

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/09/2005

Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
Load Number 1211	DR-1	19.0	7:55:40	7386805.63	952026.07	3.2	
Tidal Stage Flood	DR-2	21.2	7:58:11	7387255.89	952519.11	20.0	11.9
Dredge State: Overflow through skimmers only	DR-2R1	20.8	7:58:13	7387256.13	952525.18	19.6	11.9
Weather: Clear	DR-4	20.8	8:00:11	7387968.89	953038.18	17.1	
Wind: 10-15 kts	DR-4R1	20.7	8:00:14	7387969.13	953044.25	16.6	
Seas: 1-3'	DR-3	19.1	8:02:48	7386403.88	952431.44	22.4	
Disposal location Columbia River RM 17.5 & 18.8	DR-3R1	17.3	8:02:52	7386403.63	952425.36	18.2	

Remarks:	Action Taken:
DR-2 exceeded 10% over background, taken in the plume.	Re-test DR-2R1 was taken.
DR-4 exceeded 10% over background, taken in the plume.	Re-test DR-4R1 was taken.
DR-3 exceeded 10% over background, taken out of plume, on starboard side.	Re-test DR-3R1 was taken.
	The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DR-1	Background - 100' Up Current, Within 600-Foot of Channel	OR WA WA	OR, WA Not Required Not Required
DR-2	100' Down Current		
DR-3	300' Radially from point of dredge (Port or Starboard)		
DR-4	900' Down Current from point of dredging		
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/09/2005

Disposal Load Number 1211 Tidal Stage Flood Dredge State: Split Hull Weather: Clear Wind: 10-15 kts Seas: 0-1' Disposal location Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSP-1	20.0	8:35:59	7380253.49	947926.8	3.4	
	DSP-2	20.2	8:41:00	7379642.77	947860.12	25.5	12.0
	DSP-2R1	20.1	8:41:02	7379642.77	947860.12	24.5	12.0
	DSP-3	18.8	8:42:16	7379335.26	947458.83	15.0	
	DSP-3R1	18.3	8:42:19	7379331.04	947459.00	14.5	
	DSP-4	21.2	8:44:57	7380111.38	947962.93	3.2	

Remarks:	Action Taken:
DSP-2 exceeded 10% over background, taken in the plume.	Re-test DSP-2R1 was taken.
DSP-4 taken in the plume.	
DSP-3 exceeded 10% over background, taken out of the plume, on port side.	Re-test DSP-3R1 was taken.
	The disposal ended and the dredge moved away from the area.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DSP-1	Background - 100' Up Current, Within 600-Foot of Channel	OR WA WA	OR, WA Not Required Not Required
DSP-2	100' Down Current		
DSP-3	150' Radially from point of dredge (Port or Starboard)		
DSP-4	900' Down Current from point of dredging		
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/09/2005

Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
<u>Load Number</u> 1212	DR-1	20.4	13:49:05	7388742.72	953177.69	5.1	
<u>Tidal Stage</u> Flood	DR-2	20.0	13:50:41	7388178.65	953005.49	15.3	12.1
<u>Dredge State:</u> Overflow through skimmers only	DR-2R1	20.0	13:50:44	7388174.19	952999.58	14.4	12.0
<u>Weather:</u> Clear	DR-4	20.4	13:52:25	7387348.61	952515.41	7.3	
<u>Wind:</u> 5-10 kts	DR-4R1	20.6	13:52:29	7387340.18	952515.74	7.7	
<u>Seas:</u> 1-3'	DR-3	18.7	13:54:38	7388952.10	953029.44	18.6	
<u>Disposal location</u> Columbia River RM 17.5 & 18.8	DR-3R1	18.4	13:54:41	7388952.10	953029.44	15.2	

Remarks:

DR-2 exceeded 10% over background, taken in the plume.
 DR-4 exceeded 10% over background, taken in the plume.
 DR-3 exceeded 10% over background, taken out of plume,
 on starboard side.

