

Field Activity Report



environmental management, inc.

300 Frank H. Ogawa Plaza, Suite 510, Oakland, CA 94612
 Tel: (510) 839-0688 Fax: (510) 839-4350

Page 1 of 2

Date: 5/14/2010

Recorded By: Jim Carolan

Project Name: Manganese Tailings Removal

Project No.: 2027.08, Task 10

Client Name: Tronox LLC

Weather: Clear

Temperature: 70's - 80's

Site Conditions: Light winds

NORTHGATE PERSONNEL ON-SITE

Jim Carolan

VISITORS

| Name | Company/Agency | Time Arrived | Time Left |
|----------------------|---|--------------|--------------|
| <u>Brian Rakvica</u> | <u>NDEP Representative (McGinty & Assoc.)</u> | <u>1000</u> | <u>1400?</u> |
| | | | |
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| | | | |
| | | | |

CONTRACTORS

Primary Contractor Name: ENTACT Phone No.: 307-359-1141

Supervisor: Bob Ainslie Task: Manganese Tailings Removal Task

| Company | No. of Supervisors | No. of Workers | Remarks |
|---------------|--------------------|----------------|-------------------------------------|
| <u>ENTACT</u> | <u>1</u> | <u>10</u> | <u>Manganese Parcel Remediation</u> |
| | | | |
| | | | |
| | | | |

EQUIPMENT (not listed on page 2 of this summary report).

2 CAT 345C excavators, 1 Doze D6w, 2 water trucks
1 CAT 14H Grader (not in use)

Field Activity Report



environmental management, inc.

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Page 2 of 2

Date: 5/14/2010

Recorded By: Jim Carolan

Project Name: Manganese Tailings Removal

Project No.: 2027.08, Task 10

Client Name: Tronox LLC

EXACVATION ACTIVITIES SUMMARY

Excavation Summary:

Excavation Contractor:

ENTACT

Excavation Equipment:

Two CAT 345C Excavators

1 Dozer D6W

Comments:

- Excavators mixed water with manganese tailings and transported 147 loads of material to Apex Landfill
- ENTACT controlled dust effectively all day
- Northgate isolated a 35' x 20' area where ENTACT encountered odors. Northgate performed H&S screening with PID, all readings are zero.

Waste Transport and Disposal Summary:

Transporter(s):

KMOA, Assorted Contractors

Transporter Equipment:

No. 30

Type: end dumps +

No.

Type: belly dumps

No.

Type:

Waste Type/Classification:

Soil/Non-Hazardous Waste, Waste Profile No. 3825104167

Disposal Facility:

Apex Landfill, 13550 North US Highway 93, Las Vegas, Nevada

Comments:

General Activities Summary:

- ENTACT transported 147 loads to Apex Landfill.
- ENTACT submitted an incident report for Highway 15 accident on 5/12/2010.
- Northgate isolated and performed PID screening in an area of 35' x 20' where ENTACT detected odors. Area is NW corner of manganese tailings stockpile. Northgate will collect soil samples in this area on 5/15/2010.

Print Name: Jim Carolan

Signature:

Field Activity Report



environmental management, inc.

300 Frank H. Ogawa Plaza, Suite 510, Oakland, CA 94612
 Tel: (510) 839-0688 Fax: (510) 839-4350

Page 1 of 2

Date: 5/5/2010

Recorded By: Jim Carlson

Project Name: Manganese Tailings Removal

Project No.: 2027.08, Task 10

Client Name: Tronox LLC

Weather: Clew, breezy

Temperature: 85-90°

Site Conditions:

NORTHGATE PERSONNEL ON-SITE

Jim Carlson, Dave Brown

VISITORS

| Name | Company/Agency | Time Arrived | Time Left |
|----------------------|---|--------------|-------------|
| <u>Brian Rakulca</u> | <u>McAnley & Assoc. (NDEP Representative)</u> | <u>1200</u> | <u>1235</u> |
| | | | |
| | | | |
| | | | |
| | | | |

CONTRACTORS

Primary Contractor Name: ENTACT

Phone No.: 307-359-1141

Supervisor: Bob Ainslie

Task: Manganese Tailings Removal Task

| Company | No. of Supervisors | No. of Workers | Remarks |
|---------------|--------------------|----------------|---------|
| <u>ENTACT</u> | <u>1</u> | <u>10</u> | |
| | | | |
| | | | |
| | | | |

EQUIPMENT (not listed on page 2 of this summary report).

2 CAT 345C excavators, 3 dozers, 2 water trucks, 1 CAT 14H Grader (not in regular use)

Field Activity Report



environmental management, inc.

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Page 2 of 2

Date: 5/15/2010
Recorded By: Jim Carlson

Project Name: Manganese Tailings Removal Project No.: 2027.08, Task 10
Client Name: Tronox LLC

EXCAVATION ACTIVITIES SUMMARY

Excavation Summary:

Excavation Contractor: ENTACT
Excavation Equipment: Two CAT 345C Excavators
Two D6W Dozers.

Comments: • Excavators mixed water with manganese tailings and transported ~147 loads of material to Apex Landfill
• ENTACT controlled dust effectively all day
• Northgate sampled the ~35' x 20' area isolated on 5/14/2010. See Dana Brown's notes for details (attached)

Waste Transport and Disposal Summary:

Transporter(s): Assorted contractors
Transporter Equipment: No. 35 Type: bottom dump
No. Type:
No. Type:
Waste Type/Classification: Soil/Non-Hazardous Waste, Waste Profile No. 3825104167
Disposal Facility: Apex Landfill, 13550 North US Highway 93, Las Vegas, Nevada

Comments:

General Activities Summary:

• ENTACT transported ~147 loads to Apex Landfill.
• Northgate sampled on ~35' x 20' area isolated due to odors on 5/14/2010.
• ENTACT shut job down on evening of 5/15/2010 due to perceptions of landfill's ability to handle delivered material. See attached letter.

Print Name: Jim Carlson Signature: [Handwritten Signature]

Field Activity Report



environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
 Tel: (949) 260-9293 Fax: (949) 260-9299

Page 1 of 2

Date: 5-15-2010

Recorded By: Dana R. Brown

Project Name: Manganese Tailings Removal Project No.: 2027,08,10S

Client Name: Tronox LLC Temperature: 85°-90°

Weather: Sunny & high clouds & breezy.

Site Conditions: Active excavation & off haul of tailings. Freshly exposed bench on N. side of tails @ basal surface of tailings / @ end.

NORTHGATE PERSONNEL ON-SITE

Jim Carolan
Dana R. Brown

VISITORS

| Name | Company/Agency | Time Arrived | Time Left |
|----------------------|------------------------------|------------------------|------------------------|
| <u>Brian Rakovic</u> | <u>McGinley & Assoc.</u> | <u>12⁰⁰</u> | <u>12³⁵</u> |
| | | | |
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| | | | |

CONTRACTORS

Contractor Name: Entact Phone No.: _____
 Supervisor: Bob Task: Excavation & Offhaul

| Company | No. of Supervisors | No. of Workers | Remarks |
|---------|--------------------|----------------|---------|
| | | | |
| | | | |
| | | | |
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EQUIPMENT

Soil sampling kit.
11.7 & 10.6 ev lamp PFD's (2x used)
2" x 6" stainless steel liners (x 4 used)
Decor kit.
Level D PPE

Field Activity Report



environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
Tel: (949) 260-9293 Fax: (949) 260-9299

Page 2 of 2

Date: 5-15-2010 Saturday

Recorded By: Dana R. Brown

Project Name: Manganese Tails Removal

Project No.: 2027, 08, 105

Client Name: Tronox LLC

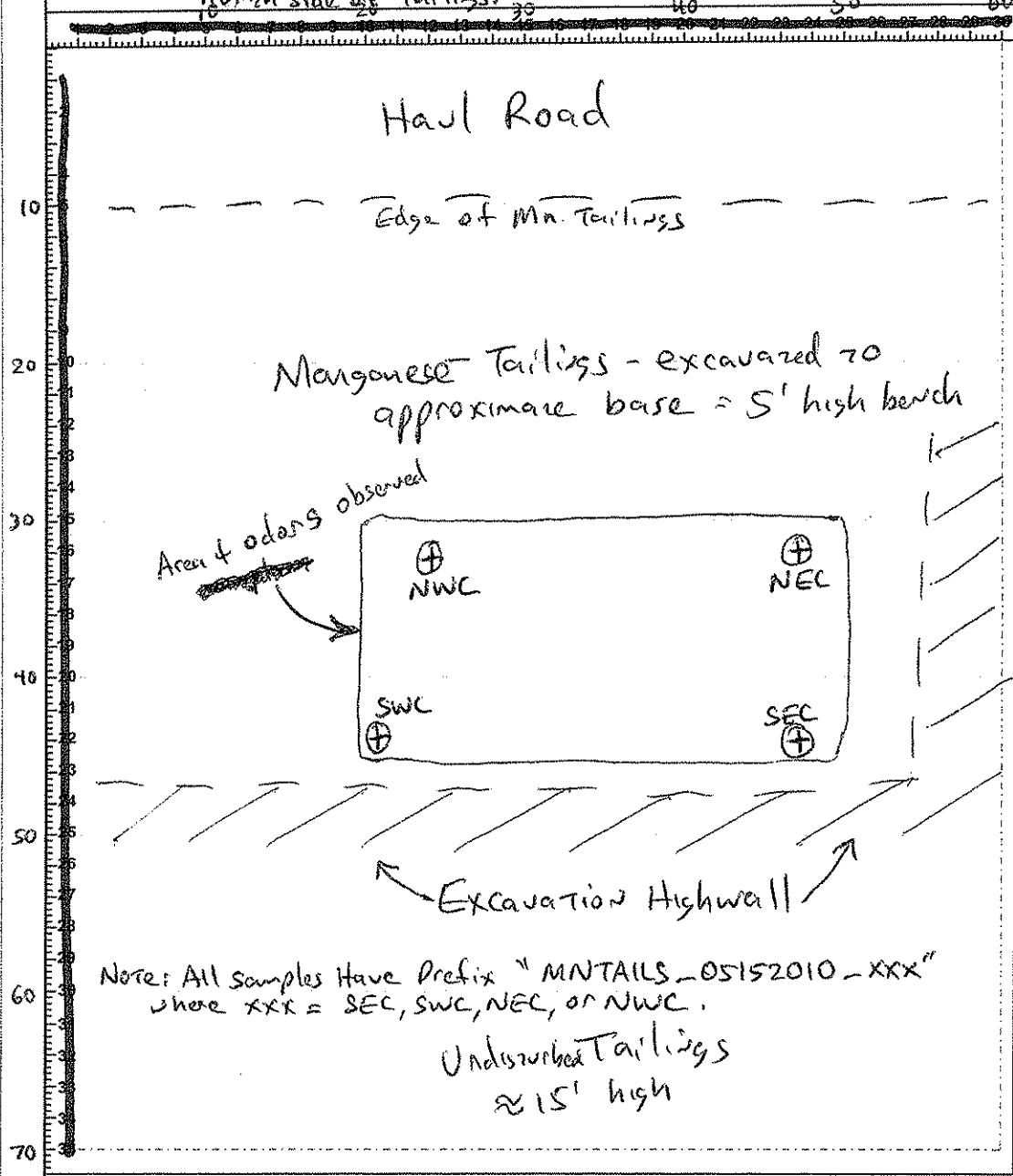
ACTIVITIES

| Time: | Activities (include event, time, observations, observers, etc.) |
|-------|---|
| 11:30 | Mob up for soil sampling. Drive to Tronox & check in @ guard |
| 11:50 | Mob to NGEM trailer, meet Jim Conolan & Brian Rakusca |
| | Discuss events of yesterday & plan of action for today. |
| | 1) Excavating near basal surface of tailings, along first bench in NW area. Workers detected odor in area roughly 10' x 20' near basal contact. Excavation stopped, moved over & continued. |
| | 2) Entact (contractor) requested sampling to determine odor source. |
| | 3) From My Gwiley Assoc. - Brian Rakusca: Possible COPC's include VOC's, SVOC's, organic acids, phthalates. |
| | Pack up sampling equipment - Note: ran out of 2" x 6" tubes for coring slide hammer, will have to use 2.5" x 6" tubes from sonic drilling (2.5" x 6" stainless steel tubes). Advanced 4 rock hammer |
| | Mob to tailings & examine area, photograph. Prep to collect soil samples. Entact has scraped fresh 6" off the 15' x 30' area of interest. |
| | Select 4 locations & commence mapping & GPS measurements; See Site Map. |
| | SWC = N 36° 02.729' W 115° 00.049' |
| | NWC = N 36° 02.732' W 115° 00.048' |
| | NEC = N 36° 02.734' W 115° 00.043' |
| | SEC = N 36° 02.730' W 115° 00.043' |
| | Collect samples for headspace gas testing & lay out in the sun. Intake @ 5ft |
| | Prepare to sample soils, Level D PPE, See Soil Sample Data Forms |
| 13:14 | Perform background air monitoring of 2 P20's; 11.7ev = 0.0; 10.6ev = 0.0 |
| 13:30 | Collect sample in SWC = MNTAILS-05152010-SWC 1 x (2.5x6") SS tube |
| 13:55 | Collect sample in NEC = MNTAILS-05152010-NEC ↓ ↓ ↓ |
| 14:05 | Collect sample in SEC = MNTAILS-05152010-SEC ↓ ↓ ↓ |
| 14:35 | Collect sample in NWC = MNTAILS-05152010-NWC ↓ ↓ ↓ |
| | Package samples as Jim Conolan measures distances between. |
| 14:50 | Return to trailer & process samples & paperwork. |
| 16:00 | Finish processing samples & documentation. Mob to guard shack & check out. |
| 16:17 | Return to Hotel, finished. |

