



LABORATORY DATA CONSULTANTS, INC.

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MACTEC

9177 Skypark Court, Suite A
San Diego, CA 92123
ATTN: Ms. Lijun Xu

December 15, 2009

SUBJECT: Caltrans Automated EDD Validation Reports for GRVTS Monitoring

Dear Ms. Lijun Xu,

Enclosed are Caltrans ADV reports for one laboratory electronic data deliverable received for the subject project. The EDD file name and Laboratory Batch ID are listed below.

LDC Project Number: 21877-2

Lab EDD Filename

0911332, 0911333 Mactec ORVTS.txt

EDD Identifier in Reports (Lab Reporting BatchID)

PCL200912021557

The Caltrans validation reports are bundled for each EDD with a separator listing the reports for each EDD.

Please feel free to contact us if you have any questions.

Sincerely,

Andrew Kong
Chemist/Project Manager

**Lab Reporting Batch:
PCL200912021557**

EDD Filename:
0911332, 0911333 Mactec ORVTS.txt

Reports included with this EDD:

- Laboratory EDD Summary Report
- Laboratory EDD Error Report
- EDD Technical Inconsistency Report
- Qualified Constituents Report
- Holding Time Outlier Report
- Method Blank Outlier Report
- Reporting Limit Outlier Report
- Field Duplicate Outlier Report (Non-Qualified Outliers)
- Caltrans Historical Limits Outlier Report

No field blank samples were included in this EDD.

Caltrans Storm Water Laboratory EDD Summary Report
 Sorted by Field Sample ID

Laboratory Reporting Batch : PCL20091202157

Laboratory : Pat-Chem

Field Sample ID	Lab Sample ID	Method Number	Analysis Type	Preparation Method	Matrix	Sample End Date	Sample End Time	Preparation Date	Analysis Date
4-307-0911201624-000	0911332-01	120.1	RES	None	Water	11/20/2009	16:24	11/23/2009	11/23/2009
		150.1	RES	None	Water	11/20/2009	16:24	11/25/2009	11/23/2009
		160.1	RES	None	Water	11/20/2009	16:24	11/23/2009	11/24/2009
		180.1	RES	None	Water	11/20/2009	16:24	11/21/2009	11/21/2009
		200.8	RE	Hot plate	Water	11/20/2009	16:24	11/23/2009	11/24/2009
		2340B	RES	None	Water	11/20/2009	16:24	11/23/2009	11/24/2009
		300.0	RES	None	Water	11/20/2009	16:24	11/21/2009	11/21/2009
		350.2	RES	None	Water	11/20/2009	16:24	11/23/2009	11/24/2009
		351.3	RES	None	Water	11/20/2009	16:24	11/23/2009	11/24/2009
		365.2	RE	None	Water	11/20/2009	16:24	11/23/2009	11/23/2009
		415.1	RES	None	Water	11/20/2009	16:24	11/21/2009	11/21/2009
		415.1	RES	None	Water	11/20/2009	16:24	11/23/2009	11/23/2009
		415.1	RES	None	Water	11/20/2009	16:24	11/23/2009	11/23/2009
		120.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
4-308-0911201936-000	0911332-02	120.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
	0911332-01 (Dissolved)	200.8	RES	Hot plate	Water	11/20/2009	16:24	11/23/2009	11/24/2009
		150.1	RES	None	Water	11/20/2009	19:36	11/25/2009	11/25/2009
		160.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		180.1	RES	None	Water	11/20/2009	19:36	11/21/2009	11/21/2009
		200.8	RE	Hot plate	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		2340B	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		300.0	RES	None	Water	11/20/2009	19:36	11/21/2009	11/21/2009
		350.2	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		351.3	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		365.2	RES	None	Water	11/20/2009	19:36	11/21/2009	11/21/2009
		415.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
		415.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
		415.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009

