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Appendix F
SPU System Log and Slurry Solids Concentration Data Summary

Symbol	Definition
	Definitions applicable for in-situ sediment and/or slurry mixtures
W_s	Weight of oven-dried solid particles
W_f	Weight of fluid surrounding solid particles
V_s	Volume of compressed, oven dried solid particles
V_w	Volume of fluid surrounding solid particles
W_t	Weight of solids and pore fluid
V_t	Total volume of solids and pore fluid
v_{mix}	Flow velocity of the mixture measured in a pipe with diameter d [m/s]
D	Diameter of pipe in which the flow velocity of the mixture is measured [m]
	Definitions and formulas applied in calculations:
w	Moisture content, which is defined as. W_w / W_s. This is used in geotechnical engineering and can be greater than 100 percent. [%]
C	Concentration which is defined as W_s / V_t.
ρ_s	Density of the grains, is defined as W_s / V_s. [kg/m3]
ρ_{situ}	In-situ density of the soil or wet unit weight or wet density, is defined as W_t / V_t of the in-situ soil. [kg/m3]
ρ_m	Mixture density, is defined as W_t / V_t of the mixture [kg/m3]
$_f\rho_w$	Pore fluid density or fluid unit weight is defined as W_f / V_f [kg/m3] In the case of New Bedford 1,014 Kg/m3 is used.
G_s	Specific gravity of solid particles (grains) This is the unit weight of solids divided by the unit weight of pure water. Because of the presence of organic material the specific gravity of the dredged material appeared to be 2.400
G_{situ}	Specific gravity of the in-situ sediment. This is the unit weight of the in-situ solids/water mixture divided by the unit weight of pure water
G_m	Specific gravity of slurry mixture. This is the unit weight of a solids/water mixture divided by the unit weight of pure water
SG_w	Specific gravity of (sea)water , which is the unit weight of the (sea)water divided by the unit weight of pure water. The value of 1.026 it typically used for seawater (64.0 pcf / 62.4 pcf). For this project, the fluid is assumed to be a mixture of fresh and salt water and a fluid specific gravity of 1.014 was used in calculations [SGU]

TABLE F-1

C_w	Percent solids by weight, which is defined as W_s / W_t times 100	[%]
	Percent solids by weight of insitu material is defined as: $\frac{\rho_s * (\rho_{situ} - \rho_w)}{\rho_{situ} * (\rho_s - \rho_w)} * 100$	[%]
	Percent solids by weight of a slurry is defined as: $\frac{\rho_s * (\rho_{mix} - \rho_w)}{\rho_{mix} * (\rho_s - \rho_w)} * 100$	[%]
C	Percent volume concentration In the dredging industry the term "volume concentration" is commonly used to describe the ratio between the slurry density in the dredging process and the in situ density, and is calculated by the term. $100 \times (\rho_m - \rho_w)/(\rho_{situ} - \rho_w)$	[%]
	This percent volume concentration can also be described as: $100 \times (SG_m - SG_w)/(SG_{situ} - SG_w)$	[%]
$Prod_{situ}$	In-situ production rate is defined as: $v_{mix} * 0.25 * \pi * d^2 * (\rho_{mix} - \rho_w)/(\rho_{situ} - \rho_w)$	[insitu m3/s]
$Prod_{situ}\ \Delta t$	In-situ production calculated over a certain time interval is defined as: $Prod_{situ} * \Delta t$	[insitu m3]
$Prod_{TDS}$	Tons dry solid production is defined as: $0.001 * \Delta t * 0.25 * \pi * d^2 * v_{mix} * \rho_s * (\rho_{mix} - \rho_w) / (\rho_s - \rho_w)$	[tons]
V_{mix}	Volume of slurry mixture discharged is defined as: $\Delta t * v_{mix} * 0.25 * \pi * d^2$	[m3]

TABLE F-1 (CONT.)