Print Name: Dana R. Brown

Signature: *D. R. Brown*

| | |
|---|---|
| Project Name: Tronox LLC | Site Name: Manganese Tailings |
| Project Number: 2027, 08, 10S | Site Address: 560 W. Lake Mead Parkway |
| Drawn By: Dana R. Brown | City & State: Henderson, Nevada 89015 |
| Date & Time: 5-15-2010 ; 13:10 | Northing: N 36° 2.732' Easting: E 115° 0.048' |
| Description: Northwest corner of manganese tailings pile. 1st excavated bench on north side of tailings. | |



Geologic Units

Manganese Tailings ①

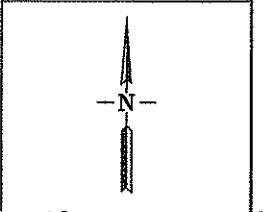
Fill or Gravel ②

SWC = Best Mn tails sample

SWC = Best Gravel sample

NWC = packed sample Mn

NEC = Gravel



⊕ = Co-located soil + Headspace
 NEC gas samples
 TTTT = Excavation margin

Scale: 1" = 10'

PID Model: ~~2000~~ Mini RAE 2000, PGM7600 Serial Number: 10.6 / 11.7 Date Calibrated: 10.6 / 11.7 = 5-14-2010

| Station ID: | SWC | NWC | NEC | SEC | Breathing Zone | |
|-----------------|-------|-------|-------|-------|----------------|-------|
| Depth (ft): | 6" | 6" | 6" | 6" | +5 | +5 |
| 10.6 PID (ppm): | 1.8 | 0.7 | 0.8 | 0.6 | 0.0 | 0.0 |
| 11.7 PID (ppm): | 1.4 | 1.0 | 1.4 | 0.7 | 0.0 | 0.0 |
| Time: | 13:45 | 13:47 | 13:49 | 13:51 | 13:14 | 14:00 |



SOIL SAMPLE DATA FORM

environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660

Tel: (949) 260-9293 Fax: (949) 260-9299

PROJECT NAME: Trenox LLC SAMPLE ID: MNTAILS-05152010-NEC

PROJECT NO.: 2027, 08, 10S DATE: 5-15-2010 TIME: 13:55

SITE ADDRESS: 560 W. Lake Mead Pkwy Henderson, Nevada 89015 COLLECTED BY: Dana R. Brown

GPS COORDINATES: N 36° 02.734' W 115° 00.043' Elevation: _____

LOCATION DESCRIPTION: NEC NW area of manganese tailings. Approx 15'x30' area in far NW portion, on 1st excavated bench. At basal surface of tailings, sample is from sandy soil below tails.

COLLECTION METHOD: Excavator removed 6" of material over 15'x30' area. Advanced new, pre-cleaned liner into soil using stainless steel rock hammer.

METHOD 5035 DATA: Type of Collection Device: _____
Number of Samples Collected: _____
Preservation Methods: _____
N/A

SAMPLE DATA: Type of Collection Device: 2" x 6" stainless steel liner
Sample Homogenized?: No
ID of Samples Collected: MNTAILS-05152010-NEC
Preservation Methods: 4° C in cooler with ice

SAMPLE CONTAINER: Stainless Steel Liner _____ Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

QA/QC SAMPLE DATA: Type of Collection Device: _____
Sample Homogenized?: _____
ID of Samples Collected: _____
Preservation Methods: _____
N/A

SAMPLE CONTAINER: Stainless Steel Liner _____ Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

EQUIPMENT DECONTAMINATION PROCEDURES:

DECONTAMINATION METHOD: Non Phosphatic detergent wash/distilled water rinse Hot pressure wash/steam cleaning
 Reagent water rinse Methanol rinse

NOTES: Liner capped with Teflon sheers & plastic end caps sealed with Parafilm. Collect sample from end marked "bottom" for 8260b analysis.

Soil Sample Data Form

P2D Values for Headspace Gas: 10.6 ev = 0.8 ppm
11.7 ev = 1.4 ppm



1100 Quail Street, Suite 102, Newport Beach, CA 92660
Tel: (949) 260-9293 Fax: (949) 260-9299

PROJECT NAME: Tronox LLC SAMPLE ID: MNTAILS-05152010-NWC

PROJECT NO.: 2027, 08, 105 DATE: 5-15-2010 TIME: 14:35

SITE ADDRESS: 560 W. Lake Mead Pkwy Henderson, Nevada 89015 COLLECTED BY: Dana R. Brown

GPS COORDINATES: N 36° 02.732' W 115° 00.048' Elevation: _____

LOCATION DESCRIPTION: N.W. corner of Mn tailings, approx 15' x 30' area on NW corner of first excavated bench. Taken from manganese tailings just above basal contact of tails and fill/det.
NWC

COLLECTION METHOD: Excavator removed 6" of material over 15' x 30' area. Advanced new, pre-cleaned S/S tube 6" into tailings using stainless steel rock hammer. Material too loose to stay in tube, sample re-packed.

METHOD 5035 DATA: Type of Collection Device: _____
Number of Samples Collected: _____
Preservation Methods: _____
N/A

SAMPLE DATA: Type of Collection Device: 2" x 6" stainless steel tube
Sample Homogenized?: No
ID of Samples Collected: MNTAILS-05152010-NWC
Preservation Methods: 4°C with cooler containing ice

SAMPLE CONTAINER: Stainless Steel Liner Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

QA/QC SAMPLE DATA: Type of Collection Device: _____
Sample Homogenized?: _____
ID of Samples Collected: _____
Preservation Methods: _____
N/A

SAMPLE CONTAINER: Stainless Steel Liner _____ Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

EQUIPMENT DECONTAMINATION PROCEDURES:

DECONTAMINATION METHOD: Non Phosphatic detergent wash/distilled water rinse Hot pressure wash/steam cleaning
 Reagent water rinse Methanol rinse

NOTES: Liner sealed with teflon sheers, capped with plastic caps, and secured with Parafilm. Do not use for VOC analysis = packed sample.

Soil Sample Data Form PID Values for Headspace Gas: 10.6 ev = 0.7 ppm
11.7 ev = 1.0 ppm



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1100 Quail Street, Suite 102, Newport Beach, CA 92660
Tel: (949) 260-9293 Fax: (949) 260-9299

SOIL SAMPLE DATA FORM

PROJECT NAME: TRONOX LLC SAMPLE ID: MN'TAILS-05152010-SWC
PROJECT NO.: 2027.08.10S DATE: 5-15-2010 TIME: 13:30
SITE ADDRESS: 560 W. Lake Mead Pkwy Henderson, Nevada 89015 COLLECTED BY: Dona R. Brown

GPS COORDINATES: N 36° 02.729' W 115° 00.049' est. Elevation: _____

LOCATION DESCRIPTION: NW section of Manganese Tailings. Active excavation area along N side, near bench @ basal contact of tails & alluvium. Approx 15' x 30' area in for NW corner of tailings along 1st bench. Sample from South West portion of sample area, in Manganese tails material.
SWC

COLLECTION METHOD: Excavator removed 6" of material over entire 15' x 30' area. Drove new, pre-cleared stainless steel tube into tailings material using Estwing stainless steel hammer. Advanced tube 6" then removed.

METHOD 5035 DATA: Type of Collection Device: _____
Number of Samples Collected: _____
Preservation Methods: _____
N/A

SAMPLE DATA: Type of Collection Device: 2" x 6" stainless steel liner
Sample Homogenized?: No
ID of Samples Collected: MN'TAILS-05152010-SWC
Preservation Methods: 4° C in cooler with ice.

SAMPLE CONTAINER: Stainless Steel Liner Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

QA/QC SAMPLE DATA: Type of Collection Device: _____
Sample Homogenized?: _____
ID of Samples Collected: _____
Preservation Methods: _____
N/A

SAMPLE CONTAINER: Stainless Steel Liner _____ Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

EQUIPMENT DECONTAMINATION PROCEDURES:

DECONTAMINATION METHOD: Non Phosphatic detergent wash/distilled water rinse Hot pressure wash/steam cleaning
 Reagent water rinse Methanol rinse

NOTES: Liners capped with Teflon sheet & plastic end caps. Caps secured w/ Parafilm. Collect sample for analysis from end marked "bottom".

Soil Sample Data Form PID Values for Headspace Gas: 10.6 eV = 1.8 ppmv
11.7 eV = 1.4 ppmv



SOIL SAMPLE DATA FORM

environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
Tel: (949) 260-9293 Fax: (949) 260-9299

PROJECT NAME: Tronox LLC SAMPLE ID: MNTAILS_05152010_SEC
PROJECT NO.: 2027.08.105 DATE: 5-15-2010 TIME: 14:05
SITE ADDRESS: 560 W. Lake Mead Henderson, Nevada 89015 COLLECTED BY: Dana R. Brown

GPS COORDINATES: N 36° 02.730' W 115° 00.043' est, Elevation:

LOCATION DESCRIPTION: NW area of Manganese tailings. Approx 15' x 30' area in NW area of tails @ 1st bench excavation basal surface / contain + QAI? SEC Sample from south east portion of sample area, in native soil QAI (or fill material?).

COLLECTION METHOD: Excavator removed 6" of material over entire 15' x 30' area. Advanced new, pre-cleard stainless steel tube into native soils below tailings, material using stainless steel hammer. Advanced tube 6" then removed.

METHOD 5035 DATA: Type of Collection Device: N/A Number of Samples Collected: Preservation Methods:

SAMPLE DATA: Type of Collection Device: 2" x 6" stainless steel liner Sample Homogenized?: No ID of Samples Collected: MNTAILS_05152010_SEC Preservation Methods: 4°C in cooler with ice.

SAMPLE CONTAINER: Stainless Steel Liner [checked] Brass Liner Acetate Liner Glass Jar Other (describe):

QA/QC SAMPLE DATA: Type of Collection Device: N/A Sample Homogenized?: ID of Samples Collected: Preservation Methods:

SAMPLE CONTAINER: Stainless Steel Liner Brass Liner Acetate Liner Glass Jar Other (describe):

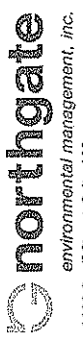
EQUIPMENT DECONTAMINATION PROCEDURES:

DECONTAMINATION METHOD: [checked] Non Phosphatic detergent wash/distilled water rinse [] Hot pressure wash/steam cleaning [] Reagent water rinse [] Methanol rinse

NOTES: Liners sealed with teflon sheets, capped with plastic caps & secured with Parafilm. Collect sample for analysis from end marked "Bottom".

