

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					
12/8/2005							
Dredge OREGON	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DRP-1 (21)	20.1	7:21:49	7622807.6	735003.4	4.6	NA
	DRP-2 (22)	20.8	7:29:30	7622715.5	735476.2	4.9	12.2
	DRP-3 (23)	20.1	7:35:54	7622678.3	735679.3	5.4	NA
Tidal Stage Ebb	DRP-4 (24)	19.3	7:40:08	7622891.0	735401.9	5.5	NA
	Weather: Clear						
Wind: Calm	Retest @ point of exceedance						
	Seas: Calm						
Disposal location Gateway (upland)	All coordinates are Oregon State Plane North 3601; 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	Not Required
DRP-2	100' Down Current of the Cutterhead					OR	OR, WA
DRP-3	300' Down Current of the Cutterhead					WA	Not Required
DRP-4	150' lateral of the cutterhead (Port or Starboard)					WA	Not Required
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							
12/8/2005							
Dredge Oregon Tidal Stage Ebb Weather: Clear 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	7:45:18	7623867.1	735552.6	5.2	NA
	DSPP-2 (12)	20.0	7:48:25	7623731.1	735720.5	NA	12.3
	DSPP-3 (13)	20.4	7:52:08	7623533.0	736171.5	5.3	NA
		Retest @ point of exceedance					
		All coordinates are Oregon State Plane North 3601; 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 exceedence						
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					
12/8/2005							
Dredge <i>Oregon</i> Tidal Stage Ebb	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.1	9:21:59	7623865.3	735559.6	4.6	NA
	DSPP-2 (12)	20.0	9:27:40	7623786.6	735746.7	NA	12.1
	DSPP-3 (13)	20.1	9:32:14	7623501.1	736147.2	9.7	NA
	DSPP-3R1 (13)	20.2	9:35:19	7623526.8	736160.3	5.9	NA
Retest @ point of exceedance							
Weather: Clear Wind: Calm Seas: Calm	DSPP-1R1 (11)	20.0	9:44:35	7623882.9	735559.1	4.6	NA
	DSPP-3R2 (13)	19.9	9:48:28	7623529.1	736168.7	6.8	NA
	DSPP-1R2 (11)	20.3	9:53:49	7623872.5	735535.7	4.4	NA
	DSPP-3R3 (13)	20.3	9:57:58	7623509.8	736173.6	5.2	NA
Disposal location Gateway (Upland)	DSPP-1R3 (11)	19.9	10:03:34	7623863.3	735561.1	4.5	NA
	DSPP-3R4 (13)	19.9	10:08:12	7623513.0	736151.2	4.8	NA
All coordinates are Oregon State Plane North 3601; Datum: NAD 83							
Remarks:				Action Taken:			
Exceedance occurred at DSPP-3. Observed visible Willamette River plume during DSPP-3 initial reading.				Jeff Hawkins was notified of exceedance. Discharge at weir receding as subsequent sampling occurred. Turbidity levels were back in compliance within 3 minutes of exceedance at station DSPP-3.			
DSPP-3R1 was an immediate retest.							
Retesting was conducted until turbidity levels were within 10% of background.							
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 12/8/2005							
Dredge Oregon Tidal Stage Ebb Weather: Clear Wind: Calm Seas: 0-1' Disposal location Gateway (Upland)	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSPP-1 (11)	20.2	11:22:07	7623881.2	735571.5	4.4	NA
	DSPP-2 (12)	20.2	11:27:13	7623804.4	735752.0	NA	12.4
	DSPP-3 (13)	20.8	11:31:25	7623523.1	736164.8	6.6	NA
		Retest @ point of exceedance					
		All coordinates are Oregon State Plane North 3601; 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
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 exceedence						
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point						

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<u>DREDGE OREGON</u>		Contract Number: W9127N-06-C-CRCI						
<u>Project Name/Location:</u>		Columbia River Channel Improvement, RM 101+10 to 100+40						
12/8/2005								
<u>Dredge</u> <i>Oregon</i>	Sample Point	Depth (ft)	Time	X-Coordinate	Y-Coordinate	Turbidity (NTU)	DO (Mg/L)	
	<u>Tidal Stage</u>	DSPP-1 (11)	20.2	13:22:12	7623867.6	735570.8	4.5	NA
	Ebb	DSPP-2 (12)	20.3	13:26:02	7623808.5	735761.4	NA	12.3
		DSPP-3 (13)	20.4	13:30:25	7623511.4	736167.7	5.5	NA
<u>Weather:</u>	Retest @ point of exceedance							
Clear								
<u>Wind:</u>								
Calm								
<u>Seas:</u>								
Calm								
<u>Disposal location</u>	All coordinates are Oregon State Plane North 3601; Datum: NAD 83							
Gateway (Upland)								
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 exceedence							
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							
12/8/2005							
Dredge Oregon Tidal Stage Ebb Weather: Clear 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)	20.4	15:22:17	7623881.0	735566.1	5.0	NA
	DSPP-2 (12)	20.2	15:26:06	7623803.0	735775.8	NA	12.1
	DSPP-3 (13)	20.3	15:29:58	7623511.7	736176.1	5.2	NA
		Retest @ point of exceedance					
		All coordinates are Oregon State Plane North 3601; 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 exceedence						
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: 12/08/2005

