



# 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)

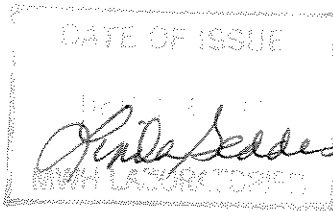
## Laboratory Report

for

Tronox LLC - Henderson  
PO Box 55

Henderson , NV 89009

Attention: Susan Crowley  
Fax: 702-651-2310



ADE Andy Eaton  
Project Manager



Report#: 161828  
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

16/022

MWLABS 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: WJ

TO BE COMPLETED BY SAMPLER:

SAMPLE TEMP, RECEIPT AT LAB: GC

BLUE ICE: FROZEN PARTIALLY FROZEN THAWED

COMPANY / PROJECT NAME

**KERRMCGEE-MP**  
Wendy Prescott  
*Wendy Prescott*  
PROJECT JOB # / P.O.#  
Weekly Cr Consent Order Compliance Samples  
Kerr-McGee Chemical LLC  
PO Box 55  
Henderson, NV 89009  
Susan Crowley (702) 651-2234

REFER TO ATTACHED BOTTLE ORDER FOR ANALYSES		ANALYSES REQUIRED (mark an 'X' in all tests required for each sample line)										SAMPLER COMMENTS	
TIME	DATE	LOCATION	IDENTIFIER, STATE ID#	MATRIX *	GRAB	COMP	Total Cr	Hexavalent Chromium	Total Cr <sub>2</sub>	NO <sub>3</sub> as N	(check for yes)		
10:00 AM	11-13, 15, 17-05		GWTP Discharge	RSW		X	X	X	X	X			Total Cr sample preserved with HNO <sub>3</sub>
10:00 AM	11/17/2005		GWTP West Well Feed	RSW	X		X	X	X				Total Cr sample preserved with HNO <sub>3</sub>
10:00 AM	11/17/2005		GWTP East Well Feed	RSW	X		X	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 = Chlor(am)inated Finished Water  
FW = Other Finished Water

Reported by Weight:  
SO = Soil  
SL = Sludge

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

RGW = Raw Ground Water  
RSW = Raw Surface Water

SIGNATURE

*Wendy Prescott*

PRINT NAME  
Wendy Prescott

COMPANY/TITLE

Veolia Water NA for Kerr McGee Chemical LLC

DATE

11/17/2005

TIME

12:00

RELINQUISHED BY:

*Wendy Prescott*

RECEIVED BY:

*11/17/05 10:20*

C-O-C#

weekly gwtp comp revised 11-11-04

SCANNED  
PAGE 1 of 1



MWH Laboratories, a Division of MWH Americas, Inc.  
750 Royal Oaks Avenue Suite 100  
Monrovia CA 91016 (626) 386-1100 FAX (626) 386-1124

**Bottle Order for Kerr McGee Chemical Company - Henderson**

Andrew Eaton, Your MWL Project Manager  
(626) 386-1125 Direct Phone/Voice Mail

Client Code KERRMCGEE-MP  
Project Code CLO4  
PO# / Job#  
Blanket PO

Period

W Weekly  
Week 1

SO# 26994 16287 RS

**Sampler: Please Return this Paper with your samples**

Created by EEF

Order Date

10/31/05

Date Needed by Client

Ship Sample Kits to  
Kerr McGee-Veolia Water  
Gate 1  
8000 West Lake Mead Drive  
Henderson, NV 89015

**Send Report to**

Kerr McGee Henderson Plant  
P.O. Box 55  
Henderson, NV 89009

**Billing Address**

KMCLLC  
attn: Contract 304280  
P.O. Box 3049  
Livonia, MI 48150

ATTN: Susan Crowley  
PHONE: 702-651-2234

ATTN: Susan Crowley  
PHONE: 702-651-2234  
FAX: 702-651-2310

**Quote#**

EEF

# of Samples Tests

Bottles-Qty for each sample, type & preservative if any

UN#

Important Comments

# of Samples	Tests	Bottles-Qty for each sample, type & preservative if any	UN#	Important Comments
3	CR	1 250 ml poly acid rinsed + 1ml HNO3 (18%)	UN 2031	GWTP WEST WELL FEED
3	CR-VI	1 125ml poly acid rinsed/ no preservative		GWTP EAST WELL FEED
1	CLO3	1 60ml poly+0.60 mL 5% EDA sol'n		GWTP DISCHARGE
3	CLO4	1 125ml poly /no preservative AMBER IF WITH CLO3!	UN 1604	CLO4, CLO3, NO3RFA on DISCHARGE
1	NO3RFA	1 250 ml poly+ 1 ml H2SO4 (50%)	UN 2796	CR, and CRVI and CLO4 on all samples
				Please sample late in the day and send via priority overnight to ensure that we receive CRVI within hold time whenever possible.
				SHIPPING - PLEASE PRELABEL BOTTLES
				revised 4/29/04 lxx revised 11/4/04 ade
				shipping - the CLO3 bottle has been missed several times - please be sure it is included!

