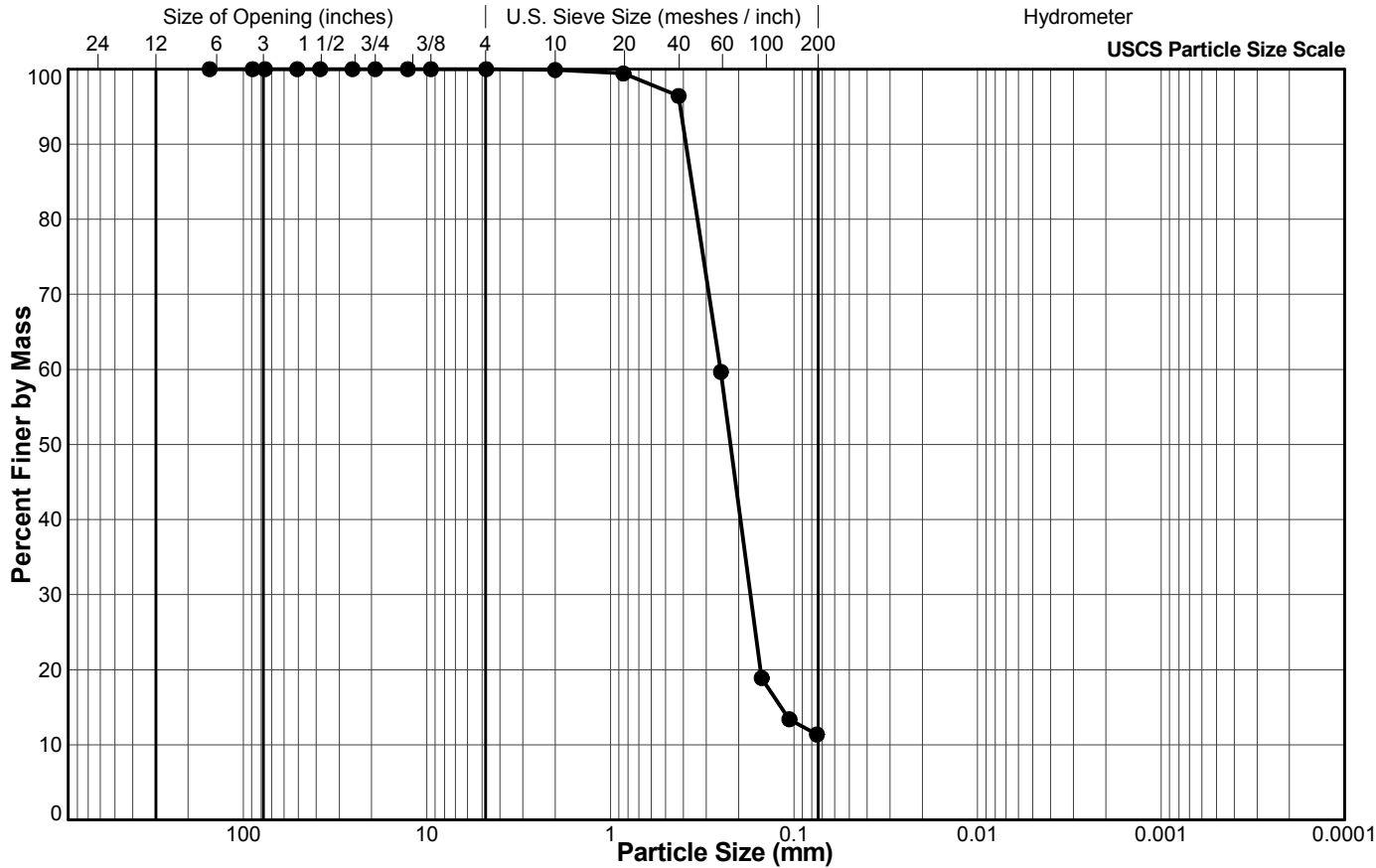


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 16
Depth Interval (m): 24.38 to 24.99
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.4
#40 US MESH	0.425	96.4
#60 US MESH	0.25	59.7
#100 US MESH	0.15	18.9
#140 US MESH	0.106	13.4
#200 US MESH	0.075	11.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

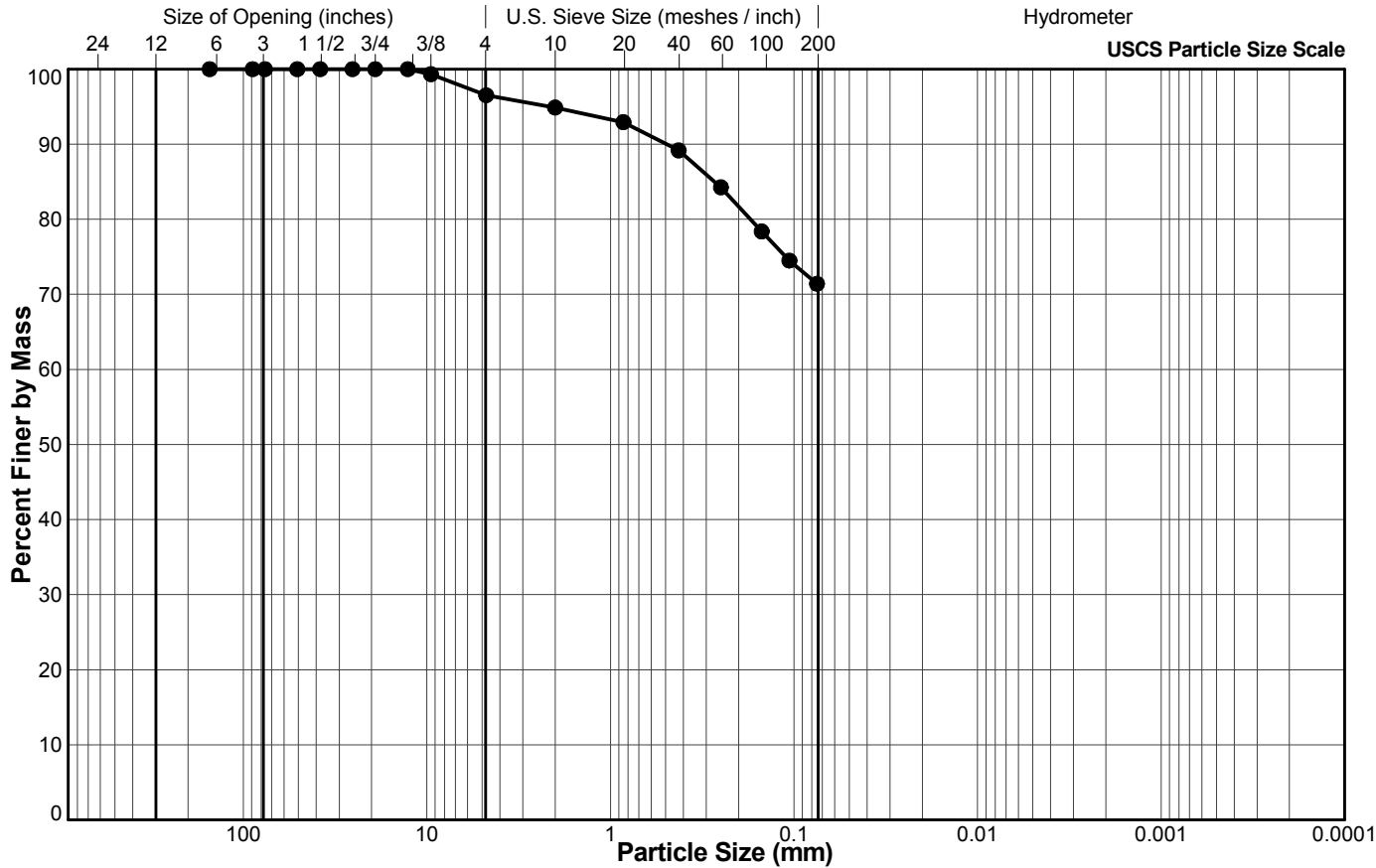


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 28
Depth Interval (m): 50.29 to 50.90
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	99.3
#4 US MESH	4.75	96.5
#10 US MESH	2	94.9
#20 US MESH	0.85	92.9
#40 US MESH	0.425	89.2
#60 US MESH	0.25	84.3
#100 US MESH	0.15	78.4
#140 US MESH	0.106	74.5
#200 US MESH	0.075	71.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

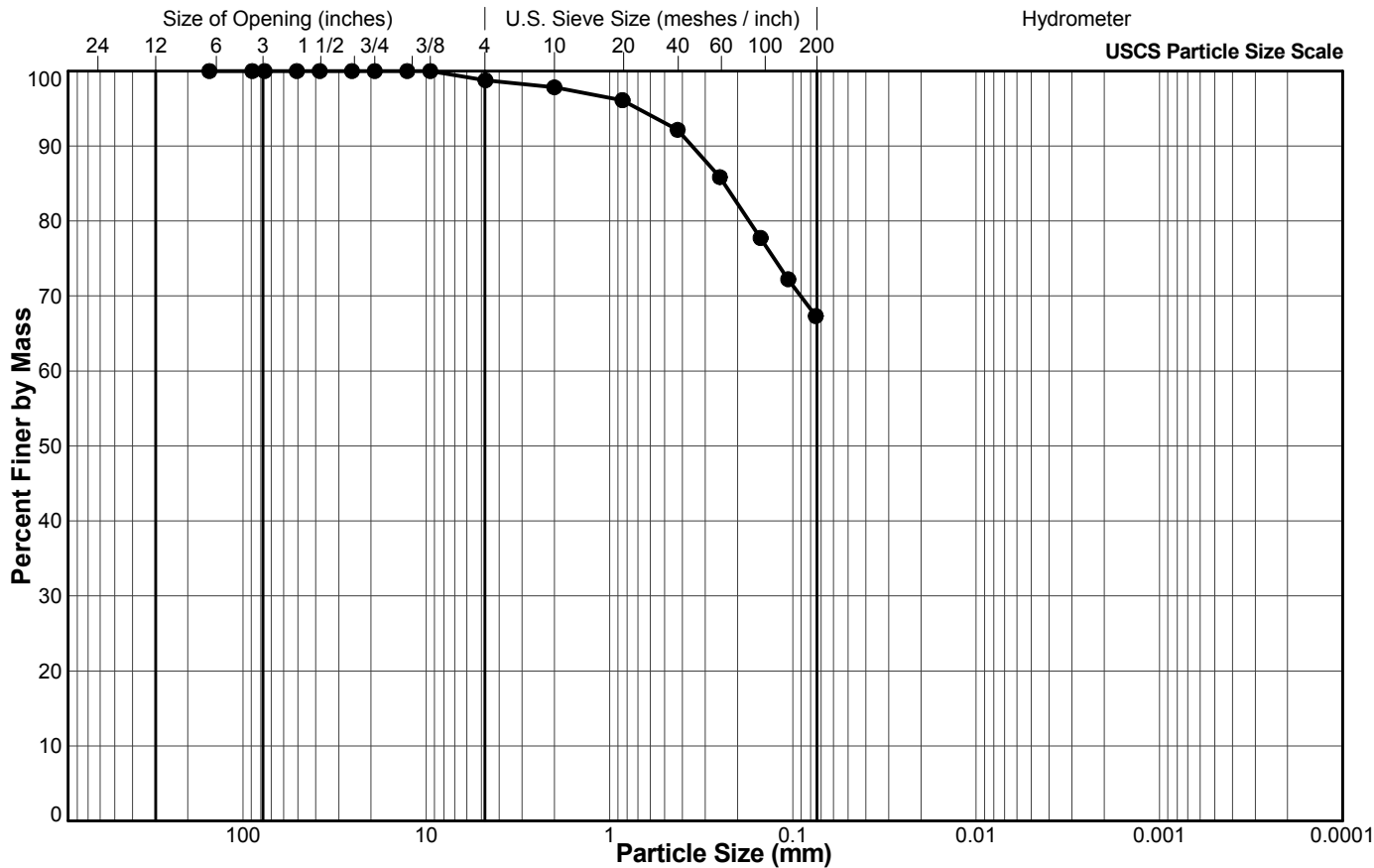


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: BH16-08
Sample No.: 29
Depth Interval (m): 54.86 to 55.47
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	98.8
#10 US MESH	2	97.8
#20 US MESH	0.85	96.1
#40 US MESH	0.425	92.2
#60 US MESH	0.25	85.9
#100 US MESH	0.15	77.7
#140 US MESH	0.106	72.2
#200 US MESH	0.075	67.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

2/2/2017

LH

2/10/2017

Tech

Date

Checked

Date

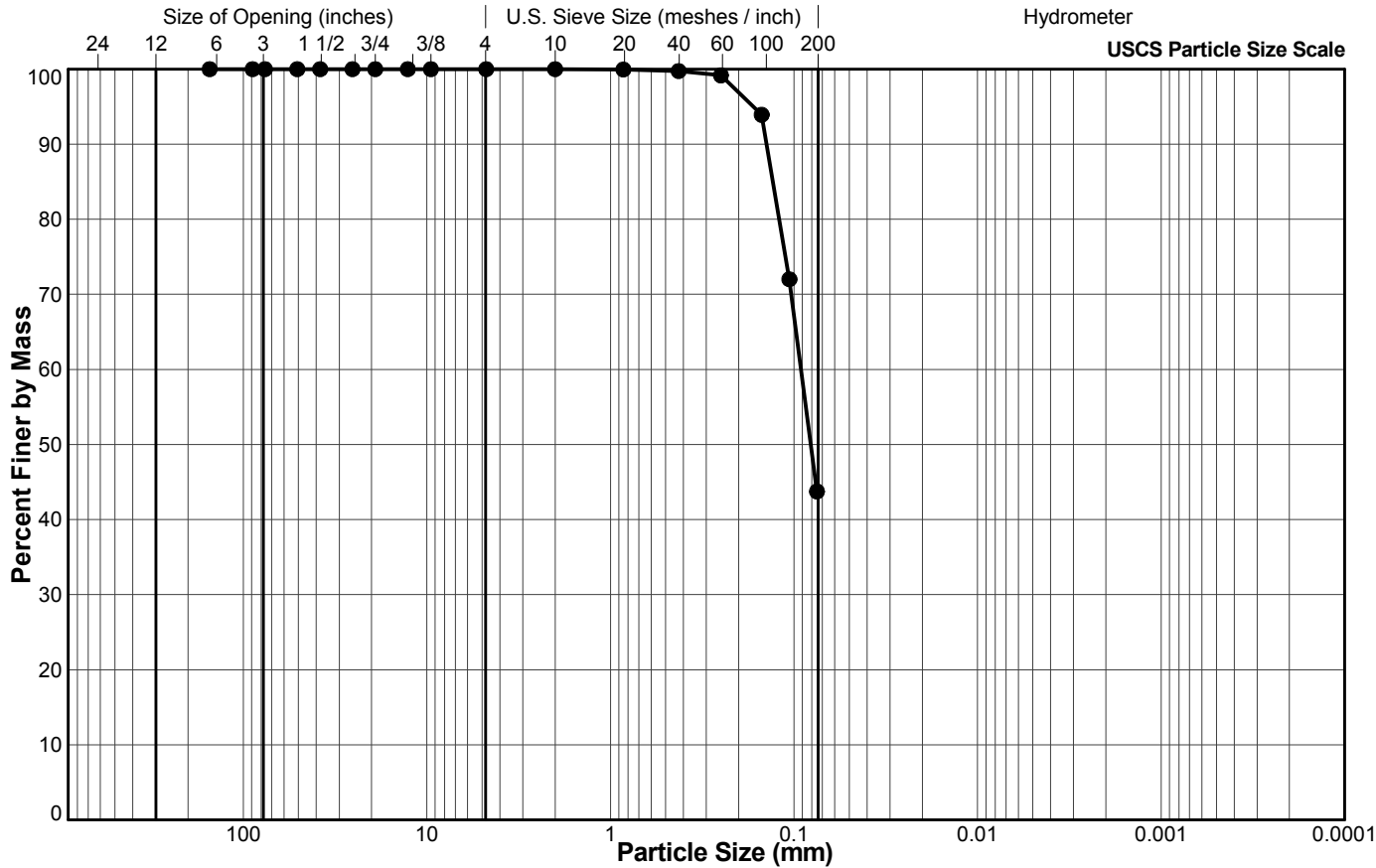


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-01
Sample No.: 4 **Specimen:** 4A
Depth Interval (m): 5.33 to 5.49
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	99.2
#100 US MESH	0.15	93.9
#140 US MESH	0.106	72.0
#200 US MESH	0.075	43.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/VN

6/23/2016

LH

6/23/2016

Tech

Date

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Date

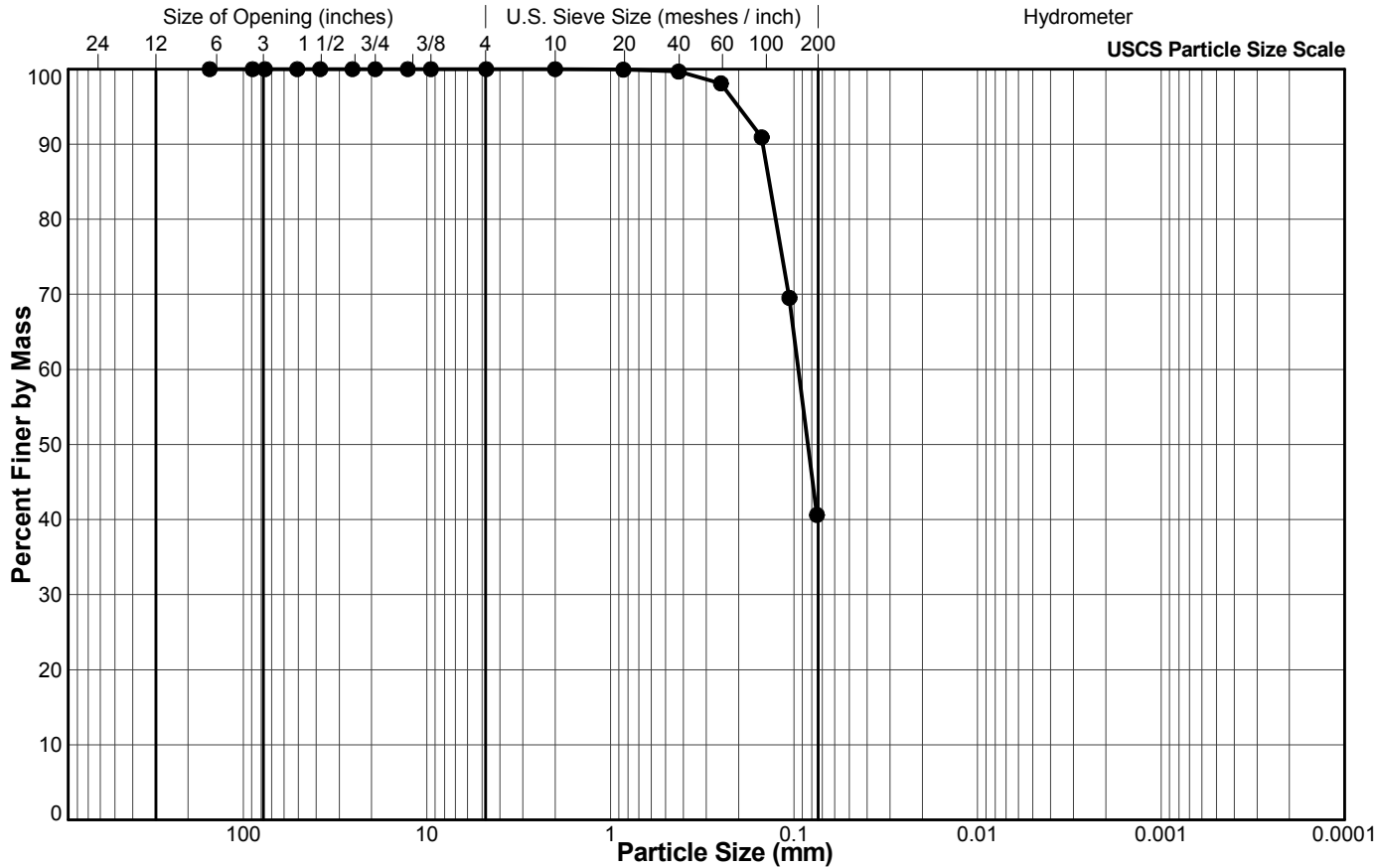


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-01
Sample No.: 6
Depth Interval (m): 8.53 to 8.69
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	99.7
#60 US MESH	0.25	98.1
#100 US MESH	0.15	90.9
#140 US MESH	0.106	69.5
#200 US MESH	0.075	40.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/VN