New Bedford Harbor Superfund Site, Pre-Design Field Test
BEAN Environmental L.L.C., Test Dredge
Summary of Daily SPU Reports

Date	Day	Net Operational hrs		Volume Slurry (soil+recirc.water) yd3		Volume (soil-situ yd3) yd3		Production situ yd3/ Nett Hours	Situ Density kg/m3	Average Volume Concentration %	Volumes not logged (soil-situ yd3) yd3		Remarks
		Day	Cum.	Day	Cum.	Day	Cum.				Day	correct.Cum.	
10-Aug	Thursday												
11-Aug	Friday												
12-Aug	Saturday												
13-Aug	Sunday		2.55		891		193	76	1,270	23	72	265	Cumulative values.
14-Aug	Monday	4.60	7.15	1,522	2,413	340	533	74	1,280	24		605	
15-Aug	Tuesday	6.02	13.17	1,818	4,231	325	858	54	1,380	18		930	
16-Aug	Wednesday	5.93	19.10	1,924	6,155	424	1,282	71	1,400	22		1,354	
17-Aug	Thursday	7.25	26.35	2,509	8,664	537	1,819	74	1,410	22	27	1,918	
18-Aug	Friday	3.33	29.68	1,022	9,686	292	2,111	88	1,260	29	45	2,255	
	TOTALS	29.68		9,686		2,111	AVERAGES	71	1,349	23	144	2,255	

REMARKS:

See also SPU daily performance sheets

TABLE F-2

New Bedford Harbor Superfund Site, Pre-Design Field Test
BEAN Environmental L.L.C., Test Dredge
Daily average Insitu densities based on soil sample test results

Date	Cut no dredged [-]	percentage of cut dredged [%]	average excavation depth [ft]	sample codes applicable [-]	[-]	[-]	wet unit weight [kg/m3]	wet unit weight [kg/m3]	wet unit weight [kg/m3]	cut average wet unit weight [kg/m3]	daily average wet unit weight [kg/m3]
08/10 - 08/13	6	100%	2	6_4 (0-14")	8_4 (14-24")	5_3 (14_24")	1,177	1,345	1,456	1,270	1,270
14-Aug	7	100%	2	B-A3	8_4		1,361	1,238		1,299	
	8	44%	2	8_4			1,238			1,238	1,281
15-Aug	8	56%	2	B-A3			1,361			1,361	
	5	75%	2.1	B-B2	5_3	6_4	1,482	1,454	1,275	1,404	1,386
16-Aug	5	25%	2	B-B2			1,485			1,485	
	4	100%	1.75	B-B2	5_3	4_4	1,484	1,454	1,359	1,414	
	3	45%	1.6	4_4	B-C1		1,358	1,290		1,324	1,404
17-Aug	3	55%	1.8	4_4			1,360			1,360	
	2	100%	1.825	B-B2			1,486			1,486	
	1	50%	3	B-A1			1,341			1,341	1,407
18-Aug	1	50%	3	B-C1			1,290			1,290	
	A	25%	4	B_4			1,231			1,231	1,266

