AECOM
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www.aecom.com

March 18, 2013

Phyllis Beaulieu
Licensing Manager
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Phyllis:

Project No: Water Use License 1BR-DYE0914 2012 Annual Report

Regarding: DYE-M, Cape Dyer DEW Line Site

AECOM Canada Ltd. is providing the attached annual report form as per Section B.1 of the above-noted water use license. The report is being submitted on behalf of Defence Construction Canada and the Department of National Defence.

In addition to the annual report form, we are providing a summary of the work completed to date at the site. The following is a summary of the work completed and of the samples collected as part of the wastewater monitoring and sewage effluent monitoring:

Work Completed

The following is a detailed summary of the effort and activities that were undertaken by Qikiqtaaluk Logistics Inc. (the contractor) at the DYE-M, Cape Dyer DEW Line site:

Demolition

- The following buildings were demolished: Warehouses B13B and B13F, ATB building, and two billboards. The associated hazardous materials at these former building locations have been removed. Minimal debris remains in the building footprints, and barricades have been placed around the footprints for protection.
- Site investigation monitoring wells around the Dew Drop Area, US Non-Hazardous Waste Facility and the LS POL Storage area have been decommissioned.

Landfill Remediation

- The West Landfill was excavated and reshaped. In addition, drainage swales were constructed and culverts were installed at the West Landfill East Lobe.
- The Pallet Line Landfill was re-graded
- The placement of Type 1 material on the Powerhouse Landfill re-grade was approximately 40% complete at the end of the construction season.

Lower Site Non-Hazardous Waste Landfill

- Non-hazardous waste materials, including demolition waste from the warehouses (B13F & B13B) material from Debris Areas 4 and 7, along with liners from the AST Containment and POL Storage Areas have been placed inside the facility.
- A new temporary access ramp was developed on the east of the facility
- The waste layer was spread out and compacted inside the facility of Cell #2 and intermediate fill was placed over the waste for winter cover.
- Construction of the Type 2 granular cover over Cell #1 of the facility is completed; shaping of the side slopes is currently on hold until the upcoming 2013 construction season.
- Survey data indicates the need for additional Type 2 granular cover layer for the facility. This work will be completed in 2013.

Upper-Site Non-Hazardous Waste Landfill:

- Non-hazardous waste material from Debris Areas 14, 18, contaminated soils excavations and segmented billboard pieces from the Dew Drop Area were placed inside the facility.
- The contractor has recovered Tier I soils that were previously leveled and spread throughout the landfill floor. Material is stockpiled inside the landfill for future use as intermediate fill.
- Sufficient Type 6 intermediate cover over waste has been placed and compacted.
- Pending the final survey of the facility, the Type 2 granular cover layer has been completed. The forth 250 mm lift has been spread and compacted over the entire facility.

Lower Site Tier II Disposal Facility:

- Tier II Soils from excavations at the POL storage area and AST containment berm have been placed in the facility.
- Tier II soils have been compacted within Cell 2 of the facility and covered with a thin layer of granular material for winter cover.
- The placement of a Type 2 granular cover layer on Cell 1 was in progress at the end of the construction season, and remains to be completed in the 2013 construction season.

Upper Site Tier II Disposal Facility:

- Waste material from Station and Dew Drop Areas were placed within the facility and leveled out into a 200- 300 m lift.
- The placement of Type 5 material over the liner system is complete.
- Type 2 granular cover layer has been completed. The seventh 250 mm lift has been completed.

Thermistors and Monitoring Wells

- Installation of the Vertical Thermistor pipes at the Lower Site and the Upper Site Tier II facilities has been completed. Final cover for the facilities is not complete; adequate compaction around the installed pipes remains to be completed to suit the construction of the top cover layer.
- Monitoring wells were drilled and installed in August at the northwest perimeter of Lower and Upper Tier II Disposal facilities.

Landfarm

- Tilling of the soils and collection of samples for moisture content determination was completed

- Type B soils placed within the landfarm were spread out.

General

- Contaminated soil areas HC-6A and HC-6B were excavated.
- Debris was removed from Areas 4, 7, 14, 16.
- Reshaping of contaminated soil excavations and re-grading of foundation pads by the Dew Drop area was completed.
- Reshaping was completed at the POL storage area containment berms, the beach landing area, the wastewater holding basins and the AST area were reshaped following the completion of the contaminated soil excavations.
- Surveys were completed for the Non-Hazardous Waste Landfills, Tier II Disposal Facilities, Borrow Areas, contaminated soil excavations and known debris areas.

Work to be completed in 2013 includes the collection and disposal of all remaining debris; completion of demolition activities; excavation of remaining contaminated soil areas and disposal in the appropriate landfill or packaged for off-site disposal; final capping and closure of the two Non-Hazardous Waste Landfills and two Tier II Disposal Facilities; completion of land treatment of the hydrocarbon contaminated soils and decommissioning of the landfarm; reclamation of borrow areas; and collection of as-built survey data. Demobilization of the camp, construction equipment and the PCB material currently in temporary storage will also occur in 2013.

Community Consultations: The results of the community meetings held by DCC were submitted with the Project Description. The contractor typically holds a project start up meeting prior to each season; however, a copy of the presentation has not been provided.

Spill Incidences: See attached spill reports.

Monitoring Results: See attached monitoring reports.

We trust the information provided is sufficient. Please feel free to contact the undersigned if you require any additional information.

Sincerely,
AECOM Canada Ltd.

Eva Schulz, P.Ag.
Senior Environmental Scientist
Eva.Schulz@aecom.com

EMS
Encl. Annual Report Form, Monitoring Reports, Spill Reports, Updated Site Figures, Selected Site Photos
cc: Tamara Van Dyck, DCC

NWB Annual Report **Year being reported:** 2012

License No: 1BR-DYE0914 **Issued Date:** June 9, 2009
Expiry Date: May 31, 2014

Project Name: DYE-M, Cape Dyer DEW Line Site Clean Up

Licensee: Defence Construction Canada

Mailing Address:
Defence Construction Canada
DGME
101 Colonel By Drive,
Ottawa, Ontario, Canada. K1A 0K2

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):
AECOM
Design Engineering and Regulatory Support

General Background Information on the Project (*optional):

Licence Requirements: the licensee must provide the following information in accodance with
Part B Item 1

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s): Water supply lakes

Water Quantity:	
150/day	Quantity Allowable Domestic (cu.m)
2200/113 days	Actual Quantity Used Domestic (cu.m)
n/a	Quantity Allowable Drilling (cu.m)
n/a	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☐ Solid Waste Disposal
- ☑ Sewage — 1750 cu.m of sewage effluent and greywater deposited into sewage lagoons
- ☐ Drill Waste
- ☑ Greywater
- ☐ Hazardous
- ☑ Other:

Additional Details:
Details regarding waste management were provided in the supporting documents included with the application.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)
Date of Spill:
Date of Notification to an Inspector:
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)
See attached spill reports.

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed

Additional Details:

The project is an abandonment and restoration plan.

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details attached

Additional Details:

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection and/or compliance report issued by INAC

Additional Details: (Dates of Report, Follow-up by the Licensee)

An inspection was completed by AANDC on Aug. 9, 2012; however, no report was issued.

Any additional comments or information for the Board to consider

Date Submitted:	March 18, 2013	
Submitted/Prepared by:	Eva Schulz	
Contact Information:	**Tel:**	403-270-9220
	Fax:	403-270-9196
	email:	eva.schulz@aecom.com

GPS Coordinates for water sources utilized

Source Description	UTM Zone 20N, NAD83	
	Northing	Easting
Lower Site Water Supply Lake	7390039	559775
Summer Water Supply Lake	7389802	565916
Winter Water Supply Lake	7395600	570250

GPS Locations of areas of waste disposal

	UTM Zone 20N, NAD83	
	Northing	Easting
Landfarm (E01)	7387924.9	562601.4
Landfarm (E01)	7387931.4	562624.8
Landfarm (E01)	7387004.7	562765
Landfarm (E01)	7387922	562808.3
Landfarm (E01)	7387725.6	562911.1
Landfarm (E01)	7387645.4	562757.8
Landfarm (E01)	7387718.1	562525.6
Landfarm (E01)	7387759.3	562496.2
Landfarm (E01)	7387843.9	562454.5
Lower Site Tier II (H01)	7388272.5	561782.6
Lower Site Tier II (H01)	7388345,3	561925.1
Lower Site Tier II (H01)	7388242.9	561977.4
Lower Site Tier II (H01)	7388170.1	561835
Lower Site Non-Haz (F01)	7387025.5	562989.6
Lower Site Non-Haz (F02)	7387070.4	563061.8
Lower Site Non-Haz (F03)	7387943.1	563141.1
Lower Site Non-Haz (F04)	7387953.3	563034.6
Upper Site Tier II (X01)	7394628.6	571043.9
Upper Site Tier II (X02)	7394676.6	571117.6
Upper Site Tier II (X03)	7394599.5	571167.8
Upper Site Tier II (X04)	7394551.5	571094
Upper Site Non-Haz (V01)	7395184.3	572155.5
Upper Site Non-Haz (V02)	7395144	572311.4
Upper Site Non-Haz (V03)	7395090.7	572297.6
Upper Site Non-Haz (V04)	7395105.9	572239.1
Upper Site Non-Haz (V05)	7395070	572178.1
Upper Site Non-Haz (V06)	7395075	572158.8
Upper Site Non-Haz (V07)	7395112.2	572136.9
Sewage Lagoon North Cell	738934	563383
Sewage Lagoon South Cell	7386880	563403

