

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

DREDGE OREGON		Contract Number: W9127N-06-C-CRCI						
Project Name/Location: Columbia River Channel Improvement, RM 101+10 to 100+40 12/13/2005								
Dredge OREGON	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)	
	DRP-1 (21)	20.0	7:27:30	7622695.6	735321.0	3.7	NA	
	DRP-2 (22)	19.8	7:32:46	7622616.4	735771.5	3.2	12.7	
	Tidal Stage	DRP-3 (23)	20.0	7:40:17	7622590.2	735948.8	2.9	NA
	Ebb	DRP-4 (24)	19.7	7:46:08	7622785.5	735673.4	2.9	NA
Weather: Overcast, Cold	Retest @ point of exceedance							
Wind: Calm								
Seas: Calm								
Disposal location Gateway (upland)	All coordinates are Oregon State Plane North; Datum: NAD 83							
Remarks: No exceedances.	Action Taken: None required.							
Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.								
Sample Point Key	All Tests Conducted With YSI 6600					Turbidity Compliance	DO Compliance	
DRP-1	Background - 100' Up Current, Within 600-Foot of Channel					N/A	<i>Not Required</i>	
DRP-2	100' Down Current of the Cutterhead					OR	OR, WA	
DRP-3	300' Down Current of the Cutterhead					WA	<i>Not Required</i>	
DRP-4	150' lateral of the cutterhead (Port or Starboard)					WA	<i>Not Required</i>	
DRPT	Indicates additional testing at the point of exceedance							
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point							

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Project Name/Location: Columbia River Channel Improvement, RM 101+10 to 100+40 12/13/2005							
Dredge Oregon Tidal Stage Ebb Weather: Overcast, Cold Wind: Calm Seas: Calm Disposal location Gateway (Upland)	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.2	7:53:08	7623877.1	735560.7	3.1	NA
	DSPP-2 (12)	20.0	7:59:13	7623806.3	735757.5	NA	12.6
	DSPP-3 (13)	19.9	8:06:41	7623515.6	736172.0	4.0	NA
		Retest @ point of exceedance					
		All coordinates are Oregon State Plane North; Datum: NAD 83					
Remarks:				Action Taken:			
No exceedances.				None required.			
Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.							
Sample Point Key	All Tests Conducted With YSI 6600					Turbidity Compliance	DO Compliance
DSPP-1	100' up current (background) within 600' channel					N/A	N/A
DSPP-2	100' down current from the discharge					Not Required	WA
DSPP-3	600' down current, 150' lateral to the discharge					WA	Not Required
DSPPT	Indicates additional testing at the point of exceedance						
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point						

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Project Name/Location: Columbia River Channel Improvement, RM 101+10 to 100+40 12/13/2005							
Dredge Oregon Tidal Stage Ebb Weather: Overcast, Cold Wind: Calm Seas: Calm Disposal location Gateway (Upland)	Sample Point	Depth (ft)	Time	Latitude	Longitude	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.0	9:27:12	7623878.6	735550.8	3.2	NA
	DSPP-2 (12)	19.9	9:29:56	7623799.3	735778.4	NA	13.0
	DSPP-3 (13)	20.0	9:35:23	0.0	0.0	3.5	NA
	DSPP-3R ₁ (13)	20.3	9:37:31	7623521.4	736167.4	3.6	NA
	Retest @ point of exceedance						
		All coordinates are Oregon State Plane North; Datum: NAD 83					
Remarks:				Action Taken:			
No exceedances.				None required.			
DSPP-3R ₁ (13) re-taken due to bad GPS coordinates on first attempt.							
Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.							
Sample Point Key	All Tests Conducted With YSI 6600					Turbidity Compliance	DO Compliance
DSPP-1	100' up current (background) within 600' channel					N/A	N/A
DSPP-2	100' down current from the discharge					Not Required	WA
DSPP-3	600' down current, 150' lateral to the discharge					WA	Not Required
DSPPT	Indicates additional testing at the point of exceedance						
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point						