TABLE F-3

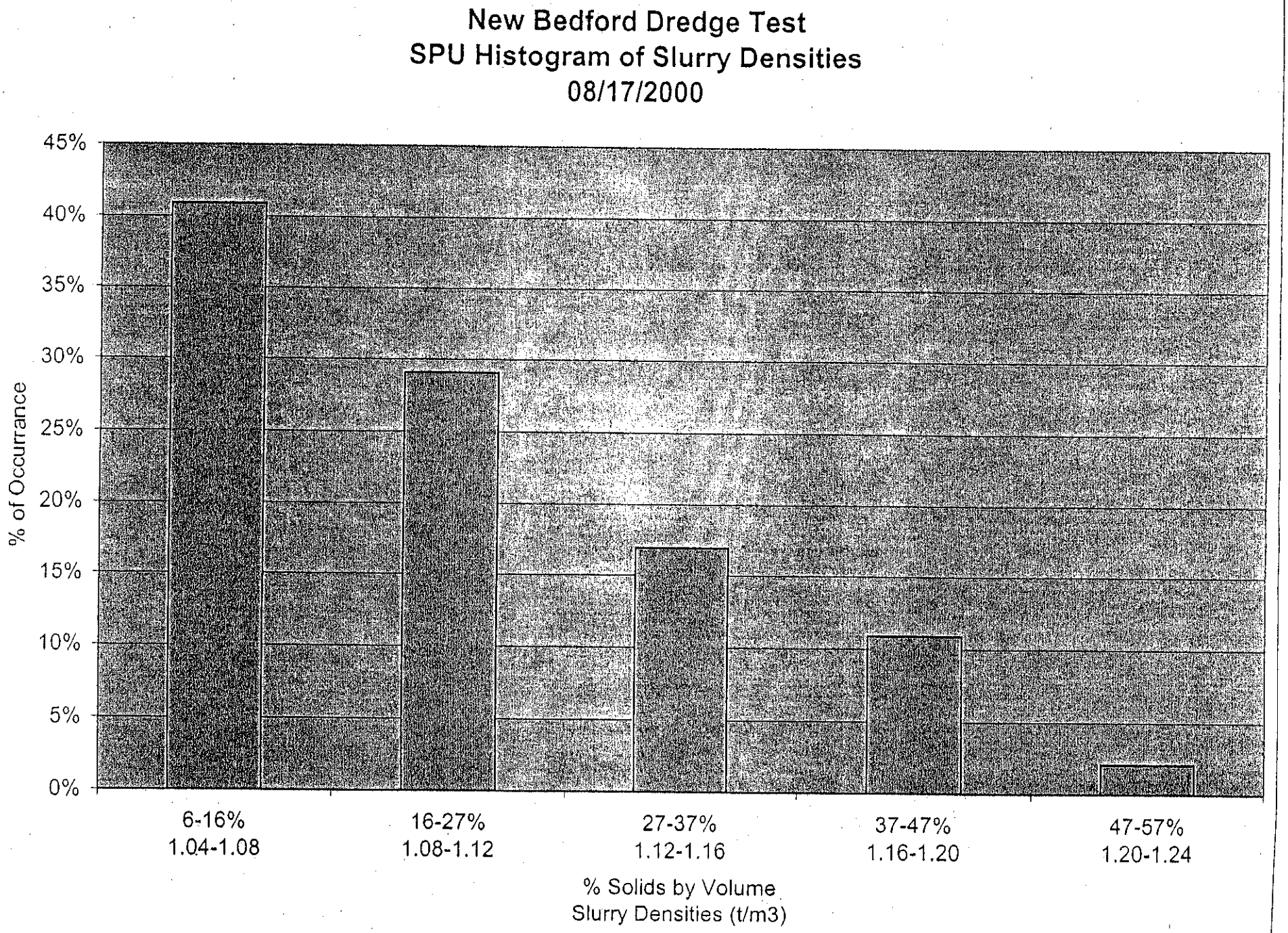
New Bedford Dredge Test
SPU Histogram of Slurry Densities
08/17/2000
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
% of Occurrance
6-16%
1.04-1.08
16-27%
1.08-1.12
27-37%
1.12-1.16
37-47%
1.16-1.20
47-57%
1.20-1.24
% Solids by Volume
Slurry Densities (t/m3)