ActiveCode

Status

Date Shipped

Carrier

Qty of Coolers

Tracking Number

Prepared By

SCANNED

**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#: 161828  
 Project#: CLO4  
 Proj Mgr: Andrew Eaton  
 Phone: (626) 386-1125

The following samples were received from you on **11/18/05**. 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
2511180354	GWTP DISCHARGE	CLO3 CLO4 T	Water CR	17-nov-2005 10:00:00 NO3RFA P
2511180362	GWTP WEST WELL FEED	CLO4 CR	Water CR-VI	17-nov-2005 10:00:00 P T
2511180363	GWTP EAST WELL FEED	CLO4 CR	Water CR-VI	17-nov-2005 10:00:00 P T

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



**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: \_\_\_\_\_

(QC Ref#: 2511180354)

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

H3- Sample was received and analyzed past holding time.

(QC Ref#: 2511180362)

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

H3- Sample was received and analyzed past holding time.

(QC Ref#: 2511180363)

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

H3- Sample was received and analyzed past holding time.



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Laboratory  
Hits Report  
#161828

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

Samples Received  
18-nov-2005 18:04:15

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	<b>2511180354</b>	<b>GWTP DISCHARGE</b>				
11/28/05		Chlorate by IC	4900000		ug/l	200000
11/22/05		Chromium, Total, ICAP	0.29		mg/l	0.02
11/29/05		Nitrate + Nitrite as N by RFA	66.0	10	mg/l	5
12/06/05		Perchlorate	1600000		ug/l	200000
	<b>2511180362</b>	<b>GWTP WEST WELL FEED</b>				
11/22/05		Chromium, Total, ICAP	2.2		mg/l	0.1
11/18/05		Hexavalent chromium (Cr VI)	2.3		mg/l	0.05
12/06/05		Perchlorate	1900000		ug/l	200000
	<b>2511180363</b>	<b>GWTP EAST WELL FEED</b>				
11/22/05		Chromium, Total, ICAP	16		mg/l	0.2
11/18/05		Hexavalent chromium (Cr VI)	18		mg/l	0.25
12/06/05		Perchlorate	1200000		ug/l	200000



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Laboratory  
Data Report  
#161828

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

Samples Received  
11/18/05

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>GWTP DISCHARGE (2511180354)</b>				<b>Sampled on 11/17/05 10:00</b>				
	11/28/05 00:00	297472	( ML/EPA 300.1 )	Chlorate by IC	4900000	ug/l	200000	20000
	12/06/05 19:08	298595	( EPA 314 )	Perchlorate	1600000	ug/l	200000	50000
	11/22/05 02:01	296585	( MWH200.7/6010B)	Chromium, Total, ICAP	0.29	mg/l	0.02	2
	11/18/05 00:00	296338	( MWH SW7196 )	Hexavalent chromium (Cr VI)	ND(H3)	mg/l	0.01	2
	11/29/05 00:00	297463	( ML/EPA 353.2 )	Nitrate + Nitrite as N by RFA	66.0	mg/l	5	50
<b>GWTP WEST WELL FEED (2511180362)</b>				<b>Sampled on 11/17/05 10:00</b>				
	12/06/05 19:25	298595	( EPA 314 )	Perchlorate	1900000	ug/l	200000	50000
	11/22/05 02:04	296585	( MWH200.7/6010B)	Chromium, Total, ICAP	2.2	mg/l	0.1	10
	11/18/05 00:00	296338	( MWH SW7196 )	Hexavalent chromium (Cr VI)	2.3(H3)	mg/l	0.05	10
<b>GWTP EAST WELL FEED (2511180363)</b>				<b>Sampled on 11/17/05 10:00</b>				
	12/06/05 19:42	298595	( EPA 314 )	Perchlorate	1200000	ug/l	200000	50000
	11/22/05 02:08	296585	( MWH200.7/6010B)	Chromium, Total, ICAP	16	mg/l	0.2	20
	11/18/05 00:00	296338	( MWH SW7196 )	Hexavalent chromium (Cr VI)	18(H3)	mg/l	0.25	50