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DREDGE OREGON		Contract Number: W9127N-06-C-CRCI					
Project Name/Location: Columbia River Channel Improvement, RM 101+10 to 100+40 12/13/2005							
Dredge Oregon Tidal Stage Ebb Weather: Clear and cold Wind: Calm Seas: Calm Disposal location Gateway (Upland)	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.1	11:27:06	7623879.6	735586.9	2.9	NA
	DSPP-2 (12)	20.1	11:32:27	7623800.8	735770.0	NA	13.5
	DSPP-3 (13)	20.1	11:36:44	7623517.5	736174.5	3.1	NA
		Retest @ point of exceedance					
		All coordinates are Oregon State Plane North; Datum: NAD 83					
Remarks:				Action Taken:			
No exceedances.				None required.			
Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.							
Sample Point Key	All Tests Conducted With YSI 6600					Turbidity Compliance	DO Compliance
DSPP-1	100' up current (background) within 600' channel					N/A	N/A
DSPP-2	100' down current from the discharge					Not Required	WA
DSPP-3	600' down current, 150' lateral to the discharge					WA	Not Required
DSPPT	Indicates additional testing at the point of exceedance						
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point						

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

DREDGE OREGON		Contract Number: W9127N-06-C-CRCI					
Project Name/Location: Columbia River Channel Improvement, RM 101+10 to 100+40 12/13/2005							
Dredge Oregon Tidal Stage Ebb Weather: Clear, sunny, and cold Wind: Calm Seas: Calm Disposal location Gateway (Upland)	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.3	13:27:22	7623887.5	735514.4	2.8	NA
	DSPP-2 (12)	20.1	13:31:12	7623782.6	735739.9	NA	12.9
	DSPP-3 (13)	19.9	13:36:28	7623543.4	736123.8	2.6	NA
Retest @ point of exceedance							
All coordinates are Oregon State Plane North; Datum: NAD 83							
Remarks:				Action Taken:			
No exceedances.				None required.			
Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.							
Sample Point Key	All Tests Conducted With YSI 6600					Turbidity Compliance	DO Compliance
DSPP-1	100' up current (background) within 600' channel					N/A	N/A
DSPP-2	100' down current from the discharge					Not Required	WA
DSPP-3	600' down current, 150' lateral to the discharge					WA	Not Required
DSPPT	Indicates additional testing at the point of exceedance						
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point						

COLUMBIA RIVER CHANNEL IMPROVEMENTS - DREDGING

DREDGE OREGON		Contract Number: W9127N-06-C-CRCI					
Project Name/Location: Columbia River Channel Improvement, RM 101+10 to 100+40 12/13/2005							
Dredge Oregon Tidal Stage Ebb Weather: Clear, sunny, and cold Wind: Calm Seas: Calm Disposal location Gateway (Upland)	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.2	15:27:09	7623868.4	735535.8	2.8	NA
	DSPP-2 (12)	19.9	15:30:00	7623796.0	735735.5	NA	12.8
	DSPP-3 (13)	20.2	15:33:07	7623523.3	736173.2	2.7	NA
Retest @ point of exceedance							
All coordinates are Oregon State Plane North; Datum: NAD 83							
Remarks:				Action Taken:			
No exceedances.				None required.			
Sample point numbers in parenthesis correspond with YSI 650 MDS logged data.							
Sample Point Key	All Tests Conducted With YSI 6600					Turbidity Compliance	DO Compliance
DSPP-1	100' up current (background) within 600' channel					N/A	N/A
DSPP-2	100' down current from the discharge					Not Required	WA
DSPP-3	600' down current, 150' lateral to the discharge					WA	Not Required
DSPPT	Indicates additional testing at the point of exceedance						
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point						

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 95+00-104+20.

Date: 12/13/2005

<p>Dredging</p> <p><u>Load Number</u> 1602</p> <p><u>Tidal Stage</u> Ebb</p> <p><u>Dredge State:</u> Overflow through skimmers only</p> <p><u>Weather:</u> Overcast/Slight Fog</p> <p><u>Wind:</u> 0-5 kts</p> <p><u>Seas:</u> 0-1'</p> <p><u>Disposal location</u> Columbia River RM 101</p>	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.4	7:46:09	7622212.75	749455.07	2.2	
	DR-2	20.1	7:47:33	7622055.13	750061.38	13.5	15.2
	DR-2R1	20.0	7:47:35	7622055.13	750061.38	13.0	15.1
	DR-4	20.1	7:48:43	7622232.08	750597.48	10.4	
	DR-4R1	20.1	7:48:45	7622232.08	750597.48	10.1	
	DR-3	20.5	7:50:43	7622162.67	749188.98	16.3	
	DR-3R1	20.5	7:50:46	7622162.67	749188.98	15.7	

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 port 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		

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 95+00-104+20.