Soil Sample Data Form PID Values for Headspace Gas: 10.6 ev = 0.6 ppmv 11.7 ev = 0.7 ppmv

2027.01.1725-025
 2027.08.0001
 Page: 1 of 0
 Cooler # 1 of 1



1100 Quail Street, Suite 102
 Newport Beach, CA 92660 (949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

| Required Ship to Lab: | | Required Project Information: | | Required Invoice Information: | | COC # | | | | | | | |
|--|---|-------------------------------|--|-------------------------------|-----------------------|---|-----------------|--------------------------|-------------|-------------|-----------------|---------------------------------|------------|
| Lab Name: Test America Laboratories Inc | Site ID #: 102 | TRONOX LLC, HENDERSON | Send Invoice to: Susan Crowley Tronox LLC. | Total # of Samples: 44 | Event Complete? Y | Regular | Mark One | | | | | | |
| Address: 4955 Yarrow Street | Project # | 2027.008 | PO Box 55 | X | Rush | Filtered | | | | | | | |
| Arvada, Colorado 80002 | Site Address | 560 W Lake Mead Drive | City/State | Henderson, NV 89009 | Phone #: | (949) 260-9293 | | | | | | | |
| Lab P/N: Michael Phillips | City | Henderson | State, Zip | NV, 89009 | PO # | | | | | | | | |
| Phone/Fax: 303-735-0157 | Site PM Name | Derrick Willis | Send EDD to | Frank Hagar@ngem.com | CC Hardcopy report to | PDF Electronic Version Only -- FTP Upload | | | | | | | |
| Lab PM email: michaelphilips@testamericainc.com | Phone/Fax: | (949) 375-7004 | CC Hardcopy report to | See Additional Comments Below | | | | | | | | | |
| Applicable Lab Code #: | Site PM Email: | derrick.willis@ngem.com | | | | | | | | | | | |
| ITEM # | SAMPLE ID Samples IDs MUST BE UNIQUE | SAMPLE LOCATION | MATRIX CODE | SAMPLE TYPE | SAMPLE DATE | SAMPLE TIME | # OF CONTAINERS | Comments/Lab Sample I.D. | Analysis | Temp in OC | Samples on Ice? | Sample Intact? | Top Blank? |
| | MN TAILS - 05152010 - SEC | MN Tails | SO | SST | 5-15-2010 | 14:05 | 1 | | 8260 SCREEN | | | | |
| | MN TAILS - 05152010 - SMC | MN Tails | SO | SST | 5-15-2010 | 13:30 | 1 | | A - RUSH | | | | |
| | MN TAILS - 05152010 - DEC | MN Tails | SO | SST | 5-15-2010 | 13:55 | 1 | | | | | | |
| | MN TAILS - 05152010 - NWL | MN Tails | SO | SST | 5-15-2010 | 14:35 | 1 | | | | | | |
| Additional Comments/Special Instructions: Reconnaissance Sample Screen \$260 Take sample for analysis from end of tube marked "Bottom", H = Hold, A = Analyze, Rush Turnover SST = Seamless Steel Tube 2" x 6" | | | | | | | | | | | | | |
| RELINQUISHED BY / ACTIVATION | | DATE | | TIME | | ACCEPTED BY / ACTIVATION | | DATE | | TIME | | SAMPLE RECEIPT CONDITIONS | |
| Derrick Willis | | 5-17 | | 16:30 | | DANAR, BROWN | | 5-17 | | 16:30 | | Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N | |
| SIGNATURE OF SAMPLER | | SIGNATURE OF SUPPLIER | | SHIPING INFO | | SAMPLER NAME AND SIGNATURE | | PRINT NAME OF SAMPLER | | DATE SIGNED | | TIME | |
| Derrick Willis | | Fedex | | Fedex | | DANAR, BROWN | | DANAR, BROWN | | 5-17-2010 | | 16:30 | |

Field Activity Report



environmental management, inc.

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Date: 5/18/2010

Recorded By: Jim Carolan

Project Name: Manganese Tailings Removal

Project No.: 2027.08, Task 10

Client Name: Tronox LLC

Weather: Clear, breezy

Temperature: _____

Site Conditions: _____

NORTHGATE PERSONNEL ON-SITE

Jim Carolan

No work conducted on 5/17/2010 due to ENTACT work stoppage.

Dana Brown (resampled isolated area of 5/14/200, see attached report)

VISITORS

| Name | Company/Agency | Time Arrived | Time Left |
|---------------------|----------------------------|--------------|-------------|
| <u>Devin Gordon</u> | <u>NDEP Representative</u> | <u>0700</u> | <u>1630</u> |
| | | | |
| | | | |
| | | | |
| | | | |

CONTRACTORS

Primary Contractor Name: ENTACT

Phone No.: 307-359-1141

Supervisor: Bob Ainslie

Task: Manganese Tailings Removal Task

| Company | No. of Supervisors | No. of Workers | Remarks |
|---------------|--------------------|----------------|---------|
| <u>ENTACT</u> | <u>1</u> | <u>10</u> | |
| | | | |
| | | | |
| | | | |

EQUIPMENT (not listed on page 2 of this summary report).

2 CAT 345C excavators, 3 dozers, 2 water trucks, 1 CAT 14H Grader. (not in regular use)

Field Activity Report



environmental management, inc.

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Date: 5/18/2010

Recorded By: Jim Carlson

Project Name: Manganese Tailings Removal

Project No.: 2027.08, Task 10

Client Name: Tronox LLC

EXACVATION ACTIVITIES SUMMARY

Excavation Summary:

Excavation Contractor:

ENTACT

Excavation Equipment:

Two CAT 345C Excavators

Two DGW Dozers

Comments:

- Excavators mixed waste with manganese tailings and transported 150 loads of material to Apex Landfill.
- ENTACT controlled dust effectively all day.
- Northgate re-sampled the 35' x 20' area isolated on 5/14/2010
- Northgate / ENTACT / Republic met at Apex Landfill. See attached summary.

Waste Transport and Disposal Summary:

Transporter(s):

Assorted

Transporter Equipment:

No. 37 Type: bottom dump

No. Type:

No. Type:

Waste Type/Classification:

Soil/Non-Hazardous Waste, Waste Profile No. 3825104167

Disposal Facility:

Apex Landfill, 13550 North US Highway 93, Las Vegas, Nevada

Comments:

General Activities Summary:

- ENTACT transported 150 loads to Apex Landfill.
- Northgate re-sampled the 35' x 20' area isolated for odors on 5/14/2010
- ENTACT / Republic / Northgate met at Apex Landfill to discuss strategy for material handling

Print Name: Jim Carlson

Signature:

Field Activity Report



environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
 Tel: (949) 260-9293 Fax: (949) 260-9299

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Date: 5-18-2010 Tuesday
 Recorded By: Dana R. Brown

Project Name: Manganese Tailings Removal Project No.: 2027.08.10S

Client Name: Tronox LLC

Weather: Clear & Breezy Temperature: 80° - 85°

Site Conditions: Active excavation & off haul of manganese tailings. Samples collected at freshly excavated bench on North side of tailings near basal contact with native G&L.

NORTHGATE PERSONNEL ON-SITE
Dana R. Brown

VISITORS

| Name | Company/Agency | Time Arrived | Time Left |
|------|----------------|--------------|-----------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

CONTRACTORS

Contractor Name: Entact Phone No.: _____
 Supervisor: Bob Task: Excavation & offhaul

| Company | No. of Supervisors | No. of Workers | Remarks |
|---------|--------------------|----------------|---------|
| | | | |
| | | | |
| | | | |
| | | | |

EQUIPMENT

Soil Sampling Kit
11.7 & 10.6 ev lamp equipped PID's (2 total)
Hand auger + Slide Hammer.
Deton Kit.
Level D ppe

Field Activity Report



environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
Tel: (949) 260-9293 Fax: (949) 260-9299

Page 2 of 2

Date: 5-18-2010 Tuesday

Recorded By: Dona R. Brown

Project Name: Manganese Tailings Removal

Project No.: 2027, 08, 103

Client Name: Tronox LLC

ACTIVITIES

| Time: | Activities (include event, time, observations, observers, etc.) |
|-------|---|
| 10:00 | Get sample supplies from Fed-Ex delivery @ hotel. Mob to tronox. Pack up supplies & equipment for sampling. Pack up Method 5035 & Hand auger. Decon Auger + sampler. Mob to Tailings & check in with Enrac. |
| 12:30 | Commence sample collection: 1) 1' West of MNTAILS_05182010_SWC. exc remove upper 3" to expose fresh soils & pound 2" x 6" tube w/ slide hammer. 2) Inspect bottom & inside tailings. 3) Pull method 5035 samples from bottom end of tube. 4) Use sluff from around tube for moisture content sample 5) Drive 2nd tube & collect for possible SVOC's, organic acids, phthalates. 5 Containers filled. MNTAILS_05182010_SWC, 3x VOAS, 1x 50ml poly, 1x 2" x 6" SS tube 6) Move over 4" & repeat for collection of MNTAILS_0518201-SWC-009 = QA/QC duplicate of (SWC) primary sample. Used "Lock n Load" sampler advanced into undisturbed soils inside driven tubes. Placed directly into pre-preserved VOAS & Meshanal (1) & DZ warn (2). |
| 12:55 | Package Samples & do paperwork. |
| 13:20 | Return to Trailer & finish paperwork. |
| | Collected 2 samples @ 12:30: |
| | MNTAILS_05182010_SWC |
| | MNTAILS_05182010_SWC_FD |
| | 5 containers per sample filled. Collected in level D PPE. |

Print Name: Dona R. Brown

Signature:



environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660

Tel: (949) 260-9293 - Fax: (949) 260-9299

SOIL SAMPLE DATA FORM

PROJECT NAME: TRONOR LLC SAMPLE ID: MNTAILS_05182010_SWC

PROJECT NO.: 2027.08.10S DATE: 5-18-2010 TIME: 12:30

SITE ADDRESS: 560 W. Lake Mead Pkwy Henderson, Nevada 89015 COLLECTED BY: Dana R. Brown

GPS COORDINATES: N 36° 02.729' W 115° 00.049' Elevation: _____

LOCATION DESCRIPTION: NW section of manganese tailings, Active excavation area along north side near basal contact of tailings with native Qal material
SWC Sample is from tailings 6" above Qal.

COLLECTION METHOD: Scraped 2" of material free of S/S trowel, Advanced coring tube 6" into substrate & retracted. Pressed 5035 kits from undisturbed soils in bottom of sample tube.

METHOD 5035 DATA: Type of Collection Device: "Lock Load"
Number of Samples Collected: 4; 3x VOAS (1x Methwal + 2x H₂O), 1x 50ml Poly
Preservation Methods: Method 5035

SAMPLE DATA: Type of Collection Device: 2.5" x 6" Stainless steel tube
Sample Homogenized?: Yes
PID Readings (ppm): 10.6 ev 1.4 11.7 ev 0.9 Other OVM _____
Number of Samples Collected: 1
Preservation Methods: 4°C in cooler with ice

SAMPLE CONTAINER: Stainless Steel Liner Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): _____

QA/QC SAMPLE DATA: Type of Collection Device: Same as above = Field Duplicate
Sample Homogenized?: _____
Number of Samples Collected: 3 3-VOAS + SS Tube + Moisture Content?
Preservation Methods: _____
MNTAILS_05182010_SWC-FD
"0518201"

SAMPLE CONTAINER: Stainless Steel Liner Brass Liner _____ Acetate Liner _____ Glass Jar _____
Other (describe): Method 5035 VOAS = 3; Moisture content = 50ml poly

EQUIPMENT DECONTAMINATION PROCEDURES:

DECONTAMINATION METHOD: Non Phosphatic detergent wash/distilled water rinse Hot pressure wash/steam cleaning
 Reagent water rinse Methanol rinse

NOTES:
Liners capped w/ teflon sheers & plastic end caps, then sealed with para film.
Collect sample for analysis from end marked bottom. Method 5035 kit
Soil Sample Data Form Supplied by Ter America; ESS, 5035-KITA & Lock Load Syringe

May 24, 2010

TestAmerica Project Number: G0E180598

PO/Contract: 2027.08.105

Cindy Arnold
Tronox LLC / AIU Henderson, NV
PO Box 268859
Oklahoma City, OK 73126-8859

Dear Ms. Arnold,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on May 19, 2010. These samples are associated with your Tronox Henderson project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4383.

Sincerely,



DAVID R. ALLTUCKER
Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G0E180598

Case Narrative

Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

SOLID, 8260B, Volatile Organics, GC/MS

Samples: 1, 2

Sample Data Sheets

Method Blank Report

Laboratory QC Reports

SOLID, D 2216-90, Percent Moisture

Samples: 1, 2

Sample Data Sheets

Laboratory QC Reports

Case Narrative

TestAmerica West Sacramento Project Number G0E180598

SOLID, 8260B, Volatile Organics, GC/MS

Sample(s): 1, 2

There was insufficient sample volume to prepare a matrix spike/matrix spike duplicate (MS/MSD) pair with this batch.

There were no other anomalies associated with this project.

