



# MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: 626 386 1100  
Fax: 626 386 1101  
1 800 566 LABS (1 800 566 5227)

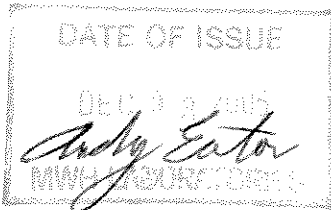
## Laboratory Report

for

Tronox LLC - Henderson  
PO Box 55

Henderson , NV 89009

Attention: Susan Crowley  
Fax: 702-651-2310



ADE Andy Eaton  
Project Manager

Report#160656R replaces the original Report.



Report#: 160656R  
CLO4

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Comments, QC Report, QC Summary, Data Report, Hits Report, totaling 6 page[s].



MONTGOMERY WATSON LABORATORIES

CHAIN OF CUSTODY RECORD

162956

MVLABS USE ONLY:

750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016-3629  
(626) 568-6400 (800) 566-5227

LOGIN COMMENTS:

SAMPLES CHECKED/LOGGED IN BY:

SAMPLE TEMP, RECEIPT AT LAB: 50

BLUE ICE: FROZEN PARTIALLY FROZEN THAWED

TO BE COMPLETED BY SAMPLER:

COMPANY / PROJECT NAME		PROJECT JOB # / P.O.#		REFER TO ATTACHED BOTTLE ORDER FOR ANALYSES		ANALYSES REQUIRED (mark an 'X' in all tests required for each sample line)		SAMPLER COMMENTS
KERRMCGEE-HP Wendy Prescott Susan Crowley (702) 851-2224		Weekly Cr Consent Order Compliance Samples Kerr-McGee Chemical LLC PO Box 55 Henderson, NV 89009		Total Chromium Total Chromium Hexavalent Chromium Total Cr <sub>2</sub> O <sub>3</sub> NO <sub>3</sub> as N		Total Cr <sub>2</sub> O <sub>3</sub> Total Cr <sub>2</sub> O <sub>3</sub> Total Cr <sub>2</sub> O <sub>3</sub>		
TIME	DATE	LOCATION	IDENTIFIER, STATE ID#	MATRIX	GRAB	COMP		
10:00 AM	10-30-11-13-05		GWTP Discharge	RSW		X	X	Total Cr sample preserved with HNO <sub>3</sub>
10:00 AM	11/3/2005		GWTP West Well Feed	RSW	X		X	Total Cr sample preserved with HNO <sub>3</sub>
10:00 AM	11/3/2005		GWTP East Well Feed	RSW	X		X	Total Cr sample preserved with HNO <sub>3</sub>
								East & West CLO4 added beginning 11-11-04

\* MATRIX TYPES:

Reported by Volume:

CFW = Chloro(am)inated Finished Water  
FW = Other Finished Water

RGW = Raw Ground Water  
RSW = Raw Surface Water

CWW = Chlorinated Waste Water  
WW = Other Waste Water  
SW = Storm Water

Reported by Weight:

SO = Soil  
SL = Sludge

SIGNATURE

PRINT NAME

COMPANY/TITLE

DATE

TIME

RELINQUISHED BY: Wendy Prescott

RECEIVED BY: Wendy Prescott

11/3/2005 12:00

RELINQUISHED BY:

RECEIVED BY: Joe LaMontagne

11/4/05 11:05

Veolia Water NA for Kerr-McGee Chemical LLC

11/4/05 11:05

C.O.#



**MWH Laboratories**  
 750 Royal Oaks Drive, Monrovia, CA 91016  
 PHONE: 626-386-1100/FAX: 626-386-1101

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Tronox LLC - Henderson  
 PO Box 55  
 Henderson, NV 89009  
 Attn: Susan Crowley  
 Phone: 702-651-2234

Customer Code: KERRMCGEE-MP  
 PO#: Susan Crowley PO  
 Group#: 160656  
 Project#: CLO4  
 Proj Mgr: Andrew Eaton  
 Phone: (626) 386-1125

The following samples were received from you on **11/04/05**. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
2511040134	GWTP DISCHARGE	CLO3 CLO4 CR CR-VI T	Water	03-nov-2005 10:00:00 NO3RFA P
2511040137	GWTP WEST WELL FEED	CLO4 CR CR-VI P T	Water	03-nov-2005 10:00:00
2511040138	GWTP EAST WELL FEED	CLO4 CR CR-VI P T	Water	03-nov-2005 10:00:00

Test Acronym Description

Test Acronym	Description
CLO3	Chlorate by IC
CLO4	Perchlorate
CR	Chromium, Total, ICAP
CR-VI	Hexavalent chromium (Cr VI)
NO3RFA	Nitrate + Nitrite as N by RFA
P	Metals sample pH
T	Metals Turbidity



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Report  
Comments  
#160656

## Client Specific Comments

I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Client Signature: \_\_\_\_\_

## Group Comments

Report revised to correct nitrate dilution error

(QC Ref#: 2511040134)

Test: Hexavalent chromium (Cr VI) (MWH SW7196)

H3- Sample was received and analyzed past holding time.