Tom Partridge
Environmental Sciences Group
The Royal Military College of Canada
PO Box 17000 Stn. Forces
Kingston, ON K7K 7B4

Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
101 Colonel By Drive
Ottawa ON K1A 0K2

Tuesday February 12, 2012

June 2012 Monthly Report for Water Use License Number: IBR-DYE0914

The following results of the Monitoring Program (MP) and/or Water Use License are provided by the Environmental Sciences Group to meet the requirements of the above-noted license for *DYE-M (Cape Dyer).*

1. SEWAGE EFFLUENT

A sewage lagoon was constructed at DYE-M in September of 2004. The Water Use License and MP require that samples from treated sewage lagoon effluent at the point of discharge to the receiving water be collected prior to each discharge event.

Two sewage lagoon samples were collected and analyzed from DYE-M in June, 2012. A summary of the results for the parameters tested is provided below. Laboratory results are provided in Appendix A.

LOCATION: SEWAGE LAGOON – NORTH CELL
GPS COORDINATES: 563332/7386905 and 563381/7386905 (composite sample)
SAMPLE: 12-34834
DATE: June 4, 2012

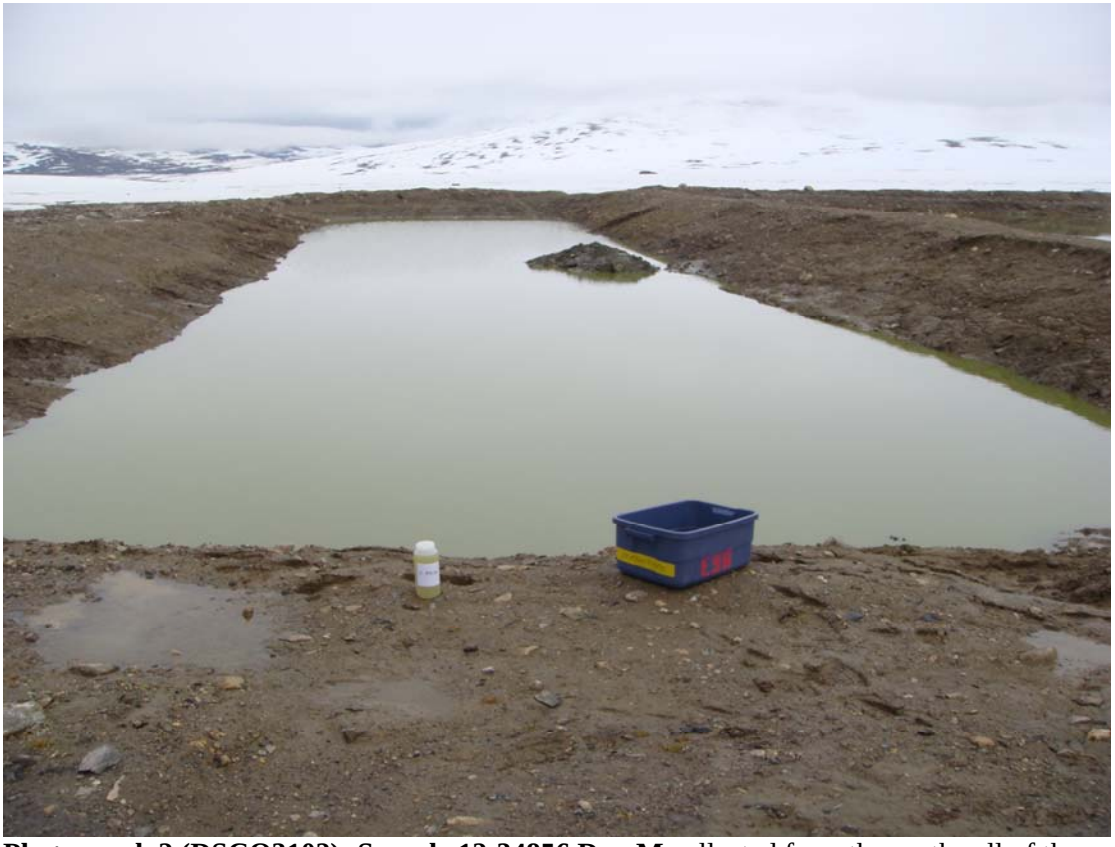
Parameter	Allowable Maximum Average Concentration	Units	12-34834 (June 4, 2012)
pH	6.0 to 9.0	pH units	6.6
Oil & Grease	No Visible Sheen	-	None Visible
Total Suspended Solids (TSS)	180	mg/L	***190***
BOD	120	mg/L	18
Faecal Coliforms	10,000	CFU/100mL	0
Total Coliforms	-	CFU/ 100 mL	23,000

Photograph 1 (DSCO2919): Sample 12-34834 Dye-M Collected from the north cell of the sewage lagoon, facing northeast.

Waste water from north cell of the sewage lagoon was not discharged.

LOCATION: SEWAGE LAGOON – SOUTH CELL
GPS COORDINATES: 563381/7386905 and 563332/7386905 (composite sample)
SAMPLE: 12-34856
DATE: June 14, 2012

Parameter	Allowable Maximum Average Concentration	Units	12-34856 (June 14, 2012)
pH	6.0 to 9.0	pH units	-
Oil & Grease	No Visible Sheen	-	None Visible
Total Suspended Solids (TSS)	180	mg/L	120
BOD	120	mg/L	-
Faecal Coliforms	10,000	CFU/100mL	-
Total Coliforms	-	CFU/ 100 mL	-



Photograph 2 (DSCO3102): Sample 12-34856 Dye-M collected from the north cell of the sewage lagoon, facing north.

Waste water from the north cell of the sewage lagoon was discharged to the ground on June 21, 2012. The water was discharged on the northeast side of the lagoon away from the main camp. (0563407, 7386966).

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Tom Partridge
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode (ESG)

APPENDIX A
LABORATORY RESULTS

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: ---

REPORT No. B12-13775

Report To:
RMC Dept of Chem & Chem Eng
11 General Crerar Cres,
Kingston Ontario K7K 7B4 Canada
Attention: Julie McDonald

Caduceon Environmental Laboratories
285 Dalton Ave
Kingston Ontario K7K 6Z1
Tel: 613-544-2001
Fax: 613-544-2770

DATE RECEIVED: 07-Jun-12
DATE REPORTED: 13-Jun-12
SAMPLE MATRIX: Waste Water

JOB/PROJECT NO.: ASG#22723
P.O. NUMBER:
WATERWORKS NO.

			Client I.D.		34834			
			Sample I.D.		B12-13775-1			
			Date Collected		04-Jun-12			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed				
BOD(5 day)	mg/L	2	SM 5210B	08-Jun-12/K	18			

M.D.L. – Method Detection Limit
Site Analyzed– K-Kingston, W-Windsor, O-Ottawa, R-Richmond Hill

Michelle Dubien
Lab Supervisor

Client :	**ESG**	ASG Login No:	22723
	12 Verite Ave	Site:	DYE-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-014
	P.O. Box 17000, Stn. Forces	Samples Received:	06-Jun-12
	Kingston, Ontario K7K 7B4	Date of analysis:	06-Jun-12
	(613) 541-6000 ext 6567	Date Reported:	07-Jun-12
	Fax: (613) 541-6596	Sheet:	1 of 1

RESULTS OF MICROBIOLOGICAL ANALYSIS

Sample Identification	Method: ASG 036 **Total Coliforms** (CFU/100 mL)	Method: ASG 036 ***E. coli*** (CFU/100 mL)	Method: ASG 036 **Background** (CFU/100 mL)	Method: ASG 044 **Fecal Coliforms** (CFU/100mL)
34834*	23000	0	> 200000	0