TestAmerica Laboratories West Sacramento Certifications/Accreditations

| Certifying State | Certificate # | Certifying State | Certificate # |
|------------------|---------------|--------------------|------------------|
| Alaska | UST-055 | New York* | 11666 |
| Arizona | AZ0708 | Oregon* | CA 200005 |
| Arkansas | 88-0691 | Pennsylvania | 68-1272 |
| California* | 01119CA | South Carolina | 87014 |
| Colorado | NA | Texas | T104704399-08-TX |
| Connecticut | PH-0691 | Utah* | QUAN1 |
| Florida* | E87570 | Virginia | 00178 |
| Georgia | 960 | Washington | C1281 |
| Hawaii | NA | West Virginia | 9930C, 334 |
| Illinois | 200060 | Wisconsin | 998204680 |
| Kansas* | E-10375 | NFESC | NA |
| Louisiana* | 30612 | USACE | NA |
| Michigan | 9947 | USDA Foreign Plant | 37-82605 |
| Nevada | CA44 | USDA Foreign Soil | P330-09-00055 |
| New Jersey* | CA005 | US Fish & Wildlife | LE148388-0 |
| New Mexico | NA | Guam | 09-014r |

*NELAP accredited. A more detailed parameter list is available upon request. Updated 3/25/2009

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G0E180598

| <u>WO#</u> | <u>Sample #</u> | <u>Client Sample ID</u> | <u>Sampling Date</u> | <u>Received Date</u> |
|------------|-----------------|-------------------------|----------------------|----------------------|
| L1PC0 | 1 | MNTAILS_05182010_SWC | 5/18/2010 12:30 PM | 5/19/2010 09:05 AM |
| L1PC1 | 2 | MNTAILS_05182010_SWC_FD | 5/18/2010 12:30 PM | 5/19/2010 09:05 AM |

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

2027.08.0002

Page: 1 of 1
Cooler #

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

northgate
environmental management, inc.
1100 Quail Street, Suite 102
Newport Beach, CA 92660 (949) 260-9293

| Required Ship to Lab: Lab Name: Test America Laboratories Inc Address: 880 Riverside Parkway West Sacramento, CA 95605 Lab PM: David Alltucker Phone/Fax: (916) 373-5600 Lab PM email: David.Alltucker@testamericainc.com Applicable Lab Quote #: | | Required Project Information: Site ID #: TRONOX LLC, HENDERSON Project #: 2027.01 Site Address: 560 W Lake Mead Drive City: Henderson State, Zip: NV, 89015 Site PM Name: Darrick Willis Phone/Fax: (949) 375-7004 Site PM Email: darrick.willis@ngem.com | | Required Invoice Information: Send Invoice to: Susan Crowley Tronox LLC. Address: PO Box 55 Henderson, NV 89009 Phone #: (949) 260-9293 PO #: 2027.08.105 Send EDD to: Frank.Hagar@ngem.com CC Hardcopy report to: PDF Electronic Version Only - FTP Upload CC Hardcopy report to: | | Total # of Samples: 2 Event Complete? | | | | | | | |
|---|---|---|-------------|--|-------------|--|-------------|-----------------|--|--|---------|------|----------|
| ITEM # | SAMPLE ID Samples IDs MUST BE UNIQUE | SAMPLE LOCATION | MATRIX CODE | Q-GRAB Q-COMP | SAMPLE TYPE | SAMPLE DATE | SAMPLE TIME | # OF CONTAINERS | Comments/Lab Sample I.D. | Analysis | Regular | Rush | Mark One |
| 1 | MNTAILS_05182010_SWC | SWC | SO | G | N | 05/18/2010 | 12:30 | 5 | 3-d TAT Terracore VOAs DI water(2), Methanol (1) | X | | | |
| 2 | MNTAILS_05182010_SWC_FD | SWC | SO | G | FD | 05/18/2010 | 12:30 | 5 | 3-d TAT Terracore VOAs DI water(2), Methanol (1) | X | | | |
| Additional Comments/Special Instructions: Project Number 02027.008 Take sample for analysis from end of tube marked "Bottom". DRS 5-18-2010 | | | | | | | | | | | | | |
| SHIPPING INFO: Fed-X Company Tracking # Dana Brown PRINT Name of SAMPLER SIGNATURE of SAMPLER DATE Signed 5-18-2010 Time: 15:00 | | | | | | | | | | REINQUISHED BY / AFFILIATION Dana Brown DATE TIME ACCEPTED BY / AFFILIATION 5/18/10 15:00 Dana Brown DATE TIME 5/18/10 0915 | | | |
| Sample Receipt Conditions Temp in OC Samples on Ice? Sample Intact? Trip Blank? | | | | | | | | | | | | | |

CLIENT Northgate PM DA LOG # 64845
 LOT# (QUANTIMS ID) AOE180598 QUOTE# 84087 LOCATION WIA W14B
 DATE RECEIVED 5-19-10 TIME RECEIVED 0905 Checked (✓)
 DELIVERED BY FEDEX ON TRAC CLIENT
 GOLDENSTATE UPS GO-GETTERS OTHER
 TAL COURIER TAL SF VALLEY LOGISTICS
 CUSTODY SEAL STATUS INTACT BROKEN N/A
 CUSTODY SEAL #(S) Seal
 SHIPPING CONTAINER(S) TAL CLIENT N/A
 COC #(S) 2027.01.2300
 TEMPERATURE BLANK Observed: NA Corrected: _____
 SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)
 Observed: 2,4,3 Average 3 Corrected Average 3
LABORATORY THERMOMETER ID:
 IR UNIT: #4 #5 OTHER _____

custo
DA
 Initials DA Date 5/19/10

=====

pH MEASURED YES ANOMALY N/A
 LABELED BY.....
 LABELS CHECKED BY.....
 PEER REVIEW _____ NA
 SHORT HOLD TEST NOTIFICATION SAMPLE RECEIVING
 WETCHEM N/A
 VOA-ENCORES N/A
 METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL N/A
 COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH N/A
 APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES
 CLOUSEAU TEMPERATURE EXCEEDED (2 °C - 6 °C)*1 N/A
 WET ICE BLUE ICE GEL PACK NO COOLING AGENTS USED PM NOTIFIED
 Initials CV Date 5/19/10

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

Lot ID:

G0E180598

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| VOA* | 2 | 2 | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| VOAh* | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| AGB | | | | | | | | | | | | | | | | | | | | |
| AGBs | | | | | | | | | | | | | | | | | | | | |
| 250AGB | | | | | | | | | | | | | | | | | | | | |
| 250AGBs | | | | | | | | | | | | | | | | | | | | |
| 250AGBn | | | | | | | | | | | | | | | | | | | | |
| 500AGB | | | | | | | | | | | | | | | | | | | | |
| ___AGJ | | | | | | | | | | | | | | | | | | | | |
| 500AGJ | | | | | | | | | | | | | | | | | | | | |
| 250AGJ | | | | | | | | | | | | | | | | | | | | |
| 125AGJ | | | | | | | | | | | | | | | | | | | | |
| ___CGJ | | | | | | | | | | | | | | | | | | | | |
| 500CGJ | | | | | | | | | | | | | | | | | | | | |
| 250CGJ | | | | | | | | | | | | | | | | | | | | |
| 125CGJ | | | | | | | | | | | | | | | | | | | | |
| 50 PJ | 1 | 1 | | | | | | | | | | | | | | | | | | |
| PJn | | | | | | | | | | | | | | | | | | | | |
| 500PJ | | | | | | | | | | | | | | | | | | | | |
| 500PJn | | | | | | | | | | | | | | | | | | | | |
| 500PJna | | | | | | | | | | | | | | | | | | | | |
| 500PJzn/na | | | | | | | | | | | | | | | | | | | | |
| 250PJ | | | | | | | | | | | | | | | | | | | | |
| 250PJn | | | | | | | | | | | | | | | | | | | | |
| 250PJna | | | | | | | | | | | | | | | | | | | | |
| 250PJzn/na | | | | | | | | | | | | | | | | | | | | |
| Acetate Tube | | | | | | | | | | | | | | | | | | | | |
| 6 "CT | 1 | 1 | | | | | | | | | | | | | | | | | | |
| Encore | | | | | | | | | | | | | | | | | | | | |
| Folder/filter | | | | | | | | | | | | | | | | | | | | |
| PUF | | | | | | | | | | | | | | | | | | | | |
| Petri/Filter | | | | | | | | | | | | | | | | | | | | |
| XAD Trap | | | | | | | | | | | | | | | | | | | | |
| Ziploc | | | | | | | | | | | | | | | | | | | | |
| VOA Alcohol | 1 | 1 | | | | | | | | | | | | | | | | | | |

h = hydrochloric acid s = sulfuric acid na = sodium hydroxide n = nitric acid zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

**SOLID, 8260B,
Volatile Organics,
GC/MS**

Northgate Environmental Management, Inc.

Client Sample ID: MNTAILS_05182010_SWC

GC/MS Volatiles

Lot-Sample #....: G0E180598-001 Work Order #....: L1PC01AC Matrix.....: SO
 Date Sampled....: 05/18/10 Date Received...: 05/19/10
 Prep Date.....: 05/19/10 Analysis Date...: 05/19/10
 Prep Batch #....: 0140131
 Dilution Factor: 0.98
 % Moisture.....: 6.6 Method.....: SW846 8260B

| PARAMETER | RESULT | REPORTING | |
|---------------------------------------|---------------|------------|--------------|
| | | LIMIT | UNITS |
| Dichlorodifluoromethane (Freon 12) | ND | 5.2 | ug/kg |
| Trichlorofluoromethane (Freon 11) | ND | 5.2 | ug/kg |
| Chloromethane | ND | 5.2 | ug/kg |
| Vinyl chloride | ND | 5.2 | ug/kg |
| Bromomethane | ND | 5.2 | ug/kg |
| Chloroethane | ND | 5.2 | ug/kg |
| 1,1-Dichloroethene | ND | 5.2 | ug/kg |
| Methylene chloride | ND | 10 | ug/kg |
| trans-1,2-Dichloroethene | ND | 5.2 | ug/kg |
| 1,1-Dichloroethane | ND | 5.2 | ug/kg |
| 2,2-Dichloropropane | ND | 5.2 | ug/kg |
| Bromochloromethane | ND | 5.2 | ug/kg |
| Chloroform | ND | 5.2 | ug/kg |
| 1,1,1-Trichloroethane | ND | 5.2 | ug/kg |
| Carbon tetrachloride | ND | 5.2 | ug/kg |
| 1,1-Dichloropropene | ND | 5.2 | ug/kg |
| Benzene | 0.51 J | 5.2 | ug/kg |
| 1,2-Dichloroethane | ND | 5.2 | ug/kg |
| Trichloroethene | ND | 5.2 | ug/kg |
| 1,2-Dichloropropane | ND | 5.2 | ug/kg |
| Dibromomethane | ND | 5.2 | ug/kg |
| Bromodichloromethane | ND | 5.2 | ug/kg |
| cis-1,3-Dichloropropene | ND | 5.2 | ug/kg |
| Toluene | ND | 5.2 | ug/kg |
| trans-1,3-Dichloropropene | ND | 5.2 | ug/kg |
| 1,1,2-Trichloroethane | ND | 5.2 | ug/kg |
| Tetrachloroethene | ND | 5.2 | ug/kg |
| 1,3-Dichloropropane | ND | 5.2 | ug/kg |
| Dibromochloromethane | ND | 5.2 | ug/kg |
| 1,2-Dibromoethane (EDB) | ND | 10 | ug/kg |
| Chlorobenzene | ND | 5.2 | ug/kg |
| 1,1,1,2-Tetrachloroethane | ND | 5.2 | ug/kg |
| Ethylbenzene | ND | 5.2 | ug/kg |
| m-Xylene & p-Xylene | ND | 5.2 | ug/kg |
| o-Xylene | ND | 5.2 | ug/kg |
| Styrene | ND | 5.2 | ug/kg |

(Continued on next page)

Northgate Environmental Management, Inc.

