



**LABORATORY DATA CONSULTANTS, INC.**

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Northgate Environmental Management, Inc.  
1100 Quail Street Ste. 102  
Newport Beach, CA 92660  
ATTN: Ms. Cindy Arnold

May 26, 2010

**SUBJECT: Tronox LLC Facility, 2010 Parcels, Henderson, Nevada,  
Data Validation**

Dear Ms. Arnold,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on May 5, 2010. Attachment 1 is a summary of the samples that were reviewed for each analysis.

**LDC Project # 23103:**

<b><u>SDG #</u></b>	<b><u>Fraction</u></b>
091003269, 091003272 091003274, 091003471	Asbestos

The data validation was performed under Stage 2B/4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Standard Operating Procedures (SOP) 40, Data Review/Validation, BRC 2009
- Quality Assurance Project Plan Tronox LLC Facility, Henderson Nevada, June 2009
- NDEP Guidance, May 2006
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004

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

Sincerely,

Erlinda T. Rauto  
Operations Manager/Senior Chemist



EDD CHECKLIST

Page: 1 of 1  
 Reviewer: JE  
 2nd Reviewer: BC

LDC #: 23103  
 SDG #: 091003269, 091003272, 091003274, 091003471

Tronox Northgate Henderson Worksheet

EDD Area	Yes	No	NA	Findings/Comments
<b>I. Completeness</b>				
Is there an EDD for the associated Tronox validation report?	X			
<b>II. EDD Qualifier Population</b>				
Were all qualifiers from the validation report populated into the EDD?	X			
<b>III. EDD Lab Anomalies</b>				
Were EDD anomalies identified?	X			
If yes, were they corrected or documented for the client?	X			See EDD_discrepancy_form_LDC23103_052610.doc
<b>IV. EDD Delivery</b>				
Was the final EDD sent to the client?	X			

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Data Validation Reports  
LDC #23103**

Asbestos

**LDC**

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
**Collection Date:** April 6, 2010  
**LDC Report Date:** May 19, 2010  
**Matrix:** Soil  
**Parameters:** Asbestos  
**Validation Level:** Stage 2B  
**Laboratory:** EMSL Analytical, Inc.  
**Sample Delivery Group (SDG):** 091003269

**Sample Identification**

Q2-PF-1-1-0.0  
Q3-PF-1-1-0.0  
Q3-PF-1-1-0.0-FD  
Q3-PF-2-1-0.0  
P2-P2-1-1-0.0  
Q3-PF-3-1-0.0  
P3-PF-2-1-0.0  
P3-PF-1-1-0.0  
P4-PF-1-1-0.0

## Introduction

This data review covers 9 soil samples listed on the cover sheet. The analyses were per EPA Method 540-R-97-028 for Asbestos.

This review follows the Standard Operating Procedures (SOP) 40, Data Review/Validation (BRC 2009), the Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (June 2009), NDEP guidance (May 2006), and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section X.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- J+ Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.
- J- Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.
- J Data are qualified as estimated; it is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.
- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- B The analytical result may be a false positive totally attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JB The analytical result may be biased high and partially attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JK The analytical result is an estimated maximum possible concentration (EMPC).
- X The analytical result is not used for reporting because a more accurate and precise result is reported in its place.
- J-TDS The analytical result is estimated based on failure of the Total Dissolved Solids (TDS) correctness check performed in accordance with the Standard Method 1030E.
- J-CAB The analytical result is estimated based on failure of the cation-anion balance correctness check performed in accordance with Standard Method 1030E.
- J-TDS & CAB The analytical result is unreliable based on the failure of the cation-anion balance and TDS correctness check performed in accordance with standard Method 1030E.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

No holding time requirement is specified for asbestos.

No cooler temperature requirement is specified for asbestos.

## II. Calibration

A NIST standard reference material containing Chrysotile, Amosite, and Crocidolite asbestos was analyzed. The calibration identified the proper constituents.

## III. Blanks

The blank analyses showed no asbestos contamination.

No field blanks were identified in this SDG.

## IV. Sample Result Verification

All analytes reported below the PQL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 091003269	All analytes reported below the PQL.	J (all detects)	A

The results listed on the final report were verified against the raw data worksheets. The results were transcribed correctly to the final report.

