



# MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive  
Suite 100  
Monrovia, California 91016-3629  
Tel: 626 568 6400  
Fax: 626 568 6324  
1 800 566 LABS (1 800 566 5227)

## Laboratory Report

for

Tronox LLC - Henderson  
PO Box 55

Henderson , NV 89009

Attention: Susan Crowley  
Fax: (405) 302-4607



ADE Andy Eaton  
Project Manager

Report#: 198415  
Project: CLO4  
PO#: Susan Crowle

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 11 page[s].



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**Report  
Comments  
#198415**

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



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Laboratory  
 Hits Report  
 #198415

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

Samples Received  
 13-mar-2007 13:02:55

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	<b>2703130142</b>	<b>ART-2</b>				
03/15/07	Perchlorate		102000		ug/l	20000
03/13/07	Total Dissolved Solid (TDS)		9370	500	mg/l	10
	<b>2703130143</b>	<b>ART-3</b>				
03/15/07	Perchlorate		340000		ug/l	40000
03/13/07	Total Dissolved Solid (TDS)		8730	500	mg/l	10
	<b>2703130144</b>	<b>ART-4</b>				
03/16/07	Perchlorate		329000		ug/l	40000
03/13/07	Total Dissolved Solid (TDS)		6380	500	mg/l	10
	<b>2703130145</b>	<b>ART-6</b>				
03/16/07	Perchlorate		292000		ug/l	20000
03/13/07	Total Dissolved Solid (TDS)		7820	500	mg/l	10
	<b>2703130146</b>	<b>ART-7</b>				
03/16/07	Perchlorate		123000		ug/l	20000
03/13/07	Total Dissolved Solid (TDS)		10000	500	mg/l	10
	<b>2703130147</b>	<b>ART-8</b>				
03/16/07	Perchlorate		291000		ug/l	40000
03/13/07	Total Dissolved Solid (TDS)		9780	500	mg/l	10
	<b>2703130148</b>	<b>PC-99R2/R3</b>				

SUMMARY OF POSITIVE DATA ONLY.



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 13-mar-2007 13:02:55

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	<b>2703130148</b>	<b>PC-99R2/R3</b>				
03/16/07	Perchlorate		19900		ug/l	2000
03/13/07	Total Dissolved Solid (TDS)		4950	500	mg/l	10
	<b>2703130149</b>	<b>PC-115R</b>				
03/19/07	Perchlorate		16500		ug/l	2000
03/13/07	Total Dissolved Solid (TDS)		4720	500	mg/l	10
	<b>2703130150</b>	<b>PC-116R</b>				
03/19/07	Perchlorate		13500		ug/l	2000
03/13/07	Total Dissolved Solid (TDS)		5050	500	mg/l	10
	<b>2703130151</b>	<b>SEEP SURFACE FLOW</b>				
03/19/07	Perchlorate		3260		ug/l	400
03/13/07	Total Dissolved Solid (TDS)		3480	500	mg/l	10
	<b>2703130152</b>	<b>SF-1</b>				
03/13/07	Total Dissolved Solid (TDS)		6150	500	mg/l	10
	<b>2703130153</b>	<b>PC-117</b>				
03/19/07	Perchlorate		7530		ug/l	2000
03/13/07	Total Dissolved Solid (TDS)		4400	500	mg/l	10
	<b>2703130154</b>	<b>PC-118</b>				
03/19/07	Perchlorate		12100		ug/l	2000

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 13-mar-2007 13:02:55

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
	<b>2703130154</b>	<b>PC-118</b>				
03/13/07	Total Dissolved Solid (TDS)		4340	500	mg/l	10
	<b>2703130155</b>	<b>PC-120</b>				
03/19/07	Perchlorate		5690		ug/l	400
03/13/07	Total Dissolved Solid (TDS)		3660	500	mg/l	10
	<b>2703130156</b>	<b>PC-121</b>				
03/19/07	Perchlorate		1940		ug/l	400
03/13/07	Total Dissolved Solid (TDS)		2800	500	mg/l	10
	<b>2703130157</b>	<b>PC-133</b>				
03/19/07	Perchlorate		8660		ug/l	400
03/13/07	Total Dissolved Solid (TDS)		5030	500	mg/l	10
	<b>2703130158</b>	<b>ART-9</b>				
03/20/07	Perchlorate		302000		ug/l	40000
03/13/07	Total Dissolved Solid (TDS)		7920	500	mg/l	10