Client Sample ID: MNTAILS_05182010_SWC

GC/MS Volatiles

Lot-Sample #...: G0E180598-001 Work Order #...: L1PC01AC Matrix.....: SO

| PARAMETER | RESULT | REPORTING | |
|------------------------------------|--------|-----------|-------|
| | | LIMIT | UNITS |
| Bromoform | ND | 5.2 | ug/kg |
| Isopropylbenzene | ND | 5.2 | ug/kg |
| Bromobenzene | ND | 5.2 | ug/kg |
| 1,1,2,2-Tetrachloroethane | ND | 5.2 | ug/kg |
| 1,2,3-Trichloropropane | ND | 5.2 | ug/kg |
| n-Propylbenzene | ND | 5.2 | ug/kg |
| 2-Chlorotoluene | ND | 5.2 | ug/kg |
| 4-Chlorotoluene | ND | 5.2 | ug/kg |
| 1,3,5-Trimethylbenzene | ND | 5.2 | ug/kg |
| tert-Butylbenzene | ND | 5.2 | ug/kg |
| 1,2,4-Trimethylbenzene | ND | 5.2 | ug/kg |
| sec-Butylbenzene | ND | 5.2 | ug/kg |
| 1,3-Dichlorobenzene | ND | 5.2 | ug/kg |
| p-Isopropyltoluene | ND | 5.2 | ug/kg |
| 1,4-Dichlorobenzene | ND | 5.2 | ug/kg |
| 1,2-Dichlorobenzene | ND | 5.2 | ug/kg |
| n-Butylbenzene | ND | 5.2 | ug/kg |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 10 | ug/kg |
| 1,2,4-Trichlorobenzene | ND | 5.2 | ug/kg |
| Hexachlorobutadiene | ND | 5.2 | ug/kg |
| Naphthalene | ND | 5.2 | ug/kg |
| 1,2,3-Trichlorobenzene | ND | 5.2 | ug/kg |
| cis-1,2-Dichloroethene | ND | 5.2 | ug/kg |

| SURROGATE | PERCENT | RECOVERY |
|-----------------------|----------|------------|
| | RECOVERY | LIMITS |
| Dibromofluoromethane | 81 | (55 - 129) |
| 1,2-Dichloroethane-d4 | 91 | (32 - 156) |
| Toluene-d8 | 92 | (63 - 138) |
| 4-Bromofluorobenzene | 91 | (63 - 143) |

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Northgate Environmental Management, Inc.

Client Sample ID: MNTAILS_05182010_SWC_FD

GC/MS Volatiles

Lot-Sample #....: G0E180598-002 Work Order #....: L1PC11AC Matrix.....: SQ
 Date Sampled....: 05/18/10 Date Received...: 05/19/10
 Prep Date.....: 05/20/10 Analysis Date...: 05/20/10
 Prep Batch #....: 0140332
 Dilution Factor: 0.87
 % Moisture.....: 7.8 Method.....: SW846 8260B

| PARAMETER | RESULT | REPORTING | |
|---------------------------------------|---------------|------------|--------------|
| | | LIMIT | UNITS |
| Dichlorodifluoromethane (Freon 12) | ND | 4.7 | ug/kg |
| Trichlorofluoromethane (Freon 11) | ND | 4.7 | ug/kg |
| Chloromethane | ND | 4.7 | ug/kg |
| Vinyl chloride | ND | 4.7 | ug/kg |
| Bromomethane | ND | 4.7 | ug/kg |
| Chloroethane | ND | 4.7 | ug/kg |
| 1,1-Dichloroethene | ND | 4.7 | ug/kg |
| Methylene chloride | ND | 9.4 | ug/kg |
| trans-1,2-Dichloroethene | ND | 4.7 | ug/kg |
| 1,1-Dichloroethane | ND | 4.7 | ug/kg |
| 2,2-Dichloropropane | ND | 4.7 | ug/kg |
| Bromochloromethane | ND | 4.7 | ug/kg |
| Chloroform | 0.50 J | 4.7 | ug/kg |
| 1,1,1-Trichloroethane | ND | 4.7 | ug/kg |
| Carbon tetrachloride | ND | 4.7 | ug/kg |
| 1,1-Dichloropropene | ND | 4.7 | ug/kg |
| Benzene | 0.69 J | 4.7 | ug/kg |
| 1,2-Dichloroethane | ND | 4.7 | ug/kg |
| Trichloroethene | ND | 4.7 | ug/kg |
| 1,2-Dichloropropane | ND | 4.7 | ug/kg |
| Dibromomethane | ND | 4.7 | ug/kg |
| Bromodichloromethane | ND | 4.7 | ug/kg |
| cis-1,3-Dichloropropene | ND | 4.7 | ug/kg |
| Toluene | ND | 4.7 | ug/kg |
| trans-1,3-Dichloropropene | ND | 4.7 | ug/kg |
| 1,1,2-Trichloroethane | ND | 4.7 | ug/kg |
| Tetrachloroethene | ND | 4.7 | ug/kg |
| 1,3-Dichloropropane | ND | 4.7 | ug/kg |
| Dibromochloromethane | ND | 4.7 | ug/kg |
| 1,2-Dibromoethane (EDB) | ND | 9.4 | ug/kg |
| Chlorobenzene | ND | 4.7 | ug/kg |
| 1,1,1,2-Tetrachloroethane | ND | 4.7 | ug/kg |
| Ethylbenzene | ND | 4.7 | ug/kg |
| m-Xylene & p-Xylene | ND | 4.7 | ug/kg |
| o-Xylene | ND | 4.7 | ug/kg |
| Styrene | ND | 4.7 | ug/kg |

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Northgate Environmental Management, Inc.

Client Sample ID: MNTAILS_05182010_SWC_FD

GC/MS Volatiles

Lot-Sample #....: G0E180598-002 Work Order #....: L1PC11AC Matrix.....: SQ

| PARAMETER | RESULT | REPORTING | |
|------------------------------------|------------|------------|--------------|
| | | LIMIT | UNITS |
| Bromoform | ND | 4.7 | ug/kg |
| Isopropylbenzene | ND | 4.7 | ug/kg |
| Bromobenzene | ND | 4.7 | ug/kg |
| 1,1,2,2-Tetrachloroethane | ND | 4.7 | ug/kg |
| 1,2,3-Trichloropropane | ND | 4.7 | ug/kg |
| n-Propylbenzene | ND | 4.7 | ug/kg |
| 2-Chlorotoluene | ND | 4.7 | ug/kg |
| 4-Chlorotoluene | ND | 4.7 | ug/kg |
| 1,3,5-Trimethylbenzene | ND | 4.7 | ug/kg |
| tert-Butylbenzene | ND | 4.7 | ug/kg |
| 1,2,4-Trimethylbenzene | ND | 4.7 | ug/kg |
| sec-Butylbenzene | ND | 4.7 | ug/kg |
| 1,3-Dichlorobenzene | ND | 4.7 | ug/kg |
| p-Isopropyltoluene | ND | 4.7 | ug/kg |
| 1,4-Dichlorobenzene | ND | 4.7 | ug/kg |
| 1,2-Dichlorobenzene | ND | 4.7 | ug/kg |
| n-Butylbenzene | ND | 4.7 | ug/kg |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 9.4 | ug/kg |
| 1,2,4-Trichlorobenzene | ND | 4.7 | ug/kg |
| Hexachlorobutadiene | 4.8 | 4.7 | ug/kg |
| Naphthalene | ND | 4.7 | ug/kg |
| 1,2,3-Trichlorobenzene | ND | 4.7 | ug/kg |
| cis-1,2-Dichloroethene | ND | 4.7 | ug/kg |

| SURROGATE | PERCENT | RECOVERY |
|-----------------------|----------|------------|
| | RECOVERY | LIMITS |
| Dibromofluoromethane | 84 | (55 - 129) |
| 1,2-Dichloroethane-d4 | 92 | (32 - 156) |
| Toluene-d8 | 95 | (63 - 138) |
| 4-Bromofluorobenzene | 93 | (63 - 143) |

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

QC DATA ASSOCIATION SUMMARY

G0E180598

Sample Preparation and Analysis Control Numbers

| <u>SAMPLE#</u> | <u>MATRIX</u> | <u>ANALYTICAL METHOD</u> | <u>LEACH BATCH #</u> | <u>PREP BATCH #</u> | <u>MS RUN#</u> |
|----------------|---------------|------------------------------|--------------------------|-------------------------|----------------|
| 001 | SO | ASTM D 2216-90 | | 0139397 | |
| | SO | SW846 8260B | | 0140131 | |
| 002 | SQ | ASTM D 2216-90 | | 0139397 | |
| | SQ | SW846 8260B | | 0140332 | |

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G0E180598
 MB Lot-Sample #: G0E200000-131

Work Order #...: L1R0V1AA

Matrix.....: SOLID

Prep Date.....: 05/19/10

Analysis Date...: 05/19/10

Prep Batch #...: 0140131

Dilution Factor: 1

| PARAMETER | RESULT | REPORTING | | METHOD |
|---------------------------------------|--------|-----------|-------|-------------|
| | | LIMIT | UNITS | |
| Dichlorodifluoromethane (Freon 12) | ND | 5.0 | ug/kg | SW846 8260B |
| Trichlorofluoromethane (Freon 11) | ND | 5.0 | ug/kg | SW846 8260B |
| Chloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Vinyl chloride | ND | 5.0 | ug/kg | SW846 8260B |
| Bromomethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| Methylene chloride | ND | 10 | ug/kg | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 2,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Bromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroform | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Carbon tetrachloride | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| Benzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Trichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Dibromomethane | ND | 5.0 | ug/kg | SW846 8260B |
| Bromodichloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| Toluene | ND | 5.0 | ug/kg | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Tetrachloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Dibromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dibromoethane (EDB) | ND | 10 | ug/kg | SW846 8260B |
| Chlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Ethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| m-Xylene & p-Xylene | ND | 5.0 | ug/kg | SW846 8260B |
| o-Xylene | ND | 5.0 | ug/kg | SW846 8260B |
| Styrene | ND | 5.0 | ug/kg | SW846 8260B |
| Bromoform | ND | 5.0 | ug/kg | SW846 8260B |
| Isopropylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Bromobenzene | ND | 5.0 | ug/kg | SW846 8260B |

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G0E180598

Work Order #...: L1R0V1AA

Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING | | METHOD |
|------------------------------------|--------|-----------|-------|-------------|
| | | LIMIT | UNITS | |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| n-Propylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 4-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| tert-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| sec-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| p-Isopropyltoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| n-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 10 | ug/kg | SW846 8260B |
| 1,2,4-Trichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Hexachlorobutadiene | ND | 5.0 | ug/kg | SW846 8260B |
| Naphthalene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |

| SURROGATE | PERCENT | RECOVERY |
|-----------------------|----------|------------|
| | RECOVERY | LIMITS |
| Dibromofluoromethane | 85 | (55 - 129) |
| 1,2-Dichloroethane-d4 | 94 | (32 - 156) |
| Toluene-d8 | 100 | (63 - 138) |
| 4-Bromofluorobenzene | 96 | (63 - 143) |

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G0E180598
 MB Lot-Sample #: G0E200000-332
 Analysis Date...: 05/20/10
 Dilution Factor: 1

Work Order #...: L1T511AA
 Prep Date.....: 05/20/10
 Prep Batch #...: 0140332

Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING | | METHOD |
|---------------------------------------|--------|-----------|-------|-------------|
| | | LIMIT | UNITS | |
| Dichlorodifluoromethane (Freon 12) | ND | 5.0 | ug/kg | SW846 8260B |
| Trichlorofluoromethane (Freon 11) | ND | 5.0 | ug/kg | SW846 8260B |
| Chloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Vinyl chloride | ND | 5.0 | ug/kg | SW846 8260B |
| Bromomethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| Methylene chloride | ND | 10 | ug/kg | SW846 8260B |
| trans-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 2,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Bromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| Chloroform | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,1-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Carbon tetrachloride | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| Benzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Trichloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Dibromomethane | ND | 5.0 | ug/kg | SW846 8260B |
| Bromodichloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| cis-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| Toluene | ND | 5.0 | ug/kg | SW846 8260B |
| trans-1,3-Dichloropropene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,2-Trichloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Tetrachloroethene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3-Dichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| Dibromochloromethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dibromoethane (EDB) | ND | 10 | ug/kg | SW846 8260B |
| Chlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| Ethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| m-Xylene & p-Xylene | ND | 5.0 | ug/kg | SW846 8260B |
| o-Xylene | ND | 5.0 | ug/kg | SW846 8260B |
| Styrene | ND | 5.0 | ug/kg | SW846 8260B |
| Bromoform | ND | 5.0 | ug/kg | SW846 8260B |
| Isopropylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Bromobenzene | ND | 5.0 | ug/kg | SW846 8260B |