## V. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

## VI. Field Duplicates

Samples Q3-PF-1-1-0.0 and Q3-PF-1-1-0.0-FD were identified as field duplicates. No asbestos was detected in any of the samples.



**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Asbestos - Data Qualification Summary - SDG 091003269**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
091003269	Q2-PF-1-1-0.0 Q3-PF-1-1-0.0 Q3-PF-1-1-0.0-FD Q3-PF-2-1-0.0 P2-P2-1-1-0.0 Q3-PF-3-1-0.0 P3-PF-2-1-0.0 P3-PF-1-1-0.0 P4-PF-1-1-0.0	All analytes reported below the PQL.	J (all detects)	A	Sample result verification (sp)

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Asbestos - Laboratory Blank Data Qualification Summary - SDG 091003269**

No Sample Data Qualified in this SDG

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada  
Asbestos - Field Blank Data Qualification Summary - SDG 091003269**

No Sample Data Qualified in this SDG

Tronox Northgate Henderson

VALIDATION COMPLETENESS WORKSHEET

LDC #: 23103A6

SDG #: 091003269

Laboratory: EMSL Analytical, Inc.

Stage 2B

Date: 5-19-10

Page: 1 of 1

Reviewer: CR

2nd Reviewer: W

METHOD: Asbestos (EPA Method 540-R-97-028)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	4/6/10
II.	Calibration verification	A	
III.	Blanks	A	Filter Bk & Equipment Bk
IV.	Matrix Duplicates	N	Client specified
V.	Sample result verification	N	
VI.	Overall assessment of data	A	
VII.	Field duplicates	ND	(2,3)
VIII.	Field blanks	N	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

Validated Samples: soil

1	Q2-PF-1-1-0.0	11	<del>20</del>	21		31	
2	Q3-PF-1-1-0.0	12		22		32	
3	Q3-PF-1-1-0.0-FD	13		23		33	
4	Q3-PF-2-1-0.0	14		24		34	
5	P2-P2-1-1-0.0	15		25		35	
6	Q3-PF-3-1-0.0	16		26		36	
7	P3-PF-2-1-0.0	17		27		37	
8	P3-PF-1-1-0.0	18		28		38	
9	P4-PF-1-1-0.0	19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_

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**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Tronox LLC Facility, 2010 Parcels, Henderson, Nevada

**Collection Date:** April 8, 2010

**LDC Report Date:** May 19, 2010

**Matrix:** Soil

**Parameters:** Asbestos

**Validation Level:** Stage 2B

**Laboratory:** EMSL Analytical, Inc.

**Sample Delivery Group (SDG):** 091003272

**Sample Identification**

S2-PG-1-1-0.0

S2-PG-1-1-0.0-FD

## Introduction

This data review covers 2 soil samples listed on the cover sheet. The analyses were per EPA Method 540-R-97-028 for Asbestos.

This review follows the Standard Operating Procedures (SOP) 40, Data Review/Validation (BRC 2009), the Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (June 2009), NDEP guidance (May 2006), and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section X.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

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- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
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- JB The analytical result may be biased high and partially attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JK The analytical result is an estimated maximum possible concentration (EMPC).
- X The analytical result is not used for reporting because a more accurate and precise result is reported in its place.
- J-TDS The analytical result is estimated based on failure of the Total Dissolved Solids (TDS) correctness check performed in accordance with the Standard Method 1030E.
- J-CAB The analytical result is estimated based on failure of the cation-anion balance correctness check performed in accordance with Standard Method 1030E.
- J-TDS & CAB The analytical result is unreliable based on the failure of the cation-anion balance and TDS correctness check performed in accordance with standard Method 1030E.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## **I. Technical Holding Times**

No holding time requirement is specified for asbestos.

No cooler temperature requirement is specified for asbestos.

## **II. Calibration**

A NIST standard reference material containing Chrysotile, Amosite, and Crocidolite asbestos was analyzed. The calibration identified the proper constituents.

## **III. Blanks**

The blank analyses showed no asbestos contamination.

No field blanks were identified in this SDG.