*Averaged results of duplicates

LABORATORY QA/QC

Sample Identification	Method: ASG 036 **Total Coliforms** (CFU/100 mL)	Method: ASG 036 ***E. coli*** (CFU/100 mL)	Method: ASG 036 **Background** (CFU/100 mL)	Method: ASG 044 **Fecal Coliforms** (CFU/100mL)
Blank	0	0	0	0
34834* ; Duplicate	n/a	n/a	n/a	0 ; 0
Control Sample	45	45	0	45
Control Target	45	45	0	45

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
GROUP DES SCIENCES ANALYTIQUES ET FACILITÉ SLOWPOKE-2 AU CMR
Dept. of Chem. and Chem. Eng. - Dépt. de chimie et de génie chimique
Royal Military College of Canada - Collège militaire royal du Canada
P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client: **ESG**
12 Verite Ave
Dept. of Chem. / Chem. Eng., RMC
P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22723
Site: Dye-M
Client No: 12-014
Samples Received: 06-Jun-12
Date of analysis: 07-Jun-12
Method No: ASG 037
Date Reported: 08-Jun-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34834*	6.60

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

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(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22723
Site: Dye-M
Client Login No: 12-014
Samples Received: 06-Jun-12
Date of analysis: 07-Jun-12
Method No: ASG 039
Date Reported: 08-Jun-12
Sheet: 1 of 1

RESULTS OF TOTAL SUSPENDED SOLIDS ANALYSIS

Sample I.D.	Sample Type^	Unit	Total Suspended Solids
34834*	SE	mg/L	190

LABORATORY QA/QC

Duplicate ; 34834*	SE ; SE	mg/L	180 ; 190
Control	Control	mg/L	200
Control Target	Control	mg/L	200
Blank	Control	mg/L	< 1

^SW =Surface Water, SI = Sewage Influent SE = Sewage Effluent
* Averaged result of duplicates

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Client : ESG
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P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22745
Site: Dye-M
Client Login No: 12-020
Samples Received: 17-Jun-12
Date of analysis: 19-Jun-12
Method No: ASG 039
Date Reported: 19-Jun-12
Sheet: 1 of 1

RESULTS OF TOTAL SUSPENDED SOLIDS ANALYSIS

Sample I.D.	Sample Type^	Unit	Total Suspended Solids
34856*	SE	mg/L	120

LABORATORY QA/QC

Duplicate ; 34856*	SE ; SE	mg/L	120 ; 120
Control	Control	mg/L	200
Control Target	Control	mg/L	200
Blank	Control	mg/L	< 1

^SW =Surface Water, SI = Sewage Influent SE = Sewage Effluent
* Averaged result of duplicates

Sharilyn Hoobin
Environmental Sciences Group
The Royal Military College of Canada
PO Box 17000 Stn. Forces
Kingston, ON K7K 7B4

Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
101 Colonel By Drive
Ottawa ON K1A 0K2

Friday February 15, 2012

August 2012 Monthly Report for Water Use License Number: IBR-DYE0914

The following results of the Monitoring Program (MP) and/or Water Use License are provided by the Environmental Sciences Group to meet the requirements of the above-noted license for *DYE-M (Cape Dyer).*

1. SEWAGE EFFLUENT

A sewage lagoon was constructed at DYE-M in September of 2004. The Water Use License and MP require that samples from treated sewage lagoon effluent at the point of discharge to the receiving water be collected prior to each discharge event.

One sewage lagoon sample was collected and analyzed from DYE-M in August, 2012. A summary of the results for the parameters tested is provided below. Laboratory results are provided in Appendix A.

LOCATION: SEWAGE LAGOON – SOUTH CELL (CELL 1)
GPS COORDINATES: 563332 / 7386920 and 563333 / 7386906 (composite sample)
SAMPLE: 12-29329
DATE: August 30, 2012

Parameter	Allowable Maximum Average Concentration	Units	Sample 12-29329
pH	6.0 to 9.0	pH units	7.3
Oil & Grease	No Visible Sheen	-	None Visible
Total Suspended Solids (TSS)	180	mg/L	***270***
BOD	120	mg/L	45
Faecal Coliforms	10,000	CFU/100mL	***16,00***
Total Coliforms	-	CFU/ 100 mL	***26,000***

Photograph 1 (DSC04617): Sample 12-29329 Dye-M collected from the south cell of the sewage lagoon, facing northeast.

Waste water from south cell of the sewage lagoon was not discharged.

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Sharilyn Hoobin
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode (ESG)

APPENDIX A
LABORATORY RESULTS

Royal Military College of Canada - Collège militaire royal du Canada
P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22977
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-166
	P.O. Box 17000, Stn. Forces	Samples Received:	01-Sep-12
	Kingston, Ontario K7K 7B4	Date of analysis:	01-Sep-12
	(613) 541-6000 ext 6567	Date Reported:	04-Sep-12
	Fax: (613) 541-6596	Sheet:	1 of 1

RESULTS OF MICROBIOLOGICAL ANALYSIS

Sample Identification	Method: ASG 036 **Total Coliforms** (CFU/100 mL)	Method: ASG 036 ***E. coli*** (CFU/100 mL)	Method: ASG 036 **Background** (CFU/100 mL)	Method: ASG 041 **Fecal Coliforms** (CFU/100mL)
29329*	26000	7500	> 200000	15500

LABORATORY QA/QC

Sample Identification	Method: ASG 036 **Total Coliforms** (CFU/100 mL)	Method: ASG 036 ***E. coli*** (CFU/100 mL)	Method: ASG 036 **Background** (CFU/100 mL)	Method: ASG 041 **Fecal Coliforms** (CFU/100mL)
29329 ; Duplicate	28000 ; 24000	8000 ; 7000	> 200000 ; > 20000	14000 ; 17000
Blank	0	0	0	0
Control Sample	43	43	0	44
Control Target	43	43	0	43

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Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22977
Site: Dye-M
Client Login No: 12-166
Samples Received: 01-Sep-12
Date of analysis: 01-Sep-12
Method No: ASG 042
Date Reported: 06-Sep-12

RESULTS OF BOD ANALYSIS

Sample I.D.	Unit	BOD
29329*	mg/L	45

*Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	Unit	BOD
Duplicate ; 29329*	mg/L	44 ; 46
Blank	mg/L	< 3
Control	mg/L	176
Control Target	mg/L	165

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
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ASG Login No: 22977
Site: Dye-M
Client No: 12-166
Samples Received: 01-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 037
Date Reported: 05-Sep-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
29329	7.28

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
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ASG Login No: 22977
Site: Dye-M
Client Login No: 12-166
Samples Received: 01-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 039
Date Reported: 06-Sep-12
Sheet: 1 of 1

RESULTS OF TOTAL SUSPENDED SOLIDS ANALYSIS

Sample I.D.	Sample Type^	Unit	Total Suspended Solids
29329*	SE	mg/L	270

LABORATORY QA/QC

Duplicate ; 29329*	SE ; SE	mg/L	270 ; 260
Control	Control	mg/L	200
Control Target	Control	mg/L	200
Blank	Control	mg/L	< 1

^SW =Surface Water, SI = Sewage Influent SE = Sewage Effluent
* Averaged result of duplicates

Tom Partridge
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The Royal Military College of Canada
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Kingston, ON K7K 7B4

Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
101 Colonel By Drive
Ottawa ON K1A 0K2

Thursday February 14, 2012

September 2012 Monthly Report for Water Use License Number: IBR-DYE0914

The following results of the Monitoring Program (MP) and/or Water Use License are provided by the Environmental Sciences Group to meet the requirements of the above-noted license for *DYE-M (Cape Dyer).*

1. SEWAGE EFFLUENT

A sewage lagoon was constructed at DYE-M in September of 2004. The Water Use License and MP require that samples from treated sewage lagoon effluent at the point of discharge to the receiving water be collected prior to each discharge event.

Three sewage lagoon samples were collected and analyzed from DYE-M in September, 2012. A summary of the results for the parameters tested is provided below. Laboratory results are provided in Appendix A.

LOCATION: SEWAGE LAGOON – SOUTH CELL
GPS COORDINATES: 563332 / 7386920 and 563333 / 7386906 (composite sample)
SAMPLE: 12-43703
DATE: September 6, 2011

Parameter	Allowable Maximum Average Concentration	Units	12-44749 (September 6, 2012)
pH	6.0 to 9.0	pH units	***9.2***
Oil & Grease	No Visible Sheen	-	None Visible
Total Suspended Solids (TSS)	180	mg/L	58
BOD	120	mg/L	30
Faecal Coliforms	10,000	CFU/100mL	2,000
Total Coliforms	-	CFU/ 100 mL	11,000

No photographic documentation of this sampling event.

Waste water from south cell of the sewage lagoon was not discharged.