6/23/2016

LH

6/23/2016

Tech

Date

Checked

Date

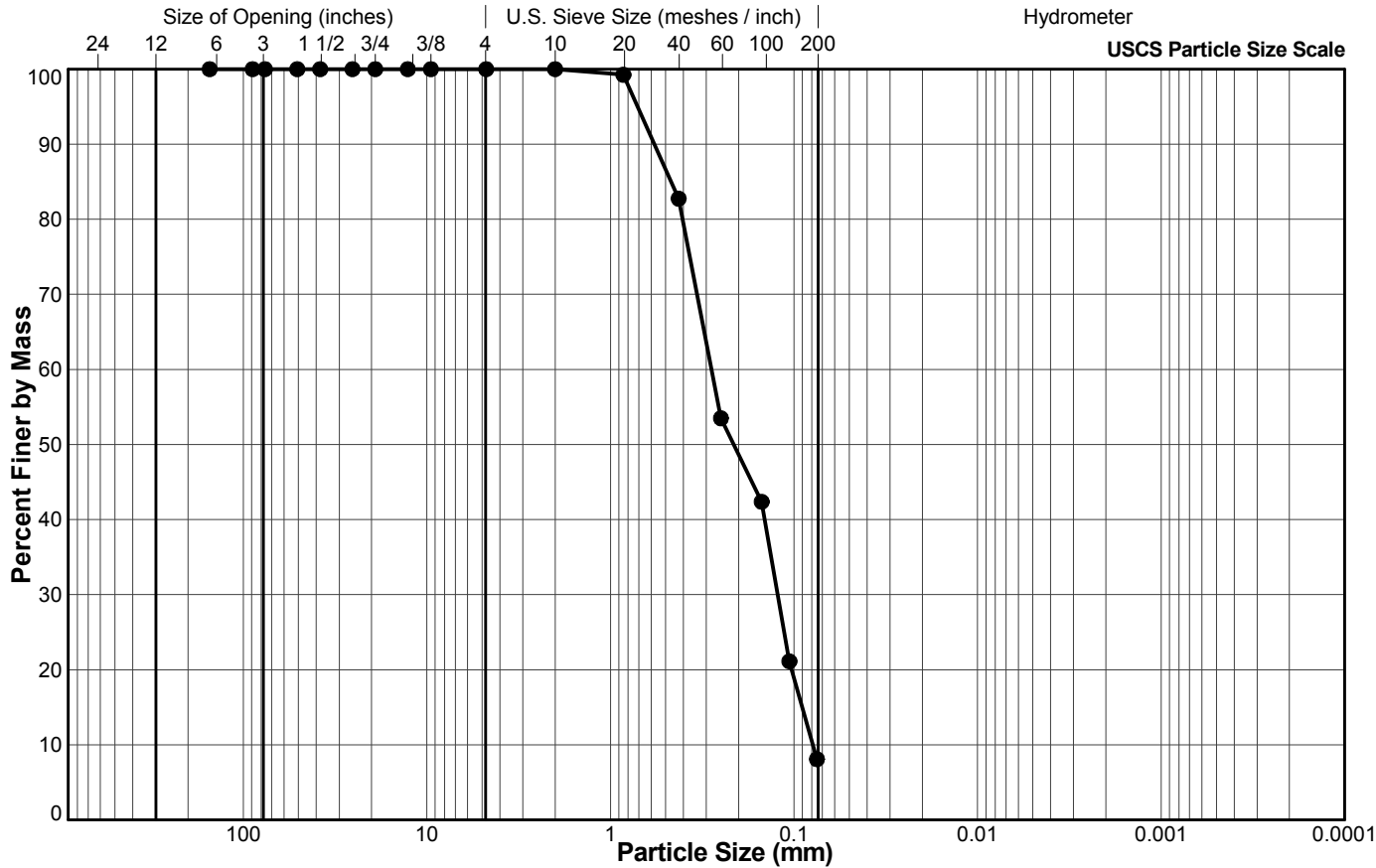


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-01
Sample No.: 7
Depth Interval (m): 10.36 to 10.52
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.3
#40 US MESH	0.425	82.7
#60 US MESH	0.25	53.5
#100 US MESH	0.15	42.4
#140 US MESH	0.106	21.1
#200 US MESH	0.075	8.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

SJ/VN

6/23/2016

LH

6/23/2016

Tech

Date

Checked

Date

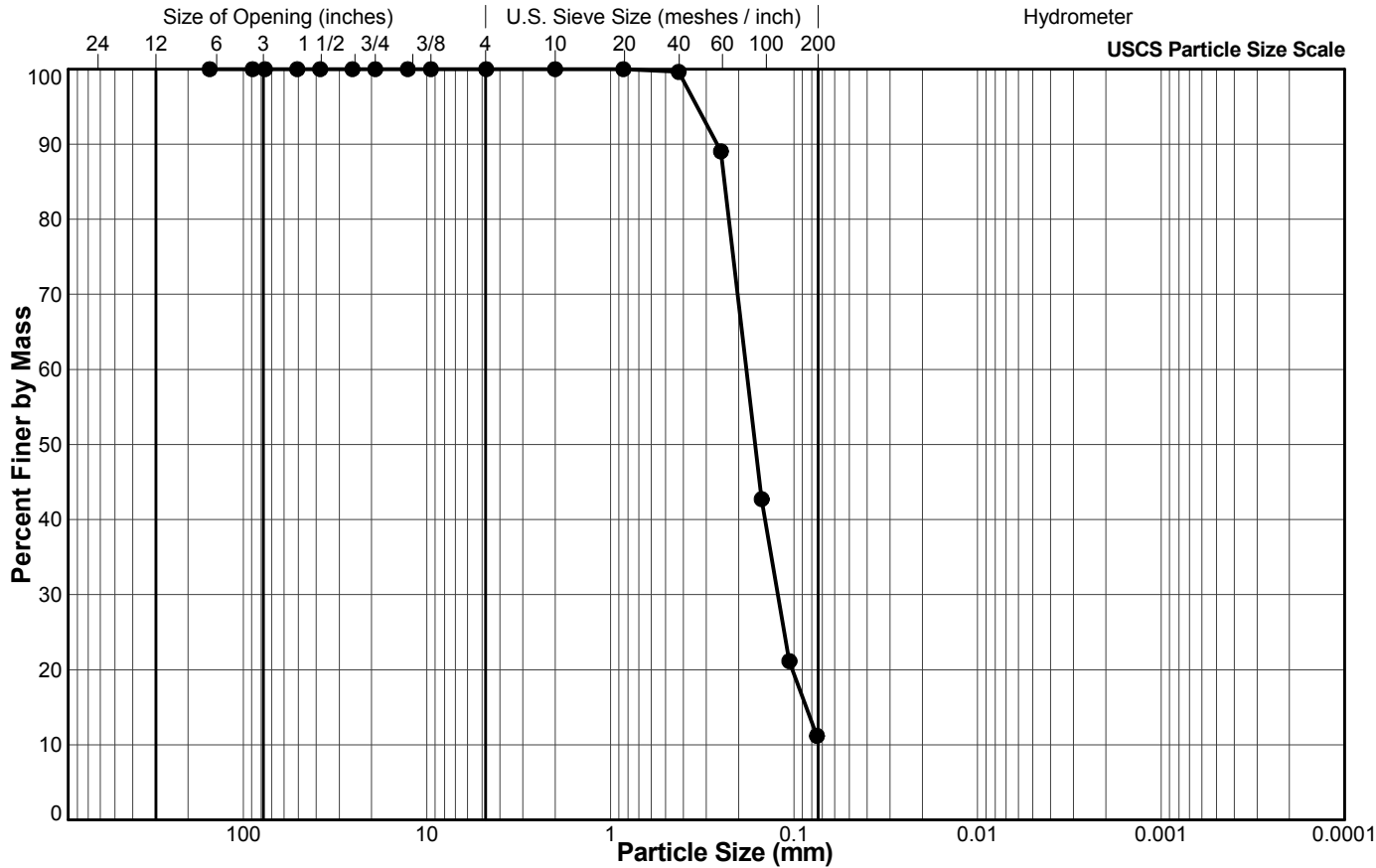


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-05
Sample No.: 10A
Depth Interval (m): 31.39 to 31.55
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.6
#60 US MESH	0.25	89.0
#100 US MESH	0.15	42.7
#140 US MESH	0.106	21.1
#200 US MESH	0.075	11.2

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

RZ 12/14/2016
 Tech Date

LH 12/16/2016
 Checked Date

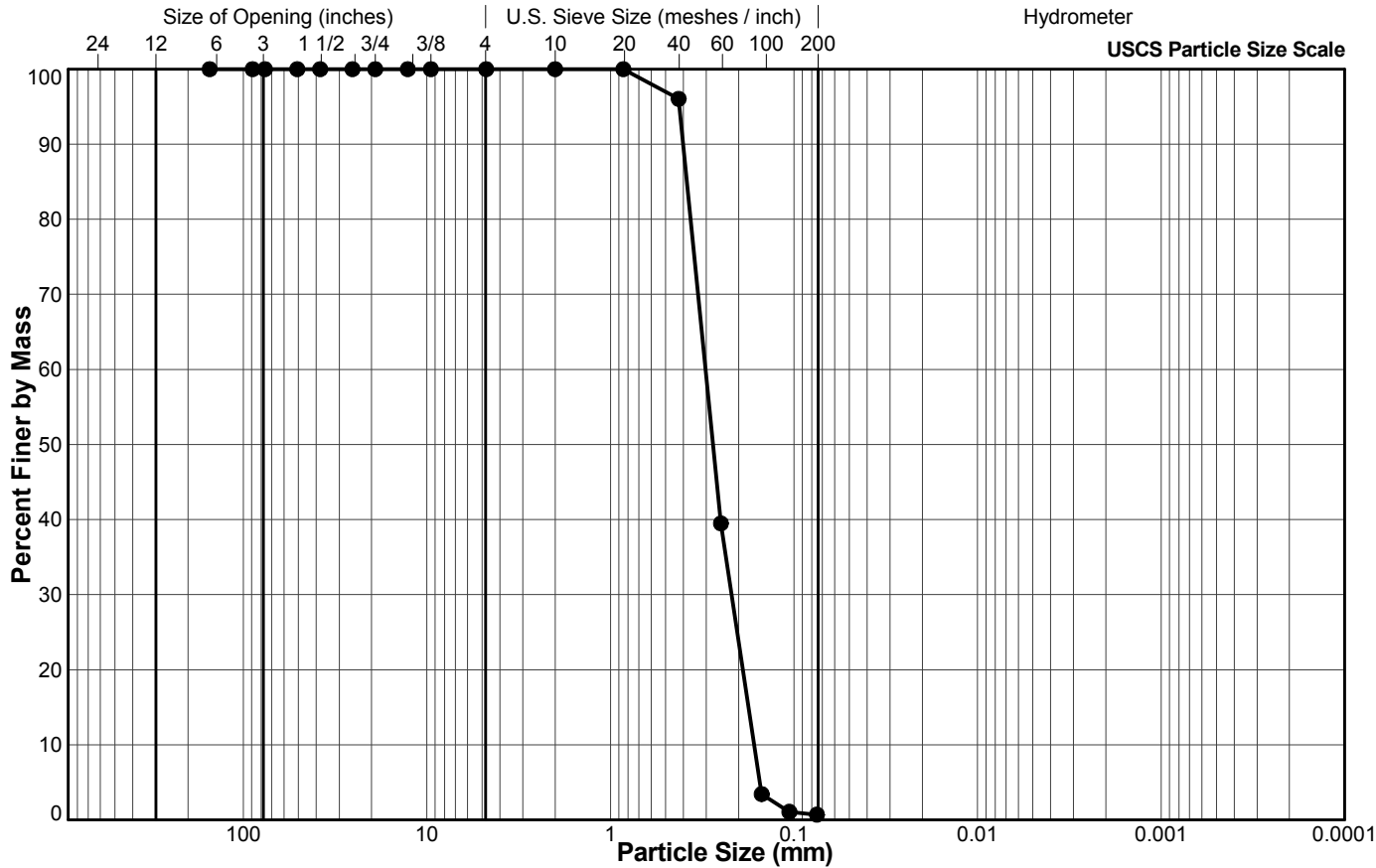


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-06
 Sample No.: 1
 Depth Interval (m): 3.35 to 3.51
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	96.0
#60 US MESH	0.25	39.5
#100 US MESH	0.15	3.4
#140 US MESH	0.106	1.1
#200 US MESH	0.075	0.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

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Date

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Date

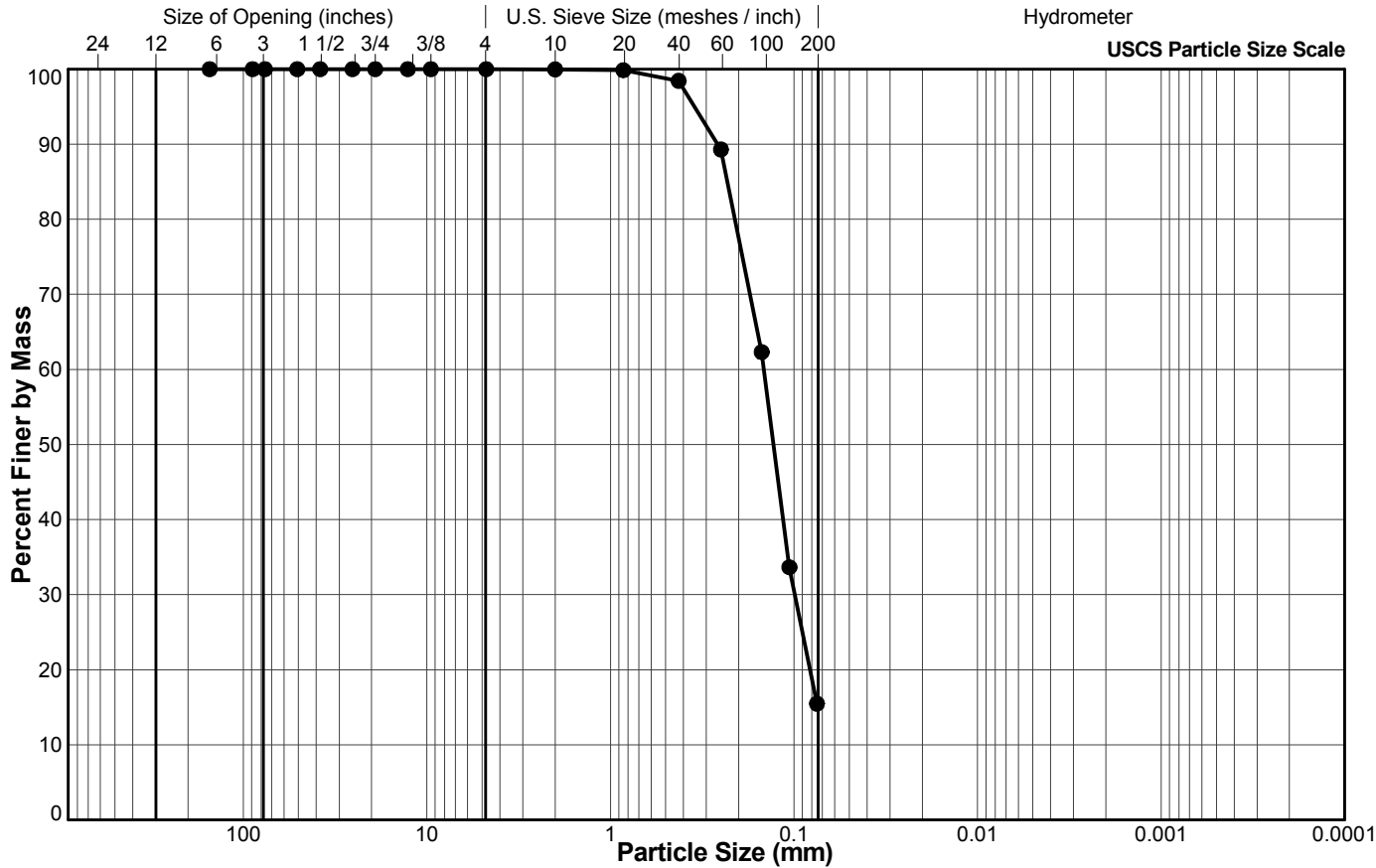


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-06
 Sample No.: 3
 Depth Interval (m): 9.45 to 9.60
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	98.4
#60 US MESH	0.25	89.3
#100 US MESH	0.15	62.3
#140 US MESH	0.106	33.7
#200 US MESH	0.075	15.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

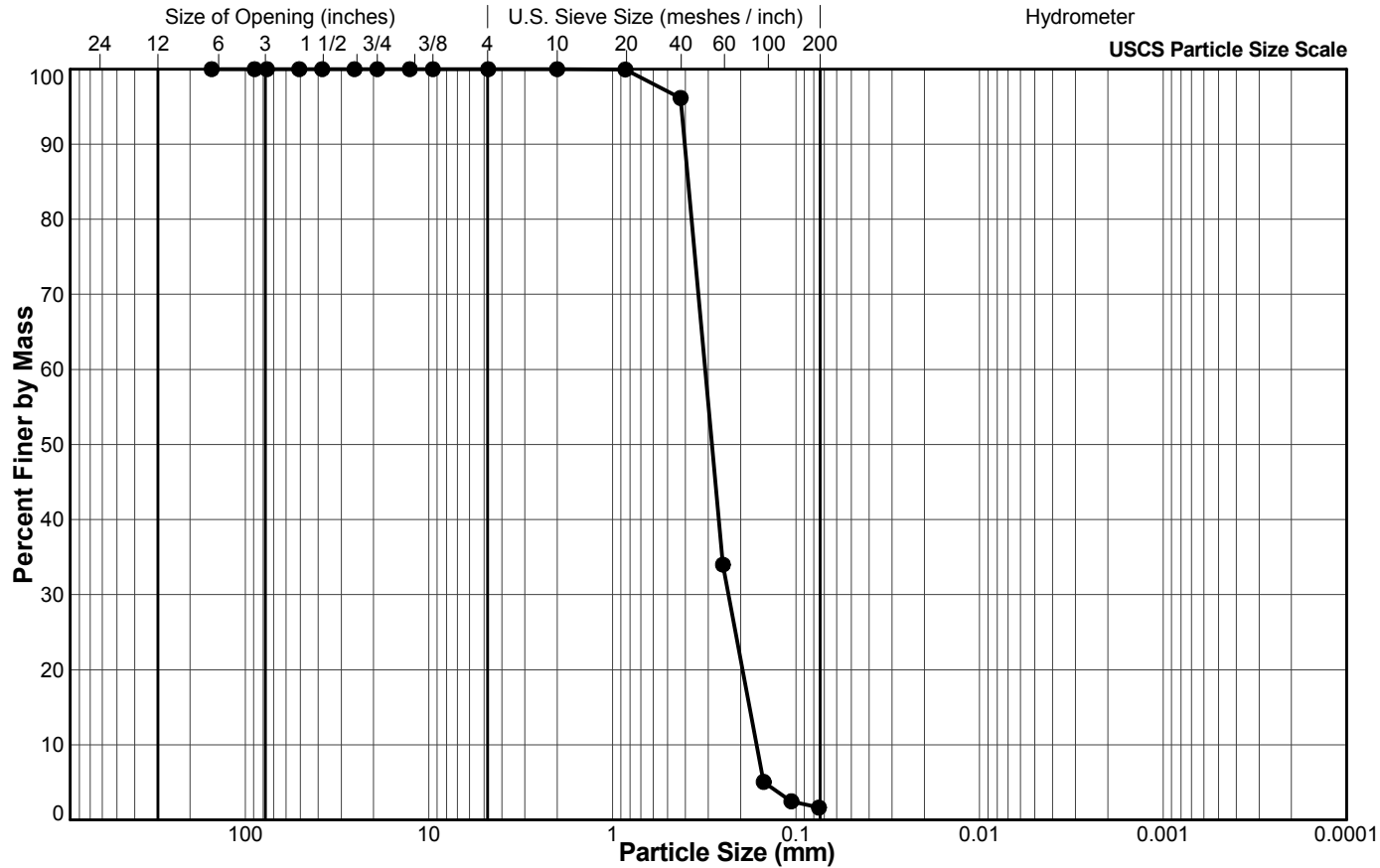


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 4
Depth Interval (m): 12.04 to 12.19
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	96.2
#60 US MESH	0.25	34.0
#100 US MESH	0.15	5.1
#140 US MESH	0.106	2.5
#200 US MESH	0.075	1.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