<p>Dredging</p> <p>Load Number 1540</p> <p>Tidal Stage Ebb</p> <p>Dredge State: Overflow through skimmers only</p> <p>Weather: Clear</p> <p>Wind: 0-5 kts</p> <p>Seas: 0-1'</p> <p>Disposal location Columbia River RM 101</p>	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-2	19.0	8:36:10	7623261.07	754933.69	5.4	14.5
	DR-2R1	18.7	8:36:13	7623256.99	754939.88	5.3	14.5
	DR-4	19.2	8:37:28	7623314.20	755309.13	5.4	
	DR-4R1	19.9	8:37:31	7623318.62	755315.08	5.3	
	DR-3	18.8	8:38:56	7623350.58	754177.31	3.8	
	DR-3R1	20.2	8:39:00	7623350.58	754177.31	4.0	
	DR-1	20.7	8:41:10	7623191.39	753361.04	3.9	

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 taken out of plume on port side.	
Tests taken out of order to ensure that testing was completed before the dredge stopped digging.	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: 12/08/2005

Disposal Load Number 1540 Tidal Stage Ebb Dredge State: Split Hull Weather: Clear Wind: 0-5 kts Seas: 0-1' Disposal location Columbia River RM 101	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DSP-1	20.0	9:08:12	7622749.70	735645.67	2.4	
	DSP-2	22.1	9:14:21	7622991.30	735140.38	3.0	14.6
	DSP-2R1	22.0	9:14:28	7622995.38	735134.19	2.9	14.5
	DSP-3	19.5	9:16:04	7623131.18	734960.15	2.9	
	DSP-3R1	20.0	9:16:07	7623135.44	734960.04	2.8	
	DSP-4	19.1	9:17:35	7622898.44	735629.34	2.9	
	DSP-4R1	19.8	9:17:38	7622898.61	735635.41	2.8	

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 exceeded 10% over background, taken out of plume.	Re-test DSP-3R1 was taken.
on port 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		

Dredge Sugar Island

Project Name/Location:

Contract Number: W9127N-05-C-0012

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

Date: 12/08/2005

<p>Dredging <u>Load Number</u> 1541 <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</p>	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.6	10:01:02	7623399.41	753184.98	2.8	
	DR-2	19.5	10:03:05	7623073.11	754002.71	14.3	14.4
	DR-2R1	21.2	10:03:08	7623077.53	754008.67	12.9	14.5
	DR-4	20.3	10:04:14	7623255.10	754569.08	12.2	
	DR-4R1	20.2	10:04:18	7623255.10	754569.08	10.3	
	DR-3	20.3	10:07:10	7623266.23	752992.18	8.7	
	DR-3R1	20.4	10:07:14	7623266.23	752992.18	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: 12/08/2005

Dredging Load Number 1542 Tidal Stage Ebb Dredge State: Overflow through skimmers only Weather: Sunny Wind: 0-5 kts Seas: 0-1' Disposal location Columbia River RM 101	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
	DR-1	20.7	11:42:01	7623119.71	753083.40	4.1	
	DR-2	20.2	11:43:21	7622899.10	753417.88	11.6	14.6
	DR-2R1	20.8	11:43:24	7622899.27	753423.96	11.8	14.6
	DR-4	21.7	11:44:43	7623067.83	753966.38	6.8	
	DR-4R1	21.5	11:44:46	7623072.25	753972.34	5.8	
	DR-3	20.1	11:46:43	7623065.21	752507.37	3.5	

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 taken out of plume on port side.	
	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: 12/08/2005

<p>Dredging</p> <p><u>Load Number</u> 1543</p> <p><u>Tidal Stage</u> Ebb</p> <p><u>Dredge State:</u> Overflow through skimmers only</p> <p><u>Weather:</u> Sunny</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	20.7	13:18:00	7623368.63	754365.27	3.8	
	DR-2	20.6	13:19:35	7623354.36	755070.90	7.2	14.6
	DR-2R1	20.7	13:19:39	7623354.53	755076.97	7.2	14.5
	DR-4	19.6	13:20:43	7623548.08	755600.46	4.2	
	DR-4R1	20.3	13:20:45	7623548.08	755600.46	4.1	
	DR-3	20.6	13:23:42	7623478.60	754337.87	12.3	
	DR-3R1	20.3	13:23:45	7623478.60	754337.87	12.0	

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	Re-test DR-3R1 was taken.
on port side.	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: 12/08/2005

<p>Dredging</p> <p><u>Load Number</u> 1544</p> <p><u>Tidal Stage</u> Ebb</p> <p><u>Dredge State:</u> Overflow through skimmers only</p> <p><u>Weather:</u> Sunny</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	20.7	15:21:49	7623267.15	753632.50	4.5	
	DR-2	16.2	15:23:09	7622973.53	754096.70	8.8	14.7
	DR-2R1	17.1	15:23:12	7622977.95	754102.66	8.4	14.6
	DR-4	20.1	15:24:13	7623127.26	754566.59	7.8	
	DR-4R1	20.5	15:24:16	7623127.60	754578.74	7.2	
	DR-3	20.7	15:26:21	7623078.34	753127.11	5.6	
	DR-3R1	20.6	15:26:24	7623082.77	753133.07	5.5	

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	Re-test DR-3R1 was taken.
on port side.	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		