Caltrans Storm Water Laboratory EDD Summary Report
 Sorted by Field Sample ID

Laboratory Reporting Batch : PCL200912021557

Laboratory : Pat-Chem

Field Sample ID	Lab Sample ID	Method Number	Analysis Type	Preparation Method	Matrix	Sample End Date	Sample End Time	Preparation Date	Analysis Date
4-308-0911201936-000	0911332-02 (Dissolved)	200.8	RES	Hot plate	Water	11/20/2009	19:36	11/23/2009	11/24/2009
4-308-0911201936-500	0911332-04	120.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
		150.1	RES	None	Water	11/20/2009	19:36	11/25/2009	11/25/2009
		160.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		180.1	RES	None	Water	11/20/2009	19:36	11/21/2009	11/21/2009
		200.8	RE	Hot plate	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		2340B	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		300.0	RES	None	Water	11/20/2009	19:36	11/21/2009	11/21/2009
		350.2	RES	None	Water	11/20/2009	19:36	11/23/2009	11/24/2009
		351.3	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
		365.2	RES	None	Water	11/20/2009	19:36	11/21/2009	11/21/2009
		365.2	RE	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
		415.1	RES	None	Water	11/20/2009	19:36	11/23/2009	11/23/2009
	0911332-04 (Dissolved)	200.8	RES	Hot plate	Water	11/20/2009	19:36	11/23/2009	11/24/2009
	0911332-03	120.1	RES	None	Water	11/20/2009	16:19	11/23/2009	11/23/2009
		150.1	RES	None	Water	11/20/2009	16:19	11/25/2009	11/25/2009
		160.1	RES	None	Water	11/20/2009	16:19	11/23/2009	11/24/2009
		160.2	RES	None	Water	11/20/2009	16:19	11/23/2009	11/24/2009
		180.1	RES	None	Water	11/20/2009	16:19	11/21/2009	11/21/2009
		200.8	RE	Hot plate	Water	11/20/2009	16:19	11/23/2009	11/24/2009
		2340B	RES	None	Water	11/20/2009	16:19	11/23/2009	11/24/2009
		300.0	RES	None	Water	11/20/2009	16:19	11/21/2009	11/21/2009
		350.2	RES	None	Water	11/20/2009	16:19	11/23/2009	11/24/2009
		351.3	RES	None	Water	11/20/2009	16:19	11/23/2009	11/23/2009
		365.2	RES	None	Water	11/20/2009	16:19	11/21/2009	11/21/2009
		365.2	RE	None	Water	11/20/2009	16:19	11/23/2009	11/23/2009
		415.1	RES	None	Water	11/20/2009	16:19	11/23/2009	11/23/2009