Figure F-1

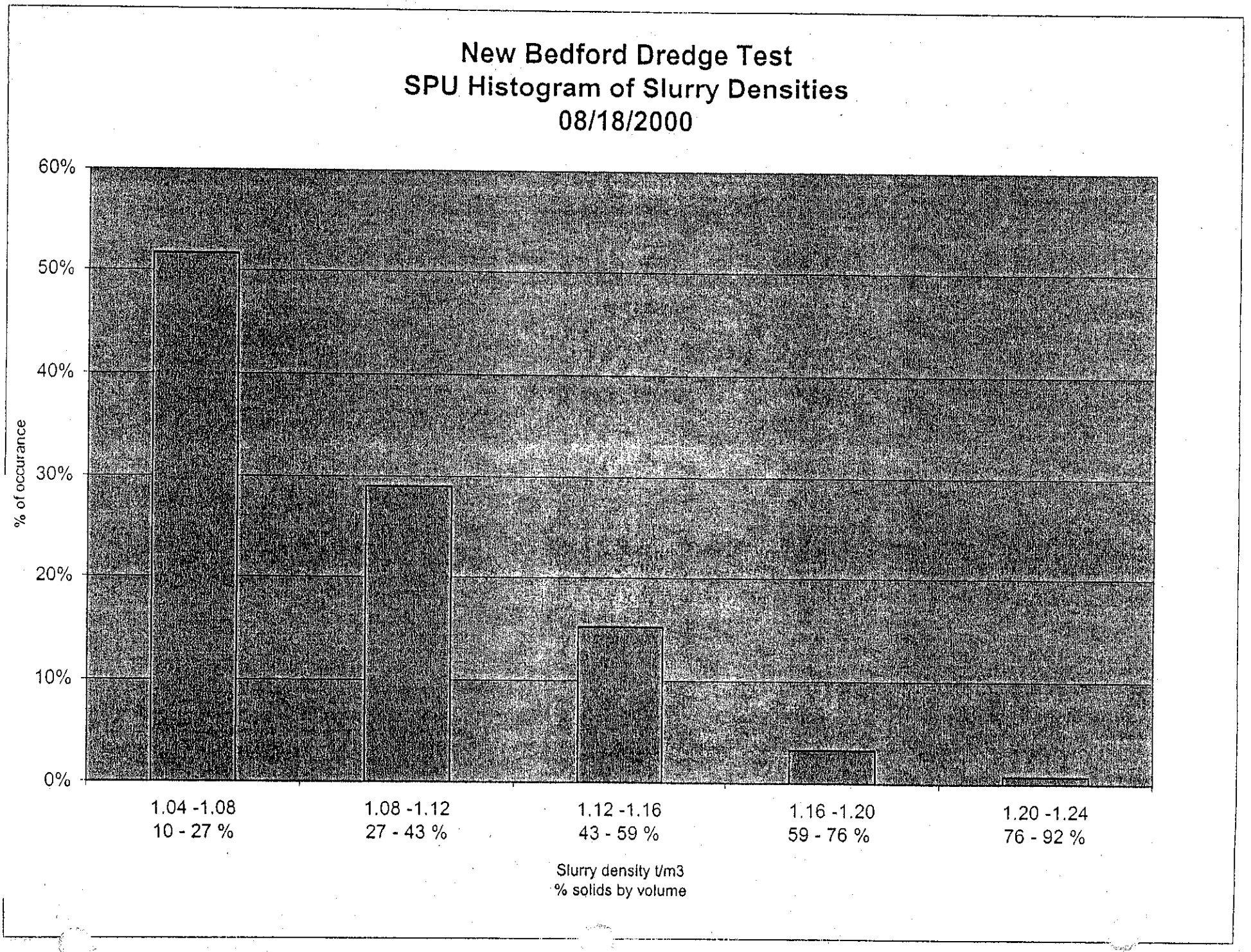
New Bedford Dredge Test
SPU Histogram of Slurry Densities
08/18/2000
60%
50%
40%
30%
20%
10%
0%
% of occurance
1.04 -1.08
10 - 27 %
1.08 -1.12
27 - 43 %
1.12 -1.16
43 - 59 %
1.16 -1.20
59 - 76 %
1.20 -1.24
76 - 92 %
Slurry density t/m3
% solids by volume