LOCATION: SEWAGE LAGOON – SOUTH CELL
GPS COORDINATES: 563332 / 7386920 and 563333 / 7386906 (composite sample)
SAMPLE: 12-44317
DATE: September 8, 2011

Parameter	Allowable Maximum Average Concentration	Units	12-44317 (September 6, 2012)
pH	6.0 to 9.0	pH units	8.0*
Oil & Grease	No Visible Sheen	-	-
Total Suspended Solids (TSS)	180	mg/L	-
BOD	120	mg/L	-
Faecal Coliforms	10,000	CFU/100mL	-
Total Coliforms	-	CFU/ 100 mL	-

*field measurement

No photographic documentation of this sampling event.

Waste water from the north cell of the sewage lagoon was discharged to the ground on September 10, 2012. The water was discharged on the east side of the lagoon away from the main camp. (0563403, 7386954).

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Tom Partridge
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode (ESG)

APPENDIX A
LABORATORY RESULTS

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
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ASG Login No: 22993
Site: Dye-M
Client Login No: 12-178
Samples Received: 05-Sep-12
Date of analysis: 06-Sep-12
Method No: ASG 042
Date Reported: 11-Sep-12
Page: 1 of 1

RESULTS OF BOD ANALYSIS

Sample I.D.	Unit	BOD
43703*	mg/L	30

*Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	Unit	BOD
Duplicate ; 29329*	mg/L	29 ; 30
Blank	mg/L	< 3
Control	mg/L	160
Control Target	mg/L	165

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ASG Login No: 22993
Site: Dye-M
Client No: 12-178
Samples Received: 05-Sep-12
Date of analysis: 06-Sep-12
Date Reported: 07-Sep-12
Sheet: 1 of 1

RESULTS OF MICROBIOLOGICAL ANALYSIS

Sample Identification	Method: ASG 036 **Total Coliforms** (CFU/100 mL)	Method: ASG 036 ***E. coli*** (CFU/100 mL)	Method: ASG 036 **Background** (CFU/100 mL)	Method: ASG 041 **Fecal Coliforms** (CFU/100mL)
43703*	11000	2000	4000	2000

*Averaged results of duplicate

LABORATORY QA/QC

Sample Identification	Method: ASG 036 **Total Coliforms** (CFU/100 mL)	Method: ASG 036 ***E. coli*** (CFU/100 mL)	Method: ASG 036 **Background** (CFU/100 mL)	Method: ASG 041 **Fecal Coliforms** (CFU/100mL)
43703* ; Duplicate	N/A	N/A	N/A	2000 ; 2000
Blank	0	0	0	0
Control Sample	39	39	0	40
Control Target	45	45	0	45

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ASG Login No: 22993
Site: Dye-M
Client No: 12-178
Samples Received: 05-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 037
Date Reported: 05-Sep-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
43703	9.18

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

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ASG Login No: 22993
Site: Dye-M
Client Login No: 12-178
Samples Received: 05-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 039
Date Reported: 06-Sep-12
Sheet: 1 of 1

RESULTS OF TOTAL SUSPENDED SOLIDS ANALYSIS

Sample I.D.	Sample Type^	Unit	Total Suspended Solids
43703	SE	mg/L	58

LABORATORY QA/QC

Control	Control	mg/L	200
Control Target	Control	mg/L	200
Blank	Control	mg/L	< 1

^SW =Surface Water, SI = Sewage Influent SE = Sewage Effluent
* Averaged result of duplicates

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Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
350 Albert Street, Suite 1720
Ottawa ON K1A 0K3

Tuesday, February 19, 2013

RE: Analytical Results for the Wastewater Sample Collected at DYE-M in May 2012

The following report summarizes results of the analysis of the wastewater sample as per the DYE-M (Cape Dyer) DEW Line Cleanup Project (DLCU) Specifications.

The DYE-M specifications require that "wash water, melt water collection, rinse water resulting from the cleaning of fuel tanks and pipelines, and/or any other liquid effluent stream" meet the following guidelines prior to their discharge to land (01560.4.1):

Parameter	Maximum Allowable Concentration	Units
pH	6.0 – 9.0	pH units
Total Arsenic	0.10	mg/L
Dissolved Cadmium	0.01	mg/L
Total Chromium	0.10	mg/L
Dissolved Cobalt	0.05	mg/L
Dissolved Copper	0.20	mg/L
Dissolved Lead	0.05	mg/L
Total Mercury	0.60	µg/L
Dissolved Nickel	0.20	mg/L
Total Zinc	0.50	mg/L
Oil & Grease	5.0	mg/L
PCBs	1,000	µg/L
Benzene	370	µg/L
Toluene	2.0	µg/L
Ethyl benzene	90	µg/L

*In respect to application to a road surface

WASTEWATER SAMPLE

One wastewater sample was collected at DYE-M and analyzed in May 2012. A summary of the details of the results follows. Laboratory results are provided in Appendix A.

LOCATION: LOWER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 562962 / 7387043
SAMPLE: 12-34825
DATE: MAY 31, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34825
pH	6.0 – 9.0	pH units	6.5
Total Arsenic	0.10	mg/L	<0.003
Dissolved Cadmium	0.01	mg/L	<0.001
Total Chromium	0.10	mg/L	<0.049
Dissolved Cobalt	0.05	mg/L	<0.003
Dissolved Copper	0.20	mg/L	<0.01
Dissolved Lead	0.05	mg/L	<0.01
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.005
Total Zinc	0.50	mg/L	0.30
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 1 (DSCO1900): Sample collected from the Lower Site Non-Hazardous Waste Landfill.

Waste water from the Lower Site Non-Hazardous Waste Landfill was discharged to the ground on June 8, 2012. The water was discharged on the north side of the Landfill away from the area. (563140, 7387099).

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Tom Partridge
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode

APPENDIX A
LABORATORY RESULTS

ASU #	14167		**Report ID:**	Dye-M W3
Client:	ESG		**Date Submitted:**	04-Jun-12
			Date tested:	04-Jun-12
Site:	Dye-M		**Date:**	05-Jun-12
	12-008		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34825	<2.0			
Blank	<2.0			
Control	15.0 ; 15.6			
Control Target	15.7			
Results relate only to the items tested				

ASU #	14167		**Report ID:**	Dye-M W4					
Client:	ESG		**Date Submitted:**	04-Jun-12					
			Date tested:	04-Jun-12					
Site:	Dye-M		**Date:**	06-Jun-12					
	12-008		**Matrix:**	Water					
Report of Analysis									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34825	-	-	-	-	-	0.30	0.049	<0.003	*
Blank	-	-	-	-	-	<0.010	<0.005	<0.003	
12-34825	-	-	-	-	-	0.32	0.053	<0.003	
12-34825	-	-	-	-	-	0.28	0.044	<0.003	
Control	-	-	-	-	-	2.9	0.79	0.79	
Control Target	-	-	-	-	-	3.0	0.80	0.80	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34825	0.011	<0.005	<0.003	<0.001	<0.010	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34825	0.011	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34825	0.011	<0.005	<0.003	<0.001	<0.010	-	-	-	
Control	1.58	1.56	1.55	0.71	7.64	-	-	-	
Control Target	1.60	1.60	1.60	0.80	8.00	-	-	-	

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Client :	**ESG**	ASG Login No:	22718
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-008
	P.O. Box 17000, Stn. Forces	Samples Received:	04-Jun-12
	Kingston, Ontario K7K 7B4	Date of analysis:	06-Jun-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	06-Jun-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
12-34825*	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 12-34825*	< 0.4 ; < 0.4
Blank	< 0.4
Control Target	4.0
Control Sample	5.2

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Fax: (613) 541-6596

ASG Login No: 22718
Site: Dye-M
Client No: 12-008
Samples Received: 04-Jun-12
Date of analysis: 04-Jun-12
Method No: ASG 015
Date Reported: 06-Jun-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34825*	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34825*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.015
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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ASG Login No: 22718
Site: Dye-M
Client No: 12-008
Samples Received: 04-Jun-12
Date of analysis: 06-Jun-12
Method No: ASG 037
Date Reported: 06-Jun-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34825*	6.46

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34825* ; Duplicate	6.45 ; 6.46
Control	7.01
Control Target	7.00

Client : **ESG**
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ASG Login No: 22718
Site: Dye-M
Client Login No: 12-008
Samples Received: 4-Jun-12
Date of analysis: 6-Jun-12
Method No: ASG 023
Date Reported: 7-Jun-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34825*	Blank	Duplicate ; 34825*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.019	0.020
o-Xylene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010

**Results corrected for surrogate toluene_d8
Results in PPM

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Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
350 Albert Street, Suite 1720
Ottawa ON K1A 0K3

Tuesday, February 19, 2013

RE: Analytical Results for Wastewater Samples Collected at DYE-M in June 2012

The following report summarizes results of the analysis of wastewater samples as per the DYE-M (Cape Dyer) DEW Line Cleanup Project (DLCU) Specifications.