Action Taken:

Re-test DR-2R1 was taken.
 Re-test DR-4R1 was taken.
 Re-test DR-3R1 was taken.
 The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DR-1	Background - 100' Up Current, Within 600-Foot of Channel		
DR-2	100' Down Current	OR	OR, WA
DR-3	300' Radially from point of dredge (Port or Starboard)	WA	Not Required
DR-4	900' Down Current from point of dredging	WA	Not Required
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/09/2005

Disposal Load Number	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
1212	DSP-1	18.6	14:28:30	7374905.37	945885.64	3.9	
<u>Tidal Stage</u> Ebb	DSP-2	16.4	14:31:52	7375016.46	945917.64	15.8	12.1
<u>Dredge State:</u> Split Hull	DSP-2R1	16.3	14:31:56	7375020.43	945911.40	13.2	12.0
<u>Weather:</u> Clear	DSP-3	18.7	14:32:50	7375535.29	945902.73	3.7	
<u>Wind:</u> 5-10 kts	DSP-4	20.6	14:34:57	7374801.02	945707.36	13.1	
<u>Seas:</u> 1-3'	DSP-4R1	20.8	14:35:02	7374796.56	945701.45	10.2	
<u>Disposal location</u> Columbia River RM 17.5 & 18.8							

Remarks:	Action Taken:
DSP-2 exceeded 10% over background, taken in the plume.	Re-test DSP-2R1 was taken.
DSP-4 exceeded 10% over background, taken in the plume.	Re-test DSP-4R1 was taken.
DSP-3 taken out of the plume on starboard side.	
	The disposal ended and the dredge moved away from the area.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DSP-1	Background - 100' Up Current, Within 600-Foot of Channel		
DSP-2	100' Down Current	OR	OR, WA
DSP-3	150' Radially from point of dredge (Port or Starboard)	WA	Not Required
DSP-4	900' Down Current from point of dredging	WA	Not Required
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/09/2005

Dredging <u>Load Number</u> 1213 <u>Tidal Stage</u> Ebb <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Clear <u>Wind:</u> 5-10 kts <u>Seas:</u> 1-3' <u>Disposal location</u> Columbia River RM 17.5 & 18.8	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	19.1	15:19:08	7389315.69	953361.72	4.1	
	DR-3	20.6	15:20:15	7389230.75	953030.52	17.1	
	DR-3R1	20.3	15:20:19	7389234.97	953030.35	13.5	
	DR-2	22.0	15:21:39	7388949.37	953278.96	7.3	11.8
	DR-2R1	21.9	15:21:43	7388940.94	953279.30	8.8	11.8
	DR-4	18.8	15:23:04	7388226.81	952942.74	22.2	
	DR-4R1	18.9	15:23:08	7388226.81	952942.74	19.1	

Remarks:	Action Taken:
DR-2 exceeded 10% over background, taken in the plume.	Re-test DR-2R1 was taken.
DR-4 exceeded 10% over background, taken in the plume.	Re-test DR-4R1 was taken.
DR-3 exceeded 10% over background, taken out of plume, on starboard side.	Re-test DR-3R1 was taken.
Tests taken out if preferred order to ensure all tests were completed.	The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DR-1	Background - 100' Up Current, Within 600-Foot of Channel	OR WA WA	OR, WA Not Required Not Required
DR-2	100' Down Current		
DR-3	300' Radially from point of dredge (Port or Starboard)		
DR-4	900' Down Current from point of dredging		
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/09/2005

<p>Dredging <u>Load Number</u> 1214 <u>Tidal Stage</u> Flood <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Clear <u>Wind:</u> 5-10 kts <u>Seas:</u> 1-3' <u>Disposal location</u> Columbia River RM 17.5 & 18.8</p>	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	21.1	16:34:00	7387368.67	952277.36	4.0	
	DR-3	21.1	16:35:39	7387116.56	951989.33	19.4	
	DR-3R1	21.0	16:35:45	7387120.53	951983.09	13.4	
	DR-2	19.4	16:37:00	7386822.73	952031.47	13.3	12.0
	DR-2R1	18.6	16:37:05	7386818.51	952031.64	11.2	11.9
	DR-4	19.4	16:38:50	7386040.04	951460.47	18.8	
	DR-4R1	19.6	16:38:54	7386040.04	951460.47	15.0	

Remarks:	Action Taken:
DR-2 exceeded 10% over background, taken in the plume.	Re-test DR-2R1 was taken.
DR-4 exceeded 10% over background, taken in the plume.	Re-test DR-4R1 was taken.
DR-3 exceeded 10% over background, taken out of plume, on starboard side.	Re-test DR-3R1 was taken.
	The dredge moved away from the area while continuing dredging to avoid further increasing the turbidity at the location where the exceedence was measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DR-1	Background - 100' Up Current, Within 600-Foot of Channel	OR WA WA	OR, WA Not Required Not Required
DR-2	100' Down Current		
DR-3	300' Radially from point of dredge (Port or Starboard)		
DR-4	900' Down Current from point of dredging		
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		