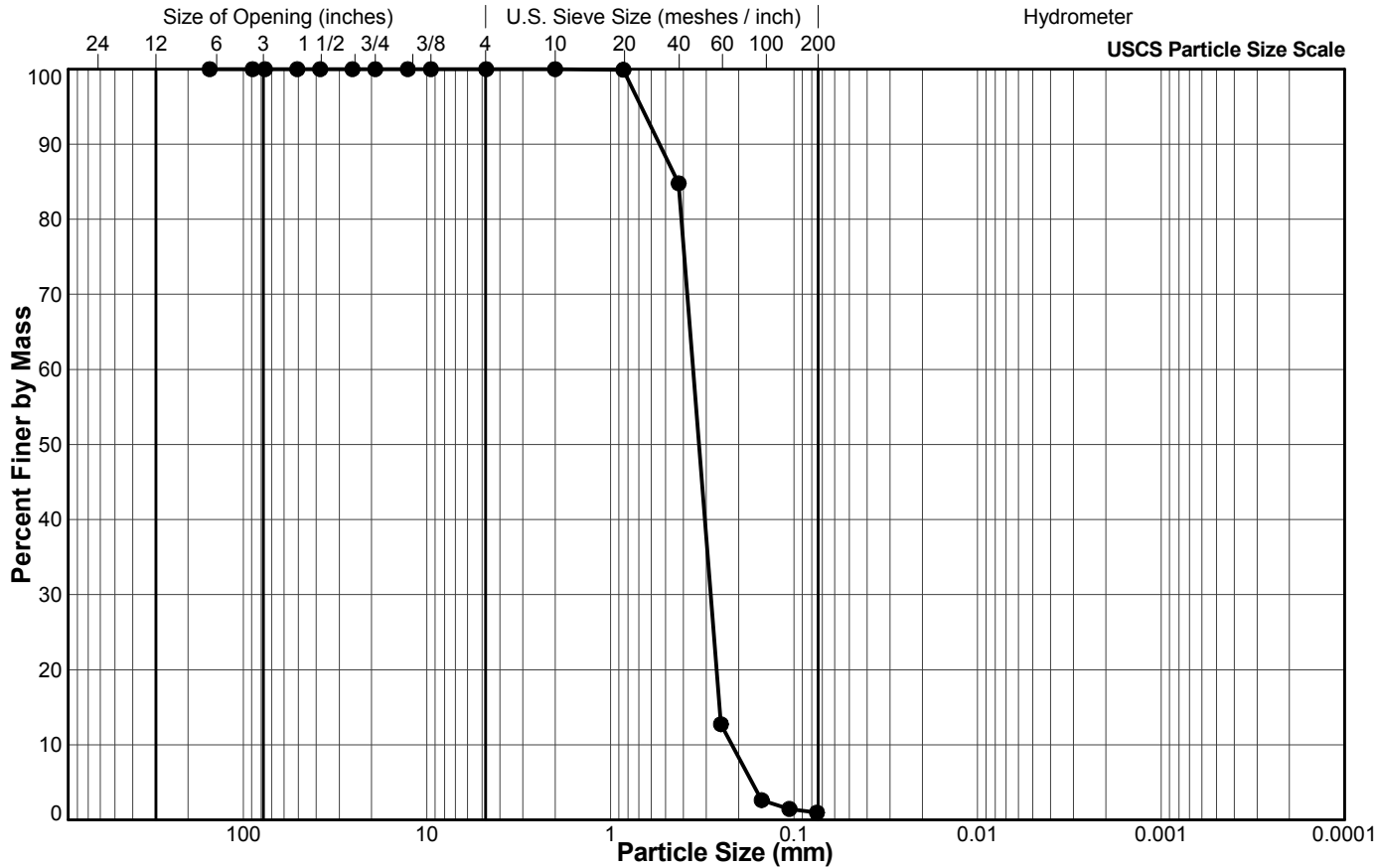


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-06
 Sample No.: 6
 Depth Interval (m): 18.29 to 18.44
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	84.8
#60 US MESH	0.25	12.7
#100 US MESH	0.15	2.6
#140 US MESH	0.106	1.5
#200 US MESH	0.075	1.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

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Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

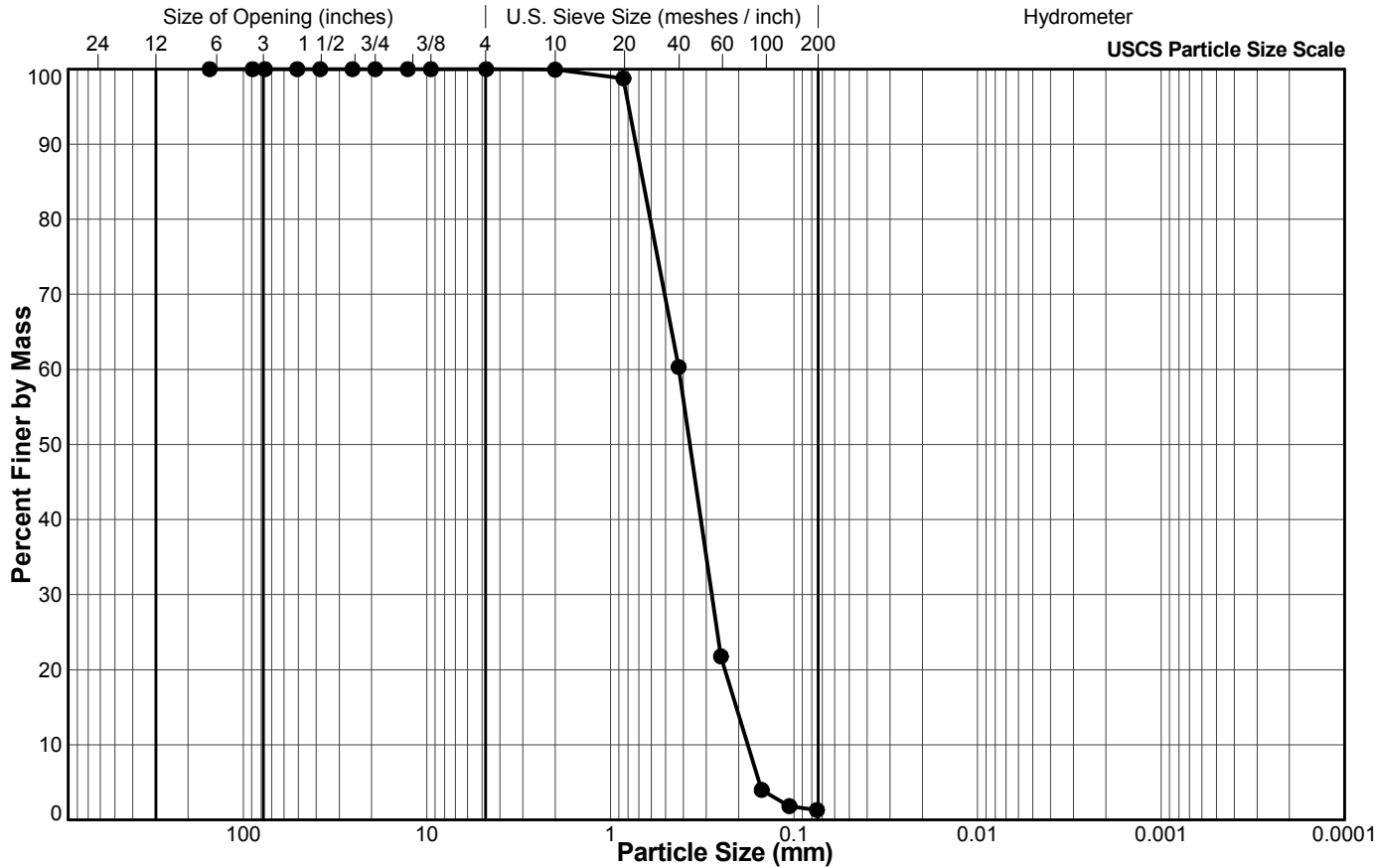


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-06
 Sample No.: 8
 Depth Interval (m): 24.57 to 24.69
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	98.8
#40 US MESH	0.425	60.3
#60 US MESH	0.25	21.8
#100 US MESH	0.15	4.0
#140 US MESH	0.106	1.8
#200 US MESH	0.075	1.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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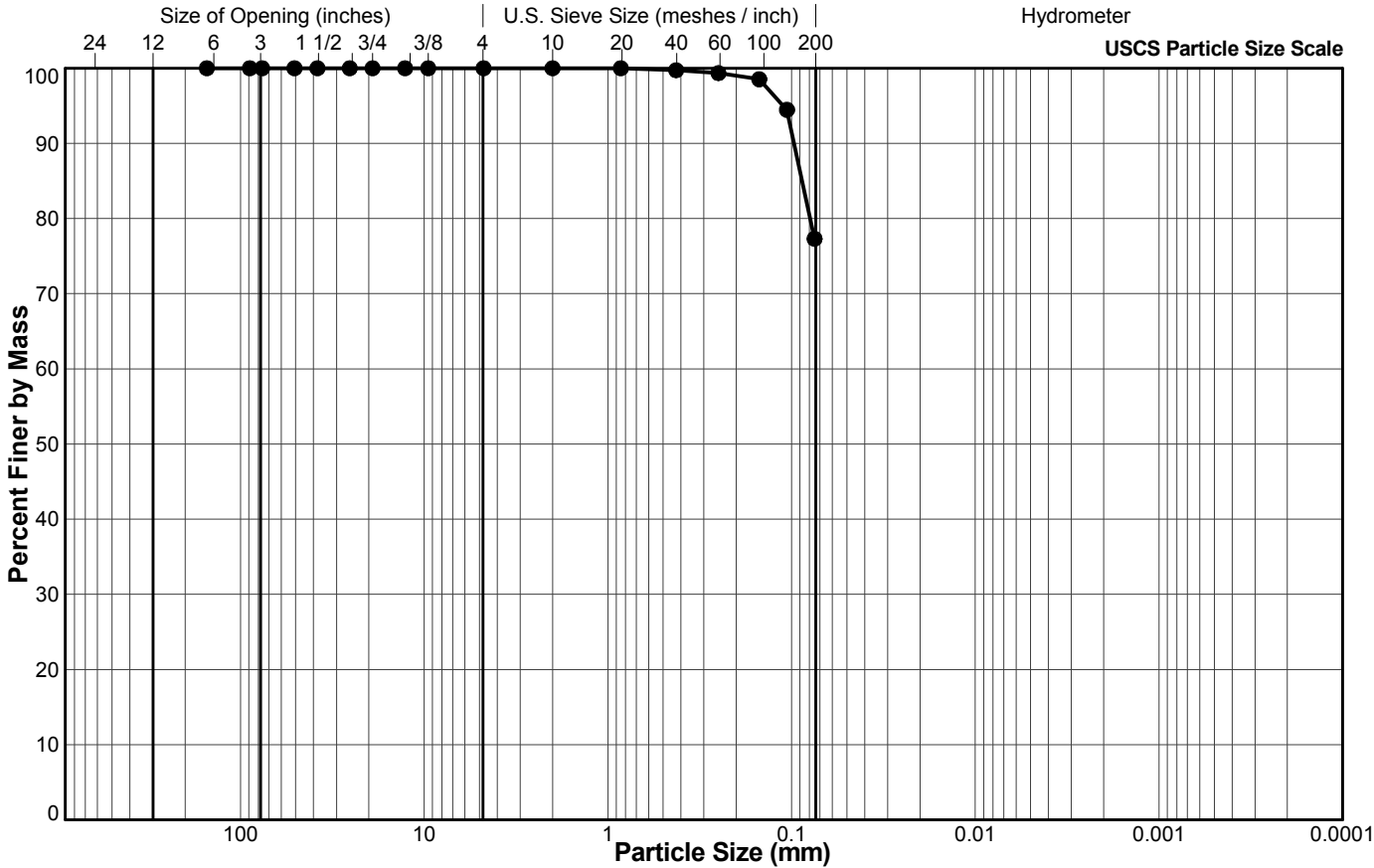


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-06
 Sample No.: 10
 Depth Interval (m): 29.57 to 29.72
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.7
#60 US MESH	0.25	99.4
#100 US MESH	0.15	98.5
#140 US MESH	0.106	94.5
#200 US MESH	0.075	77.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

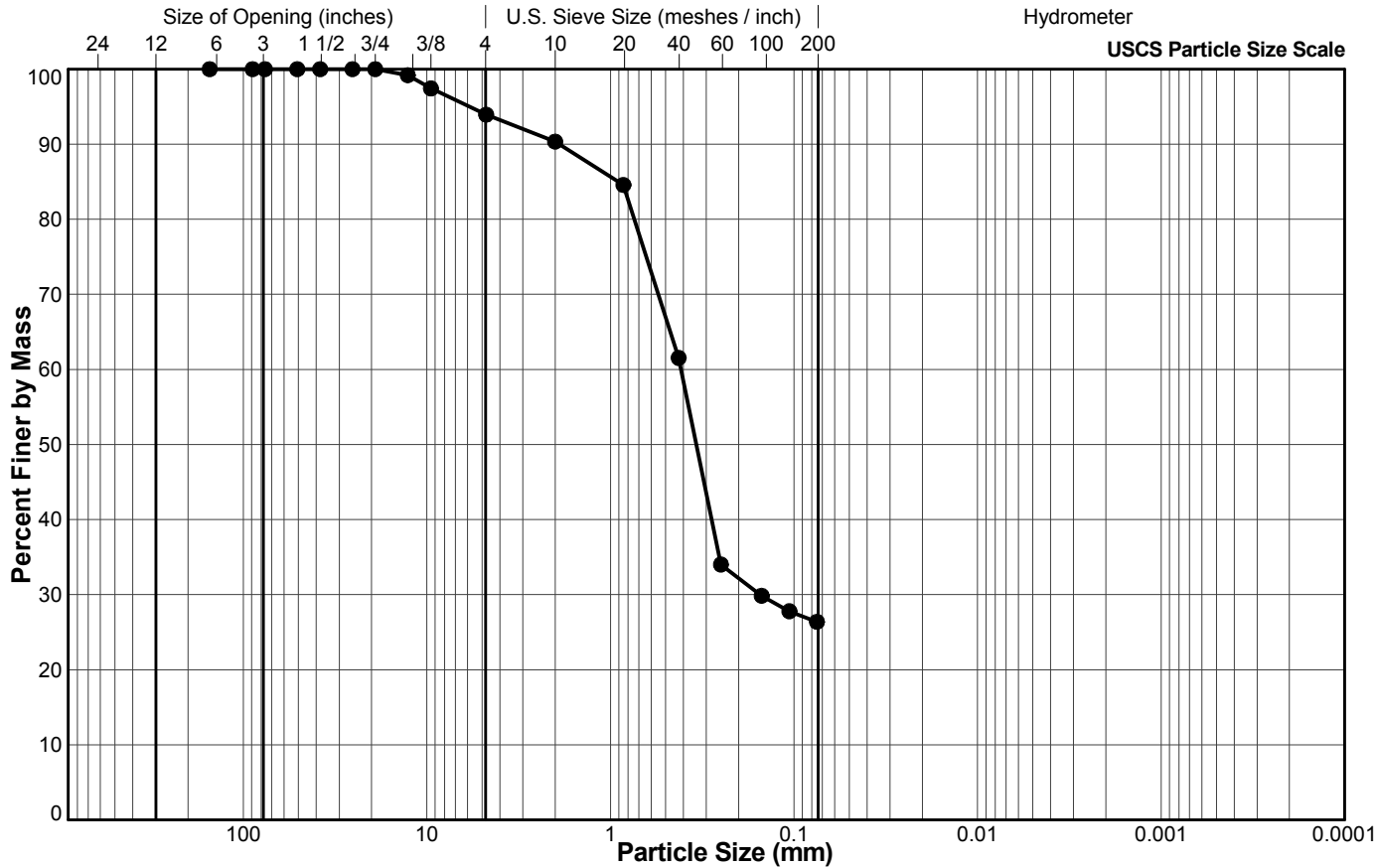


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 11
Depth Interval (m): 32.31 to 32.46
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	99.2
3/8"	9.5	97.4
#4 US MESH	4.75	93.9
#10 US MESH	2	90.3
#20 US MESH	0.85	84.6
#40 US MESH	0.425	61.5
#60 US MESH	0.25	34.0
#100 US MESH	0.15	29.8
#140 US MESH	0.106	27.8
#200 US MESH	0.075	26.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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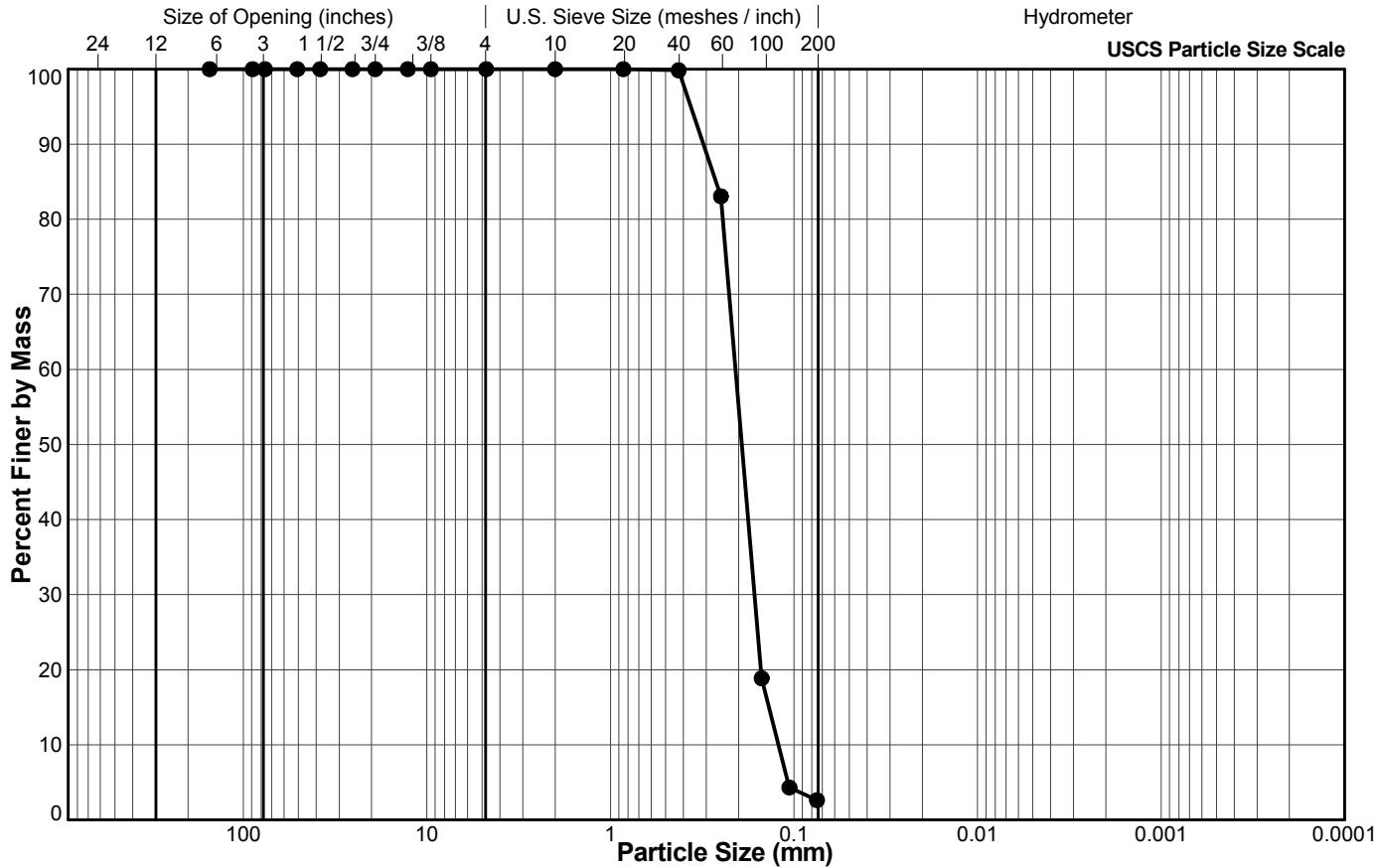