Figure F-2

Date: August 10 to 13 2000

Date: August 10 to 13 2000	conditions: rho_mix loop 3>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s				
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	tons dry solid/insitu volume (TDS/insitu m3)
	1015	2400	1270	35%	0.442

total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [m/s]	slurry volume discharged	insitu Production	tons dry solid Production [metric tons]	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 [kg/m3]
total dredge period:	10 until 13 August	average 1.5	average [m3/hr] 268	average[insitu m3/hr] 58	average [tons/hr] 26	average 9.98%	average 6.78%	average 8.83%	average 21.64%	average 1,070
total effective [min] 153		max 2.9	daily total [m3] 681	daily total [insitu m3] 147	daily total [tons] 65	max 46%	max 35%	max 35%	max 100%	max 1,270

Missing datalog values between 14:10 and 16:05 due to error during saving: missing estimated quantity = 55 m3

Date: August 10 to 13 2000	conditions:SQU loop3>1.040, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s				
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	short tons dry solid per insitu volume (TDS/cu-ft)
	1015	2400	1270	35%	0.014

total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [ft/s]	slurry volume discharged	insitu Production	tons dry solid Production	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 SQU
total dredge period:	10 until 13 August	average 5.0	average [cy/hr] 351	average [insitu cy/hr] 76	average [short tons/hr] 28	average 9.98%	average 6.78%	average 8.83%	average 21.64%	average 1,070
total effective [min] 153		max 9.6	daily total [cy] 891	daily total [insitu cy] 193	daily total [short tons] 72	max 46%	max 35%	max 35%	max 100%	max 1,270

Missing datalog values between 14:10 and 16:05 due to error during saving: missing estimated quantity = 72 cy

TABLE F-4

Date: August 14 2000

Date: August 14 2000	conditions: rho_mix loop 3=1040kg/m3, rpm slurry pump=700 rpm, flow velocity in 250 mm flow tube=1 ft/s									
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	tons dry solid/insitu volume [TDS/insitu m3]					
	1015	2400	1280	36%	0.459					
total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [m/s]	slurry volume discharged	insitu Production	tons dry solid Production [metric tons]	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 [kg/m3]
total dredge period:	08:18-17:46	average 1.4	average [m3/hr] 253	average(insitu m3/hr] 56	average [tons/hr] 26	average 11.19%	average 6.88%	average 9.44%	average 22.32%	average 1,074
total effective [min] 276	total gross [min] 540	max 1.8	daily total [m3] 1164	daily total [insitu m3] 260	daily total [tons] 119	max 35%	max 36%	max 35%	max 96%	max 1,269

Date: August 14 2000	conditions SGU loop3=1,040, rpm slurry pump=700 rpm, flow velocity in 250 mm flow tube=1 ft/s									
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	short tons dry solid per insitu volume [TDS/cu-ft]					
	1015	2400	1280	36%	0.014					
total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [ft/s]	slurry volume discharged	insitu Production	tons dry solid Production	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 SGU
total dredge period:	08:18-17:46	average 4.7	average [cy/hr] 331	average [insitu cy/hr] 74	average [short tons/hr] 29	average 11.19%	average 6.88%	average 9.44%	average 22.32%	average 1,074
total effective [min] 276	total gross [min] 540	max 6.1	daily total [cy] 1522	daily total [insitu cy] 340	daily total [short tons] 131	max 35%	max 36%	max 35%	max 96%	max 1,269