## **IV. Sample Result Verification**

All analytes reported below the PQL were qualified as follows:

<b>Sample</b>	<b>Finding</b>	<b>Flag</b>	<b>A or P</b>
All samples in SDG 091003272	All analytes reported below the PQL.	J (all detects)	A

The results listed on the final report were verified against the raw data worksheets. The results were transcribed correctly to the final report.

## **V. Overall Assessment**

Data flags are summarized at the end of this report if data has been qualified.

## **VI. Field Duplicates**

Samples S2-PG-1-1-0.0 and S2-PG-1-1-0.0-FD were identified as field duplicates. No asbestos was detected in any of the samples.

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
 Asbestos - Data Qualification Summary - SDG 091003272**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
091003272	S2-PG-1-1-0.0 S2-PG-1-1-0.0-FD	All analytes reported below the PQL.	J (all detects)	A	Sample result verification (sp)

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
 Asbestos - Laboratory Blank Data Qualification Summary - SDG 091003272**

No Sample Data Qualified in this SDG

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada  
 Asbestos - Field Blank Data Qualification Summary - SDG 091003272**

No Sample Data Qualified in this SDG

LDC #: 23103B6  
 SDG #: 091003272  
 Laboratory: EMSL Analytical, Inc.

**Tronox Northgate Henderson**  
**VALIDATION COMPLETENESS WORKSHEET**  
 Stage 2B

Date: 5-19-10  
 Page: 1 of 1  
 Reviewer: CR  
 2nd Reviewer: [Signature]

**METHOD:** Asbestos (EPA Method 540-R-97-028)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	4/8/10
II.	Calibration verification	A	
III.	Blanks	A	Filterz BIK & Equipment BIK
IV.	Matrix Duplicates	N	Client specified
V.	Sample result verification	N	
VI.	Overall assessment of data	A	
VII.	Field duplicates	ND	(1,2)
VIII.	Field blanks	N	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

Validated Samples: soil

1	S2-PG-1-1-0.0	11		21		31	
2	S2-PG-1-1-0.0-FD	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
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**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Tronox LLC Facility, 2010 Parcels, Henderson, Nevada

**Collection Date:** April 9, 2010

**LDC Report Date:** May 19, 2010

**Matrix:** Soil

**Parameters:** Asbestos

**Validation Level:** Stage 4

**Laboratory:** EMSL Analytical, Inc.

**Sample Delivery Group (SDG):** 091003274

**Sample Identification**

V5-PH-1-1-0.0

W4-PH-1-1-0.0

## **Introduction**

This data review covers 2 soil samples listed on the cover sheet. The analyses were per EPA Method 540-R-97-028 for Asbestos.

This review follows the Standard Operating Procedures (SOP) 40, Data Review/Validation (BRC 2009), the Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (June 2009), NDEP guidance (May 2006), and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section X.

The following are definitions of the data qualifiers:

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- J- Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.
- J Data are qualified as estimated; it is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.
- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- B The analytical result may be a false positive totally attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JB The analytical result may be biased high and partially attributable to blank contamination. This qualifier is applicable to radiochemistry analysis only.
- JK The analytical result is an estimated maximum possible concentration (EMPC).
- X The analytical result is not used for reporting because a more accurate and precise result is reported in its place.
- J-TDS The analytical result is estimated based on failure of the Total Dissolved Solids (TDS) correctness check performed in accordance with the Standard Method 1030E.
- J-CAB The analytical result is estimated based on failure of the cation-anion balance correctness check performed in accordance with Standard Method 1030E.
- J-TDS & CAB The analytical result is unreliable based on the failure of the cation-anion balance and TDS correctness check performed in accordance with standard Method 1030E.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

No holding time requirement is specified for asbestos.

No cooler temperature requirement is specified for asbestos.

## II. Calibration

A NIST standard reference material containing Chrysotile, Amosite, and Crocidolite asbestos was analyzed. The calibration identified the proper constituents.

## III. Blanks

The blank analyses showed no asbestos contamination.

No field blanks were identified in this SDG.