Report Date: 12/15/2009 09:23

Caltrans Automated Data Validation Version 3.1.2

Caltrans Storm Water Laboratory EDD Summary Report
 Sorted by Field Sample ID

Laboratory Reporting Batch : PCL200912021557

Laboratory : Pat-Chem

Field Sample ID	Lab Sample ID	Method Number	Analysis Type	Preparation Method	Matrix	Sample End Date	Sample End Time	Preparation Date	Analysis Date
4-309-0911201619-000	0911332-03	415.1	RES	None	Water	11/20/2009	16:19	11/23/2009	11/23/2009
4-310-0911201430-000	0911332-03 (Dissolved)	200.8	RES	Hot plate	Water	11/20/2009	16:19	11/23/2009	11/24/2009
	0911333-01	120.1	RES	None	Water	11/20/2009	14:30	11/23/2009	11/23/2009
		150.1	RES	None	Water	11/20/2009	14:30	11/25/2009	11/25/2009
		160.1	RES	None	Water	11/20/2009	14:30	11/23/2009	11/24/2009
		180.1	RES	None	Water	11/20/2009	14:30	11/21/2009	11/21/2009
		200.8	RE	Hot plate	Water	11/20/2009	14:30	11/23/2009	11/24/2009
		2340B	RES	None	Water	11/20/2009	14:30	11/23/2009	11/24/2009
		300.0	RES	None	Water	11/20/2009	14:30	11/21/2009	11/21/2009
		350.2	RES	None	Water	11/20/2009	14:30	11/23/2009	11/24/2009
		351.3	RES	None	Water	11/20/2009	14:30	11/23/2009	11/23/2009
		365.2	RES	None	Water	11/20/2009	14:30	11/21/2009	11/21/2009
		415.1	RE	None	Water	11/20/2009	14:30	11/23/2009	11/24/2009
		415.1	RES	None	Water	11/20/2009	14:30	11/23/2009	11/23/2009
	0911333-01 (Dissolved)	200.8	RES	Hot plate	Water	11/20/2009	14:30	11/23/2009	11/24/2009
4-312-0911201613-000	0911333-02	120.1	RES	None	Water	11/20/2009	16:13	11/23/2009	11/23/2009
		150.1	RES	None	Water	11/20/2009	16:13	11/25/2009	11/25/2009
		160.1	RES	None	Water	11/20/2009	16:13	11/24/2009	11/24/2009
		160.2	RES	None	Water	11/20/2009	16:13	11/23/2009	11/24/2009
		180.1	RES	None	Water	11/20/2009	16:13	11/21/2009	11/21/2009
		200.8	RE	Hot plate	Water	11/20/2009	16:13	11/23/2009	11/24/2009
		2340B	RES	None	Water	11/20/2009	16:13	11/23/2009	11/24/2009
		300.0	RES	None	Water	11/20/2009	16:13	11/21/2009	11/21/2009
		350.2	RES	None	Water	11/20/2009	16:13	11/23/2009	11/24/2009
		351.3	RES	None	Water	11/20/2009	16:13	11/23/2009	11/23/2009
		365.2	RES	None	Water	11/20/2009	16:13	11/21/2009	11/21/2009
		415.1	RE	None	Water	11/20/2009	16:13	11/23/2009	11/24/2009
		365.2	RES	None	Water	11/20/2009	16:13	11/21/2009	11/21/2009
		351.3	RES	None	Water	11/20/2009	16:13	11/23/2009	11/23/2009
		350.2	RES	None	Water	11/20/2009	16:13	11/23/2009	11/23/2009
		365.2	RES	None	Water	11/20/2009	16:13	11/21/2009	11/21/2009
		365.2	RES	None	Water	11/20/2009	16:13	11/21/2009	11/21/2009
		365.2	RES	None	Water	11/20/2009	16:13	11/23/2009	11/23/2009

Caltrans Storm Water Laboratory EDD Summary Report
 Sorted by Field Sample ID

Laboratory Reporting Batch : PCL200912021557

Laboratory : Pat-Chem

Field Sample ID	Lab Sample ID	Method Number	Analysis Type	Preparation Method	Matrix	Sample End Date	Sample End Time	Preparation Date	Analysis Date
4-312-0911201613-000	0911333-02	415.1	RE	None	Water	11/20/2009	16:13	11/23/2009	11/24/2009
	0911333-02 (Dissolved)	415.1	RES	None	Water	11/20/2009	16:13	11/23/2009	11/24/2009
	0911333-02	200.8	RES	Hot plate	Water	11/20/2009	16:13	11/23/2009	11/24/2009

Laboratory EDD Error Report

Error Summary for Lab Reporting Batch ID: PCL200912021557

<i>Error Code</i>	<i>Count</i>	<i>Error Code Description</i>
0001	0	Required field is missing information
0002	0	Value entered is not in the Standard Value List
0003	0	Non-numeric characters in a numeric only field
0004	0	Incorrectly formatted Date or Time field
0005	0	Field character length restrictions violated
0006	0	Logical date and time errors
0007	0	Inconsistent field values
0008	0	Missing laboratory QC records
0009	0	Duplicate records in EDD

Total Number of Errors: 0

EDD Error Detail for Lab Reporting Batch ID: PCL200912021557

Record ID	Field Name	Error Code	Error Detail
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No Errors Found !