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: G0E180598

Work Order #...: L1T511AA

Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING | | METHOD |
|------------------------------------|--------|-----------|-------|-------------|
| | | LIMIT | UNITS | |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichloropropane | ND | 5.0 | ug/kg | SW846 8260B |
| n-Propylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 2-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 4-Chlorotoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3,5-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| tert-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,4-Trimethylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| sec-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,3-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| p-Isopropyltoluene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,4-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| n-Butylbenzene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 10 | ug/kg | SW846 8260B |
| 1,2,4-Trichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| Hexachlorobutadiene | ND | 5.0 | ug/kg | SW846 8260B |
| Naphthalene | ND | 5.0 | ug/kg | SW846 8260B |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/kg | SW846 8260B |
| cis-1,2-Dichloroethene | ND | 5.0 | ug/kg | SW846 8260B |

| SURROGATE | PERCENT | RECOVERY |
|-----------------------|----------|------------|
| | RECOVERY | LIMITS |
| Dibromofluoromethane | 84 | (55 - 129) |
| 1,2-Dichloroethane-d4 | 90 | (32 - 156) |
| Toluene-d8 | 98 | (63 - 138) |
| 4-Bromofluorobenzene | 95 | (63 - 143) |

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1ROV1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1ROV1AD-LCSD
 Prep Date.....: 05/19/10 Analysis Date...: 05/19/10
 Prep Batch #...: 0140131
 Dilution Factor: 1

| PARAMETER | PERCENT | RECOVERY | RPD | RPD | METHOD |
|---------------------------------------|----------|------------|------|--------|-------------|
| | RECOVERY | LIMITS | RPD | LIMITS | |
| Dichlorodifluoromethane (Freon 12) | 70 | (60 - 130) | | | SW846 8260B |
| | 79 | (60 - 130) | 11 | (0-46) | SW846 8260B |
| Trichlorofluoromethane (Freon 11) | 80 | (43 - 158) | | | SW846 8260B |
| | 93 | (43 - 158) | 15 | (0-32) | SW846 8260B |
| Chloromethane | 80 | (60 - 141) | | | SW846 8260B |
| | 85 | (60 - 141) | 6.7 | (0-36) | SW846 8260B |
| Vinyl chloride | 85 | (67 - 127) | | | SW846 8260B |
| | 94 | (67 - 127) | 10 | (0-37) | SW846 8260B |
| Bromomethane | 91 | (48 - 164) | | | SW846 8260B |
| | 115 | (48 - 164) | 23 | (0-38) | SW846 8260B |
| Chloroethane | 77 | (54 - 148) | | | SW846 8260B |
| | 103 | (54 - 148) | 29 | (0-34) | SW846 8260B |
| 1,1-Dichloroethene | 92 | (66 - 136) | | | SW846 8260B |
| | 95 | (66 - 136) | 4.2 | (0-42) | SW846 8260B |
| Methylene chloride | 88 | (77 - 125) | | | SW846 8260B |
| | 90 | (77 - 125) | 2.5 | (0-25) | SW846 8260B |
| trans-1,2-Dichloroethene | 100 | (67 - 135) | | | SW846 8260B |
| | 104 | (67 - 135) | 4.3 | (0-37) | SW846 8260B |
| 1,1-Dichloroethane | 98 | (76 - 134) | | | SW846 8260B |
| | 100 | (76 - 134) | 2.1 | (0-24) | SW846 8260B |
| 2,2-Dichloropropane | 102 | (69 - 153) | | | SW846 8260B |
| | 109 | (69 - 153) | 6.4 | (0-47) | SW846 8260B |
| Bromochloromethane | 83 | (80 - 127) | | | SW846 8260B |
| | 85 | (80 - 127) | 1.4 | (0-36) | SW846 8260B |
| Chloroform | 96 | (78 - 135) | | | SW846 8260B |
| | 99 | (78 - 135) | 3.0 | (0-23) | SW846 8260B |
| 1,1,1-Trichloroethane | 101 | (67 - 150) | | | SW846 8260B |
| | 108 | (67 - 150) | 6.3 | (0-43) | SW846 8260B |
| Carbon tetrachloride | 104 | (62 - 154) | | | SW846 8260B |
| | 112 | (62 - 154) | 6.8 | (0-43) | SW846 8260B |
| 1,1-Dichloropropene | 106 | (76 - 132) | | | SW846 8260B |
| | 111 | (76 - 132) | 5.1 | (0-38) | SW846 8260B |
| Benzene | 102 | (78 - 128) | | | SW846 8260B |
| | 105 | (78 - 128) | 3.0 | (0-37) | SW846 8260B |
| 1,2-Dichloroethane | 104 | (66 - 150) | | | SW846 8260B |
| | 103 | (66 - 150) | 0.69 | (0-36) | SW846 8260B |

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1R0V1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1R0V1AD-LCSD

| PARAMETER | PERCENT | RECOVERY | RPD | | METHOD |
|---------------------------|----------|------------|-------|--------|-------------|
| | RECOVERY | LIMITS | RPD | LIMITS | |
| Trichloroethene | 98 | (80 - 126) | | | SW846 8260B |
| | 106 | (80 - 126) | 7.7 | (0-40) | SW846 8260B |
| 1,2-Dichloropropane | 100 | (80 - 129) | | | SW846 8260B |
| | 101 | (80 - 129) | 1.8 | (0-38) | SW846 8260B |
| Dibromomethane | 91 | (80 - 129) | | | SW846 8260B |
| | 91 | (80 - 129) | 0.0 | (0-37) | SW846 8260B |
| Bromodichloromethane | 100 | (80 - 137) | | | SW846 8260B |
| | 100 | (80 - 137) | 0.14 | (0-37) | SW846 8260B |
| cis-1,3-Dichloropropene | 108 | (80 - 134) | | | SW846 8260B |
| | 109 | (80 - 134) | 1.1 | (0-39) | SW846 8260B |
| Toluene | 109 | (80 - 124) | | | SW846 8260B |
| | 114 | (80 - 124) | 4.2 | (0-39) | SW846 8260B |
| trans-1,3-Dichloropropene | 99 | (80 - 148) | | | SW846 8260B |
| | 98 | (80 - 148) | 1.1 | (0-42) | SW846 8260B |
| 1,1,2-Trichloroethane | 96 | (80 - 128) | | | SW846 8260B |
| | 93 | (80 - 128) | 3.1 | (0-41) | SW846 8260B |
| Tetrachloroethene | 95 | (65 - 135) | | | SW846 8260B |
| | 104 | (65 - 135) | 9.3 | (0-39) | SW846 8260B |
| 1,3-Dichloropropane | 99 | (80 - 123) | | | SW846 8260B |
| | 101 | (80 - 123) | 1.4 | (0-39) | SW846 8260B |
| Dibromochloromethane | 91 | (80 - 133) | | | SW846 8260B |
| | 94 | (80 - 133) | 3.4 | (0-24) | SW846 8260B |
| 1,2-Dibromoethane (EDB) | 92 | (80 - 124) | | | SW846 8260B |
| | 92 | (80 - 124) | 0.040 | (0-39) | SW846 8260B |
| Chlorobenzene | 97 | (74 - 125) | | | SW846 8260B |
| | 105 | (74 - 125) | 7.5 | (0-38) | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | 93 | (77 - 134) | | | SW846 8260B |
| | 101 | (77 - 134) | 7.6 | (0-25) | SW846 8260B |
| Ethylbenzene | 105 | (72 - 125) | | | SW846 8260B |
| | 114 | (72 - 125) | 8.2 | (0-41) | SW846 8260B |
| m-Xylene & p-Xylene | 110 | (73 - 128) | | | SW846 8260B |
| | 120 | (73 - 128) | 8.6 | (0-40) | SW846 8260B |
| o-Xylene | 105 | (76 - 127) | | | SW846 8260B |
| | 116 | (76 - 127) | 9.8 | (0-40) | SW846 8260B |
| Styrene | 110 | (79 - 128) | | | SW846 8260B |
| | 118 | (79 - 128) | 7.1 | (0-40) | SW846 8260B |
| Bromoform | 93 | (80 - 136) | | | SW846 8260B |
| | 97 | (80 - 136) | 3.6 | (0-45) | SW846 8260B |
| Isopropylbenzene | 111 | (69 - 137) | | | SW846 8260B |
| | 123 | (69 - 137) | 10 | (0-41) | SW846 8260B |
| Bromobenzene | 99 | (67 - 132) | | | SW846 8260B |
| | 99 | (67 - 132) | 0.39 | (0-40) | SW846 8260B |

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1R0V1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1R0V1AD-LCSD

| PARAMETER | PERCENT | RECOVERY | RPD | | METHOD |
|------------------------------------|----------|------------|------|--------|-------------|
| | RECOVERY | LIMITS | RPD | LIMITS | |
| 1,1,2,2-Tetrachloroethane | 100 | (71 - 134) | | | SW846 8260B |
| | 97 | (71 - 134) | 3.3 | (0-31) | SW846 8260B |
| 1,2,3-Trichloropropane | 96 | (71 - 132) | | | SW846 8260B |
| | 96 | (71 - 132) | 0.77 | (0-41) | SW846 8260B |
| n-Propylbenzene | 119 | (63 - 128) | | | SW846 8260B |
| | 126 | (63 - 128) | 5.2 | (0-42) | SW846 8260B |
| 2-Chlorotoluene | 114 | (64 - 127) | | | SW846 8260B |
| | 119 | (64 - 127) | 4.5 | (0-41) | SW846 8260B |
| 4-Chlorotoluene | 118 | (67 - 128) | | | SW846 8260B |
| | 123 | (67 - 128) | 3.6 | (0-40) | SW846 8260B |
| 1,3,5-Trimethylbenzene | 119 | (66 - 135) | | | SW846 8260B |
| | 126 | (66 - 135) | 5.6 | (0-42) | SW846 8260B |
| tert-Butylbenzene | 115 | (67 - 131) | | | SW846 8260B |
| | 125 | (67 - 131) | 8.4 | (0-42) | SW846 8260B |
| 1,2,4-Trimethylbenzene | 118 | (64 - 137) | | | SW846 8260B |
| | 126 | (64 - 137) | 6.2 | (0-41) | SW846 8260B |
| sec-Butylbenzene | 122 | (68 - 131) | | | SW846 8260B |
| | 129 | (68 - 131) | 5.6 | (0-40) | SW846 8260B |
| 1,3-Dichlorobenzene | 108 | (64 - 126) | | | SW846 8260B |
| | 112 | (64 - 126) | 4.1 | (0-41) | SW846 8260B |
| p-Isopropyltoluene | 118 | (64 - 137) | | | SW846 8260B |
| | 126 | (64 - 137) | 6.8 | (0-40) | SW846 8260B |
| 1,4-Dichlorobenzene | 105 | (65 - 124) | | | SW846 8260B |
| | 110 | (65 - 124) | 4.5 | (0-38) | SW846 8260B |
| 1,2-Dichlorobenzene | 105 | (68 - 121) | | | SW846 8260B |
| | 112 | (68 - 121) | 6.3 | (0-28) | SW846 8260B |
| n-Butylbenzene | 127 | (68 - 136) | | | SW846 8260B |
| | 136 | (68 - 136) | 7.1 | (0-37) | SW846 8260B |
| 1,2-Dibromo-3-chloropropane (DBCP) | 100 | (75 - 137) | | | SW846 8260B |
| | 107 | (75 - 137) | 6.2 | (0-48) | SW846 8260B |
| 1,2,4-Trichlorobenzene | 92 | (48 - 145) | | | SW846 8260B |
| | 104 | (48 - 145) | 12 | (0-39) | SW846 8260B |
| Hexachlorobutadiene | 95 | (52 - 140) | | | SW846 8260B |
| | 103 | (52 - 140) | 7.9 | (0-38) | SW846 8260B |
| Naphthalene | 93 | (53 - 140) | | | SW846 8260B |
| | 100 | (53 - 140) | 7.3 | (0-46) | SW846 8260B |
| 1,2,3-Trichlorobenzene | 91 | (54 - 140) | | | SW846 8260B |
| | 99 | (54 - 140) | 8.8 | (0-42) | SW846 8260B |