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 12
Depth Interval (m): 34.90 to 35.05
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.8
#60 US MESH	0.25	83.1
#100 US MESH	0.15	18.9
#140 US MESH	0.106	4.3
#200 US MESH	0.075	2.6

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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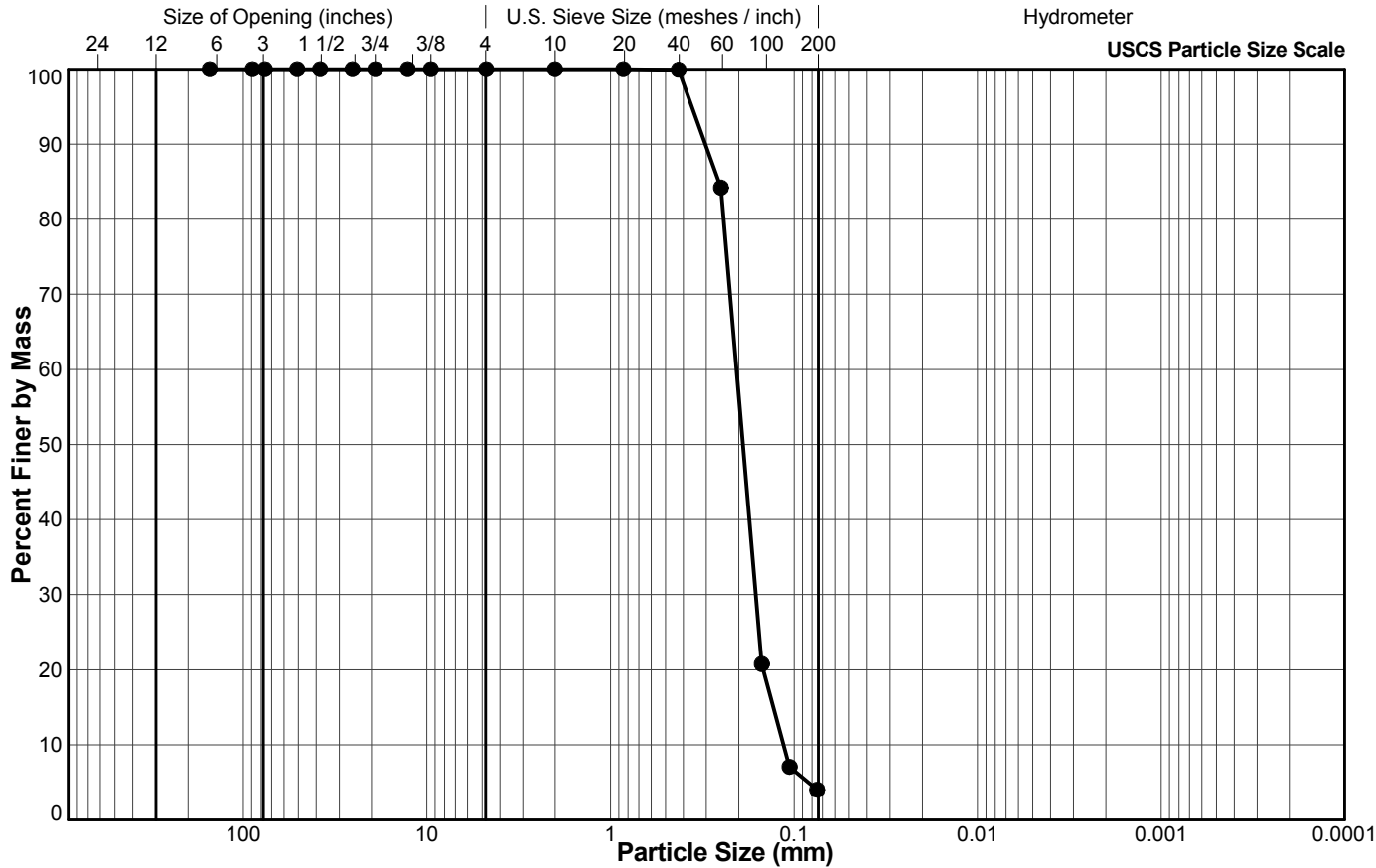


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 13
Depth Interval (m): 37.19 to 37.34
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	84.2
#100 US MESH	0.15	20.8
#140 US MESH	0.106	7.1
#200 US MESH	0.075	4.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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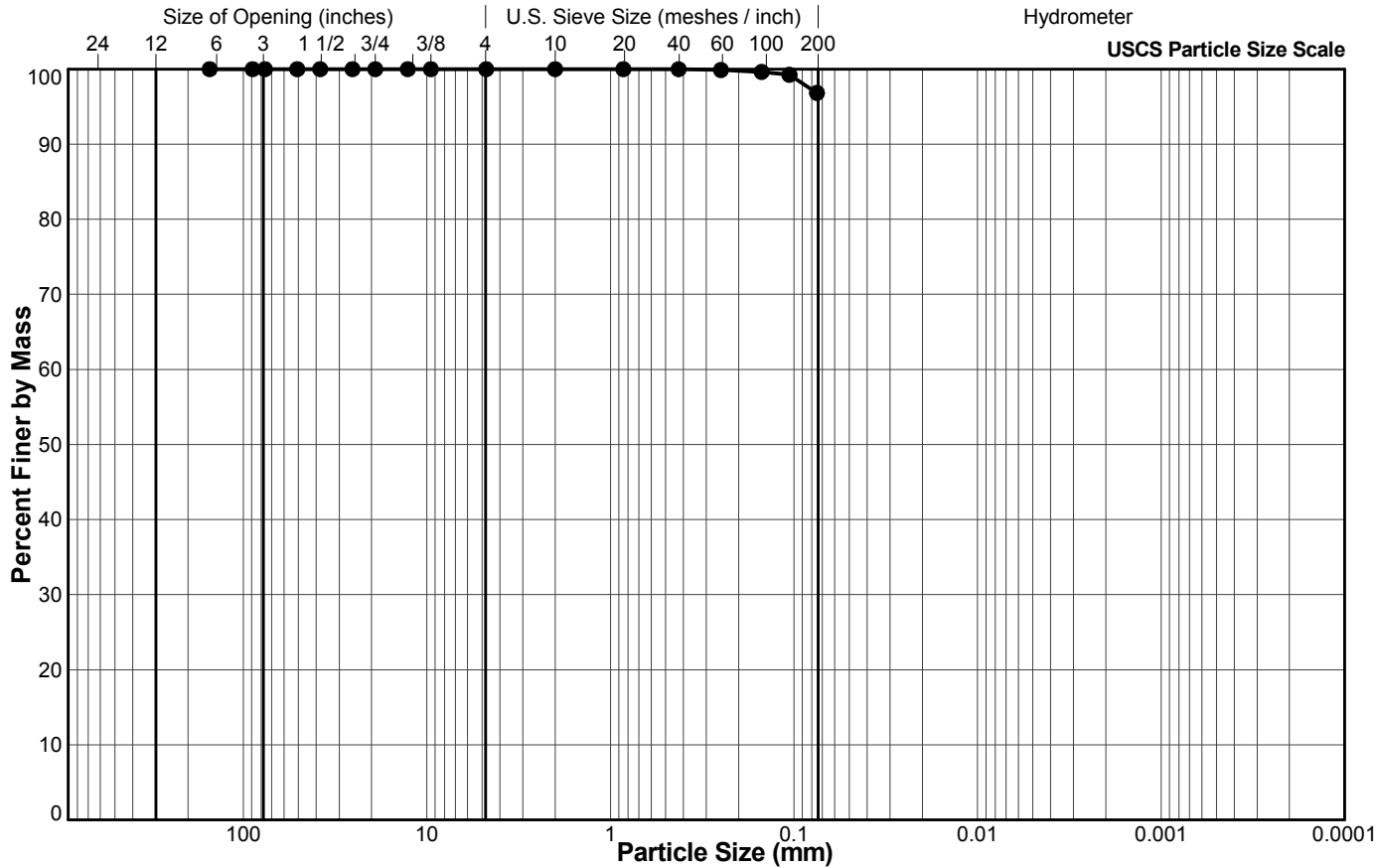


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-06
 Sample No.: 16
 Depth Interval (m): 46.33 to 46.48
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	99.9
#100 US MESH	0.15	99.6
#140 US MESH	0.106	99.3
#200 US MESH	0.075	96.8

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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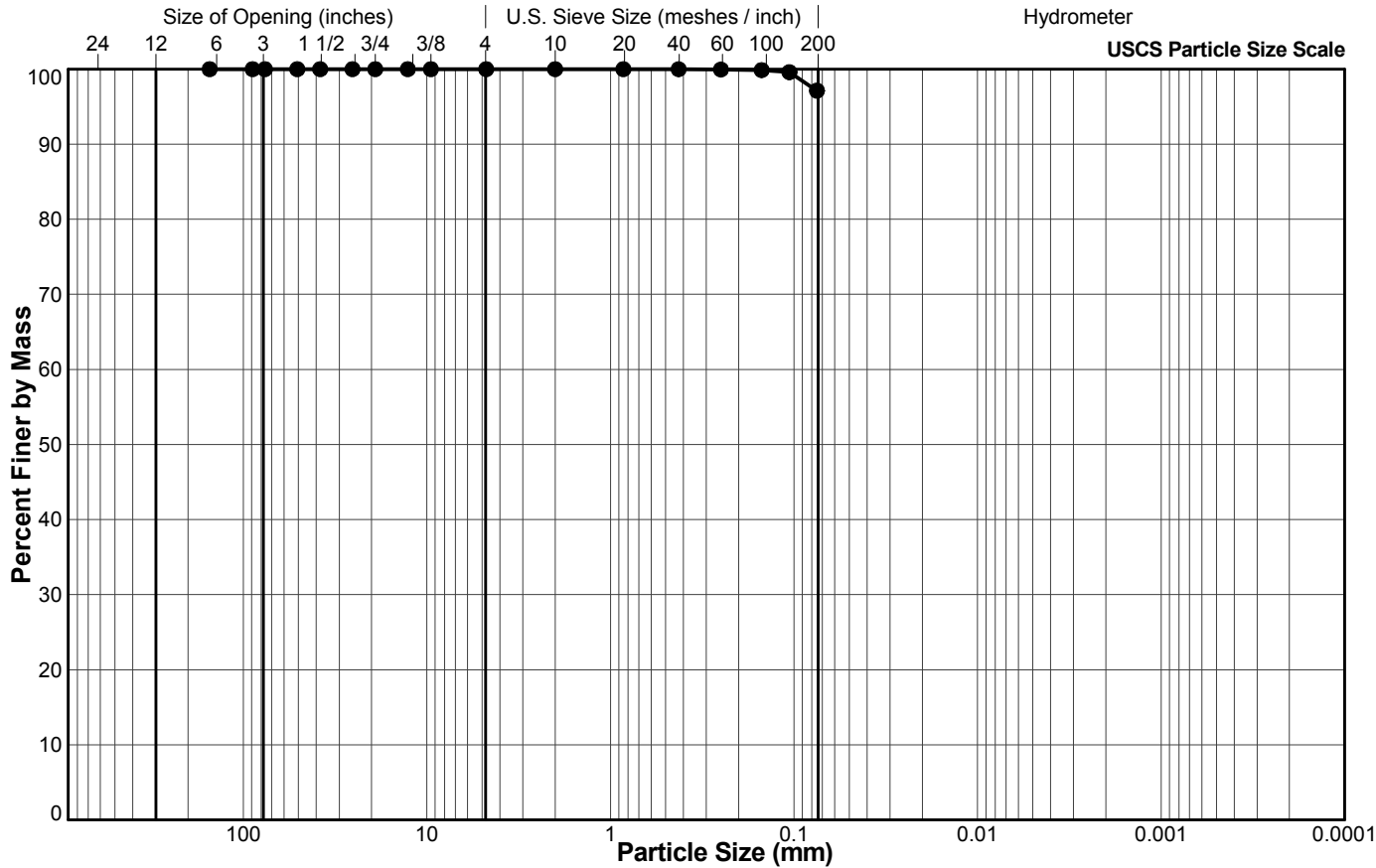


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 17
Depth Interval (m): 49.38 to 49.53
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	100.0
#100 US MESH	0.15	99.9
#140 US MESH	0.106	99.6
#200 US MESH	0.075	97.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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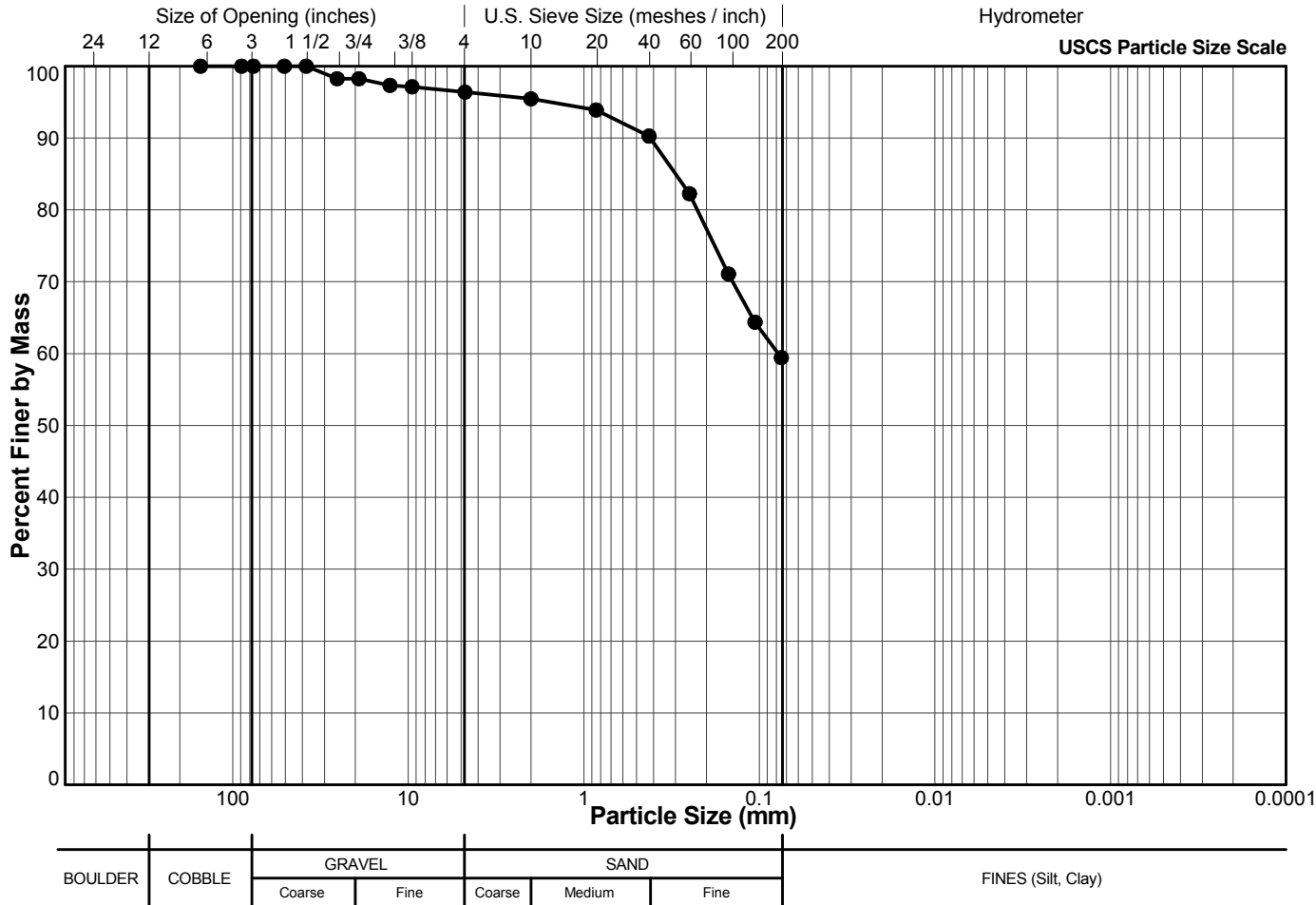