EDD Technical Inconsistency Report

Summary of Technical Inconsistencies for Lab Reporting Batch ID PCL200912021557

Code	Count	Technical Inconsistency Code Description
0001	0	Total fraction result is less than the Dissolved fraction result
0002	0	Total chromium result is less than the hexavalent chromium result
0003	0	TOC result is less than the COD result
0004	0	COD result is less than the BOD result
0005	0	Results for Total Dissolved Solids and Conductivity not consistent with each other
0006	0	Total nitrogen result is less than the TKN result
0007	0	Total nitrogen result is less than the ammonia result
0008	0	TKN result is less than the ammonia result
0009	0	Invalid pH value

Total Number of Technical Inconsistencies: 0

Technical Inconsistency Details for Lab Reporting Batch ID: PCL200912021557

Code Number

Technical Inconsistency

Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)

Field Sample ID : 4-307-0911201624-000 Lab Report Batch : PCL200912021557
Sample Date : 11/20/2009 Analysis Type: RE Sample Matrix : Water
Lab Sample ID: 0911332-01 Lab ID : Pat-Chem

Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
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Method Number : 200.8

As 0.4 ug/L = J J

Overall qualifier key: U Result is not detected above the reporting limit
J Result is estimated
R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-307-0911201624-000 Lab Report Batch : PCL200912021557 Sample Matrix : Water
 Sample Date : 11/20/2009 Analysis Type: RES Lab ID : Pat-Chem
 Lab Sample ID: 0911332-01

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 150.1												
pH	6.3	pH Units	=	J	J							
Method Number : 300.0												
NO2-N	0.01	mg/L	=	J								J
Method Number : 365.2												
Ortho-P	0.05	mg/L	=	U								

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-307-0911201624-000 Lab Report Batch : PCL200912021557 Sample Matrix : Water
 Sample Date : 11/20/2009 Analysis Type: RES Lab ID : Pat-Chem
 Lab Sample ID: 0911332-01 (Dissolved)

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep	Field
											Limit	QC
Method Number : 200.8												
As	0.3	ug/L	=	J							J	J
Pb	0.2	ug/L	=	J							J	J

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-308-0911201936-000 Lab Report Batch : PCL200912021557
 Sample Date : 11/20/2009 Analysis Type: RE Sample Matrix : Water
 Lab Sample ID: 0911332-02 Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 200.8												
As	0.4	ug/L	=	J							J	
Cr	0.5	ug/L	=	J							J	

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-308-0911201936-000 Lab Report Batch : PCL200912021557 Sample Matrix : Water
 Sample Date : 11/20/2009 Analysis Type: RES
 Lab Sample ID: 0911332-02 Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 150.1												
pH	6.4	pH Units	=	J	J							
Method Number : 350.2												
NH3-N	0.07	mg/L	=	J								J

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-308-0911201936-000
 Sample Date : 11/20/2009
 Lab Sample ID: 0911332-02 (Dissolved)

Lab Report Batch : PCL200912021557
 Analysis Type: RES

Sample Matrix : Water
 Lab ID : Pat-Chem

Validated By / Date :

Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 200.8												
As	0.3	ug/L	=	J							J	
Cr	0.2	ug/L	=	J							J	
Ni	0.6	ug/L	=	J							J	
Pb	0.08	ug/L	=	J							J	

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-308-0911201936-500 Lab Report Batch : PCL200912021557 Sample Matrix : Water
 Sample Date : 11/20/2009 Analysis Type: RES Lab ID : Pat-Chem
 Lab Sample ID: 0911332-04

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
pH	5.9	pH Units	=	J	J							

Method Number : 150.1

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-308-0911201936-500 Lab Report Batch : PCL200912021557 Sample Matrix : Water
 Sample Date : 11/20/2009 Analysis Type: RES Lab ID : Pat-Chem
 Lab Sample ID: 0911332-04 (Dissolved)

Validated By / Date : _____ Approved By / Date : _____

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 200.8												
As	0.2	ug/L	=	J							J	
Cr	0.3	ug/L	=	J							J	
Ni	0.6	ug/L	=	J							J	
Pb	0.09	ug/L	=	J							J	