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1R0V1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1R0V1AD-LCSD

| <u>PARAMETER</u> | <u>PERCENT RECOVERY</u> | <u>RECOVERY LIMITS</u> | <u>RPD</u> | <u>RPD LIMITS</u> | <u>METHOD</u> |
|-------------------------------|-------------------------|------------------------|------------|-------------------|--------------------|
| cis-1,2-Dichloroethene | 94 | (74 - 131) | | | SW846 8260B |
| | 96 | (74 - 131) | 2.4 | (0-37) | SW846 8260B |

| <u>SURROGATE</u> | <u>PERCENT RECOVERY</u> | <u>RECOVERY LIMITS</u> |
|-----------------------|-------------------------|------------------------|
| Dibromofluoromethane | 86 | (55 - 129) |
| | 83 | (55 - 129) |
| 1,2-Dichloroethane-d4 | 88 | (32 - 156) |
| | 85 | (32 - 156) |
| Toluene-d8 | 105 | (63 - 138) |
| | 101 | (63 - 138) |
| 4-Bromofluorobenzene | 97 | (63 - 143) |
| | 98 | (63 - 143) |

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1ROV1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1ROV1AD-LCSD
 Prep Date.....: 05/19/10 Analysis Date...: 05/19/10
 Prep Batch #...: 0140131
 Dilution Factor: 1

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | RPD | METHOD |
|---------------------------------------|--------------|-----------------|-------|------------------|------|-------------|
| Dichlorodifluoromethane (Freon 12) | 100 | 70.4 | ug/kg | 70 | | SW846 8260B |
| | 100 | 78.9 | ug/kg | 79 | 11 | SW846 8260B |
| Trichlorofluoromethane (Freon 11) | 100 | 80.2 | ug/kg | 80 | | SW846 8260B |
| | 100 | 93.2 | ug/kg | 93 | 15 | SW846 8260B |
| Chloromethane | 100 | 79.6 | ug/kg | 80 | | SW846 8260B |
| | 100 | 85.1 | ug/kg | 85 | 6.7 | SW846 8260B |
| Vinyl chloride | 100 | 85.1 | ug/kg | 85 | | SW846 8260B |
| | 100 | 94.3 | ug/kg | 94 | 10 | SW846 8260B |
| Bromomethane | 100 | 90.9 | ug/kg | 91 | | SW846 8260B |
| | 100 | 115 | ug/kg | 115 | 23 | SW846 8260B |
| Chloroethane | 100 | 77.3 | ug/kg | 77 | | SW846 8260B |
| | 100 | 103 | ug/kg | 103 | 29 | SW846 8260B |
| 1,1-Dichloroethene | 100 | 91.5 | ug/kg | 92 | | SW846 8260B |
| | 100 | 95.4 | ug/kg | 95 | 4.2 | SW846 8260B |
| Methylene chloride | 100 | 88.0 | ug/kg | 88 | | SW846 8260B |
| | 100 | 90.3 | ug/kg | 90 | 2.5 | SW846 8260B |
| trans-1,2-Dichloroethene | 100 | 99.7 | ug/kg | 100 | | SW846 8260B |
| | 100 | 104 | ug/kg | 104 | 4.3 | SW846 8260B |
| 1,1-Dichloroethane | 100 | 98.0 | ug/kg | 98 | | SW846 8260B |
| | 100 | 100 | ug/kg | 100 | 2.1 | SW846 8260B |
| 2,2-Dichloropropane | 100 | 102 | ug/kg | 102 | | SW846 8260B |
| | 100 | 109 | ug/kg | 109 | 6.4 | SW846 8260B |
| Bromochloromethane | 100 | 83.4 | ug/kg | 83 | | SW846 8260B |
| | 100 | 84.7 | ug/kg | 85 | 1.4 | SW846 8260B |
| Chloroform | 100 | 96.2 | ug/kg | 96 | | SW846 8260B |
| | 100 | 99.1 | ug/kg | 99 | 3.0 | SW846 8260B |
| 1,1,1-Trichloroethane | 100 | 101 | ug/kg | 101 | | SW846 8260B |
| | 100 | 108 | ug/kg | 108 | 6.3 | SW846 8260B |
| Carbon tetrachloride | 100 | 104 | ug/kg | 104 | | SW846 8260B |
| | 100 | 112 | ug/kg | 112 | 6.8 | SW846 8260B |
| 1,1-Dichloropropene | 100 | 106 | ug/kg | 106 | | SW846 8260B |
| | 100 | 111 | ug/kg | 111 | 5.1 | SW846 8260B |
| Benzene | 100 | 102 | ug/kg | 102 | | SW846 8260B |
| | 100 | 105 | ug/kg | 105 | 3.0 | SW846 8260B |
| 1,2-Dichloroethane | 100 | 104 | ug/kg | 104 | | SW846 8260B |
| | 100 | 103 | ug/kg | 103 | 0.69 | SW846 8260B |

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1R0V1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1R0V1AD-LCSD

| PARAMETER | SPIKE | MEASURED | UNITS | PERCENT | RPD | METHOD |
|---------------------------|--------|----------|-------|----------|-------|-------------|
| | AMOUNT | AMOUNT | | RECOVERY | | |
| Trichloroethene | 100 | 98.5 | ug/kg | 98 | | SW846 8260B |
| | 100 | 106 | ug/kg | 106 | 7.7 | SW846 8260B |
| 1,2-Dichloropropane | 100 | 99.5 | ug/kg | 100 | | SW846 8260B |
| | 100 | 101 | ug/kg | 101 | 1.8 | SW846 8260B |
| Dibromomethane | 100 | 91.0 | ug/kg | 91 | | SW846 8260B |
| | 100 | 91.0 | ug/kg | 91 | 0.0 | SW846 8260B |
| Bromodichloromethane | 100 | 99.9 | ug/kg | 100 | | SW846 8260B |
| | 100 | 100 | ug/kg | 100 | 0.14 | SW846 8260B |
| cis-1,3-Dichloropropene | 100 | 108 | ug/kg | 108 | | SW846 8260B |
| | 100 | 109 | ug/kg | 109 | 1.1 | SW846 8260B |
| Toluene | 100 | 109 | ug/kg | 109 | | SW846 8260B |
| | 100 | 114 | ug/kg | 114 | 4.2 | SW846 8260B |
| trans-1,3-Dichloropropene | 100 | 99.3 | ug/kg | 99 | | SW846 8260B |
| | 100 | 98.2 | ug/kg | 98 | 1.1 | SW846 8260B |
| 1,1,2-Trichloroethane | 100 | 95.6 | ug/kg | 96 | | SW846 8260B |
| | 100 | 92.6 | ug/kg | 93 | 3.1 | SW846 8260B |
| Tetrachloroethene | 100 | 94.5 | ug/kg | 95 | | SW846 8260B |
| | 100 | 104 | ug/kg | 104 | 9.3 | SW846 8260B |
| 1,3-Dichloropropane | 100 | 99.3 | ug/kg | 99 | | SW846 8260B |
| | 100 | 101 | ug/kg | 101 | 1.4 | SW846 8260B |
| Dibromochloromethane | 100 | 91.3 | ug/kg | 91 | | SW846 8260B |
| | 100 | 94.4 | ug/kg | 94 | 3.4 | SW846 8260B |
| 1,2-Dibromoethane (EDB) | 100 | 92.1 | ug/kg | 92 | | SW846 8260B |
| | 100 | 92.2 | ug/kg | 92 | 0.040 | SW846 8260B |
| Chlorobenzene | 100 | 97.3 | ug/kg | 97 | | SW846 8260B |
| | 100 | 105 | ug/kg | 105 | 7.5 | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | 100 | 93.4 | ug/kg | 93 | | SW846 8260B |
| | 100 | 101 | ug/kg | 101 | 7.6 | SW846 8260B |
| Ethylbenzene | 100 | 105 | ug/kg | 105 | | SW846 8260B |
| | 100 | 114 | ug/kg | 114 | 8.2 | SW846 8260B |
| m-Xylene & p-Xylene | 200 | 220 | ug/kg | 110 | | SW846 8260B |
| | 200 | 240 | ug/kg | 120 | 8.6 | SW846 8260B |
| o-Xylene | 100 | 105 | ug/kg | 105 | | SW846 8260B |
| | 100 | 116 | ug/kg | 116 | 9.8 | SW846 8260B |
| Styrene | 100 | 110 | ug/kg | 110 | | SW846 8260B |
| | 100 | 118 | ug/kg | 118 | 7.1 | SW846 8260B |
| Bromoform | 100 | 93.2 | ug/kg | 93 | | SW846 8260B |
| | 100 | 96.6 | ug/kg | 97 | 3.6 | SW846 8260B |
| Isopropylbenzene | 100 | 111 | ug/kg | 111 | | SW846 8260B |
| | 100 | 123 | ug/kg | 123 | 10 | SW846 8260B |
| Bromobenzene | 100 | 98.9 | ug/kg | 99 | | SW846 8260B |
| | 100 | 99.3 | ug/kg | 99 | 0.39 | SW846 8260B |

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1R0V1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-131 L1R0V1AD-LCSD

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | RPD | METHOD |
|------------------------------------|--------------|-----------------|-------|------------------|------|-------------|
| 1,1,2,2-Tetrachloroethane | 100 | 100 | ug/kg | 100 | | SW846 8260B |
| | 100 | 96.7 | ug/kg | 97 | 3.3 | SW846 8260B |
| 1,2,3-Trichloropropane | 100 | 96.4 | ug/kg | 96 | | SW846 8260B |
| | 100 | 95.7 | ug/kg | 96 | 0.77 | SW846 8260B |
| n-Propylbenzene | 100 | 119 | ug/kg | 119 | | SW846 8260B |
| | 100 | 126 | ug/kg | 126 | 5.2 | SW846 8260B |
| 2-Chlorotoluene | 100 | 114 | ug/kg | 114 | | SW846 8260B |
| | 100 | 119 | ug/kg | 119 | 4.5 | SW846 8260B |
| 4-Chlorotoluene | 100 | 118 | ug/kg | 118 | | SW846 8260B |
| | 100 | 123 | ug/kg | 123 | 3.6 | SW846 8260B |
| 1,3,5-Trimethylbenzene | 100 | 119 | ug/kg | 119 | | SW846 8260B |
| | 100 | 126 | ug/kg | 126 | 5.6 | SW846 8260B |
| tert-Butylbenzene | 100 | 115 | ug/kg | 115 | | SW846 8260B |
| | 100 | 125 | ug/kg | 125 | 8.4 | SW846 8260B |
| 1,2,4-Trimethylbenzene | 100 | 118 | ug/kg | 118 | | SW846 8260B |
| | 100 | 126 | ug/kg | 126 | 6.2 | SW846 8260B |
| sec-Butylbenzene | 100 | 122 | ug/kg | 122 | | SW846 8260B |
| | 100 | 129 | ug/kg | 129 | 5.6 | SW846 8260B |
| 1,3-Dichlorobenzene | 100 | 108 | ug/kg | 108 | | SW846 8260B |
| | 100 | 112 | ug/kg | 112 | 4.1 | SW846 8260B |
| p-Isopropyltoluene | 100 | 118 | ug/kg | 118 | | SW846 8260B |
| | 100 | 126 | ug/kg | 126 | 6.8 | SW846 8260B |
| 1,4-Dichlorobenzene | 100 | 105 | ug/kg | 105 | | SW846 8260B |
| | 100 | 110 | ug/kg | 110 | 4.5 | SW846 8260B |
| 1,2-Dichlorobenzene | 100 | 105 | ug/kg | 105 | | SW846 8260B |
| | 100 | 112 | ug/kg | 112 | 6.3 | SW846 8260B |
| n-Butylbenzene | 100 | 127 | ug/kg | 127 | | SW846 8260B |
| | 100 | 136 | ug/kg | 136 | 7.1 | SW846 8260B |
| 1,2-Dibromo-3-chloropropane (DBCP) | 100 | 100 | ug/kg | 100 | | SW846 8260B |
| | 100 | 107 | ug/kg | 107 | 6.2 | SW846 8260B |
| 1,2,4-Trichlorobenzene | 100 | 91.6 | ug/kg | 92 | | SW846 8260B |
| | 100 | 104 | ug/kg | 104 | 12 | SW846 8260B |
| Hexachlorobutadiene | 100 | 95.2 | ug/kg | 95 | | SW846 8260B |
| | 100 | 103 | ug/kg | 103 | 7.9 | SW846 8260B |
| Naphthalene | 100 | 92.9 | ug/kg | 93 | | SW846 8260B |
| | 100 | 99.9 | ug/kg | 100 | 7.3 | SW846 8260B |
| 1,2,3-Trichlorobenzene | 100 | 90.6 | ug/kg | 91 | | SW846 8260B |
| | 100 | 98.9 | ug/kg | 99 | 8.8 | SW846 8260B |