(QC Ref#: 2511040137)

Test: Hexavalent chromium (Cr VI) (MWH SW7196)

H3- Sample was received and analyzed past holding time.

(QC Ref#: 2511040138)

Test: Hexavalent chromium (Cr VI) (MWH SW7196)

H3- Sample was received and analyzed past holding time.



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Laboratory  
Hits Report  
#160656

Tronox LLC - Henderson  
Susan Crowley  
PO Box 55  
Henderson , NV 89009

Samples Received  
04-nov-2005 15:37:46

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	<b>2511040134</b>	<b>GWTP DISCHARGE</b>				
11/16/05		Chlorate by IC	4700000		ug/l	200000
11/10/05		Chromium, Total, ICAP	0.28		mg/l	0.02
11/13/05		Nitrate + Nitrite as N by RFA	48	10	mg/l	10
11/28/05		Perchlorate	1600000		ug/l	200000
	<b>2511040137</b>	<b>GWTP WEST WELL FEED</b>				
11/10/05		Chromium, Total, ICAP	2.1		mg/l	0.1
11/11/05		Hexavalent chromium (Cr VI)	2.3		mg/l	0.05
11/28/05		Perchlorate	2000000		ug/l	200000
	<b>2511040138</b>	<b>GWTP EAST WELL FEED</b>				
11/10/05		Chromium, Total, ICAP	16		mg/l	0.2
11/04/05		Hexavalent chromium (Cr VI)	18		mg/l	0.5
11/28/05		Perchlorate	1200000		ug/l	200000

SUMMARY OF POSITIVE DATA ONLY.



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Laboratory  
Data Report  
#160656

Tronox LLC - Henderson  
Susan Crowley  
PO Box 55  
Henderson , NV 89009

Samples Received  
11/04/05

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>GWTP DISCHARGE (2511040134)</b>				<b>Sampled on 11/03/05 10:00</b>				
	11/16/05 00:00	295945	( ML/EPA 300.1 )	Chlorate by IC	4700000	ug/l	200000	20000
	11/28/05 16:07	297470	( EPA 314 )	Perchlorate	1600000	ug/l	200000	50000
	11/10/05 19:50	294761	( MWH200.7/6010B)	Chromium, Total, ICAP	0.28	mg/l	0.02	2
	11/11/05 00:00	295078	( MWH SW7196 )	Hexavalent chromium (Cr VI)	ND(H3)	mg/l	0.01	2
	11/13/05 00:00	297882	( ML/EPA 353.2 )	Nitrate + Nitrite as N by RFA	48	mg/l	10	100
<b>GWTP WEST WELL FEED (2511040137)</b>				<b>Sampled on 11/03/05 10:00</b>				
	11/28/05 16:24	297470	( EPA 314 )	Perchlorate	2000000	ug/l	200000	50000
	11/10/05 20:09	294761	( MWH200.7/6010B)	Chromium, Total, ICAP	2.1	mg/l	0.1	10
	11/11/05 00:00	295078	( MWH SW7196 )	Hexavalent chromium (Cr VI)	2.3(H3)	mg/l	0.05	10
<b>GWTP EAST WELL FEED (2511040138)</b>				<b>Sampled on 11/03/05 10:00</b>				
	11/28/05 16:41	297470	( EPA 314 )	Perchlorate	1200000	ug/l	200000	50000
	11/10/05 20:18	294761	( MWH200.7/6010B)	Chromium, Total, ICAP	16	mg/l	0.2	20
	11/04/05 00:00	294080	( MWH SW7196 )	Hexavalent chromium (Cr VI)	18(H3)	mg/l	0.5	100



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Laboratory  
QC Summary  
#160656

Tronox LLC - Henderson

QC Ref #294080 - Hexavalent chromium (Cr VI) Analysis Date: 11/04/2005

2511040138 GWTP EAST WELL FEED Analyzed by: dtn

QC Ref #294761 - Chromium, Total, ICAP Analysis Date: 11/10/2005

2511040134 GWTP DISCHARGE Analyzed by: wbh  
2511040137 GWTP WEST WELL FEED Analyzed by: wbh  
2511040138 GWTP EAST WELL FEED Analyzed by: wbh

QC Ref #295078 - Hexavalent chromium (Cr VI) Analysis Date: 11/11/2005

2511040134 GWTP DISCHARGE Analyzed by: wbh  
2511040137 GWTP WEST WELL FEED Analyzed by: wbh

QC Ref #295945 - Chlorate by IC Analysis Date: 11/16/2005

2511040134 GWTP DISCHARGE Analyzed by: bxs

QC Ref #297470 - Perchlorate Analysis Date: 11/28/2005

2511040134 GWTP DISCHARGE Analyzed by: bxs  
2511040137 GWTP WEST WELL FEED Analyzed by: bxs  
2511040138 GWTP EAST WELL FEED Analyzed by: bxs