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 33
Depth Interval (m): 76.20 to 76.35
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	98.2
3/4"	19.1	98.2
1/2"	12.7	97.3
3/8"	9.5	97.1
#4 US MESH	4.75	96.4
#10 US MESH	2	95.5
#20 US MESH	0.85	93.9
#40 US MESH	0.425	90.3
#60 US MESH	0.25	82.3
#100 US MESH	0.15	71.1
#140 US MESH	0.106	64.4
#200 US MESH	0.075	59.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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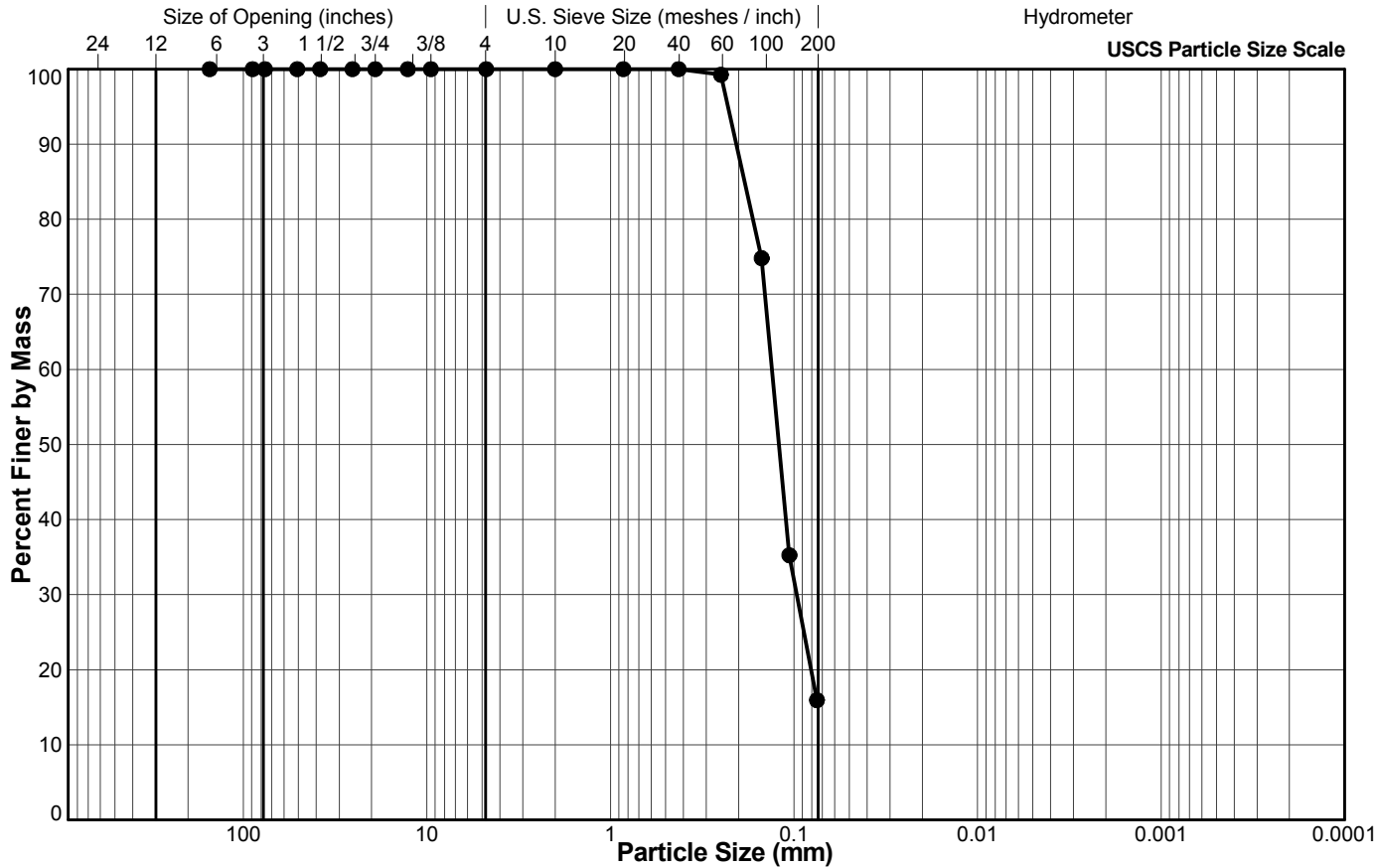


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-06
Sample No.: 39
Depth Interval (m): 88.39 to 88.54
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	100.0
#60 US MESH	0.25	99.3
#100 US MESH	0.15	74.8
#140 US MESH	0.106	35.3
#200 US MESH	0.075	15.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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Date

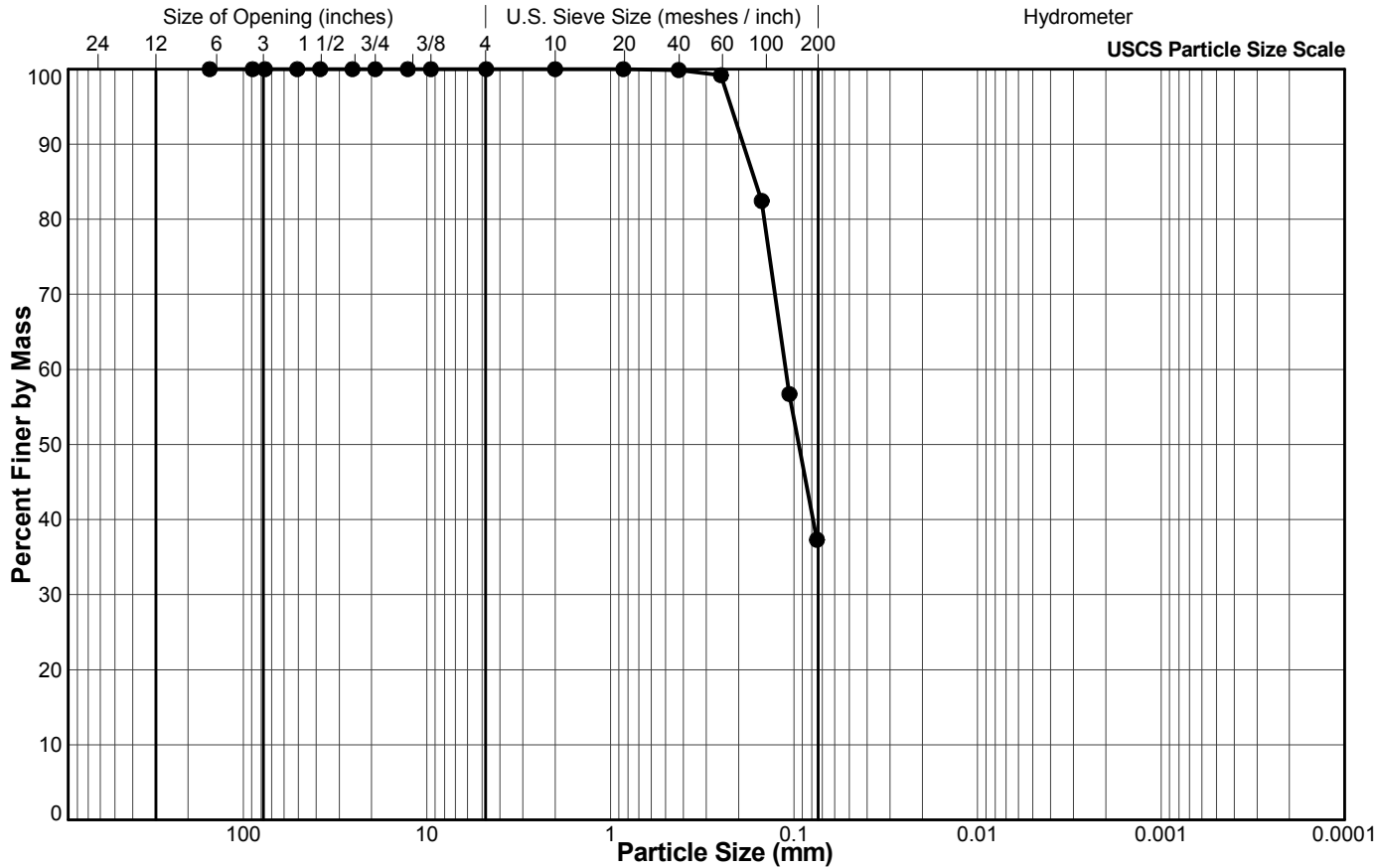


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 2
Depth Interval (m): 6.71 to 6.86
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	99.9
#60 US MESH	0.25	99.2
#100 US MESH	0.15	82.5
#140 US MESH	0.106	56.7
#200 US MESH	0.075	37.3

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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Date

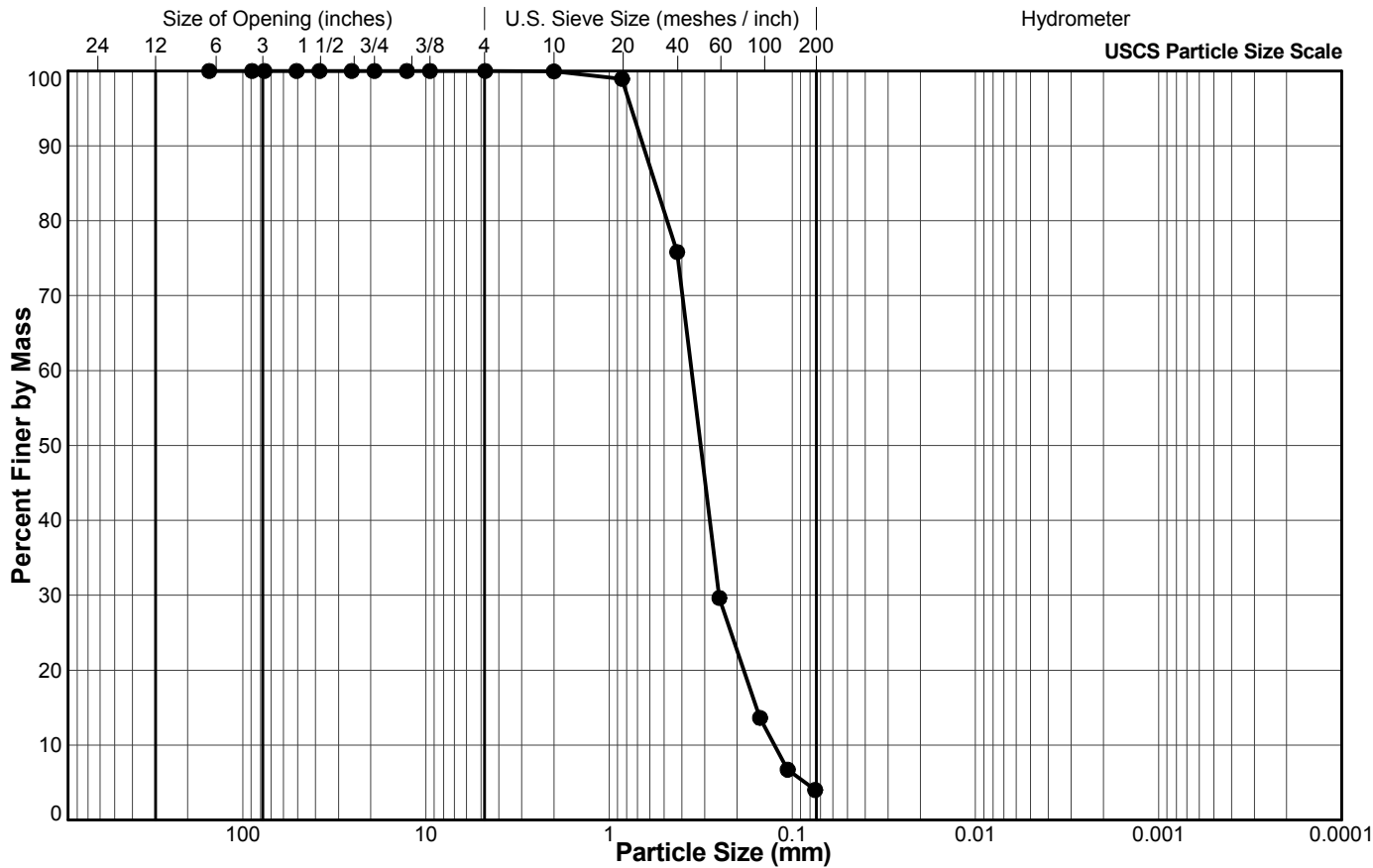


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-07
 Sample No.: 4
 Depth Interval (m): 12.04 to 12.19
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	98.9
#40 US MESH	0.425	75.8
#60 US MESH	0.25	29.6
#100 US MESH	0.15	13.6
#140 US MESH	0.106	6.7
#200 US MESH	0.075	4.0

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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Date

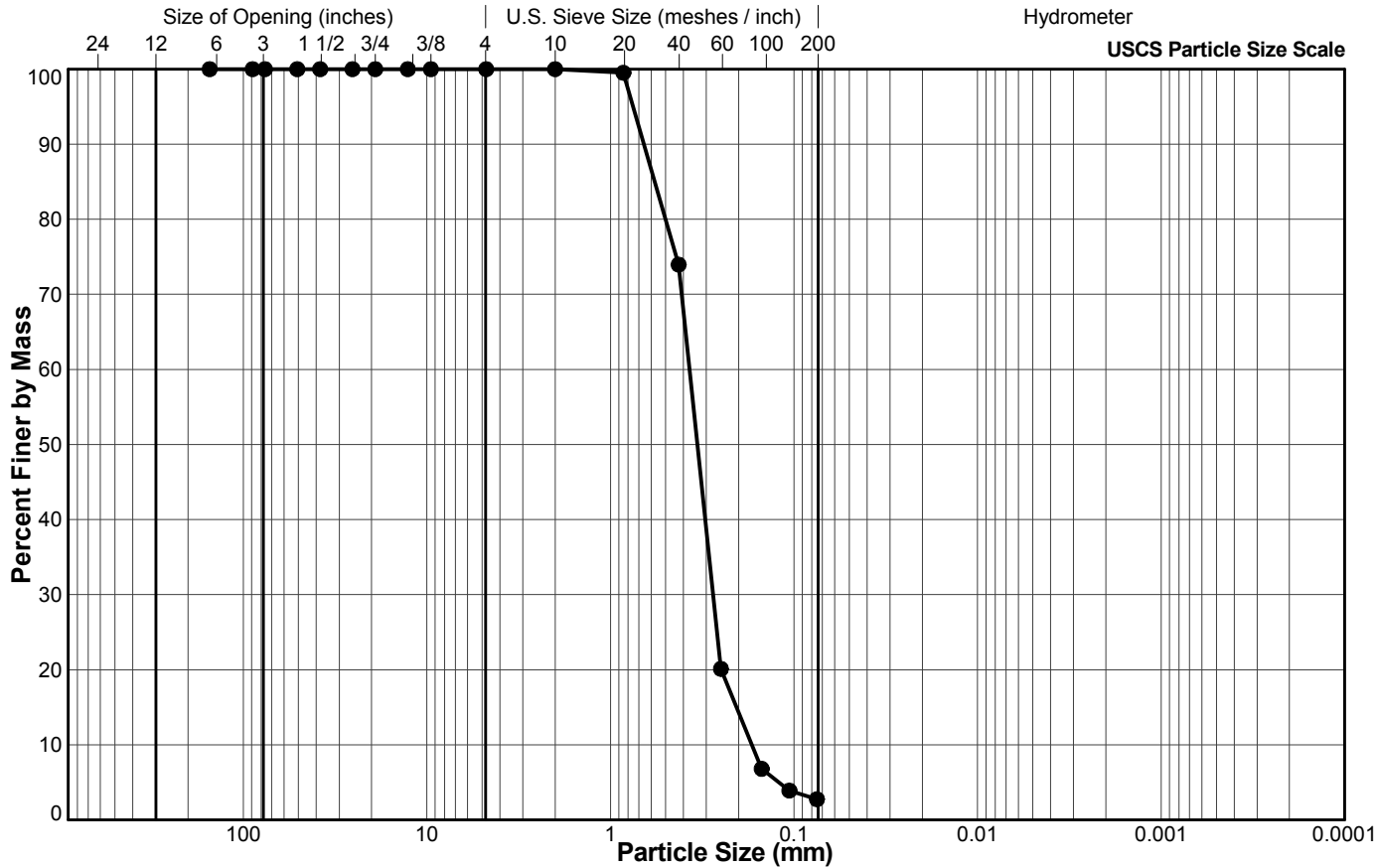


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 5
Depth Interval (m): 15.54 to 15.70
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.5
#40 US MESH	0.425	74.0
#60 US MESH	0.25	20.1
#100 US MESH	0.15	6.8
#140 US MESH	0.106	3.9
#200 US MESH	0.075	2.7

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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Date

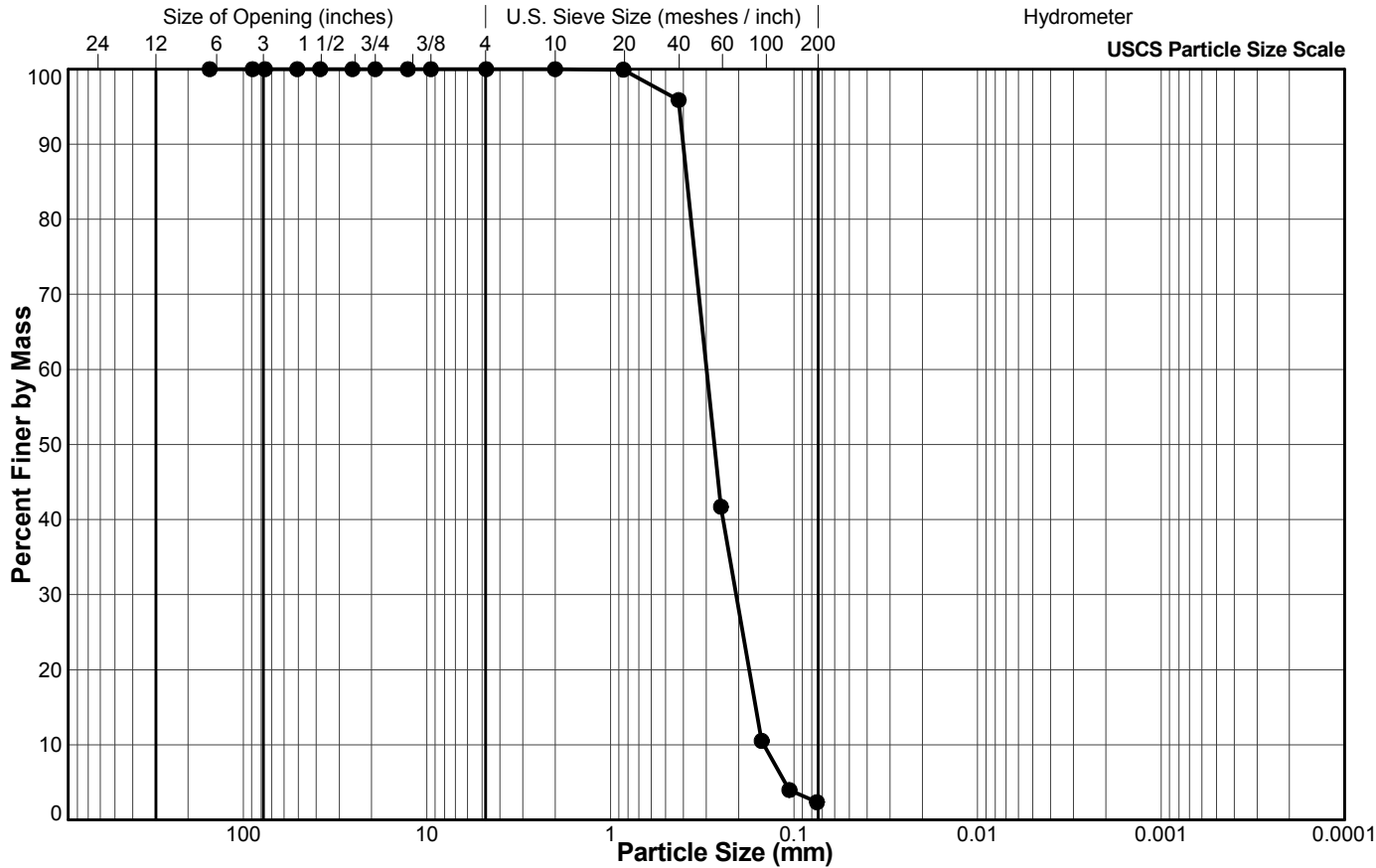


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 7
Depth Interval (m): 21.95 to 22.10
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	95.9
#60 US MESH	0.25	41.7
#100 US MESH	0.15	10.5
#140 US MESH	0.106	4.0
#200 US MESH	0.075	2.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

Golder Associates Ltd.