TABLE F-5

Date: August 15 2000

Date: August 15 2000	conditions: rho_mix>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s									
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	tons dry solid/insitu volume [TDS/situ m3]					
	1015	2400	1380	46%	0.632					
effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [m/s]	slurry volume discharged	Insitu Production	tons dry solid Production [metric tons]	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 [kg/m3]
		average	average [m3/hr]	average[insitu m3/hr]	average [tons/hr]	average	average	average	average	average
total dredge period:	07:05-19:33	1.3	231	41	26	11.05%	8.11%	10.33%	17.85%	1,080
snapshots:	08:08-08:24	1.3	231	48	30	13.26%	9.58%	11.97%	20.75%	1,091
	09:52-10:14	1.2	219	50	32	13.12%	12.16%	13.06%	22.88%	1,099
	12:36-12:57	1.5	257	50	32	12.37%	8.32%	11.22%	19.56%	1,086
	17:44-18:18	1.5	261	61	39	13.76%	10.87%	13.41%	23.55%	1,101
	18:57-19:20	1.4	240	64	40	16.60%	11.54%	15.01%	26.48%	1,112
total effective time [min]	total gross [min]	max	daily total [m3]	daily total [insitu m3]	daily total [tons]	max	max	max	max	max
361	747	2.4	1390	248	157	36%	33%	36%	72%	1,278

Date: August 15 2000	conditions: rho_mix>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s									
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	short tons dry solid per insitu volume [TDS/cu-ft]					
	1015	2400	1380	46%	0.020					
effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [ft/s]	slurry volume discharged	insitu Production	tons dry solid Production	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 SGU
		average	average [cy/hr]	average [insitu cy/hr]	average [short tons/hr]	average	average	average	average	average
total dredge period:	07:05-19:33	4.3	302	54	29	11.05%	8.11%	10.33%	17.85%	1.080
snapshots	08:08-08:24	4.3	302	63	33	13.26%	9.58%	11.97%	20.75%	1.091
	09:52-10:14	4.1	287	66	35	13.12%	12.16%	13.06%	22.88%	1.099
	12:36-12:57	4.8	336	66	35	12.37%	8.32%	11.22%	19.56%	1.086
	17:44-18:18	4.8	341	80	43	13.76%	10.87%	13.41%	23.55%	1.101
	18:57-19:20	4.5	314	83	44	16.60%	11.54%	15.01%	26.48%	1.112
total effective time [min]	total gross [min]	max	daily total [cy]	daily total [insitu cy]	daily total [short tons]	max	max	max	max	max
361	747	7.9	1818	325	173	36%	33%	36%	72%	1.278

TABLE F-6

Date: August 16 2000

Date: August 16 2000	conditions: rho_mix>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s									
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	tons dry solid/insitu volume [TDS/situ m3]					
	1015	2400	1400	48%	0.667					
effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [m/s]	slurry volume discharged	Insitu Production	tons dry solid Production [metric tons]	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 [kg/m3]
		average	average [m3/hr]	average[insitu m3/hr]	average [tons/hr]	average	average	average	average	average
total dredge period:	11:02-19:23	1.4	248	55	36	14.24%	9.76%	13.15%	22.02%	1,100
snapshots:	11:02-11:29	1.7	292	65	43	13.29%	10.94%	13.27%	22.32%	1,101
	11:33-11:38	2.0	352	66	45	11.71%	8.57%	11.75%	19.33%	1,089
	12:04-12:19	1.4	254	68	46	18.11%	11.78%	15.85%	26.83%	1,118
	12:51-13:07	1.5	260	67	45	17.59%	11.74%	15.18%	25.74%	1,114
	13:14-13:30	1.4	250	68	45	17.44%	11.94%	16.08%	27.08%	1,119
	14:02-15:05	1.4	256	62	42	15.61%	10.50%	14.54%	24.36%	1,109
	17:00-17:14	1.2	216	70	47	20.04%	14.43%	18.75%	32.32%	1,139
	17:27-18:07	1.2	215	66	44	18.77%	13.96%	17.96%	30.68%	1,133
	18:34-19:02	1.2	216	70	47	19.50%	15.48%	18.94%	32.55%	1,140
total effective time [min]	total gross [min]	max	daily total [m3]	daily total [insitu m3]	daily total [tons]	max	max	max	max	max
356	500	2.2	1471	324	216	33%	30%	32%	59%	1,241