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1T511AC Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-332
 Prep Date.....: 05/20/10 Analysis Date...: 05/20/10
 Prep Batch #...: 0140332
 Dilution Factor: 1

| <u>PARAMETER</u> | <u>PERCENT RECOVERY</u> | <u>RECOVERY LIMITS</u> | <u>METHOD</u> |
|---------------------------------------|-----------------------------|----------------------------|---------------|
| Dichlorodifluoromethane (Freon 12) | 80 | (60 - 130) | SW846 8260B |
| Trichlorofluoromethane (Freon 11) | 95 | (43 - 158) | SW846 8260B |
| Chloromethane | 90 | (60 - 141) | SW846 8260B |
| Vinyl chloride | 99 | (67 - 127) | SW846 8260B |
| Bromomethane | 89 | (48 - 164) | SW846 8260B |
| Chloroethane | 99 | (54 - 148) | SW846 8260B |
| 1,1-Dichloroethene | 97 | (66 - 136) | SW846 8260B |
| Methylene chloride | 95 | (77 - 125) | SW846 8260B |
| trans-1,2-Dichloroethene | 105 | (67 - 135) | SW846 8260B |
| 1,1-Dichloroethane | 106 | (76 - 134) | SW846 8260B |
| 2,2-Dichloropropane | 104 | (69 - 153) | SW846 8260B |
| Bromochloromethane | 91 | (80 - 127) | SW846 8260B |
| Chloroform | 104 | (78 - 135) | SW846 8260B |
| 1,1,1-Trichloroethane | 106 | (67 - 150) | SW846 8260B |
| Carbon tetrachloride | 109 | (62 - 154) | SW846 8260B |
| 1,1-Dichloropropene | 109 | (76 - 132) | SW846 8260B |
| Benzene | 106 | (78 - 128) | SW846 8260B |
| 1,2-Dichloroethane | 114 | (66 - 150) | SW846 8260B |
| Trichloroethene | 100 | (80 - 126) | SW846 8260B |
| 1,2-Dichloropropane | 104 | (80 - 129) | SW846 8260B |
| Dibromomethane | 99 | (80 - 129) | SW846 8260B |
| Bromodichloromethane | 104 | (80 - 137) | SW846 8260B |
| cis-1,3-Dichloropropene | 110 | (80 - 134) | SW846 8260B |
| Toluene | 109 | (80 - 124) | SW846 8260B |
| trans-1,3-Dichloropropene | 103 | (80 - 148) | SW846 8260B |
| 1,1,2-Trichloroethane | 100 | (80 - 128) | SW846 8260B |
| Tetrachloroethene | 94 | (65 - 135) | SW846 8260B |
| 1,3-Dichloropropane | 107 | (80 - 123) | SW846 8260B |
| Dibromochloromethane | 98 | (80 - 133) | SW846 8260B |
| 1,2-Dibromoethane (EDB) | 100 | (80 - 124) | SW846 8260B |
| Chlorobenzene | 100 | (74 - 125) | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | 99 | (77 - 134) | SW846 8260B |

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598
LCS Lot-Sample#: G0E200000-332

Work Order #...: L1T511AC

Matrix.....: SOLID

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|------------------------------------|------------------|-----------------|-------------|
| Ethylbenzene | 102 | (72 - 125) | SW846 8260B |
| m-Xylene & p-Xylene | 107 | (73 - 128) | SW846 8260B |
| o-Xylene | 107 | (76 - 127) | SW846 8260B |
| Styrene | 110 | (79 - 128) | SW846 8260B |
| Bromoform | 101 | (80 - 136) | SW846 8260B |
| Isopropylbenzene | 108 | (69 - 137) | SW846 8260B |
| Bromobenzene | 98 | (67 - 132) | SW846 8260B |
| 1,1,2,2-Tetrachloroethane | 113 | (71 - 134) | SW846 8260B |
| 1,2,3-Trichloropropane | 112 | (71 - 132) | SW846 8260B |
| n-Propylbenzene | 116 | (63 - 128) | SW846 8260B |
| 2-Chlorotoluene | 113 | (64 - 127) | SW846 8260B |
| 4-Chlorotoluene | 115 | (67 - 128) | SW846 8260B |
| 1,3,5-Trimethylbenzene | 116 | (66 - 135) | SW846 8260B |
| tert-Butylbenzene | 110 | (67 - 131) | SW846 8260B |
| 1,2,4-Trimethylbenzene | 116 | (64 - 137) | SW846 8260B |
| sec-Butylbenzene | 115 | (68 - 131) | SW846 8260B |
| 1,3-Dichlorobenzene | 104 | (64 - 126) | SW846 8260B |
| p-Isopropyltoluene | 114 | (64 - 137) | SW846 8260B |
| 1,4-Dichlorobenzene | 103 | (65 - 124) | SW846 8260B |
| 1,2-Dichlorobenzene | 104 | (68 - 121) | SW846 8260B |
| n-Butylbenzene | 119 | (68 - 136) | SW846 8260B |
| 1,2-Dibromo-3-chloropropane (DBCP) | 118 | (75 - 137) | SW846 8260B |
| 1,2,4-Trichlorobenzene | 91 | (48 - 145) | SW846 8260B |
| Hexachlorobutadiene | 88 | (52 - 140) | SW846 8260B |
| Naphthalene | 97 | (53 - 140) | SW846 8260B |
| 1,2,3-Trichlorobenzene | 86 | (54 - 140) | SW846 8260B |
| cis-1,2-Dichloroethene | 100 | (74 - 131) | SW846 8260B |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|-----------------------|------------------|-----------------|
| Dibromofluoromethane | 98 | (55 - 129) |
| 1,2-Dichloroethane-d4 | 103 | (32 - 156) |
| Toluene-d8 | 112 | (63 - 138) |
| 4-Bromofluorobenzene | 107 | (63 - 143) |

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1T511AC Matrix.....: SOLID
LCS Lot-Sample#: G0E200000-332

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1T511AC Matrix.....: SOLID
 LCS Lot-Sample#: G0E200000-332
 Prep Date.....: 05/20/10 Analysis Date...: 05/20/10
 Prep Batch #...: 0140332
 Dilution Factor: 1

| <u>PARAMETER</u> | <u>SPIKE AMOUNT</u> | <u>MEASURED AMOUNT</u> | <u>UNITS</u> | <u>PERCENT RECOVERY</u> | <u>METHOD</u> |
|---------------------------------------|-------------------------|----------------------------|--------------|-----------------------------|---------------|
| Dichlorodifluoromethane (Freon 12) | 100 | 80.1 | ug/kg | 80 | SW846 8260B |
| Trichlorofluoromethane (Freon 11) | 100 | 95.4 | ug/kg | 95 | SW846 8260B |
| Chloromethane | 100 | 90.3 | ug/kg | 90 | SW846 8260B |
| Vinyl chloride | 100 | 99.4 | ug/kg | 99 | SW846 8260B |
| Bromomethane | 100 | 88.9 | ug/kg | 89 | SW846 8260B |
| Chloroethane | 100 | 98.9 | ug/kg | 99 | SW846 8260B |
| 1,1-Dichloroethene | 100 | 97.4 | ug/kg | 97 | SW846 8260B |
| Methylene chloride | 100 | 95.2 | ug/kg | 95 | SW846 8260B |
| trans-1,2-Dichloroethene | 100 | 105 | ug/kg | 105 | SW846 8260B |
| 1,1-Dichloroethane | 100 | 106 | ug/kg | 106 | SW846 8260B |
| 2,2-Dichloropropane | 100 | 104 | ug/kg | 104 | SW846 8260B |
| Bromochloromethane | 100 | 90.7 | ug/kg | 91 | SW846 8260B |
| Chloroform | 100 | 104 | ug/kg | 104 | SW846 8260B |
| 1,1,1-Trichloroethane | 100 | 106 | ug/kg | 106 | SW846 8260B |
| Carbon tetrachloride | 100 | 109 | ug/kg | 109 | SW846 8260B |
| 1,1-Dichloropropene | 100 | 109 | ug/kg | 109 | SW846 8260B |
| Benzene | 100 | 106 | ug/kg | 106 | SW846 8260B |
| 1,2-Dichloroethane | 100 | 114 | ug/kg | 114 | SW846 8260B |
| Trichloroethene | 100 | 99.7 | ug/kg | 100 | SW846 8260B |
| 1,2-Dichloropropane | 100 | 104 | ug/kg | 104 | SW846 8260B |
| Dibromomethane | 100 | 99.2 | ug/kg | 99 | SW846 8260B |
| Bromodichloromethane | 100 | 104 | ug/kg | 104 | SW846 8260B |
| cis-1,3-Dichloropropene | 100 | 110 | ug/kg | 110 | SW846 8260B |
| Toluene | 100 | 109 | ug/kg | 109 | SW846 8260B |
| trans-1,3-Dichloropropene | 100 | 103 | ug/kg | 103 | SW846 8260B |
| 1,1,2-Trichloroethane | 100 | 99.8 | ug/kg | 100 | SW846 8260B |
| Tetrachloroethene | 100 | 93.7 | ug/kg | 94 | SW846 8260B |
| 1,3-Dichloropropane | 100 | 107 | ug/kg | 107 | SW846 8260B |
| Dibromochloromethane | 100 | 97.5 | ug/kg | 98 | SW846 8260B |
| 1,2-Dibromoethane (EDB) | 100 | 99.9 | ug/kg | 100 | SW846 8260B |
| Chlorobenzene | 100 | 99.7 | ug/kg | 100 | SW846 8260B |
| 1,1,1,2-Tetrachloroethane | 100 | 99.2 | ug/kg | 99 | SW846 8260B |

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: G0E180598 Work Order #...: L1T511AC Matrix.....: SOLID
LCS Lot-Sample#: G0E200000-332

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SOLID, D 2216-90, Percent Moisture

Northgate Environmental Management, Inc.

Client Sample ID: MNTAILS_05182010_SWC

General Chemistry

Lot-Sample #....: G0E180598-001 Work Order #....: L1PC0 Matrix.....: SO
Date Sampled....: 05/18/10 Date Received..: 05/19/10
% Moisture.....: 6.6

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION- ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|------------------|---------------|-----------|--------------|----------------|---------------------------------------|-------------------------|
| Percent Moisture | 6.6 | 0.10 | % | ASTM D 2216-90 | 05/19-05/20/10 | 0139397 |

Dilution Factor: 1

Northgate Environmental Management, Inc.

Client Sample ID: MNTAILS_05182010_SWC_FD

General Chemistry

Lot-Sample #...: G0E180598-002 Work Order #...: L1PC1 Matrix.....: SQ
Date Sampled...: 05/18/10 Date Received..: 05/19/10
% Moisture.....: 7.8

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION- ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|------------------|---------------|-----------|--------------|----------------|---------------------------------------|-------------------------|
| Percent Moisture | 7.8 | 0.10 | % | ASTM D 2216-90 | 05/19-05/20/10 | 0139397 |

Dilution Factor: 1

QC DATA ASSOCIATION SUMMARY

G0E180598

Sample Preparation and Analysis Control Numbers

| <u>SAMPLE#</u> | <u>MATRIX</u> | <u>ANALYTICAL METHOD</u> | <u>LEACH BATCH #</u> | <u>PREP BATCH #</u> | <u>MS RUN#</u> |
|----------------|---------------|------------------------------|--------------------------|-------------------------|----------------|
| 001 | SO | ASTM D 2216-90 | | 0139397 | 0144125 |
| | SO | SW846 8260B | | 0140131 | |
| 002 | SQ | ASTM D 2216-90 | | 0139397 | 0144125 |
| | SQ | SW846 8260B | | 0140332 | |

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: G0E180598

Work Order #...: L0RA6-SMP
L0RA6-DUP

Matrix.....: SOLID

Date Sampled...: 04/26/10

Date Received..: 04/29/10

% Moisture.....: 19

| <u>PARAM</u> | <u>RESULT</u> | <u>DUPLICATE</u> | <u>UNITS</u> | <u>RPD</u> | <u>RPD</u> | <u>LIMIT</u> | <u>METHOD</u> | <u>PREPARATION-</u> | <u>PREP</u> |
|------------------|---------------|------------------|--------------|------------|------------|----------------|------------------|----------------------|----------------|
| | | <u>RESULT</u> | | | | | | <u>ANALYSIS DATE</u> | <u>BATCH #</u> |
| Percent Moisture | | | | | | | SD Lot-Sample #: | G0D290603-002 | |
| | 18.9 | 18.8 | % | 0.80 | (0-20) | ASTM D 2216-90 | | 05/19-05/20/10 | 0139397 |

Dilution Factor: 1