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Laboratory  
QC Summary  
#161828

Tronox LLC - Henderson

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QC Ref #296338 - Hexavalent chromium (Cr VI) Analysis Date: 11/18/2005

2511180354	GWTP DISCHARGE	Analyzed by: wbh
2511180362	GWTP WEST WELL FEED	Analyzed by: wbh
2511180363	GWTP EAST WELL FEED	Analyzed by: wbh

QC Ref #296585 - Chromium, Total, ICAP Analysis Date: 11/22/2005

2511180354	GWTP DISCHARGE	Analyzed by: wbh
2511180362	GWTP WEST WELL FEED	Analyzed by: wbh
2511180363	GWTP EAST WELL FEED	Analyzed by: wbh

QC Ref #297463 - Nitrate + Nitrite as N by RFA Analysis Date: 11/29/2005

2511180354	GWTP DISCHARGE	Analyzed by: clv
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QC Ref #297472 - Chlorate by IC Analysis Date: 11/28/2005

2511180354	GWTP DISCHARGE	Analyzed by: bxs
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QC Ref #298595 - Perchlorate Analysis Date: 12/06/2005

2511180354	GWTP DISCHARGE	Analyzed by: bxs
2511180362	GWTP WEST WELL FEED	Analyzed by: bxs
2511180363	GWTP EAST WELL FEED	Analyzed by: bxs





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Laboratory  
QC Report  
#161828

Tronox LLC - Henderson

**QC Ref #296338**

**Hexavalent chromium (Cr VI)**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 25	11100362	MGL		( 0-0 )	
LCS1	Hexavalent chromium (Cr VI)	0.050	0.047	MGL	94.0	( 85-115 )	
LCS2	Hexavalent chromium (Cr VI)	0.050	0.047	MGL	94.0	( 85-115 )	0.00
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

**QC Ref #296585**

**Chromium, Total, ICAP**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Chromium, Total, ICAP	1.00	0.951	MGL	95.1	( 85-115 )	
LCS2	Chromium, Total, ICAP	1.00	0.957	MGL	95.7	( 85-115 )	0.63
MBLK	Chromium, Total, ICAP	ND	<0.01	MGL			
MS	Chromium, Total, ICAP	1.00	0.967	MGL	96.7	( 70-130 )	
MSD	Chromium, Total, ICAP	1.00	0.964	MGL	96.4	( 70-130 )	0.31

**QC Ref #297463**

**Nitrate + Nitrite as N by RFA**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 25	11180354	MGL		( 0-0 )	
LCS1	Nitrate + Nitrite as N by RFA	1.0	0.96	MGL	96.0	( 90-110 )	
LCS2	Nitrate + Nitrite as N by RFA	1.0	1.01	MGL	101.0	( 90-110 )	5.1
MBLK	Nitrate + Nitrite as N by RFA	ND	<0.1	MGL			
MRL_CHK	Nitrate + Nitrite as N by RFA	0.030	0.038	MGL	126.7	( 50-150 )	
MS	Nitrate + Nitrite as N by RFA	1.00	1.00	MGL	100.0	( 90-110 )	
MSD	Nitrate + Nitrite as N by RFA	1.00	0.93	MGL	93.0	( 90-110 )	7.3

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.



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Laboratory  
QC Report  
#161828

Tronox LLC - Henderson  
(continued)

QC Ref #297472

Chlorate by IC

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 25	11151019	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	11.4	UGL	114.0	( 50-150 )	
MS	Chlorate by IC	100	96	UGL	96.0	( 75-125 )	
MSD	Chlorate by IC	100	97	UGL	97.0	( 75-125 )	1.0

QC Ref #298595

Perchlorate

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
LCS1	Perchlorate	25.0	24.2	UGL	96.8	( 85-115 )	
LCS2	Perchlorate	25.0	24	UGL	96.0	( 85-115 )	0.83
MBLK	Perchlorate	ND	<4	UGL			
MS	Perchlorate	25.0	23.1	UGL	92.4	( 70-130 )	
MSD	Perchlorate	25.0	22.4	UGL	89.6	( 70-130 )	3.1

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.