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-309-0911201619-000

Lab Report Batch : PCL200912021557

Sample Date : 11/20/2009

Analysis Type: RE

Sample Matrix : Water

Lab Sample ID: 0911332-03

Lab ID : Pat-Chem

Validated By / Date :

Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 200.8												
Cd	0.4	ug/L	=	U		U						
Cr	0.8	ug/L	=	J								J

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-309-0911201619-000 Lab Report Batch : PCL200912021557
 Sample Date : 11/20/2009 Analysis Type: RES Sample Matrix : Water
 Lab Sample ID: 0911332-03 Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 150.1												
pH	5.5	pH Units	=	J	J							
Method Number : 300.0												
NO2-N	0.01	mg/L	=	J							J	
Method Number : 350.2												
NH3-N	0.09	mg/L	=	J							J	

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-309-0911201619-000 Lab Report Batch : PCL200912021557
 Sample Date : 11/20/2009 Analysis Type: RES Sample Matrix : Water
 Lab Sample ID: 0911332-03 (Dissolved) Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Cr	0.5	ug/L	=	J							J	
Pb	0.3	ug/L	=	J							J	

Method Number : 200.8

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-310-0911201430-000

Lab Report Batch : PCL200912021557

Sample Date : 11/20/2009

Analysis Type: RE

Sample Matrix : Water

Lab Sample ID: 0911333-01

Lab ID : Pat-Chem

Validated By / Date :

Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
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Method Number : 200.8

Cd	0.4	ug/L	=	U		U						
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Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-310-0911201430-000 Lab Report Batch : PCL200912021557
 Sample Date : 11/20/2009 Analysis Type: RES Sample Matrix : Water
 Lab Sample ID: 0911333-01 Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 150.1												
pH	6.0	pH Units	=	J	J							
Method Number : 300.0												
NO2-N	0.06	mg/L	=	J							J	

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-310-0911201430-000 Lab Report Batch : PCL200912021557
 Sample Date : 11/20/2009 Analysis Type: RES Sample Matrix : Water
 Lab Sample ID: 0911333-01 (Dissolved) Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
As	0.4	ug/L	=	J							J	
Pb	0.6	ug/L	=	J							J	

Method Number : 200.8

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-312-0911201613-000

Lab Report Batch : PCL200912021557

Sample Date : 11/20/2009

Analysis Type: RE

Lab Sample ID: 0911333-02

Sample Matrix : Water

Lab ID : Pat-Chem

Validated By / Date :

Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
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Method Number : 200.8

Cd	0.1	ug/L	=	UJ		U						J
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Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-312-0911201613-000 Lab Report Batch : PCL200912021557 Sample Matrix : Water
 Sample Date : 11/20/2009 Analysis Type: RES Lab ID : Pat-Chem
 Lab Sample ID: 0911333-02

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Method Number : 150.1												
pH	6.3	pH Units	=	J	J							
Method Number : 300.0												
NO2-N	0.05	mg/L	=	J							J	

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

**Caltrans Storm Water Laboratory EDD Data Qualification Report
(All Qualified Constituents, excluding non-qualified, non-detects in the absence of other qualifiers)**

Field Sample ID : 4-312-0911201613-000 Lab Report Batch : PCL200912021557
 Sample Date : 11/20/2009 Analysis Type: RES Sample Matrix : Water
 Lab Sample ID: 0911333-02 (Dissolved) Lab ID : Pat-Chem

Validated By / Date : Approved By / Date :

Constituent	Reported Value	Units	Numerical Qualifier	Overall Qualifier	Holding Time	Method Blank	LCS	MS	Lab Dup	Surr	Rep Limit	Field QC
Pb	0.7	ug/L	=	J							J	

Method Number : 200.8

Overall qualifier key: U Result is not detected above the reporting limit
 J Result is estimated
 R Result is rejected