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#198415

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Samples Received  
03/13/07

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>ART-2 (2703130142)                    Sampled on 03/12/07 05:30</b>								
	03/15/07 00:00	357780	( EPA 314	) Perchlorate	102000	ug/1	20000	5000
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	9370	mg/1	10	1
<b>ART-3 (2703130143)                    Sampled on 03/12/07 05:30</b>								
	03/15/07 00:00	357780	( EPA 314	) Perchlorate	340000	ug/1	40000	10000
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	8730	mg/1	10	1
<b>ART-4 (2703130144)                    Sampled on 03/12/07 05:30</b>								
	03/16/07 00:00	357780	( EPA 314	) Perchlorate	329000	ug/1	40000	10000
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	6380	mg/1	10	1
<b>ART-6 (2703130145)                    Sampled on 03/12/07 05:30</b>								
	03/16/07 00:00	357780	( EPA 314	) Perchlorate	292000	ug/1	20000	5000
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	7820	mg/1	10	1
<b>ART-7 (2703130146)                    Sampled on 03/12/07 05:30</b>								
	03/16/07 00:00	357780	( EPA 314	) Perchlorate	123000	ug/1	20000	5000
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	10000	mg/1	10	1
<b>ART-8 (2703130147)                    Sampled on 03/12/07 05:30</b>								
	03/16/07 00:00	357780	( EPA 314	) Perchlorate	291000	ug/1	40000	10000
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	9780	mg/1	10	1
<b>PC-99R2/R3 (2703130148)                Sampled on 03/12/07 06:00</b>								
	03/16/07 00:00	357780	( EPA 314	) Perchlorate	19900	ug/1	2000	500
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	4950	mg/1	10	1



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Data Report  
#198415**

Tronox LLC - Henderson  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>PC-115R (2703130149)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	16500	ug/l	2000	500
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	4720	mg/l	10	1
<b>PC-116R (2703130150)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	13500	ug/l	2000	500
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	5050	mg/l	10	1
<b>SEEP SURFACE FLOW (2703130151)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	3260	ug/l	400	100
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	3480	mg/l	10	1
<b>SF-1 (2703130152)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	ND	ug/l	10	5
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	6150	mg/l	10	1
<b>PC-117 (2703130153)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	7530	ug/l	2000	500
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	4400	mg/l	10	1
<b>PC-118 (2703130154)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	12100	ug/l	2000	500
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	4340	mg/l	10	1
<b>PC-120 (2703130155)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	5690	ug/l	400	100
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	3660	mg/l	10	1
<b>PC-121 (2703130156)                    Sampled on 03/12/07 06:00</b>								
	03/19/07 00:00	357982	( EPA 314	) Perchlorate	1940	ug/l	400	100
03/13/07	03/13/07 18:44	357343	( SM 2540C	) Total Dissolved Solid (TDS)	2800	mg/l	10	1



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#198415

Tronox LLC - Henderson  
(continued)

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
<b>PC-133 (2703130157)</b>				<b>Sampled on 03/12/07 06:00</b>				
	03/19/07 00:00	357982	( EPA 314 )	Perchlorate	8660	ug/l	400	100
03/13/07	03/13/07 18:44	357343	( SM 2540C )	Total Dissolved Solid (TDS)	5030	mg/l	10	1
<b>ART-9 (2703130158)</b>				<b>Sampled on 03/12/07 05:30</b>				
	03/20/07 00:00	358352	( EPA 314 )	Perchlorate	302000	ug/l	40000	10000
03/13/07	03/13/07 18:44	357343	( SM 2540C )	Total Dissolved Solid (TDS)	7920	mg/l	10	1





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Laboratory  
QC Summary  
#198415

Tronox LLC - Henderson

**QC Ref #357343 - Total Dissolved Solid (TDS) Analysis Date: 03/13/2007**

2703130142	ART-2	Analyzed by: anh
2703130143	ART-3	Analyzed by: anh
2703130144	ART-4	Analyzed by: anh
2703130145	ART-6	Analyzed by: anh
2703130146	ART-7	Analyzed by: anh
2703130147	ART-8	Analyzed by: anh
2703130148	PC-99R2/R3	Analyzed by: anh
2703130149	PC-115R	Analyzed by: anh
2703130150	PC-116R	Analyzed by: anh
2703130151	SEEP SURFACE FLOW	Analyzed by: anh
2703130152	SF-1	Analyzed by: anh
2703130153	PC-117	Analyzed by: anh
2703130154	PC-118	Analyzed by: anh
2703130155	PC-120	Analyzed by: anh
2703130156	PC-121	Analyzed by: anh
2703130157	PC-133	Analyzed by: anh
2703130158	ART-9	Analyzed by: anh