The DYE-M specifications require that "wash water, melt water collection, rinse water resulting from the cleaning of fuel tanks and pipelines, and/or any other liquid effluent stream" meet the following guidelines prior to their discharge to land (01560.4.1):

Parameter	Maximum Allowable Concentration	Units
pH	6-9	pH units
Total Arsenic	0.10	mg/L
Dissolved Cadmium	0.01	mg/L
Total Chromium	0.10	mg/L
Dissolved Cobalt	0.05	mg/L
Dissolved Copper	0.20	mg/L
Dissolved Lead	0.05	mg/L
Total Mercury	0.60	µg/L
Dissolved Nickel	0.20	mg/L
Total Zinc	0.5	mg/L
Oil & Grease	5.0	mg/L
PCBs	1,000	µg/L
Benzene	370	µg/L
Toluene	2.0	µg/L
Ethyl benzene	90	µg/L

*In respect to application to a road surface

WASTEWATER SAMPLES

Ten wastewater samples were collected at DYE-M and analyzed in June 2012. A summary of the details of these results follows. Laboratory results provided in Appendix A.

LOCATION: LOWER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 562962 / 7387043
SAMPLE: 12-34865
DATE: JUNE 20, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34865
pH	6-9	pH units	7.3
Total Arsenic	0.10	mg/L	0.0010
Dissolved Cadmium	0.01	mg/L	0.0020
Total Chromium	0.10	mg/L	0.0090
Dissolved Cobalt	0.05	mg/L	0.0070
Dissolved Copper	0.20	mg/L	0.011
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.0070
Total Zinc	0.50	mg/L	***3.1***
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 1 (DSCO3303): Sample collected from the Lower Site Non-Hazardous Waste Landfill, facing south.

Waste water was not discharged from the area.

LOCATION: LANDFARM
GPS COORDINATES: 0562612 / 7387930
SAMPLE: 12-34829
DATE: JUNE 2, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34829
pH	6-9	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 2 (DSCO2832): Sample collected from the landfarm at overflow pipes, facing northwest.

Waste water from the Landfarm was discharged to the ground on June 8, 2012. The water was discharged on the north side of the Landfarm away from the area. (562859, 7387984).

LOCATION: LANDFARM
GPS COORDINATES: 0562612 / 7387930
SAMPLE: 12-34832
DATE: JUNE 3, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34832
pH	6-9	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 3 (DSCO2868): Sample collected from the landfarm at overflow pipes, facing northwest.

Waste water from the Landfarm was discharged to the ground on June 8, 2012. The water was discharged on the north side of the Landfarm away from the area. (562859, 7387984).

LOCATION: LANDFARM
GPS COORDINATES: 0562612 / 7387930
SAMPLE: 12-34830/31
DATE: JUNE 4, 2012

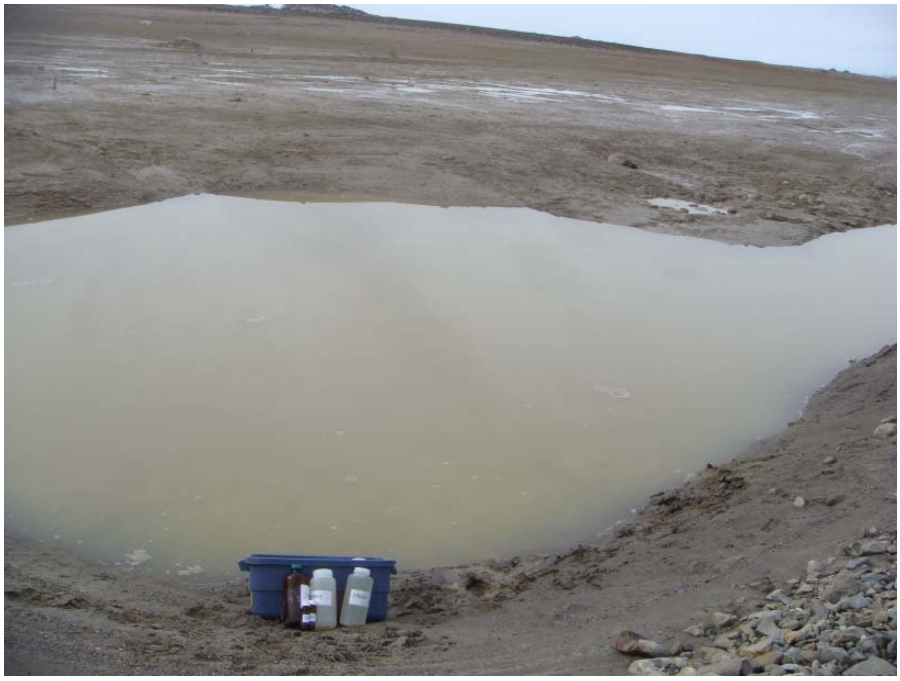
Parameter	Maximum Allowable Concentration	Units	Sample # 12-34830/31
pH	6-9	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 4 (DSCO2906): Sample collected from the landfarm at overflow pipes, facing northwest.

Waste water from the Landfarm was discharged to the ground on June 8, 2012. The water was discharged on the north side of the Landfarm away from the area. (562859, 7387984).

LOCATION: LANDFARM
GPS COORDINATES: 0562764 / 7387997
SAMPLE: 12-34864
DATE: JUNE 20, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34864
pH	6-9	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0



Photograph 5 (DSCO3302): Sample collected from the north corner of the landfarm, facing south.

Waste water from the Landfarm was discharged to the ground on July 3, 2012. The water was discharged on the north side of the Landfarm away from the area. (562859, 7387984).

LOCATION: POL STORAGE AREA
GPS COORDINATES: 563037 / 7387530
SAMPLE: 12-34833
DATE: JUNE 4, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34833
pH	6.0-9.0	pH units	6.3
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.0082
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.11
Oil & Grease	5.0	mg/L	*1600*
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 6 (DSCO2903): Wastewater sample collected from the POL Storage Area, facing southwest.

Waste water was not discharged from the area.

LOCATION: HOLDING BASIN 3
GPS COORDINATES: 563044/ 7387586
SAMPLE: 12-34866
DATE: JUNE 28, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34866
pH	6-9	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

No photo documentation for this wastewater sample.

Waste water from Holding Basin 3 was discharged to the ground on July 5, 2012. The water was discharged on the northeast side of the holding basins away from the area. (563059, 7387729).

LOCATION: UPPER SITE TIER II DISPOSAL FACILITY
GPS COORDINATES: 5721048/ 7394626
SAMPLE: 12-34840/41
DATE: JUNE 6, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34840/41
pH	6-9	pH units	7.3
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	<0.010
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 8 (P6060063): Sample collected from Upper Site Tier II Disposal Facility, facing northwest.

Waste water from the Upper Site Tier II Disposal Facility was discharged to the ground on June 15, 2012. The water was discharged on the southwest side of the Tier II Disposal Facility away from the area. (570999, 7394555).

LOCATION: UPPER SITE TIER II DISPOSAL FACILITY
GPS COORDINATES: 571055 / 7394624 & 571096 / 7394562(COMPOSITE SAMPLE)
SAMPLE: 12-34863
DATE: JUNE 20, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34863
pH	6-9	pH units	8.0
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.0060
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 9 (DSCO3297): Sample collected from Upper Site Tier II Disposal Facility, facing south.

Waste water from the Upper Site Tier II Disposal Facility was discharged to the ground on July 3, 2012. The water was discharged on the southwest side of the Tier II Disposal Facility away from the area. (570999, 7394555).

LOCATION: UPPER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 572157 / 7395188
SAMPLE: 12-34842
DATE: JUNE 6, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34842
pH	6-9	pH units	7.1
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	0.0041
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.25
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 10 (P6060069): Sample collected from Upper Site Non-Hazardous Waste Landfill, facing east.

Waste water from the Upper Site Non-Hazardous Waste Landfill was discharged to the ground on June 15, 2012. The water was discharged on the northwest side of the Landfill away from the area. (572146, 7395222).