QC Outlier Report: Holding Times

Lab Report Batch: PCL200912021557

Lab ID: Pat-Chem

Field Sample ID	Lab Sample ID	Method Number	Matrix	Actual Holding Time		Criteria	Reported Dates (and Times)		
				Coll To	Prep To		Coll To	Prep To	Hold To
4-307-0911201624-000	0911332-01	150.1	Water	119.4	119.4	48	11/20/2009 16:24	11/25/2009 15:47	11/25/2009 15:48
4-308-0911201936-000	0911332-02	150.1	Water	116.2	116.2	48	11/20/2009 19:36	11/25/2009 15:47	11/25/2009 15:48
4-308-0911201936-500	0911332-04	150.1	Water	116.2	116.2	48	11/20/2009 19:36	11/25/2009 15:47	11/25/2009 15:48
4-309-0911201619-000	0911332-03	150.1	Water	119.5	119.5	48	11/20/2009 16:19	11/25/2009 15:47	11/25/2009 15:48
4-310-0911201430-000	0911333-01	150.1	Water	121.3	121.3	48	11/20/2009 14:30	11/25/2009 15:47	11/25/2009 15:48
4-312-0911201613-000	0911333-02	150.1	Water	119.6	119.6	48	11/20/2009 16:13	11/25/2009 15:47	11/25/2009 15:48

QC Outlier Report: Method Blank

Preparation Batch : AK92104
 Lab Sample ID : AK92104-BLK1
 Method Number : 365.2
 Preparation Method : None
 Lab Reporting Batch : PCL200912021557
 Lab ID: Pat-Chem

Method Blank Results

Constituent	Result	Reporting Limit	Numerical Qualifier	Comments
Ortho-P	0.01000	0.03	=	

Associated Samples

Field Sample ID	Lab Sample ID	Constituent	Result	Units	Numerical Qualifier
4-307-0911201624-000	0911332-01	Ortho-P	0.05	mg/L	=

QC Outlier Report: Method Blank

Preparation Batch : AK92307
 Lab Sample ID : AK92307-BLK1
 Field Sample ID : AK92307-BLK1
 Preparation Method : Hot plate
 Method Number : 200.8
 Lab Reporting Batch : PCL200912021557
 Lab ID : Pat-Chem
 Preparation Date : 11/23/2009
 Analysis Date : 11/24/2009

Method Blank Results

Constituent	Result	Reporting Limit	Numerical Qualifier	Comments
Cd	0.130	0.2	=	

Associated Samples

Field Sample ID	Lab Sample ID	Constituent	Result	Units	Numerical Qualifier
4-309-0911201619-000	0911332-03	Cd	0.4	ug/L	=
4-310-0911201430-000	0911333-01	Cd	0.4	ug/L	=
4-312-0911201613-000	0911333-02	Cd	0.1	ug/L	=

QC Outlier Report: Method Blank

Preparation Batch : AK92307Diss
 Lab Sample ID : AK92307-BLK1 (Disso)
 Field Sample ID : AK92307-BLK1
 Preparation Method : Hot plate
 Method Number : 200.8
 Lab Reporting Batch : PCL200912021557
 Lab ID: Pat-Chem