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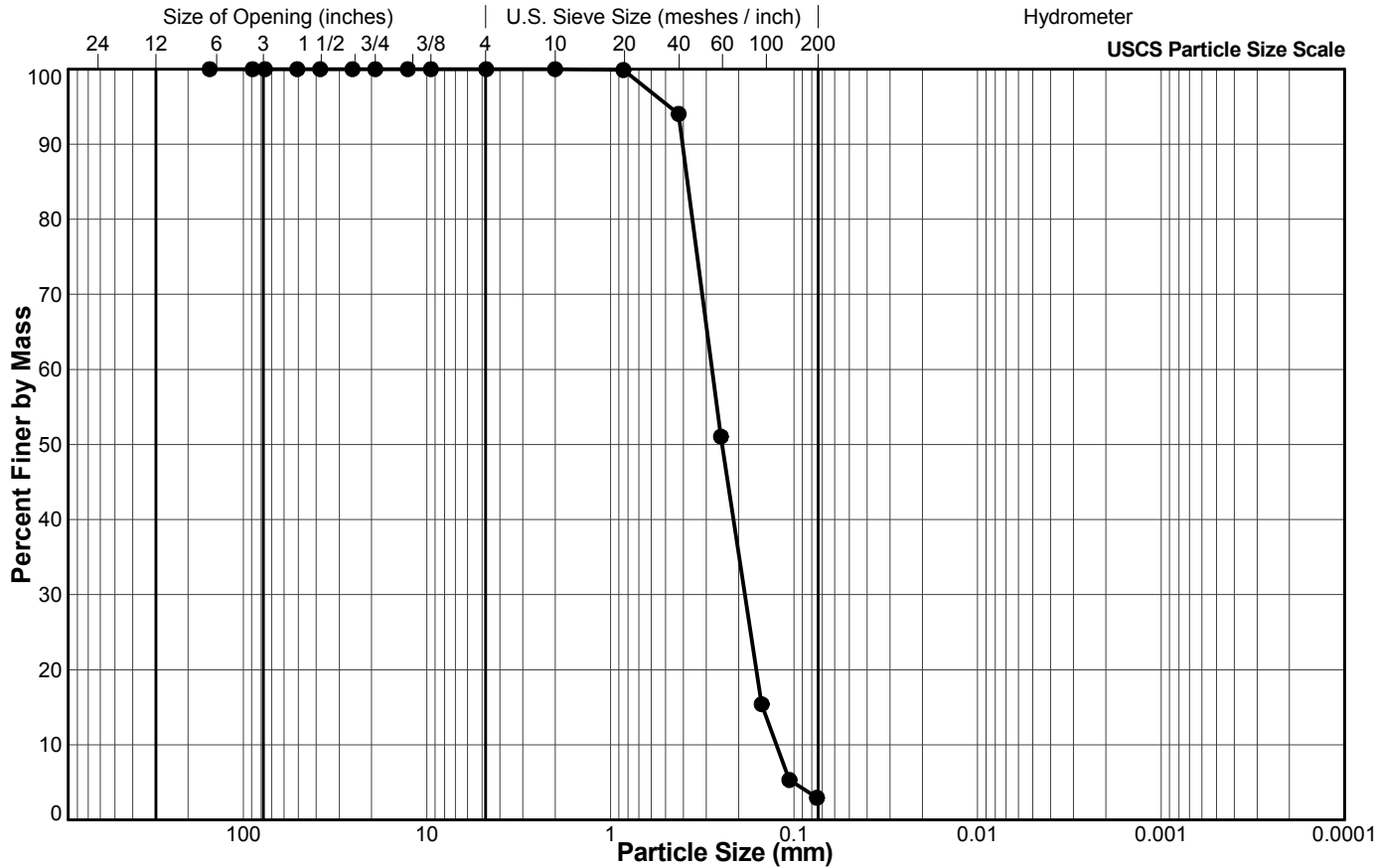


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 8
Depth Interval (m): 23.77 to 23.93
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	99.9
#40 US MESH	0.425	94.0
#60 US MESH	0.25	51.1
#100 US MESH	0.15	15.4
#140 US MESH	0.106	5.3
#200 US MESH	0.075	2.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

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National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

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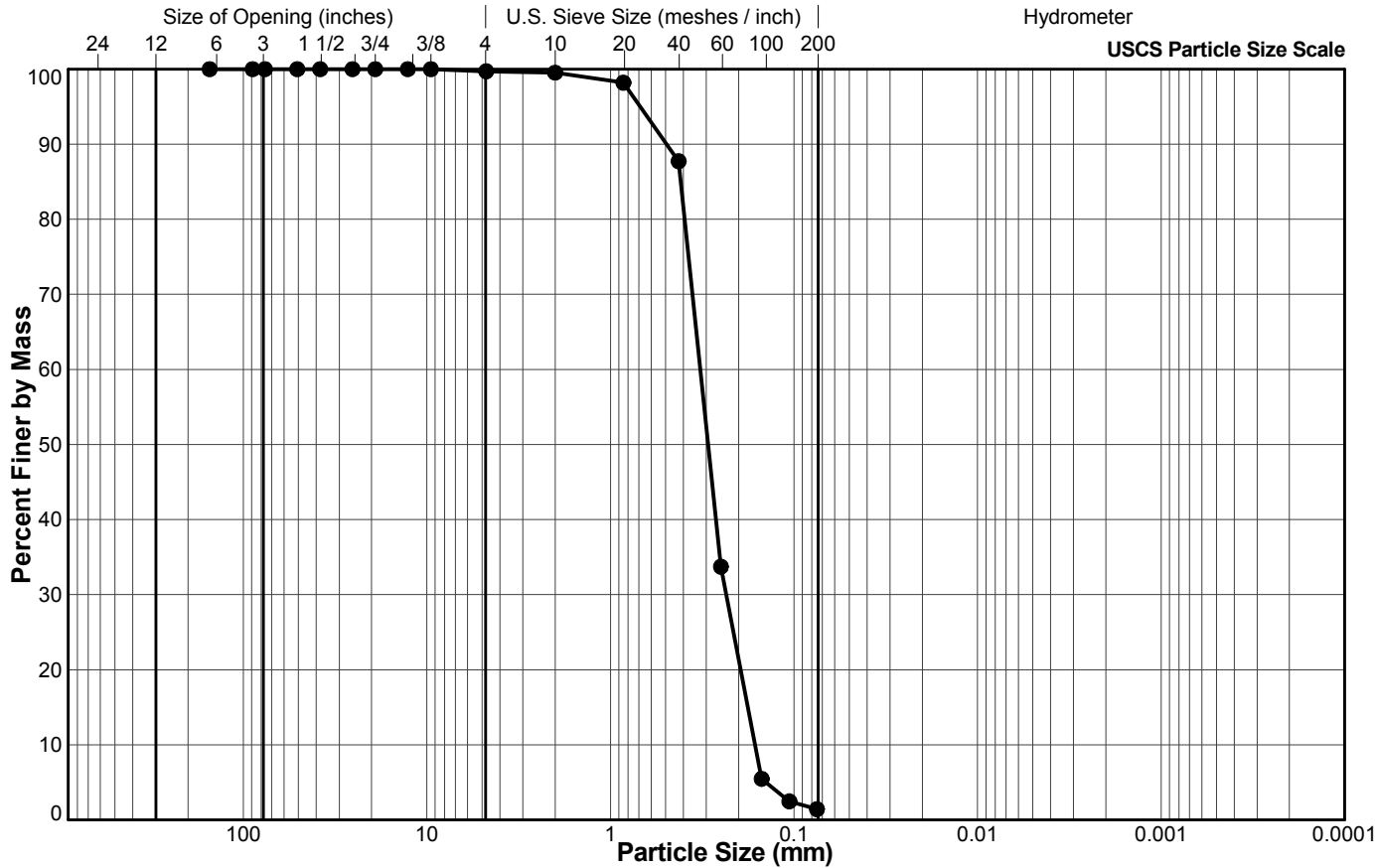


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 10
Depth Interval (m): 26.82 to 26.97
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.7
#10 US MESH	2	99.5
#20 US MESH	0.85	98.2
#40 US MESH	0.425	87.7
#60 US MESH	0.25	33.7
#100 US MESH	0.15	5.5
#140 US MESH	0.106	2.5
#200 US MESH	0.075	1.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

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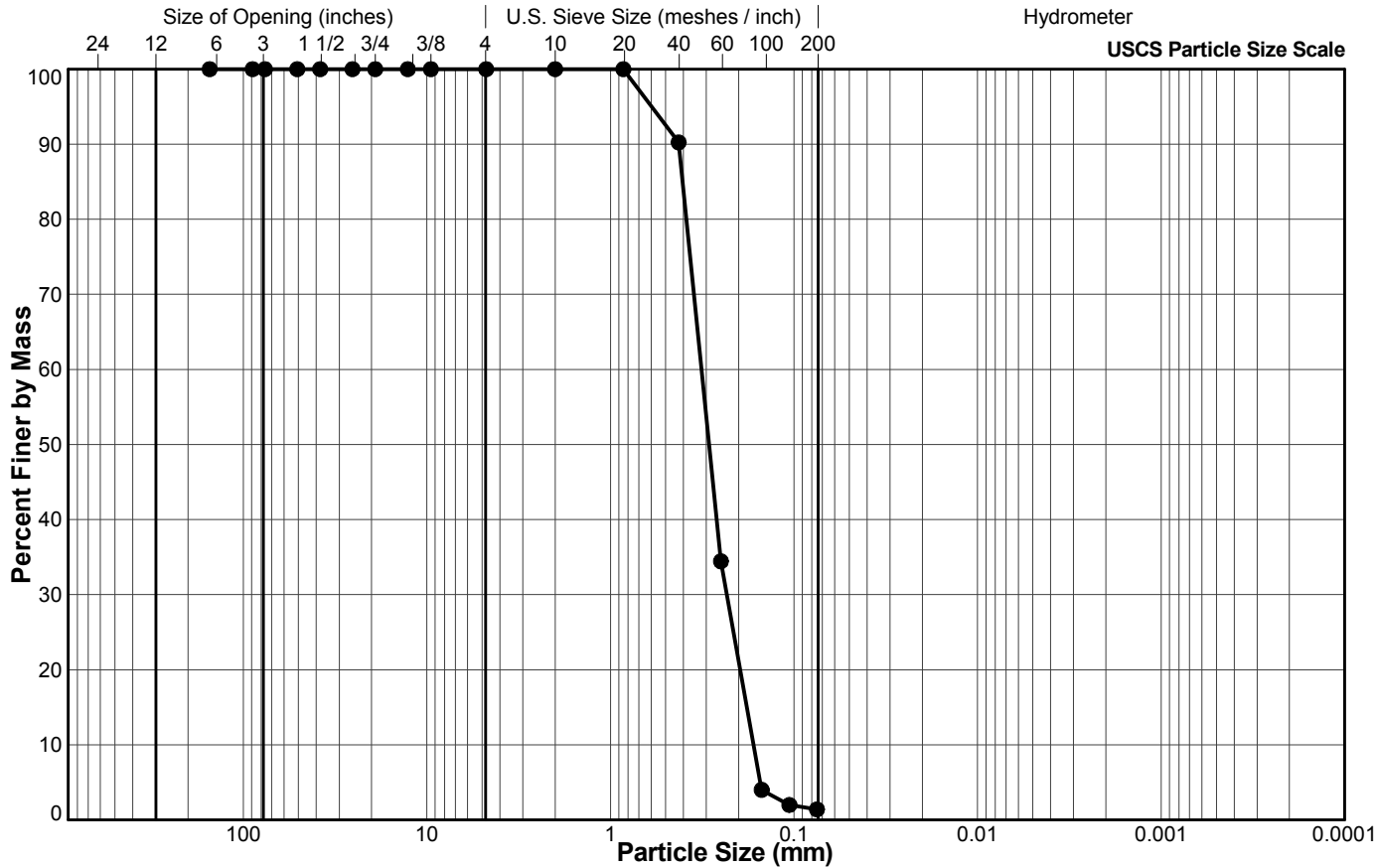


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 13
Depth Interval (m): 31.55 to 31.70
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	90.2
#60 US MESH	0.25	34.4
#100 US MESH	0.15	4.0
#140 US MESH	0.106	2.0
#200 US MESH	0.075	1.4

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

National IM Server:GINT GAL NATIONALIM Unique Project ID:1555 Output Form: LAB PARTICLE SIZE (W/ GRADATIONS) 2015 Ihu 21/9/17

Golder Associates Ltd.

#300 - 3811 North Fraser Way Burnaby, British Columbia, Canada V5J 5J2
 Tel: +1 (604) 412 6899 Fax: +1 (604) 412 6816 www.golder.com

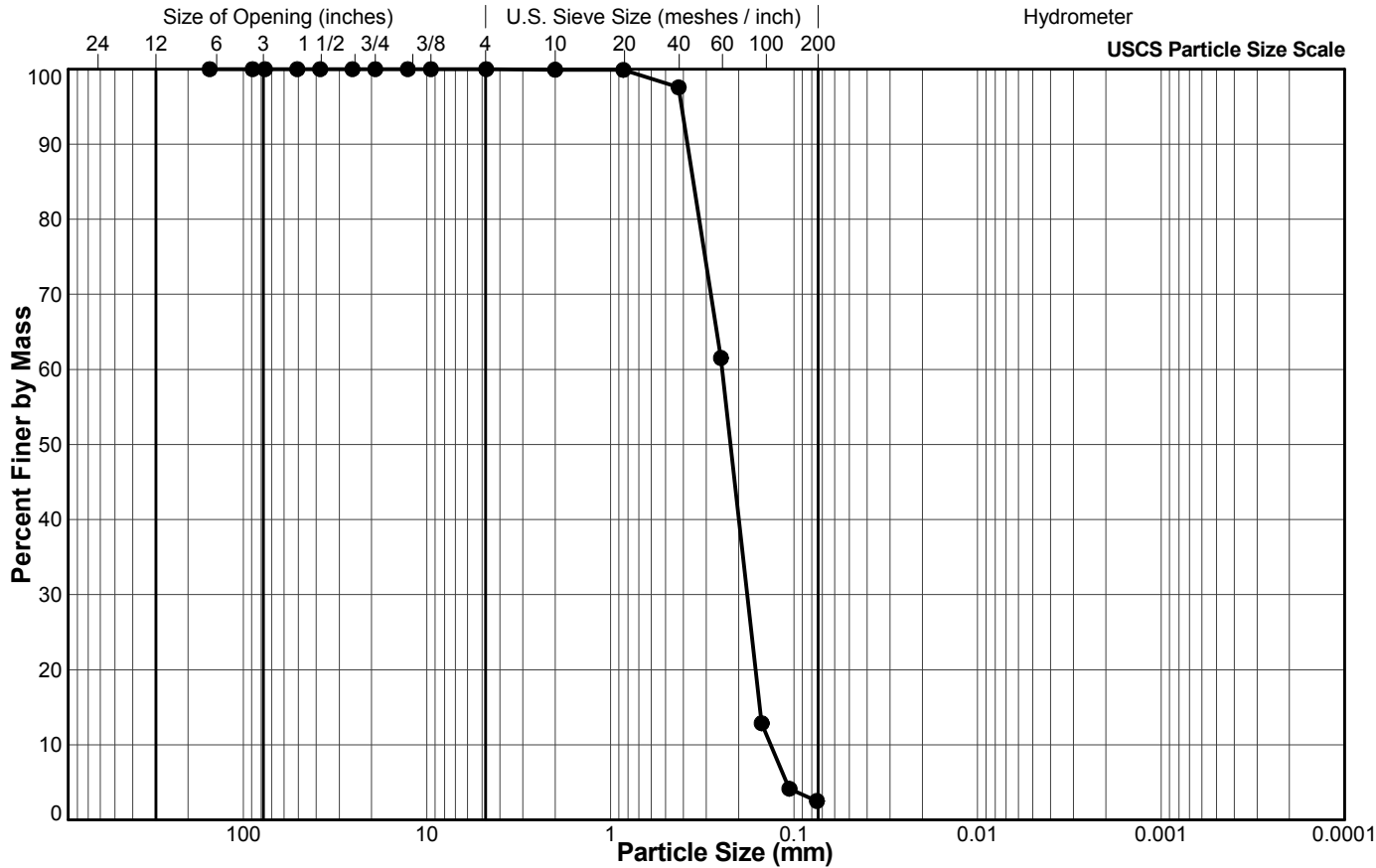


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
 Project: AIWWTP Transient Mitigation and Outfall System
 Location: Annacis Island, Delta, B.C.
 Project No.: 1525010 Phase: 2000

Sample Location: SH16-07
 Sample No.: 14
 Depth Interval (m): 32.92 to 33.07
 Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	99.9
#20 US MESH	0.85	99.9
#40 US MESH	0.425	97.6
#60 US MESH	0.25	61.5
#100 US MESH	0.15	12.9
#140 US MESH	0.106	4.1
#200 US MESH	0.075	2.5

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

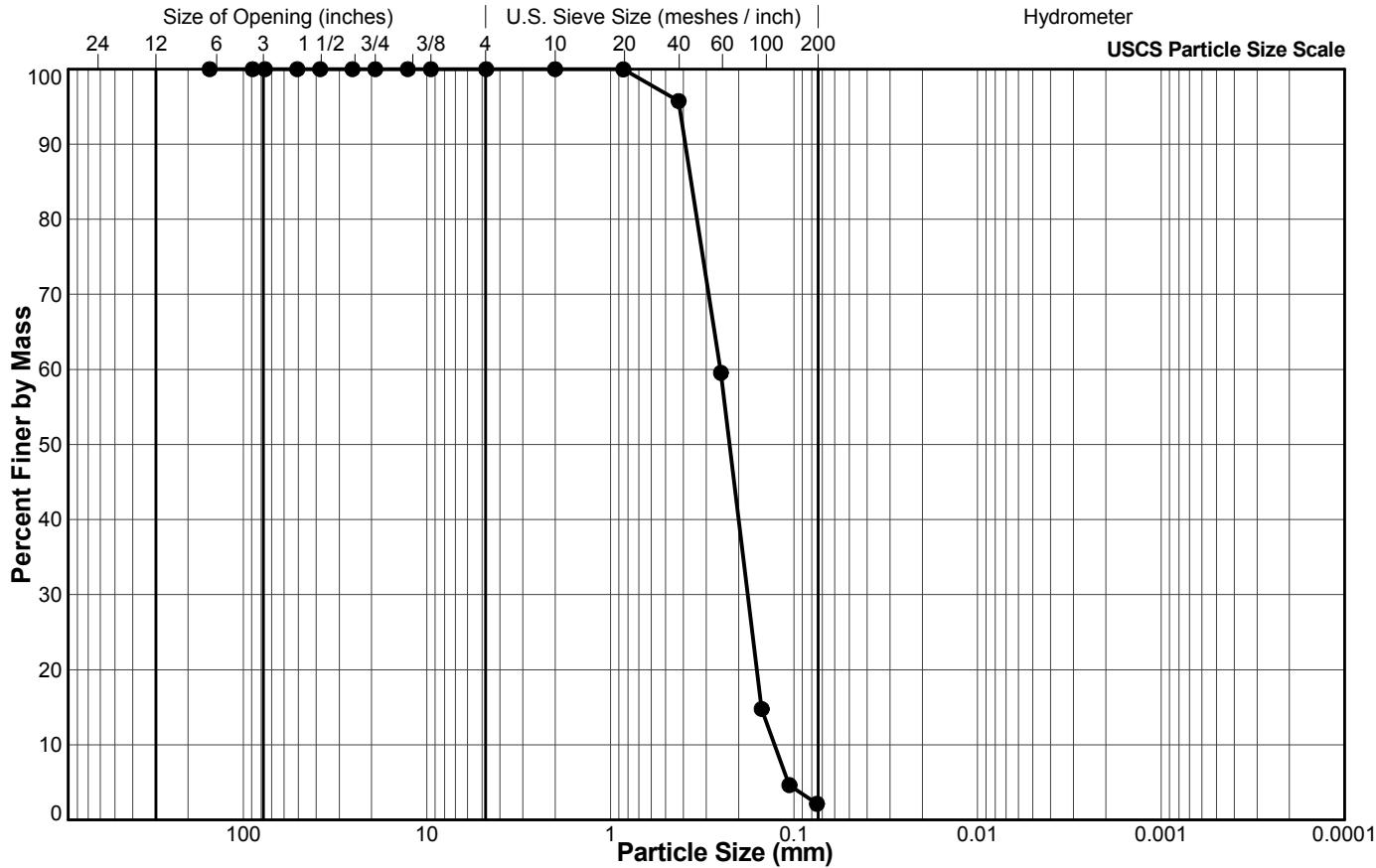


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 15
Depth Interval (m): 34.29 to 34.44
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	100.0
#10 US MESH	2	100.0
#20 US MESH	0.85	100.0
#40 US MESH	0.425	95.7
#60 US MESH	0.25	59.5
#100 US MESH	0.15	14.8
#140 US MESH	0.106	4.6
#200 US MESH	0.075	2.1