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Tom Partridge
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode

APPENDIX A
LABORATORY RESULTS

ASU #	14198		**Report ID:**	Dye-M W11					
Client:	ESG		**Date Submitted:**	22-Jun-12					
			Date tested:	27-Jun-12					
Site:	Dye-M		**Date:**	29-Jun-12					
	12-025		**Matrix:**	Water					
Report of Analysis **									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34863	-	-	-	-	-	0.006	<0.005	<0.001	
12-34865	-	-	-	-	-	3.1	0.009	0.001	*
Blank	-	-	-	-	-	<0.005	<0.005	<0.001	
Control	-	-	-	-	-	0.048	0.016	0.048	
Control Target	-	-	-	-	-	0.048	0.016	0.048	
12-34865	-	-	-	-	-	3.1	0.009	0.001	
12-34865	-	-	-	-	-	3.1	0.010	0.001	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34863	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
12-34864	-	-	-	-	<0.005	-	-	-	
12-34865	0.016	0.007	0.007	0.002	<0.005	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
Control	0.084	0.088	0.086	0.015	0.091	-	-	-	
Control Target	0.088	0.088	0.088	0.016	0.088	-	-	-	
12-34865	0.016	0.007	0.007	0.002	<0.005	-	-	-	
12-34865	0.016	0.007	0.007	0.002	<0.005	-	-	-	
** reporting limits lowered for certain elements - analysis by ICP-MS									

ASU #	14198		**Report ID:**	Dye-M W12	
Client:	ESG		**Date Submitted:**	22-Jun-12	
			Date tested:	22-Jun-12	
Site:	Dye-M		**Date:**	25-Jun-12	
	12-025		**Matrix:**	water	
Report of Analysis					
Sample	Oil & Grease				
	mg/L				
12-34863**	<2.0				
12-34864	<2.0				
12-34865	<2.0				
Blank	<2.0				
Control	14.4				
Control Target	15.7				
Results relate only to the items tested					
** Sample bottle cracked, some sample lost					

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Client :	**ESG**	ASG Login No:	22763
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-025
	P.O. Box 17000, Stn. Forces	Samples Received:	22-Jun-12
	Kingston, Ontario K7K 7B4	Date of analysis:	03-Jul-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	03-Jul-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34863*	< 0.4
34865	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 34863*	< 0.4 ; < 0.4
Blank	< 0.4
Control Target	4.00
Control Sample	4.30

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Fax: (613) 541-6596

ASG Login No: 22763
Site: Dye-M
Client No: 12-025
Samples Received: 22-Jun-12
Date of analysis: 27-Jun-12
Method No: ASG 015
Date Reported: 29-Jun-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34863*	mg/L	< 0.003	< 0.003
W	34864	mg/L	< 0.003	< 0.003
W	34865	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM
~ Low surrogate recovery

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34863*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.013
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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Fax: (613) 541-6596

ASG Login No: 22763
Site: Dye-M
Client No: 12-025
Samples Received: 22-Jun-12
Date of analysis: 22-Jun-12
Method No: ASG 037
Date Reported: 22-Jun-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34863	8.04
34865*	7.32

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34865* ; Duplicate	7.31 ; 7.32
Control	7.01
Control Target	7.00

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ASG Login No: 22763
Site: Dye-M
Client Login No: 12-025
Samples Received: 22-Jun-12
Date of analysis: 25-Jun-12
Method No: ASG 023
Date Reported: 27-Jun-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34863*	34864	34865	Blank	Duplicate ; 34863*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010
Toluene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.013	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.023	0.020
o-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.012	0.010

Results in PPM

ASU #	14173		**Report ID:**	Dye-M W5					
Client:	ESG		**Date Submitted:**	06-Jun-12					
			Date tested:	07-Jun-12					
Site:	Dye-M		**Date:**	08-Jun-12					
	12-011		**Matrix:**	Water					
Report of Analysis									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34833	-	-	-	-	-	0.108	0.008	<0.003	*
Blank	-	-	-	-	-	<0.010	<0.005	<0.003	
12-34833	-	-	-	-	-	0.115	0.009	<0.003	
12-34833	-	-	-	-	-	0.100	0.008	<0.003	
Control	-	-	-	-	-	2.90	0.78	0.78	
Control Target	-	-	-	-	-	3.00	0.80	0.80	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34829	-	-	-	-	<0.010	-	-	-	
12-34830	-	-	-	-	<0.010	-	-	-	
12-34831	-	-	-	-	<0.010	-	-	-	
12-34832	-	-	-	-	<0.010	-	-	-	*
12-34833	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34832	-	-	-	-	<0.010	-	-	-	
12-34832	-	-	-	-	<0.010	-	-	-	
12-34833	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34833	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
Control	1.53	1.53	1.52	0.74	7.57	-	-	-	
Control Target	1.60	1.60	1.60	0.80	8.00	-	-	-	

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Client :	**ESG**	ASG Login No:	22726
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-011
	P.O. Box 17000, Stn. Forces	Samples Received:	06-Jun-12
	Kingston, Ontario K7K 7B4	Date of analysis:	08-Jun-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	08-Jun-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34833*	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 34833*	< 0.4 ; < 0.4
Blank	< 0.4
Control Target	5.0
Control Sample	5.4

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Client:	**ESG**	ASG Login No:	22726
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-011
	P.O. Box 17000, Stn. Forces	Samples Received:	06-Jun-12
	Kingston, Ontario K7K 7B4	Date of analysis:	07-Jun-12
	(613) 541-6000 ext 6567	Method No:	ASG 015
	Fax: (613) 541-6596	Date Reported:	08-Jun-12
		Sheet No:	1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34829*	mg/L	< 0.003	< 0.003
W	34830	mg/L	< 0.003	< 0.003
W	34831	mg/L	< 0.003	< 0.003
W	34832	mg/L	< 0.003	< 0.003
W	~34833	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM
~ Low surrogate recovery

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34829*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.015
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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ASG Login No: 22726
Site: Dye-M
Client No: 12-011
Samples Received: 06-Jun-12
Date of analysis: 07-Jun-12
Method No: ASG 037
Date Reported: 08-Jun-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34833	6.30

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

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ASG Login No: 22726
Site: Dye-M
Client Login No: 12-011
Samples Received: 6-Jun-12
Date of analysis: 6-Jun-12
Method No: ASG 023
Date Reported: 7-Jun-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34829*	34830	34831	34832	34833	Blank	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.019	0.020
o-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010

Results in PPM

ASU #	14173		**Report ID:**	Dye-M W6	
Client:	ESG		**Date Submitted:**	06-Jun-12	
			Date tested:	07-Jun-12	
Site:	Dye-M		**Date:**	08-Jun-12	
	12-011		**Matrix:**	water	
Report of Analysis					
Sample	Oil & Grease				
	mg/L				
12-34829	<2.0				
12-34830	<2.0				
12-34831	<2.0				
12-34832	<2.0				
12-34833	1610				
Blank	<2.0				
Control	16.5				
Control Target	15.7				
Results relate only to the items tested					
ASU #	14210		**Report ID:**	Dye-M W13	
Client:	ESG		**Date Submitted:**	03-Jul-12	
			Date tested:	04-Jul-12	
Site:	Dye-M		**Date:**	05-Jul-12	
	12-032		**Matrix:**	water	
Report of Analysis					
Sample	Oil & Grease				
	mg/L				
12-34866	<2.0				
Blank	<2.0				
Control	13.7				
Control Target	15.7				
Results relate only to the items tested					

ASU #	14176		**Report ID:**	Dye-M W9	
Client:	ESG		**Date Submitted:**	08-Jun-12	
			Date tested:	13-Jun-12	
Site:	Dye-M		**Date:**	14-Jun-12	
	12-016		**Matrix:**	water	
Report of Analysis					
Sample	Oil & Grease				
	mg/L				
12-34840	<2.0				
12-34841	<2.0				
12-34842	<2.0				
Blank	<2.0				
Control	15.6				
Control Target	15.7				
Results relate only to the items tested					

ASU #	14176		**Report ID:**	Dye-M W10					
Client:	ESG		**Date Submitted:**	08-Jun-12					
			Date tested:	13-Jun-12					
Site:	Dye-M		**Date:**	13-Jun-12					
	12-016		**Matrix:**	Water					
Report of Analysis									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34840	-	-	-	-	-	<0.010	<0.005	<0.003	
12-34841	-	-	-	-	-	<0.010	<0.005	<0.003	
12-34842	-	-	-	-	-	0.249	<0.005	<0.003	*
Blank	-	-	-	-	-	<0.010	<0.005	<0.003	
12-34842	-	-	-	-	-	0.265	<0.005	<0.003	
12-34842	-	-	-	-	-	0.232	<0.005	<0.003	
Control	-	-	-	-	-	3.14	0.87	0.85	
Control Target	-	-	-	-	-	3.00	0.80	0.80	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34840	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34841	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34842	<0.005	<0.005	<0.003	0.004	<0.010	-	-	-	*
						-	-	-	
Blank	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-34842	<0.005	<0.005	<0.003	0.004	<0.010	-	-	-	
12-34842	<0.005	<0.005	<0.003	0.004	<0.010	-	-	-	
Control	1.67	1.69	1.68	0.80	8.10	-	-	-	
Control Target	1.60	1.60	1.60	0.80	8.00	-	-	-	