Date: 12/13/2005

Disposal Load Number Tidal Stage Dredge State: Weather: Wind: Seas: Disposal location	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
1602	DSP-1	20.7	8:21:12	7622546.61	736003.98	2.2	
Ebb	DSP-2	20.8	8:31:13	7622905.08	734650.36	14.2	15.3
Split Hull	DSP-2R1	20.7	8:31:16	7622900.99	734656.56	13.7	15.3
	DSP-3	19.5	8:32:01	7623129.31	734589.36	7.1	
	DSP-3R1	19.4	8:32:04	7623129.48	734595.44	6.9	
	DSP-4	20.9	8:33:28	7622553.76	735347.20	3.3	
	DSP-4R1	20.9	8:33:30	7622553.76	735347.20	3.2	

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 exceeded 10% over background, taken out of 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		

Dredge Sugar Island		Contract Number: W9127N-05-C-0012					
Project Name/Location:		Columbia River Channel Improvement - RM 95+00-104+20.					
Date: 12/13/2005		*Digging in Rehandling Area					
Dredging <u>Load Number</u> 1602 B <u>Tidal Stage</u> Ebb <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Overcast <u>Wind:</u> 0-5 kts <u>Seas:</u> 0-1' <u>Disposal location</u> Columbia River RM 101	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.1	10:03:57	7623150.78	734746.82	1.7	
	DR-2	20.5	10:05:22	7622751.40	735250.46	16.3	15.2
	DR-2R1	20.4	10:05:24	7622747.48	735262.73	15.7	15.2
	DR-4	20.8	10:06:37	7622494.31	735962.89	12.7	
	DR-4R1	21.2	10:06:40	7622494.31	735962.89	10.7	
	DR-3	20.7	10:09:25	7622627.86	734797.97	17.0	
	DR-3R1	20.7	10:09:27	7622623.60	734798.09	16.5	
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 port 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						

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 95+00-104+20.

Date: 12/13/2005

*Digging in Rehandling Area

Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
<u>Load Number</u> 1602 C	DR-1	19.8	11:39:42	7623188.26	734867.36	2.0	
<u>Tidal Stage</u> Ebb	DR-2	20.3	11:41:30	7622662.63	735429.25	14.1	15.1
<u>Dredge State:</u>	DR-2R1	20.3	11:41:33	7622658.37	735429.37	13.7	15.1
Overflow through skimmers only	DR-4	20.5	11:43:24	7622386.63	735923.36	10.6	
<u>Weather:</u> Clear	DR-4R1	20.5	11:43:26	7622386.63	735923.36	10.2	
<u>Wind:</u> 0-5 kts	DR-3	20.8	11:45:28	7622540.80	734885.52	12.4	
<u>Seas:</u> 0-1'	DR-3R1	20.5	11:45:31	7622536.54	734885.64	12.0	
<u>Disposal location</u> Columbia River RM 101							

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 port 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		

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 95+00-104+20.

Date: 12/13/2005

Dredging <u>Load Number</u> 1603 <u>Tidal Stage</u> Ebb <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Clear <u>Wind:</u> 0-5 kts <u>Seas:</u> 0-1' <u>Disposal location</u> Columbia River RM 101	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.8	13:45:34	7623781.79	755885.73	2.3	
	DR-2	20.8	13:47:25	7623374.29	755477.67	15.3	15.4
	DR-2R1	20.8	13:47:28	7623374.29	755477.67	14.8	15.4
	DR-4	20.6	13:49:15	7623420.57	754850.18	11.9	
	DR-4R1	20.5	13:49:18	7623420.40	754844.10	11.5	
	DR-3	20.5	13:51:37	7623984.00	756263.07	8.8	
	DR-3R1	21.0	13:51:39	7623984.00	756263.07	8.5	

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 port 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		

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

Columbia River Channel Improvement - RM 95+00-104+20.

Date: 12/13/2005

Dredging <u>Load Number</u> 1604 <u>Tidal Stage</u> Ebb <u>Dredge State:</u> Overflow through skimmers only <u>Weather:</u> Clear <u>Wind:</u> 0-5 kts <u>Seas:</u> 0-1' <u>Disposal location</u> Columbia River RM 101	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.1	16:02:09	7622958.32	752948.10	2.4	
	DR-2	20.0	16:05:03	7622771.41	753117.49	13.6	15.4
	DR-2R1	19.7	16:05:07	7622767.33	753123.68	10.8	15.2
	DR-4	20.2	16:06:11	7622794.71	752733.83	17.2	
	DR-4R1	20.1	16:06:15	7622794.71	752733.83	13.1	
	DR-3	21.5	16:08:23	7623494.76	753851.05	9.9	
	DR-3R1	20.9	16:08:28	7623494.76	753851.05	7.3	

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 port 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		