Date: August 16 2000	conditions: rho_mix>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s									
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	short tons dry solid per insitu volume [TDS/cu-ft]					
	1015	2400	1400	48%	0.021					
effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [ft/s]	slurry volume discharged	Insitu Production	tons dry solid Production	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 SGU
		average	average [cy/hr]	average [insitu cy/hr]	average [short tons/hr]	average	average	average	average	average
total dredge period:	11:02-19:23	4.6	325	71	40	14.24%	9.76%	13.15%	22.02%	1.100
snapshots:	11:02-11:29	5.4	381	85	48	13.29%	10.94%	13.27%	22.32%	1.101
	11:33-11:38	6.5	460	89	50	11.71%	8.57%	11.75%	19.33%	1.089
	12:04-12:19	4.7	333	89	50	18.11%	11.78%	15.85%	26.83%	1.118
	12:51-13:07	4.8	340	88	49	17.59%	11.74%	15.18%	25.74%	1.114
	13:14-13:30	4.6	326	88	50	17.44%	11.94%	16.08%	27.08%	1.119
	14:02-15:05	4.8	335	82	46	15.61%	10.50%	14.54%	24.36%	1.109
	17:00-17:14	4.0	283	91	51	20.04%	14.43%	18.75%	32.32%	1.139
	17:27-18:07	4.0	281	86	48	18.77%	13.96%	17.96%	30.68%	1.133
	18:34-19:02	4.0	282	92	52	19.50%	15.48%	18.94%	32.55%	1.140
total effective time [min]	total gross [min]	max	daily total [cy]	daily total [insitu cy]	daily total [short tons]	max	max	max	max	max
356	500	7.1	1924	424	238	33%	30%	32%	59%	1.241

TABLE F-7

Date: August 17 2000

Date: August 17 2000	conditions: rho_mix>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s				
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	tons dry solid/insitu volume [TDS/insitu m3]
	1015	2400	1410	49%	0.684

total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [m/s]	slurry volume discharged	insitu Production	tons dry solid Production [metric tons]	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 [kg/m3]
		average	average [m3/hr]	average[insitu m3/hr]	average [tons/hr]	average	average	average	average	average
total dredge period:	10:26:-19:44	1.5	265	57	39	13.67%	9.47%	13.08%	21.38%	1,099
snapshots:	11:07-11:43	1.2	213	72	49	20.19%	17.54%	19.94%	33.78%	1,148
	11:53-12:22	1.1	203	69	47	19.67%	17.60%	20.03%	33.94%	1,149
	13:55-14:35	1.4	240	61	42	16.56%	11.37%	15.44%	25.46%	1,116
	15:02-15:17	1.4	247	82	56	19.12%	16.14%	19.75%	33.28%	1,146
	16:09-16:23	1.9	332	81	56	17.26%	9.82%	15.04%	24.55%	1,112
	17:45-18:29	1.8	325	78	53	14.63%	9.75%	14.60%	23.91%	1,109
total effective [min]	total gross [min]	max	daily total [m3]	daily total [insitu m3]	daily total [tons]	max	max	max	max	max
435	559	2.1	1919	410	281	33%	31%	33%	60%	1,252

missing: datalog values between 19:44 and 20:06: estimated = 20 m3

Date: August 17 2000	conditions: rho_mix>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s				
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	short tons dry solid per insitu volume [TDS/cu-ft]
	1015	2400	1410	49%	0.021