**QC Ref #357780 - Perchlorate Analysis Date: 03/15/2007**

2703130142	ART-2	Analyzed by: raja
2703130143	ART-3	Analyzed by: raja
2703130144	ART-4	Analyzed by: raja
2703130145	ART-6	Analyzed by: raja
2703130146	ART-7	Analyzed by: raja
2703130147	ART-8	Analyzed by: raja
2703130148	PC-99R2/R3	Analyzed by: raja

**QC Ref #357982 - Perchlorate Analysis Date: 03/19/2007**

2703130149	PC-115R	Analyzed by: raja
2703130150	PC-116R	Analyzed by: raja
2703130151	SEEP SURFACE FLOW	Analyzed by: raja
2703130152	SF-1	Analyzed by: raja
2703130153	PC-117	Analyzed by: raja
2703130154	PC-118	Analyzed by: raja
2703130155	PC-120	Analyzed by: raja
2703130156	PC-121	Analyzed by: raja
2703130157	PC-133	Analyzed by: raja



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**Laboratory  
QC Summary  
#198415**

Tronox LLC - Henderson  
(continued)

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QC Ref #358352 - Perchlorate

2703130158

ART-9

Analysis Date: 03/20/2007

Analyzed by: raja

Tronox LLC - Henderson

**QC Ref #357343**
**Total Dissolved Solid (TDS)**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 27	03130142	MGL		( 0-0 )	
DUP	Total Dissolved Solid (TDS)	9370	9330	MGL		( 0-10 )	0.4
LCS1	Total Dissolved Solid (TDS)	175	172	MGL	98.3	( 85-115 )	
LCS2	Total Dissolved Solid (TDS)	700	684	MGL	97.7	( 85-115 )	
MBLK	Total Dissolved Solid (TDS)	ND	<10	MGL			
MRL_CHK	Total Dissolved Solid (TDS)	10.0	11	MGL	110.0	( 50-150 )	
RPD_LCS	Total Dissolved Solid (TDS)	98.286	97.714	MGL	0.6	( 0-20 )	

**QC Ref #357780**
**Perchlorate**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 27	03130247	UGL		( 0-0 )	
LCS1	Perchlorate	25.0	23.4	UGL	93.6	( 85-115 )	
LCS2	Perchlorate	25.0	24.9	UGL	99.6	( 85-115 )	
LCS3	Perchlorate	4	3.20	UGL	80.0	( 75-125 )	
MBLK	Perchlorate	ND	<4.0	UGL			
MS	Perchlorate	25.0	22.7	UGL	90.8	( 70-130 )	
MSD	Perchlorate	25.0	22.9	UGL	91.6	( 70-130 )	
RPD_LCS	Perchlorate	93.600	99.600	UGL	6.2	( 0-20 )	
RPD_MS	Perchlorate	90.800	91.600	UGL	0.9	( 0-20 )	

**QC Ref #357982**
**Perchlorate**

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 27	03150116	UGL		( 0-0 )	
LCS1	Perchlorate	25.0	25.3	UGL	101.2	( 85-115 )	
LCS2	Perchlorate	25.0	27.1	UGL	108.4	( 85-115 )	
LCS3	Perchlorate	4	3.59	UGL	89.8	( 75-125 )	
MBLK	Perchlorate	ND	<4.0	UGL			
MS	Perchlorate	25.0	22.0	UGL	88.0	( 70-130 )	
MSD	Perchlorate	25.0	22.9	UGL	91.6	( 70-130 )	

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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(continued)

RPD_LCS	Perchlorate	101.200	108.400	UGL	6.9	( 0-20 )
RPD_MS	Perchlorate	88.000	91.600	UGL	4.0	( 0-20 )

## QC Ref #358352

## Perchlorate

QC	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
MS	Spiked sample	Lab # 27	03140188	UGL		( 0-0 )	
LCS1	Perchlorate	25.0	25.1	UGL	100.4	( 85-115 )	
LCS2	Perchlorate	25.0	25.4	UGL	101.6	( 85-115 )	
LCS3	Perchlorate	4	3.83	UGL	95.8	( 75-125 )	
MBLK	Perchlorate	ND	<4.0	UGL			
MS	Perchlorate	25.0	24.1	UGL	96.4	( 70-130 )	
MSD	Perchlorate	25.0	22.2	UGL	88.8	( 70-130 )	
RPD_LCS	Perchlorate	100.400	101.600	UGL	1.2	( 0-20 )	
RPD_MS	Perchlorate	96.400	88.800	UGL	8.2	( 0-20 )	

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