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date

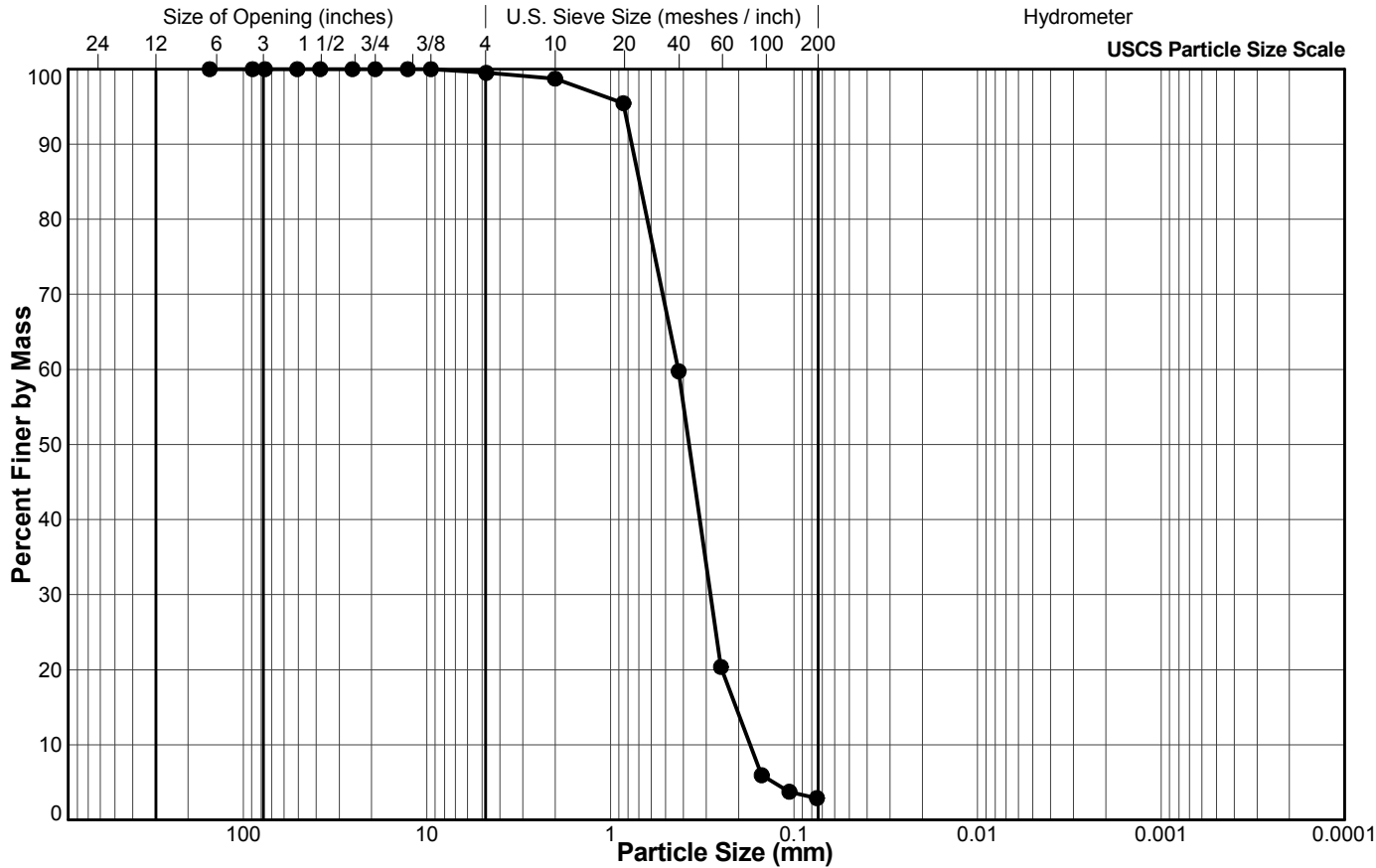


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ASTM C136

Client: CDM Smith Canada ULC
Project: AIWWTP Transient Mitigation and Outfall System
Location: Annacis Island, Delta, B.C.
Project No.: 1525010 **Phase:** 2000

Sample Location: SH16-07
Sample No.: 17
Depth Interval (m): 37.49 to 37.64
Lab Schedule No.:



Legend

Sieve Size (USS)	Particle Size (mm)	Percent Passing
6"	152.4	100.0
3.5"	88.9	100.0
3"	76.2	100.0
2"	50.8	100.0
1 1/2"	38.1	100.0
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.5	100.0
#4 US MESH	4.75	99.5
#10 US MESH	2	98.7
#20 US MESH	0.85	95.5
#40 US MESH	0.425	59.8
#60 US MESH	0.25	20.4
#100 US MESH	0.15	6.0
#140 US MESH	0.106	3.7
#200 US MESH	0.075	2.9

BOULDER	COBBLE	GRAVEL		SAND			FINES (Silt, Clay)
		Coarse	Fine	Coarse	Medium	Fine	

JP

1/30/2017

LH

2/10/2017

Tech

Date

Checked

Date



Organic Content Tests

MOISTURE, ASH, AND ORGANIC MATTER OF ORGANIC SOILS		Reference(s) ASTM D2974-13
Client: CDM Smith		Test Pit: BH15-03
Project: Annacis Outfall		Sample: 4
Location: Delta, BC		Depth (m): 2.74 - 3.35
Project No.: 1525010-1401		Lab ID No: 489
Method:	Method C	Other Remarks:
Oven Temperature	110±5°C	
Furnace Temperature	440±40°C	

Moisture Content %	37.9 <i>(W% as percent of oven dried mass)</i>	
Trial #	1	2
Ash Content %	97.6	97.6
Organic Matter %	2.4	2.4
Average Organic Matter %	2.4	

** The test data given herein pertain to the sample provided only. This report constitutes a testing service only. Interpretation of the data can be provided upon request.*

SJ	November 23, 2015	LH	November 24, 2015
TESTED BY	DATE	CHECKED BY	DATE

MOISTURE, ASH, AND ORGANIC MATTER OF ORGANIC SOILS		Reference(s) ASTM D2974-13
Client: CDM Smith		Test Pit: BH15-03
Project: Annacis Outfall		Sample: 5
Location: Delta, BC		Depth (m): 4.27 - 4.88
Project No.: 1525010-1401		Lab ID No: 489
Method:	Method C	Other Remarks:
Oven Temperature	110±5°C	
Furnace Temperature	440±40°C	

Moisture Content %	38.7 <i>(W% as percent of oven dried mass)</i>	
Trial #	1	2
Ash Content %	98.1	98.2
Organic Matter %	1.9	1.8
Average Organic Matter %	1.9	

** The test data given herein pertain to the sample provided only. This report constitutes a testing service only. Interpretation of the data can be provided upon request.*

SJ	November 23, 2015	LH	November 24, 2015
TESTED BY	DATE	CHECKED BY	DATE

MOISTURE, ASH, AND ORGANIC MATTER OF ORGANIC SOILS		Reference(s) ASTM D2974-13
Client: CDM Smith	Test Pit: SH16-01	
Project: Annacis Outfall	Sample: 4	
Location: Delta, BC	Depth (m): 5.33 - 5.49	
Project No.: 1525010-605	Lab ID No: 242	
Method:	Method C	Other Remarks:
Oven Temperature	110±5°C	
Furnace Temperature	440±40°C	

Moisture Content %	36.4 <i>(W% as percent of oven dried mass)</i>	
Trial #	1	2
Ash Content %	98.0	97.9
Organic Matter %	2.0	2.1
Average Organic Matter %	2.1	

** The test data given herein pertain to the sample provided only. This report constitutes a testing service only. Interpretation of the data can be provided upon request.*

SJ	June 23, 2016	LH	June 23, 2016
TESTED BY	DATE	CHECKED BY	DATE

MOISTURE, ASH, AND ORGANIC MATTER OF ORGANIC SOILS		Reference(s) ASTM D2974-13
Client: CDM Smith		Test Pit: BH16-02
Project: Annacis Outfall		Sample: 2
Location: Delta, BC		Depth (m): 5.435 - 6.044
Project No.: 1625010-605-605.2		Lab ID No: 134
Method:	Method C	Other Remarks:
Oven Temperature	110±5°C	
Furnace Temperature	440±40°C	

Moisture Content %	57.1 <i>(W% as percent of oven dried mass)</i>	
Trial #	1	2
Ash Content %	91.9	91.9
Organic Matter %	8.1	8.1
Average Organic Matter %	8.1	

** The test data given herein pertain to the sample provided only. This report constitutes a testing service only. Interpretation of the data can be provided upon request.*

SJ	May 4, 2016	LH	May 10, 2016
TESTED BY	DATE	CHECKED BY	DATE



Specific Gravity Tests

Specific Gravity of Soil Solids By Water Pycnometer		Reference	
		ASTM D854 -14	
Project No.:	1525010 Phase 605	Borehole:	BH16-01
Project:	Annacis Outfall	Sample Number:	4
Location:	Fraser River	Depth (m):	5.486 - 6.096
Client:	CDM Smith	Lab ID No:	197
Visual Description:		% Passing 4.75mm	N/A
		Excluded Material Description	

Specific Gravity of Fine Fraction Method B - Oven Dried Samples

		Trial 1	Trial 2
Flask Number		K	L
Air Removal Method	M_p	Hot Plate	Hot Plate
Mass of Flask (g)		88.14	90.17
Mass of Flask + Dry Soil (g)		125.7	126.7
Mass of Flask + Soil + Water (g)	$M_{pws,t}$	360.74	362.01
Test Temperature (°C)	T_t	21.1	21.1
Mass of Flask + Water (g)	$M_{pw,t}$	337.29	339.28
Tare Number		11D	12D
Mass of Tare + Dry Soil (g)		223.67	220.64
Mass of Tare (g)		185.85	183.79
Mass of Oven Dry Soil (g)	M_s	37.82	36.85
Temperature Coefficient	K	1.00	1.00
Specific Gravity at Test Temperature	G_t	2.63	2.61
Specific Gravity at 20°C	$G_{20^\circ C}$	2.63	2.61

AVERAGE SPECIFIC GRAVITY OF TRIALS	2.62
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SJ	June 2, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE

SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER				Reference(s) ASTM D854 -14		
Client:	CDM Smith			Borehole:	BH16-01	
Project:	Annacis Outfall			Sample Number:	23	
Location:	Fraser River			Depth (m):	35.052 - 35.662	
Project No.:	1525010	Phase:	605	Task:	605.2	
					Lab ID No:	197

Visual Description:	% Passing 4.75mm	100.00
Golder Classification	Excluded Material Description	No excluded material

Specific Gravity of Fine Fraction Method B - Oven Dried Samples

		Trial 1	Trial 2
Flask Number		I	J
Air Removal Method	M_p	Hot Plate	Hot Plate
Mass of Flask (g)		91.08	91.23
Mass of Flask + Dry Soil (g)		151.88	152.44
Mass of Flask + Soil + Water (g)	$M_{pws,t}$	378.72	378.98
Test Temperature (°C)	T_t	21.1	21.1
Mass of Flask + Water (g)	$M_{pw,t}$	340.37	340.41
Tare Number		13D	14D
Mass of Tare + Dry Soil (g)		244.14	246.50
Mass of Tare (g)		183.22	185.13
Mass of Oven Dry Soil (g)	M_s	60.92	61.37
Temperature Coefficient	K	1.00	1.00
Specific Gravity at Test Temperature	G_t	2.70	2.69
Specific Gravity at 20°C	$G_{20°C}$	2.70	2.69

AVERAGE SPECIFIC GRAVITY OF TRIALS	2.70
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SJ	June 2, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE

SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER				Reference(s) ASTM D854 -14	
Client:	CDM Smith			Borehole:	BH16-01
Project:	Annacis Outfall			Sample Number:	40
Location:	Fraser River			Depth (m):	60.96 - 61.57
Project No.:	1525010	Phase:	605	Task:	605.2
Lab ID No:					197

Visual Description:	% Passing 4.75mm	N/A
Golder Classification	Excluded Material Description	

Specific Gravity of Fine Fraction Method B - Oven Dried Samples

		Trial 1	Trial 2
Flask Number		C	D
Air Removal Method	M_p	Hot Plate	Hot Plate
Mass of Flask (g)		90.27	90.48
Mass of Flask + Dry Soil (g)		126.84	126.11
Mass of Flask + Soil + Water (g)	$M_{pws,t}$	362.84	362.39
Test Temperature (°C)	T_t	22.1	21
Mass of Flask + Water (g)	$M_{pw,t}$	339.53	339.74
Tare Number		J8	KC
Mass of Tare + Dry Soil (g)		221.18	217.83
Mass of Tare (g)		184.47	182.07
Mass of Oven Dry Soil (g)	M_s	36.71	35.76
Temperature Coefficient	K	1.00	1.00
Specific Gravity at Test Temperature	G_t	2.74	2.73
Specific Gravity at 20°C	$G_{20°C}$	2.74	2.73

AVERAGE SPECIFIC GRAVITY OF TRIALS	2.73
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SJ	June 2, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE

SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER				Reference(s) ASTM D854 -14		
Client:	CDM Smith			Borehole:	BH16-01	
Project:	Annacis Outfall			Sample Number:	46	
Location:	Fraser River			Depth (m):	70.104 - 70.714	
Project No.:	1525010	Phase:	605	Task:	605.2	
					Lab ID No:	197

Visual Description:	% Passing 4.75mm	N/A
Golder Classification	Excluded Material Description	

Specific Gravity of Fine Fraction Method B - Oven Dried Samples

		Trial 1	Trial 2
Flask Number		G	H
Air Removal Method	M_p	Hot Plate	Hot Plate
Mass of Flask (g)		89.68	89.45
Mass of Flask + Dry Soil (g)		126.50	127.66
Mass of Flask + Soil + Water (g)	$M_{pws,t}$	362.19	362.95
Test Temperature (°C)	T_t	22.1	21
Mass of Flask + Water (g)	$M_{pw,t}$	338.75	338.64
Tare Number		9D	10D
Mass of Tare + Dry Soil (g)		225.17	222.03
Mass of Tare (g)		188.07	183.50
Mass of Oven Dry Soil (g)	M_s	37.10	38.53
Temperature Coefficient	K	1.00	1.00
Specific Gravity at Test Temperature	G_t	2.72	2.71
Specific Gravity at 20°C	$G_{20°C}$	2.72	2.71

AVERAGE SPECIFIC GRAVITY OF TRIALS	2.71
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SJ	June 2, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE

SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER				Reference(s) ASTM D854 -14		
Client:	CDM Smith			Borehole:	BH16-03	
Project:	Annacis Outfall			Sample Number:	34	
Location:	Fraser River			Depth (m):	51.38 - 51.44	
Project No.:	1525010	Phase:	605	Task:	605.2	
					Lab ID No:	134

Visual Description:	% Passing 4.75mm	N/A
Golder Classification	Excluded Material Description	

Specific Gravity of Fine Fraction Method B - Oven Dried Samples

		Trial 1	Trial 2
Flask Number		1	2
Air Removal Method	M_p	Hot Plate	Hot Plate
Mass of Flask (g)		173.60	172.31
Mass of Flask + Dry Soil (g)		224.21	222.78
Mass of Flask + Soil + Water (g)	$M_{pws,t}$	703.95	702.6
Test Temperature (°C)	T_t	21.5	21.5
Mass of Flask + Water (g)	$M_{pw,t}$	672.05	671.02
Tare Number		3D	4D
Mass of Tare + Dry Soil (g)		231.57	232.35
Mass of Tare (g)		181.02	182.19
Mass of Oven Dry Soil (g)	M_s	50.55	50.16
Temperature Coefficient	K	1.00	1.00
Specific Gravity at Test Temperature	G_t	2.71	2.70
Specific Gravity at 20°C	$G_{20°C}$	2.71	2.70

AVERAGE SPECIFIC GRAVITY OF TRIALS	2.70
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OA	June 2, 2016	LH	June 8, 2016
TESTED BY	DATE	CHECKED BY	DATE

SPECIFIC GRAVITY OF SOIL SOLIDS BY WATER PYCNOMETER				Reference(s) ASTM D854 -14		
Client:	CDM Smith			Borehole:	BH16-03	
Project:	Annacis Outfall			Sample Number:	35	
Location:	Fraser River			Depth (m):	53.24 - 53.29	
Project No.:	1525010	Phase:	605	Task:	605.2	
					Lab ID No:	134

Visual Description:	% Passing 4.75mm	N/A
Golder Classification	Excluded Material Description	

Specific Gravity of Fine Fraction Method B - Oven Dried Samples

		Trial 1	Trial 2
Flask Number		7	8
Air Removal Method	M_p	Hot Plate	Hot Plate
Mass of Flask (g)		171.21	171.13
Mass of Flask + Dry Soil (g)		221.99	221.69
Mass of Flask + Soil + Water (g)	$M_{pws,t}$	701.42	701.41
Test Temperature (°C)	T_t	21.5	21.5
Mass of Flask + Water (g)	$M_{pw,t}$	669.52	669.55
Tare Number		5D	6D
Mass of Tare + Dry Soil (g)		234.24	231.96
Mass of Tare (g)		183.65	181.54
Mass of Oven Dry Soil (g)	M_s	50.59	50.42
Temperature Coefficient	K	1.00	1.00
Specific Gravity at Test Temperature	G_t	2.71	2.72
Specific Gravity at 20°C	$G_{20°C}$	2.71	2.72

AVERAGE SPECIFIC GRAVITY OF TRIALS	2.71
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OA	June 2, 2016	LH	June 8, 2016
TESTED BY	DATE	CHECKED BY	DATE



Unit Weight Tests



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

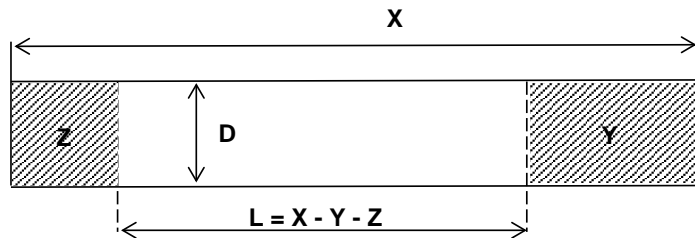
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-01
Project:	Annacis Outfall	Sample:	4
Location:	Annacis Outfall, Delta, BC	Depth (m):	6.00-6.10
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	10.19	3.32	-	7.25
2	10.13	2.95	-	7.27
3	10.14	2.87	-	7.22
4	10.13	3.34	-	7.22