total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [ft/s]	slurry volume discharged	insitu Production	tons dry solid Production	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 SGU
		average	average [cy/hr]	average [insitu cy/hr]	average [short tons/hr]	average	average	average	average	average
total dredge period:	10:26-19:44	4.9	346	74	43	13.67%	9.47%	13.08%	21.38%	1.099
snapshots:	11:07-11:43	4.0	279	94	54	20.19%	17.54%	19.94%	33.78%	1.148
	11:53-12:22	3.8	265	90	52	19.67%	17.60%	20.03%	33.94%	1.149
	13:55-14:35	4.5	314	80	46	16.56%	11.37%	15.44%	25.46%	1.116
	15:02-15:17	4.6	323	108	62	19.12%	16.14%	19.75%	33.28%	1.146
	16:09-16:23	6.2	434	107	61	17.26%	9.82%	15.04%	24.55%	1.112
	17:45-18:29	6.0	425	102	59	14.63%	9.75%	14.60%	23.91%	1.109
total effective [min]	total gross [min]	max	daily total [cy]	daily total [insitu cy]	daily total [short tons]	max	max	max	max	max
435	559	7.0	2509	537	309	33%	31%	33%	60%	1.252

missing: datalog values between 19:44 and 20:06: estimated = 27 cy

TABLE F-8

Date: August 18 2000

Date: August 18 2000	conditions: rho_mix loop 3>1040kg/m3, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s				
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	tons dry solid/insitu volume (TDS/insitu m3)
	1015	2400	1260	34%	0.425

total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [m/s]	slurry volume discharged	insitu Production	tons dry solid Production [metric tons]	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 [kg/m3]
		average	average [m3/hr]	average[insitu m3/hr]	average [tons/hr]	average	average	average	average	average
total dredge period	11:16-18:55	1.3	235	67	29	10.94%	8.97%	11.02%	28.60%	1,085
snapshots	12:31-12:45	1.4	249	88	38	14.25%	10.74%	13.60%	35.54%	1,102
	16:32-16:51	1.0	168	71	30	15.31%	15.49%	15.67%	42.02%	1,118
	16:57-17:27	1.2	203	87	37	15.92%	15.39%	16.22%	43.02%	1,120
	17:38-17:45	1.2	218	121	51	16.65%	16.89%	20.22%	55.45%	1,151
total effective [min]	total gross [min]	max	daily total [m3]	daily total [insitu m3]	daily total [tons]	max	max	max	max	max
200	459	3.7	761	223	95	30%	29%	29%	84%	1,222

Missing datalog values between 10:40 and 11:16 due to breakdown datalog computer: missing estimated quantity = 34 m3

Date: August 18 2000	conditions: SGU loop3>1.040, rpm slurry pump>700 rpm, flow velocity in 250 mm flow tube>1 ft/s				
	water density [kg/m3]	specific gravity [kg/m3]	insitu density [kg/m3]	avg. % solids by weight of insitu material	short tons dry solid per insitu volume (TDS/cu-ft)
	1015	2400	1260	34%	0.013

total effective slurry pumping time [min]	time period analysed [hr:min:ss]	Flow velocity [ft/s]	slurry volume discharged	insitu Production	tons dry solid Production	% solids by weight loop 1 [%]	% solids by weight loop 2 [%]	% solids by weight loop 3 [%]	% volume concentration loop 3 [%]	density loop 3 SGU
		average	average [cy/hr]	average [insitu cy/hr]	average [short tons/hr]	average	average	average	average	average
total dredge period	11:16-18:55	4.4	307	88	31	10.94%	8.97%	11.02%	28.60%	1,085
snapshots	12:31-12:45	4.6	326	116	41	14.25%	10.74%	13.60%	35.54%	1,102
	16:32-16:51	3.1	220	93	33	15.31%	15.49%	15.67%	42.02%	1,118
	16:57-17:27	3.8	266	114	41	15.92%	15.39%	16.22%	43.02%	1,120
	17:38-17:45	4.0	285	158	57	16.65%	16.89%	20.22%	55.45%	1,151
total effective [min]	total gross [min]	max	daily total [cy]	daily total [insitu cy]	daily total [short tons]	max	max	max	max	max
200	459	12.3	1022	292	105	30%	29%	29%	84%	1,222

Missing datalog values between 10:40 and 11:16 due to breakdown of computer: missing estimated quantity = 45 cy

TABLE F-9

Click here to go to Appendix G