## IV. Sample Result Verification

All analytes reported below the PQL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 091003274	All analytes reported below the PQL.	J (all detects)	A

The results listed on the final report were verified against the raw data worksheets. The results were transcribed correctly to the final report.

## V. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

## VI. Field Duplicates

No field duplicates were identified in this SDG.

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Asbestos - Data Qualification Summary - SDG 091003274**

<b>SDG</b>	<b>Sample</b>	<b>Analyte</b>	<b>Flag</b>	<b>A or P</b>	<b>Reason (Code)</b>
091003274	V5-PH-1-1-0.0 W4-PH-1-1-0.0	All analytes reported below the PQL.	J (all detects)	A	Sample result verification (sp)

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Asbestos - Laboratory Blank Data Qualification Summary - SDG 091003274**

No Sample Data Qualified in this SDG

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada  
Asbestos - Field Blank Data Qualification Summary - SDG 091003274**

No Sample Data Qualified in this SDG

**Tronox Northgate Henderson**  
**VALIDATION COMPLETENESS WORKSHEET**

LDC #: 23103C6  
 SDG #: 091003274  
 Laboratory: EMSL Analytical, Inc.

Stage 4

Date: 5-19-10  
 Page: 1 of 1  
 Reviewer: MG  
 2nd Reviewer: W

**METHOD:** Asbestos (EPA Method 540-R-97-028)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	sampled: 4-9-10
II.	Calibration verification	A	
III.	Blanks	A	filter blank + equipment blank
IV.	Matrix Duplicates	N	client specified
V.	Sample result verification	A	
VI.	Overall assessment of data	A	
VII.	Field duplicates	N	
VIII.	Field blanks	N	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

Validated Samples:  
all soil

1	V5-PH-1-1-0.0	11		21		31	
2	W4-PH-1-1-0.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
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Tronox Northgate Henderson Worksheet

Method: Asbestos (EPA Method 540-1R97-028)

Validation Area	Yes	No	NA	Findings/Comments
<b>Technical Holding Times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<b>Calibration</b>				
Were balance checks performed as required?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Was the flow rate for the IST opening calibrated to 72 ml/min?	<input checked="" type="checkbox"/>			
Was the leak check performed?	<input checked="" type="checkbox"/>			
Was chrysotile beam dose sensitivity acceptable?	<input checked="" type="checkbox"/>			
Was camera constant calibration acceptable?	<input checked="" type="checkbox"/>			
Was crocidolite spectrum Na sensitivity acceptable?	<input checked="" type="checkbox"/>			
Was Mg-Si K-alpha peak resolvability acceptable?	<input checked="" type="checkbox"/>			
Were K factors acceptable?	<input checked="" type="checkbox"/>			
Was detector resolution at the Mn K-alpha peak acceptable?	<input checked="" type="checkbox"/>			
<b>Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>			
Were 4% of unused filter lot blanks analyzed prior to sampling and < 0.2 fiber/mm <sup>2</sup> ?	<input checked="" type="checkbox"/>			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		<input checked="" type="checkbox"/>		
<b>Matrix Duplicates</b>				
Was a duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated DUP. <u>soil</u>		<input checked="" type="checkbox"/>		
Was the duplicate relative percent differences (RPD) ≤ 50%?			<input checked="" type="checkbox"/>	
<b>Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Were samples prepared in accordance with the Modified Elutriator Method for the Determination of Asbestos in Soil and Bulk Material, Revision 1, Berman and Kolk, May 2000?	<input checked="" type="checkbox"/>			
Were the EDXA and SAED photos provided?			<input checked="" type="checkbox"/>	ND
Was the analytical sensitivity greater than 3.00E+06?	<input checked="" type="checkbox"/>			
Were asbestos fibers recorded ≥5.0 microns in length, 3:1 aspect ratio, and a modified 0.4 micron min. width?			<input checked="" type="checkbox"/>	ND
Was analysis stopped upon recording 25 asbestos fibers ≥10 microns in length after current grid opening was completed.			<input checked="" type="checkbox"/>	↓

LDC #: 23103CG  
 SDG #: 091003274

**VALIDATION FINDINGS CHECKLIST**

Page 2 of 2  
 Reviewer: MG  
 2nd Reviewer: h

Validation Area	Yes	No	NA	Findings/Comments
<b>VI Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	✓			
<b>VII Field Duplicates</b>				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates and RPD ≤50%.			✓	
<b>VIII Field Blanks</b>				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	





**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
**Collection Date:** April 13 through April 14, 2010  
**LDC Report Date:** May 19, 2010  
**Matrix:** Soil  
**Parameters:** Asbestos  
**Validation Level:** Stage 2B  
**Laboratory:** EMSL Analytical, Inc.