QC Ref #297882 - Nitrate + Nitrite as N by RFA Analysis Date: 11/13/2005

2511040134 GWTP DISCHARGE Analyzed by: ali





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Laboratory  
QC Report  
#160656

Tronox LLC - Henderson

## QC Ref #294080 Hexavalent chromium (Cr VI)

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 25	11040088	MGL		( 0-0 )	
LCS1	Hexavalent chromium (Cr VI)	0.050	0.051	MGL	102.0	( 85-115 )	
LCS2	Hexavalent chromium (Cr VI)	0.050	0.052	MGL	104.0	( 85-115 )	1.9
MBLK	Hexavalent chromium (Cr VI)	ND	<0.005	MGL			
MRL_CHK	Hexavalent chromium (Cr VI)	0.005	0.006	MGL	120.0	( 50-150 )	
MS	Hexavalent chromium (Cr VI)	0.05	0.056	MGL	112.0	( 70-130 )	
MSD	Hexavalent chromium (Cr VI)	0.05	0.054	MGL	108.0	( 70-130 )	3.6

## QC Ref #294761 Chromium, Total, ICAP

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Chromium, Total, ICAP	1.00	0.905	MGL	90.5	( 85-115 )	
LCS2	Chromium, Total, ICAP	1.00	0.917	MGL	91.7	( 85-115 )	1.3
MBLK	Chromium, Total, ICAP	ND	<0.01	MGL			
MS	Chromium, Total, ICAP	1.00	0.944	MGL	94.4	( 70-130 )	
MSD	Chromium, Total, ICAP	1.00	0.946	MGL	94.6	( 70-130 )	0.21

## QC Ref #295078 Hexavalent chromium (Cr VI)

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 25	11110158	MGL		( 0-0 )	
LCS1	Hexavalent chromium (Cr VI)	0.050	0.051	MGL	102.0	( 85-115 )	
LCS2	Hexavalent chromium (Cr VI)	0.050	0.050	MGL	100.0	( 85-115 )	2.0
MBLK	Hexavalent chromium (Cr VI)	ND	<0.005	MGL			
MRL_CHK	Hexavalent chromium (Cr VI)	0.005	0.006	MGL	120.0	( 50-150 )	
MS	Hexavalent chromium (Cr VI)	0.50	0.47	MGL	94.0	( 70-130 )	
MSD	Hexavalent chromium (Cr VI)	0.50	0.47	MGL	94.0	( 70-130 )	0.00

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
Criteria for MS and DUP are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

Tronox LLC - Henderson  
 (continued)

**QC Ref #295945 Chlorate by IC**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 25	11090478	UGL		( 0-0 )	
LCS1	Chlorate by IC	200	198	UGL	99.0	( 75-125 )	
LCS2	Chlorate by IC	200	197	UGL	98.5	( 75-125 )	0.51
MBLK	Chlorate by IC	ND	<10	UGL			
MRL_CHK	Chlorate by IC	10.000	10.3	UGL	103.0	( 50-150 )	
MS	Chlorate by IC	100	94	UGL	94.0	( 75-125 )	
MSD	Chlorate by IC	100	97	UGL	97.0	( 75-125 )	3.1

**QC Ref #297470 Perchlorate**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Perchlorate	25.0	24.1	UGL	96.4	( 85-115 )	
LCS1	Perchlorate	25.0	24.5	UGL	98.0	( 85-115 )	
MBLK	Perchlorate	ND	<4	UGL			
MS	Perchlorate	25.0	25.2	UGL	100.8	( 70-130 )	
MSD	Perchlorate	25.0	24.4	UGL	97.6	( 70-130 )	3.2

**QC Ref #297882 Nitrate + Nitrite as N by RFA**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 25	11020152	MGL		( 0-0 )	
LCS1	Nitrate + Nitrite as N by RFA	1.0	1.05	MGL	105.0	( 90-110 )	
LCS2	Nitrate + Nitrite as N by RFA	1.0	1.08	MGL	108.0	( 90-110 )	2.8
MBLK	Nitrate + Nitrite as N by RFA	ND	<0.1	MGL			
MRL_CHK	Nitrate + Nitrite as N by RFA	0.100	0.103	MGL	103.0	( 50-150 )	
MS	Nitrate + Nitrite as N by RFA	1.0	1.08	MGL	108.0	( 90-110 )	
MSD	Nitrate + Nitrite as N by RFA	1.0	0.98	MGL	98.0	( 90-110 )	9.7

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
 Criteria for MS and DUP are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.