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
GROUP DES SCIENCES ANALYTIQUES ET FACILITÉ SLOWPOKE-2 AU CMR
Dept. of Chem. and Chem. Eng. - Dépt. de chimie et de génie chimique
Royal Military College of Canada - Collège militaire royal du Canada
P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22732
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-016
	P.O. Box 17000, Stn. Forces	Samples Received:	08-Jun-12
	Kingston, Ontario K7K 7B4	Date of analysis:	13-Jun-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	13-Jun-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34840	< 0.4
34841	< 0.4
34842*	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 34842*	< 0.4 ; < 0.4
Blank	< 0.4
Control Target	4.0
Control Sample	4.1

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Client: **ESG**
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Kingston, Ontario K7K 7B4
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Fax: (613) 541-6596

ASG Login No: 22732
Site: Dye-M
Client No: 12-016
Samples Received: 08-Jun-12
Date of analysis: 11-Jun-12
Method No: ASG 015
Date Reported: 12-Jun-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34840*	mg/L	< 0.003	< 0.003
W	34841	mg/L	< 0.003	< 0.003
W	34842	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM
~ Low surrogate recovery

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34841*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.015
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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ASG Login No: 22732
Site: Dye-M
Client No: 12-016
Samples Received: 08-Jun-12
Date of analysis: 12-Jun-12
Method No: ASG 037
Date Reported: 12-Jun-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34840*	7.31
34841	7.26
34842	7.08

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34840* ; Duplicate	7.31 ; 7.30
Control	7.01
Control Target	7.00

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ASG Login No: 22732
Site: Dye-M
Client Login No: 12-016
Samples Received: 8-Jun-12
Date of analysis: 8-Jun-12
Method No: ASG 023
Date Reported: 11-Jun-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34840*	34841	34842	Blank	Duplicate ; 34840*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.022	0.020
o-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010

Results in PPM

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Tuesday, February 19, 2013

RE: Analytical Results for Wastewater Samples Collected at DYE-M in July 2012

The following report summarizes results of the analysis of wastewater samples as per the DYE-M (Cape Dyer) DEW Line Cleanup Project (DLCU) Specifications.

The DYE-M specifications require that "wash water, melt water collection, rinse water resulting from the cleaning of fuel tanks and pipelines, and/or any other liquid effluent stream" meet the following guidelines prior to their discharge to land (01560.4.1):

Parameter	Maximum Allowable Concentration	Units
pH	6.0 – 9.0	pH units
Total Arsenic	0.10	mg/L
Dissolved Cadmium	0.01	mg/L
Total Chromium	0.10	mg/L
Dissolved Cobalt	0.05	mg/L
Dissolved Copper	0.20	mg/L
Dissolved Lead	0.05	mg/L
Total Mercury	0.60	µg/L
Dissolved Nickel	0.20	mg/L
Total Zinc	0.50	mg/L
Oil & Grease	5.0	mg/L
PCBs	1,000	µg/L
Benzene	370	µg/L
Toluene	2.0	µg/L
Ethyl benzene	90	µg/L

*In respect to application to a road surface

WASTEWATER SAMPLES

Twenty-nine wastewater samples were collected at DYE-M and analyzed in July 2012. A summary of the details of these results follows. Laboratory results are provided in Appendix A.

LOCATION: LOWER SITE TIER II DISPOSAL FACILITY
GPS COORDINATES: 561908 / 7388330
SAMPLE: 12-34918
DATE: JULY 20, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34918
pH	6.0 – 9.0	pH units	8.4
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	<0.0050
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 1 (DSCO3067): Lower Site Tier II Disposal Facility, facing southwest.

Waste water was not discharged from the area.

LOCATION: LOWER SITE TIER II DISPOSAL FACILITY
GPS COORDINATES: 561908 / 7388330
SAMPLE: 12-34936
DATE: JULY 26, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34936
pH	6.0 – 9.0	pH units	7.4
Total Arsenic	0.10	mg/L	0.0021
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.011
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.0037
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 2 (DSCO4098): Lower Site Tier II Disposal Facility wastewater samples, facing south.

Waste water from the Lower Site Tier II Facility was discharged to the ground on August 2, 2012. The water was discharged on the southwest side of the Tier II Facility away from the area. (561813, 7387984).

LOCATION: LOWER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 0562962 / 7387043
SAMPLE: 12-34905
DATE: JULY 11, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34905
pH	6.0 – 9.0	pH units	6.9
Total Arsenic	0.10	mg/L	0.0030
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.042
Dissolved Cobalt	0.05	mg/L	0.0040
Dissolved Copper	0.20	mg/L	0.0090
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.0050
Total Zinc	0.50	mg/L	***4.9***
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 3 (DSCO3632): Sample collected from the Lower Site Non-Hazardous Waste Landfill, facing south.

Waste water was not discharged from the area.

LOCATION: LOWER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 0562962 / 7387043
SAMPLE: 12-34939
DATE: JULY 26, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34939
pH	6.0 – 9.0	pH units	***9.6***
Total Arsenic	0.10	mg/L	0.0012
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.021
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	***0.60***
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 4 (DSCO4085): Sample collected from the Lower Site Non-Hazardous Waste Landfill, facing southeast.

Waste water was not discharged from the area.

LOCATION: LANDFARM
GPS COORDINATES: 562761 / 7387998
SAMPLE: 12-34895
DATE: JULY 11, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34895
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/	<2.0
Toluene	2.0	µg/	<2.0
Ethyl benzene	90	µg/	<2.0

Photograph 5 (DSCO3636): Wastewater sample collected from the north corner of the Landfarm, facing northeast.

Waste water from the Landfarm was discharged to the ground on July 20, 2012. The water was discharged on the northeast side of the Landfarm away from the area. (562761, 7387998).

LOCATION: LANDFARM
GPS COORDINATES: 562761 / 7387998
SAMPLE: 12-34937
DATE: JULY 26, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34937
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	0.0018
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	0.039
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	0.034
Oil & Grease	5.0	mg/L	2.6
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 6 (DSCO4101): Wastewater sample collected from the north corner of the Landfarm.

Waste water from the Landfarm was discharged to the ground on August 3, 2012. The water was discharged on the northeast side of the Landfarm away from the area. (562761, 7387998).

LOCATION: POL STORAGE AREA
GPS COORDINATES: 563045 / 738725
SAMPLE: 12-34937
DATE: JULY 26, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34937
pH	6.0 – 9.0	pH units	6.9
Total Arsenic	0.10	mg/L	0.0013
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.035
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.085
Oil & Grease	5.0	mg/L	3.9
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 7 (DSCO4105): Collecting a sample from the POL Storage Area, facing northeast.

Waste water from the Former AST Containment Area was discharged to the ground on August 2, 2012. The water was discharged on the north side away from the area. (563059, 7387729).

LOCATION: HOLDING BASIN 1
GPS COORDINATES: 563044 / 7387586
SAMPLE: 12-34882
DATE: JULY 2, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34882
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	***10***
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 8 (DSCO3488): Sample collected from Holding Basin 1.

Waste water was not discharged from the area.

LOCATION: HOLDING BASIN 1
GPS COORDINATES: 563042 / 7387594
SAMPLE: 12-34908
DATE: JULY 16, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34908
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 9 (P1030758): Sample collected from Holding Basin 1.

Waste water from Holding Basin 1 was discharged to the ground on July 20, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 1
GPS COORDINATES: 563042 / 7387596
SAMPLE: 12-34919
DATE: JULY 23, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34919
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 10 (DSCO3951): Sample collected from Holding Basin 1.

Waste water from Holding Basin 1 was discharged to the ground on August 6, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 2
GPS COORDINATES: 563046 / 7387594
SAMPLE: 12-34880/81
DATE: JULY 2, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34880/81
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 11 (DSCO3485): Sample collected from Holding Basin 2, facing east.

Waste water from Holding Basin 1 was discharged to the ground on July 11, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 2
GPS COORDINATES: 563046 / 7387594
SAMPLE: 12-34917
DATE: JULY 19, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34917
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 12 (DSCO5209): Sample collected from Holding Basin 2.

Waste water from Holding Basin 1 was discharged to the ground on July 25, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 3
GPS COORDINATES: 563040 / 7387588
SAMPLE: 12-34896
DATE: JULY 10, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34896
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 13 (DSCO2980): Sample collected from Holding Basin 3.

Waste water from Holding Basin 3 was discharged to the ground on July 18, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 3
GPS COORDINATES: 563042 / 7387596
SAMPLE: 12-34919
DATE: JULY 23, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34919
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 14 (DSCO3956): Sample collected from Holding Basin 3.