Sample Length (cm)	7.03
Sample Diameter (cm)	7.24
Area (cm ²)	41.15
Volume (cm ³)	289
Sample Type	Intact



Wet Weight of Sample + Tube (g)	831.12
Weight of Tube (g)	273.76
Wet Weight of Sample (g)	557.36

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	167.71	-	-
Dry Soil + Tare (g)	130.62	-	-
Mass of Water (g)	37.09	-	-
Mass of Tare (g)	14.61	-	-
Mass of Dry Soil (g)	116.01	-	-
Water Content, w (%)	31.97	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m ³)	1927	Wet unit weight, γ_{wet} (kN/m ³)	18.90
Dry density, ρ_{dry} (kg/m ³)	1460	Dry unit weight, γ_{dry} (kN/m ³)	14.32
Water content, w (%)	31.97		

Soil Classification	CLAYEY SILT, some sand, brown, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

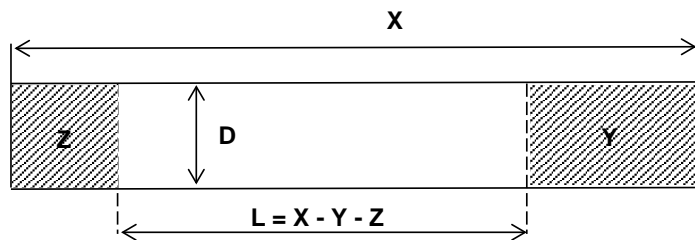
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-01
Project:	Annacis Outfall	Sample:	40
Location:	Annacis Outfall, Delta, BC	Depth (m):	61.49-61.57
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	8.14	2.17	-	7.22
2	8.15	2.49	-	7.23
3	8.16	2.56	-	7.26
4	8.14	2.20	-	7.18

Sample Length (cm)	5.79
Sample Diameter (cm)	7.22
Area (cm²)	40.94
Volume (cm³)	237
Sample Type	Intact



Wet Weight of Sample + Tube (g)	714.21
Weight of Tube (g)	216.11
Wet Weight of Sample (g)	498.10

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	180.9	-	-
Dry Soil + Tare (g)	146.58	-	-
Mass of Water (g)	34.32	-	-
Mass of Tare (g)	14.71	-	-
Mass of Dry Soil (g)	131.87	-	-
Water Content, w (%)	26.03	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m³)	2100	Wet unit weight, γ_{wet} (kN/m³)	20.59
Dry density, ρ_{dry} (kg/m³)	1666	Dry unit weight, γ_{dry} (kN/m³)	16.34
Water content, w (%)	26.03		

Soil Classification	CLAYEY SILT, some sand, grey, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

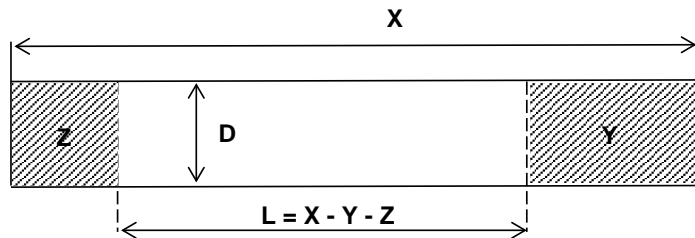
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-01
Project:	Annacis Outfall	Sample:	46
Location:	Annacis Outfall, Delta, BC	Depth (m):	70.60-70.71
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	11.46	6.69	-	7.23
2	11.42	6.79	-	7.25
3	11.43	6.55	-	7.23
4	11.49	6.76	-	7.24

Sample Length (cm)	4.76
Sample Diameter (cm)	7.24
Area (cm ²)	41.13
Volume (cm ³)	196
Sample Type	Intact



Wet Weight of Sample + Tube (g)	699.78
Weight of Tube (g)	311.79
Wet Weight of Sample (g)	387.99

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	121.18	-	-
Dry Soil + Tare (g)	97.38	-	-
Mass of Water (g)	23.80	-	-
Mass of Tare (g)	14.80	-	-
Mass of Dry Soil (g)	82.58	-	-
Water Content, w (%)	28.82	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m ³)	1983	Wet unit weight, γ_{wet} (kN/m ³)	19.45
Dry density, ρ_{dry} (kg/m ³)	1539	Dry unit weight, γ_{dry} (kN/m ³)	15.10
Water content, w (%)	28.82		

Soil Classification	CLAYEY SILT, grey, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

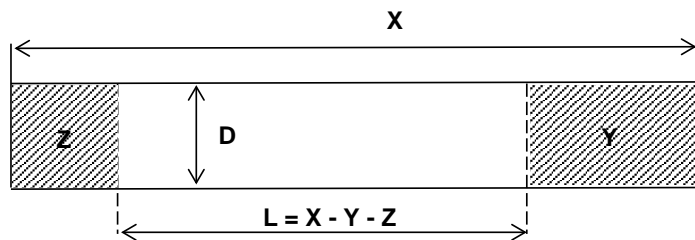
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-02
Project:	Annacis Outfall	Sample:	35
Location:	Annacis Outfall, Delta, BC	Depth (m):	56.42-56.50
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	8.29	1.38	-	7.29
2	8.28	1.43	-	7.24
3	8.30	1.40	-	7.28
4	8.31	1.45	-	7.32

Sample Length (cm)	6.88
Sample Diameter (cm)	7.28
Area (cm ²)	41.63
Volume (cm ³)	286
Sample Type	Intact



Wet Weight of Sample + Tube (g)	832.44
Weight of Tube (g)	213.06
Wet Weight of Sample (g)	619.38

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	597.85	-	-
Dry Soil + Tare (g)	472.82	-	-
Mass of Water (g)	125.03	-	-
Mass of Tare (g)	14.51	-	-
Mass of Dry Soil (g)	458.31	-	-
Water Content, w (%)	27.28	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m ³)	2162	Wet unit weight, γ_{wet} (kN/m ³)	21.20
Dry density, ρ_{dry} (kg/m ³)	1699	Dry unit weight, γ_{dry} (kN/m ³)	16.66
Water content, w (%)	27.28		

Soil Classification	CLAYEY SILT, grey, w>PL, firm to stiff
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

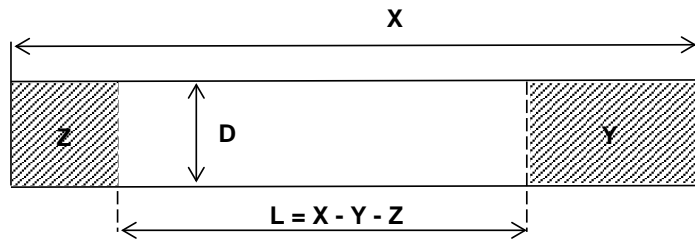
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-03
Project:	Annacis Outfall	Sample:	2
Location:	Annacis Outfall, Delta, BC	Depth (m):	3.58-3.66
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	8.43	4.98	-	7.28
2	8.44	5.01	-	7.18
3	8.43	4.92	-	7.27
4	8.42	4.80	-	7.22

Sample Length (cm)	3.51
Sample Diameter (cm)	7.24
Area (cm²)	41.15
Volume (cm³)	144
Sample Type	Intact



Wet Weight of Sample + Tube (g)	511.55
Weight of Tube (g)	226.42
Wet Weight of Sample (g)	285.13

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	298.48	-	-
Dry Soil + Tare (g)	222.66	-	-
Mass of Water (g)	75.82	-	-
Mass of Tare (g)	14.94	-	-
Mass of Dry Soil (g)	207.72	-	-
Water Content, w (%)	36.50	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m³)	1977	Wet unit weight, γ_{wet} (kN/m³)	19.38
Dry density, ρ_{dry} (kg/m³)	1448	Dry unit weight, γ_{dry} (kN/m³)	14.20
Water content, w (%)	36.50		

Soil Classification	CLAYEY SILT, grey, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



Standard Test Methods for Laboratory Determination of Density (Unit Weight) of Soil Specimens

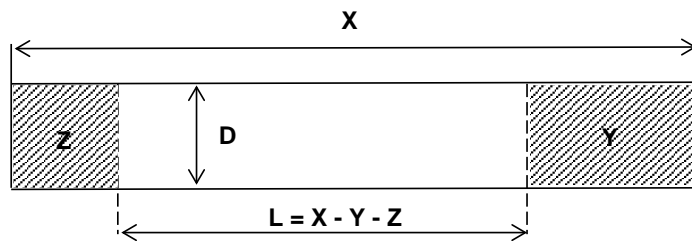
ASTM D7263 - Method B

Project No.:	1525010/605	Borehole:	BH16-03
Project:	Annacis Island WWTP	Sample:	35
Location:	Annacis Island, Delta	Depth (m):	53.29-53.34
Client:	CDM Smith	Lab ID No:	134

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	5.43	-	0.35	7.27
2	5.39	-	0.32	7.30
3	5.39	-	0.27	7.27
4	5.44	-	0.31	7.29

Sample Length (cm)	5.10125
Sample Diameter (cm)	7.2795
Area (cm²)	41.62
Volume (cm³)	212
Sample Type	Intact



Wet Weight of Sample + Tube (g)	554.85
Weight of Tube (g)	152.10
Wet Weight of Sample (g)	402.75

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	240.29	-	-
Dry Soil + Tare (g)	180.02	-	-
Mass of Water (g)	60.27	-	-
Mass of Tare (g)	14.32	-	-
Mass of Dry Soil (g)	165.70	-	-
Water Content, w (%)	36.37	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m³)	1897	Wet unit weight, γ_{wet} (kN/m³)	18.60
Dry density, ρ_{dry} (kg/m³)	1391	Dry unit weight, γ_{dry} (kN/m³)	13.64
Water content, w, (%)	36.37		

Soil Classification	(SC) CLAY; trace silt; dark grey, cohesive, w > PL, firm
Test Comments	Sample extruded for DSS testing

G. Patton	May 27, 2016	L. Perrey	June 7, 2016
TESTED BY	DATE	CHECKED BY	DATE



Standard Test Methods for Laboratory Determination of Density (Unit Weight) of Soil Specimens

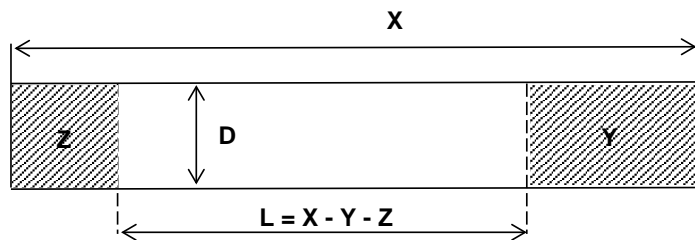
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-04
Project:	Annacis Outfall	Sample:	31
Location:	Annacis Outfall, Delta, BC	Depth (m):	50.47-50.60
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	11.40	4.84	-	7.26
2	11.40	4.88	-	7.26
3	11.37	4.91	-	7.24
4	11.40	4.81	-	7.27

Sample Length (cm)	6.53
Sample Diameter (cm)	7.26
Area (cm ²)	41.35
Volume (cm ³)	270
Sample Type	Intact



Wet Weight of Sample + Tube (g)	848.16
Weight of Tube (g)	308.58
Wet Weight of Sample (g)	539.58

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	534.87	-	-
Dry Soil + Tare (g)	413.54	-	-
Mass of Water (g)	121.33	-	-
Mass of Tare (g)	15.18	-	-
Mass of Dry Soil (g)	398.36	-	-
Water Content, w (%)	30.46	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m ³)	1997	Wet unit weight, γ_{wet} (kN/m ³)	19.59
Dry density, ρ_{dry} (kg/m ³)	1531	Dry unit weight, γ_{dry} (kN/m ³)	15.01
Water content, w (%)	30.46		

Soil Classification	SILTY CLAY, grey, w>PL, stiff
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



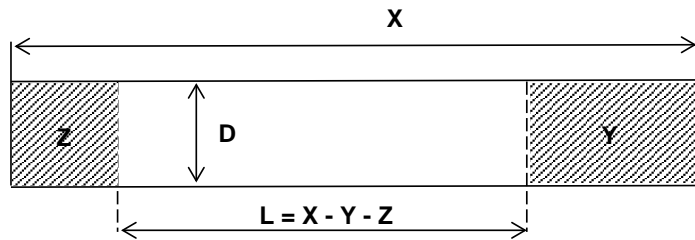
**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-04
Project:	Annacis Outfall	Sample:	36
Location:	Annacis Outfall, Delta, BC	Depth (m):	57.54-57.61
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	6.52	0.94	-	7.27
2	6.53	1.01	-	7.31
3	6.50	1.07	-	7.29
4	6.52	1.06	-	7.27

Sample Length (cm)	5.50
Sample Diameter (cm)	7.28
Area (cm²)	41.66
Volume (cm³)	229
Sample Type	Intact



Wet Weight of Sample + Tube (g)	634.80
Weight of Tube (g)	174.61
Wet Weight of Sample (g)	460.19

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	460.59	-	-
Dry Soil + Tare (g)	360.36	-	-
Mass of Water (g)	100.23	-	-
Mass of Tare (g)	14.87	-	-
Mass of Dry Soil (g)	345.49	-	-
Water Content, w (%)	29.01	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m³)	2009	Wet unit weight, γ_{wet} (kN/m³)	19.70
Dry density, ρ_{dry} (kg/m³)	1557	Dry unit weight, γ_{dry} (kN/m³)	15.27
Water content, w (%)	29.01		

Soil Classification	CLAYEY SILT, some sand, grey, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

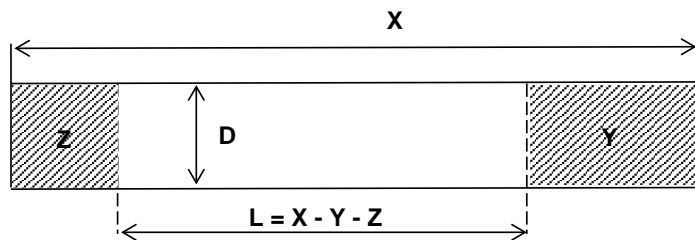
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-05
Project:	Annacis Outfall	Sample:	1
Location:	Annacis Outfall, Delta, BC	Depth (m):	2.85-3.90
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	4.95	-	-	7.23
2	4.91	-	-	7.27
3	4.99	-	-	7.26
4	4.96	-	-	7.30

Sample Length (cm)	4.95
Sample Diameter (cm)	7.26
Area (cm ²)	41.43
Volume (cm ³)	205
Sample Type	Intact



Wet Weight of Sample + Tube (g)	518.52
Weight of Tube (g)	138.76
Wet Weight of Sample (g)	379.76

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	393.03	-	-
Dry Soil + Tare (g)	291.68	-	-
Mass of Water (g)	101.35	-	-
Mass of Tare (g)	14.48	-	-
Mass of Dry Soil (g)	277.20	-	-
Water Content, w (%)	36.56	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m ³)	1852	Wet unit weight, γ_{wet} (kN/m ³)	18.16
Dry density, ρ_{dry} (kg/m ³)	1356	Dry unit weight, γ_{dry} (kN/m ³)	13.30
Water content, w (%)	36.56		

Soil Classification	SANDY SILT, grey, w>PL, soft firm, trace organics
Test Comments	N/A

MM	June 2, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

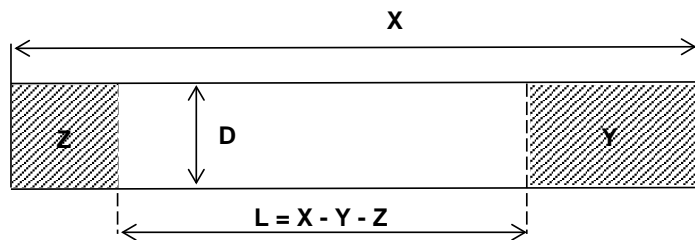
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-05
Project:	Annacis Outfall	Sample:	29
Location:	Annacis Outfall, Delta, BC	Depth (m):	47.77-47.85
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	8.30	4.14	-	7.27
2	8.40	4.08	-	7.30
3	8.35	4.33	-	7.30
4	8.38	4.11	-	7.28

Sample Length (cm)	4.19
Sample Diameter (cm)	7.29
Area (cm ²)	41.73
Volume (cm ³)	175
Sample Type	Intact



Wet Weight of Sample + Tube (g)	584.05
Weight of Tube (g)	219.44
Wet Weight of Sample (g)	364.61

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	370.46	-	-
Dry Soil + Tare (g)	292.74	-	-
Mass of Water (g)	77.72	-	-
Mass of Tare (g)	14.51	-	-
Mass of Dry Soil (g)	278.23	-	-
Water Content, w (%)	27.93	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m ³)	2083	Wet unit weight, γ_{wet} (kN/m ³)	20.43
Dry density, ρ_{dry} (kg/m ³)	1628	Dry unit weight, γ_{dry} (kN/m ³)	15.97
Water content, w (%)	27.93		

Soil Classification	CLAYEY SILT, grey, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE



**Standard Test Methods for Laboratory Determination of Density
(Unit Weight) of Soil Specimens**

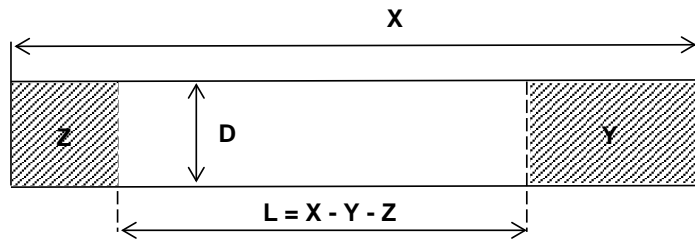
ASTM D7263 - Method B

Project No.:	1525010/605/605.2	Borehole:	BH16-05
Project:	Annacis Outfall	Sample:	34
Location:	Annacis Outfall, Delta, BC	Depth (m):	55.40-55.47
Client:	CMD Smith	Lab ID No:	197

Sample Properties

	X: Tube Length (cm)	Y: Top Void Length (cm)	Z: Bottom Void Length (cm)	D: Tube Diameter (cm)
1	7.32	1.59	-	7.24
2	7.30	1.41	-	7.32
3	7.30	1.59	-	7.14
4	7.32	1.46	-	7.31

Sample Length (cm)	5.80
Sample Diameter (cm)	7.25
Area (cm²)	41.29
Volume (cm³)	239
Sample Type	Intact



Wet Weight of Sample + Tube (g)	690.16
Weight of Tube (g)	190.29
Wet Weight of Sample (g)	499.87

Water Content Determination

Trial No.	1	2	3
Wet Soil + Tare (g)	512.61	-	-
Dry Soil + Tare (g)	406.21	-	-
Mass of Water (g)	106.40	-	-
Mass of Tare (g)	14.99	-	-
Mass of Dry Soil (g)	391.22	-	-
Water Content, w (%)	27.20	-	-

Test results

Density		Unit weight	
Wet density, ρ_{wet} (kg/m³)	2089	Wet unit weight, γ_{wet} (kN/m³)	20.48
Dry density, ρ_{dry} (kg/m³)	1642	Dry unit weight, γ_{dry} (kN/m³)	16.10
Water content, w (%)	27.20		

Soil Classification	CLAYEY SILT, grey, w>PL, firm
Test Comments	N/A

MM/CS	June 1, 2016	LH	June 3, 2016
TESTED BY	DATE	CHECKED BY	DATE