**Sample Delivery Group (SDG):** 091003471

**Sample Identification**

G1-PC-1-1-0.0  
E1-PC-1-1-0.0  
F4-PD-1-1-0.0  
H2-PC-1-1-0.0  
S3-PG-1-1-0.0

## Introduction

This data review covers 5 soil samples listed on the cover sheet. The analyses were per EPA Method 540-R-97-028 for Asbestos.

This review follows the Standard Operating Procedures (SOP) 40, Data Review/Validation (BRC 2009), the Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (June 2009), NDEP guidance (May 2006), and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

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The following are definitions of the data qualifiers:

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- JK The analytical result is an estimated maximum possible concentration (EMPC).
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- J-CAB The analytical result is estimated based on failure of the cation-anion balance correctness check performed in accordance with Standard Method 1030E.
- J-TDS & CAB The analytical result is unreliable based on the failure of the cation-anion balance and TDS correctness check performed in accordance with standard Method 1030E.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

No holding time requirement is specified for asbestos.

No cooler temperature requirement is specified for asbestos.

## II. Calibration

A NIST standard reference material containing Chrysotile, Amosite, and Crocidolite asbestos was analyzed. The calibration identified the proper constituents.

## III. Blanks

The blank analyses showed no asbestos contamination.

No field blanks were identified in this SDG.

## IV. Sample Result Verification

All analytes reported below the PQL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 091003471	All analytes reported below the PQL.	J (all detects)	A

The results listed on the final report were verified against the raw data worksheets. The results were transcribed correctly to the final report.

## V. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

## VI. Field Duplicates

No field duplicates were identified in this SDG.

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Asbestos - Data Qualification Summary - SDG 091003471**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
091003471	G1-PC-1-1-0.0 E1-PC-1-1-0.0 F4-PD-1-1-0.0 H2-PC-1-1-0.0 S3-PG-1-1-0.0	All analytes reported below the PQL.	J (all detects)	A	Sample result verification (sp)

**Tronox LLC Facility, 2010 Parcels, Henderson, Nevada  
Asbestos - Laboratory Blank Data Qualification Summary - SDG 091003471**

No Sample Data Qualified in this SDG

**Tronox LLC Facility, 2009 Phase B Investigation, Henderson, Nevada  
Asbestos - Field Blank Data Qualification Summary - SDG 091003471**

No Sample Data Qualified in this SDG

**Tronox Northgate Henderson  
VALIDATION COMPLETENESS WORKSHEET**

LDC #: 23103D6  
SDG #: 091003471  
Laboratory: EMSL Analytical, Inc.

Stage 2B

Date: 5-19-10  
Page: 1 of 1  
Reviewer: MG  
2nd Reviewer: W

**METHOD:** Asbestos (EPA Method 540-R-97-028)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	4-13-10 through 4-14-10
II.	Calibration verification	A	
III.	Blanks	A	flita + equipment blank
IV.	Matrix Duplicates	N	client specified
V.	Sample result verification	N	
VI.	Overall assessment of data	A	
VII.	Field duplicates	N	
VIII.	Field blanks	N	

Note: A = Acceptable      ND = No compounds detected      D = Duplicate  
 N = Not provided/applicable      R = Rinsate      TB = Trip blank  
 SW = See worksheet      FB = Field blank      EB = Equipment blank

Validated Samples:  
all soil

1	G1-PC-1-1-0.0	11		21		31	
2	E1-PC-1-1-0.0	12		22		32	
3	F4-PD-1-1-0.0	13		23		33	
4	H2-PC-1-1-0.0	14		24		34	
5	<del>S3-PC</del> <sup>G</sup> -1-1-0.0	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
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