Method Blank Results

Constituent	Result	Reporting Limit	Numerical Qualifier	Comments
Cd	0.130	0.2	=	

Associated Samples

QC Outlier Report: Reporting Limits

Lab Report Batch: PCL200912021557

Lab ID: Pat-Chem

Field Sample ID	Lab Sample ID	Method Number	Matrix	Constituent	Numerical Qualifier	Result	Reporting Limit	Units
4-307-0911201624-000	0911332-01 (Dissolved)	200.8	Water	As	=	0.3	0.5	ug/L
	0911332-01			As	=	0.4	0.5	ug/L
	0911332-01 (Dissolved)			Pb	=	0.2	1.0	ug/L
	0911332-01	300.0		NO2-N	=	0.01	0.10	mg/L
4-308-0911201936-000	0911332-02	200.8	Water	As	=	0.4	0.5	ug/L
	0911332-02 (Dissolved)			As	=	0.3	0.5	ug/L
	0911332-02			Cr	=	0.5	1.0	ug/L
	0911332-02 (Dissolved)			Cr	=	0.2	1.0	ug/L
	0911332-02			Ni	=	0.6	1.0	ug/L
	0911332-02	350.2		Pb	=	0.08	1.0	ug/L
	0911332-02			NH3-N	=	0.07	0.10	mg/L
4-308-0911201936-500	0911332-04 (Dissolved)	200.8	Water	As	=	0.2	0.5	ug/L
	0911332-04			Cr	=	0.3	1.0	ug/L
	0911332-04			Ni	=	0.6	1.0	ug/L
	0911332-04			Pb	=	0.09	1.0	ug/L
4-309-0911201619-000	0911332-03	200.8	Water	Cr	=	0.8	1.0	ug/L
	0911332-03 (Dissolved)			Cr	=	0.5	1.0	ug/L
	0911332-03			Pb	=	0.3	1.0	ug/L
	0911332-03	300.0		NO2-N	=	0.01	0.10	mg/L
	0911332-03	350.2		NH3-N	=	0.09	0.10	mg/L
4-310-0911201430-000	0911333-01 (Dissolved)	200.8	Water	As	=	0.4	0.5	ug/L
	0911333-01			As	=	0.6	1.0	ug/L
	0911333-01			Pb	=	0.6	1.0	ug/L
	0911333-01	300.0		NO2-N	=	0.06	0.10	mg/L
4-312-0911201613-000	0911333-02	200.8	Water	Cd	=	0.1	0.2	ug/L
	0911333-02 (Dissolved)			Pb	=	0.7	1.0	ug/L
	0911333-02			NO2-N	=	0.05	0.10	mg/L

QC Outlier Report: Field Duplicates (Non-qualified Outliers)

Lab Report Batch: PCL200912021557

Lab ID: Pat-Chem

Parent Field Sample	Method Number	Analysis Type	Matrix	Fraction	Constituent	Result	Units	Numerical Qualifier	RPD* Criteria
4-308-0911201936-000	160.2	RES	Water	N/A	TSS	2	mg/L	=	162
4-308-0911201936-500		RES				19		=	50
4-308-0911201936-000	200.8	RE	Water	Total	Cr	0.5	ug/L	=	
4-308-0911201936-500		RE				1.1		=	75
4-308-0911201936-000	200.8	RE	Water	Total	Pb	1.0	ug/L	=	
4-308-0911201936-500		RE				2.9		=	97
4-308-0911201936-000	350.2	RES	Water	Total	NH3-N	0.07	mg/L	=	
4-308-0911201936-500		RES				0.16		=	78

*Note: Outlier report also includes analytes detected in one sample but not in the related sample, i.e., analyte was detected in the field sample but not in the field duplicate sample, or vice versa. In this case, RPD value assigned to the field duplicate sample is 200.

Constituent Results Outside Historical Limits

Lab Reporting Batch ID: PCL200912021557

Field Sample ID	Fraction	Constituent	Reported Value	Historical Total Limits Minimum	Historical Total Limits Maximum	Historical Dissolved Limits Minimum	Historical Dissolved Limits Maximum	Units
4-307-0911201624-00	Total	As	0.4	0.5				ug/L
4-308-0911201936-00	Total	As	0.4	0.5				ug/L
	Diss	As	0.3			0.48		ug/L
	Total	Cr	0.5	1				ug/L
	Diss	Cr	0.2			0.65		ug/L
	Diss	Pb	0.08			0.2		ug/L
4-308-0911201936-50	Diss	As	0.2			0.48		ug/L
	Diss	Cr	0.3			0.65		ug/L
	Diss	Pb	0.09			0.2		ug/L
4-309-0911201619-00	Total	Cr	0.8	1				ug/L
	Diss	Cr	0.5			0.65		ug/L
4-310-0911201430-00	Diss	As	0.4			0.48		ug/L
4-312-0911201613-00	Total	Cd	0.1	0.11				ug/L