Waste water was not discharged from the area.

LOCATION: HOLDING BASIN 6
GPS COORDINATES: 563042 / 7387617
SAMPLE: 12-34890/91
DATE: JULY 6, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34890/91
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 14 (DSCO3532): Sample collected from Holding Basin 6.

Waste water from Holding Basin 6 was discharged to the ground on August 3, 2012. The water was discharged on the north side away from the area. (563059, 7387729).

LOCATION: HOLDING BASIN 7A
GPS COORDINATES: 563042 / 7387617
SAMPLE: 12-34907
DATE: JULY 12, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34907
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 15 (DSCO3030): Sample collected from Holding Basin 7A, facing east.

Waste water from Holding Basin 7A was discharged to the ground on August 3, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 7B
GPS COORDINATES: 563049 / 7387609
SAMPLE: 12-34910/11
DATE: JULY 16, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34910/11
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 16 (P1030761): Sample collected from Holding Basin 7B, facing northeast.

Waste water from Holding Basin 7B was discharged to the ground on July 20, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 7B
GPS COORDINATES: 563043 / 7387596
SAMPLE: 12-34920/21
DATE: JULY 23, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34920/21
pH	6.0 – 9.0	pH units	6.9
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	0.12
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 17 (DSCO3958): Sample collected from Holding Basin 7B.

Waste water from Holding Basin 7B was discharged to the ground on August 4, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 8
GPS COORDINATES: 563026 / 7387565
SAMPLE: 12-34889
DATE: JULY 6, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34889
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 18 (DSCO3535): Sample collected from Holding Basin 8.

Waste water was not discharged from the area.

LOCATION: HOLDING BASIN 8
GPS COORDINATES: 563026 / 7387565
SAMPLE: 12-34894
DATE: JULY 10, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34894
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	-
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 19 (DSCO2982): Sample collected from Holding Basin 8.

Waste water from Holding Basin 8 was discharged to the ground on July 18, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 9
GPS COORDINATES: 563026 / 7387561
SAMPLE: 12-34893
DATE: JULY 10, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34893
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

No photographic documentation for this sampling event.

Waste water from Holding Basin 9 was discharged to the ground on July 23, 2012. The water was discharged on the north side away from the area. (563027, 7387602).

LOCATION: HOLDING BASIN 9
GPS COORDINATES: 563026 / 7387561
SAMPLE: 12-34940/41
DATE: JULY 27, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34940/41
pH	6.0 – 9.0	pH units	***5.4***
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	0.010
Dissolved Copper	0.20	mg/L	0.010
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.023
Total Zinc	0.50	mg/L	0.50
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 21 (DSCO3111): Wastewater in Holding Basin 9.

Waste water was not discharged from the area.

LOCATION: UPPER SITE TIER II DISPOSAL FACILITY
GPS COORDINATES: 571052 / 7394630
SAMPLE: 12-34904
DATE: JULY 11, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34904
pH	6.0 – 9.0	pH units	7.3
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.020
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.064
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 22 (DSCO3639): Wastewater sample collected from the Upper Site Tier II Disposal Facility, facing southeast.

Waste water from the Upper Site Tier II Disposal Facility was discharged to the ground on July 21, 2012. The water was discharged on the west side away from the area. (570999, 7394555).

LOCATION: UPPER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 572157 / 7395188
SAMPLE: 12-34888
DATE: JULY 5, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34888
pH	6.0 – 9.0	pH units	7.9
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	***0.65***
Oil & Grease	5.0	mg/L	***6.1***
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 23 (DSCO3515): Wastewater sample collected from the Upper Site Non-Hazardous Waste Landfill, facing east.

Waste water was not discharged from the area.

LOCATION: UPPER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 572157 / 7395188
SAMPLE: 12-34906
DATE: JULY 11, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34906
pH	6.0 – 9.0	pH units	7.6
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.27
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 24 (DSCO3651): Wastewater sample collected from the Upper Site Non-Hazardous Waste Landfill, facing south.

Waste water from the Upper Site Non-Hazardous Waste Landfill was discharged to the ground on July 21, 2012. The water was discharged on the west side away from the area. (572146, 7395222).

LOCATION: UPPER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 572157 / 7395188
SAMPLE: 12-34934
DATE: JULY 26, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34934
pH	6.0 – 9.0	pH units	7.2
Total Arsenic	0.10	mg/L	<0.0010
Dissolved Cadmium	0.01	mg/L	0.0040
Total Chromium	0.10	mg/L	0.010
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	***0.79***
Oil & Grease	5.0	mg/L	2.1
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 25 (DSCO4085): Wastewater sample collected from the Upper Site Non-Hazardous Waste Landfill.

Waste water was not discharged from the area.

LOCATION: WEST LANDFILL EXCAVATION BASE
GPS COORDINATES: 571229 / 7394863
SAMPLE: 12-34892
DATE: JULY 10, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34892
pH	6.0 – 9.0	pH units	6.2
Total Arsenic	0.10	mg/L	0.0020
Dissolved Cadmium	0.01	mg/L	0.0040
Total Chromium	0.10	mg/L	0.011
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.0060
Total Zinc	0.50	mg/L	0.026
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 26 (DSCO2985): West Landfill facing west, showing pooled wastewater at excavation base.

Waste water was not discharged from the area.

LOCATION: WEST LANDFILL EXCAVATION BASE
GPS COORDINATES: 571229 / 7394863
SAMPLE: 12-34935
DATE: JULY 26, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34935
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.20	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	-
PCBs	1,000	µg/L	-
Benzene	370	µg/L	5.6
Toluene	2.0	µg/L	***16***
Ethyl benzene	90	µg/L	<2.0

Photograph 27 (DSCO4090): West Landfill wastewater sampling, showing pooled wastewater at excavation base.

Waste water was not discharged from the area.

LOCATION: ABANDONED POWERHOUSE
GPS COORDINATES: 572700 / 7395080
SAMPLE: 12-34942
DATE: JULY 27, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34942
pH	6.0 – 9.0	pH units	7.0
Total Arsenic	0.10	mg/L	0.0019
Dissolved Cadmium	0.01	mg/L	***0.011***
Total Chromium	0.10	mg/L	0.044
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.0050
Total Mercury	0.60	µg/L	***0.90***
Dissolved Nickel	0.20	mg/L	<0.0050
Total Zinc	0.50	mg/L	0.070
Oil & Grease	5.0	mg/L	4.4
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 28 (DSCO4153): Wastewater sample from Abandoned Power House, northeast corner of the excavation. Photo taken facing southwest.

Waste water was not discharged from the area.

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Tom Partridge
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode

APPENDIX A
LABORATORY RESULTS

ASU #	14250		**Report ID:**	Dye-M W25
Client:	ESG		**Date Submitted:**	24-Jul-12
			Date tested:	25-Jul-12
Site:	Dye-M		**Date:**	25-Jul-12
	12-074		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34918	<2.0			
Blank	<2.0			
Control	15.5			
Control Target	15.8			
Results relate only to the items tested				

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Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22856
Site: Dye-M
Client No: 12-074
Samples Received: 24-Jul-12
Date of analysis: 25-Jul-12
Method No: ASG 015
Date Reported: 27-Jul-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34918*	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34918*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.013
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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Fax: (613) 541-6596

ASG Login No: 22856
Site: Dye-M
Client No: 12-074
Samples Received: 24-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 037
Date Reported: 31-Jul-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34918*	8.38

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34918* ; Duplicate	8.37 ; 8.38
Control	7.01
Control Target	7.00

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ASG Login No: 22856
Site: Dye-M
Client Login No: 12-074
Samples Received: 24-Jul-12
Date of analysis: 30-Jul-12
Method No: ASG 023
Date Reported: 30-Jul-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34918*	Blank	Duplicate ; 34918*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.020	0.020
o-Xylene	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010

Results in PPM

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Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22856
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-074
	P.O. Box 17000, Stn. Forces	Samples Received:	24-Jul-12
	Kingston, Ontario K7K 7B4	Date of analysis:	28-Jul-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	30-Jul-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34918*	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 34918*	< 0.4 ; < 0.4
Blank	< 0.4
Control Target	4.00
Control Sample	4.10

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

ASU #	14274		**Report ID:**	Dye-M W30					
Client:	ESG		**Date Submitted:**	30-Jul-12					
			Date tested:	31-Jul-12					
Site:	Dye-M		**Date:**	31-Jul-12					
	12-101		**Matrix:**	Water					
Report of Analysis									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34934	-	-	-	-	-	0.79	0.015	<0.001	
12-34936	-	-	-	-	-	0.037	0.016	0.002	
12-34937	-	-	-	-	-	0.034	0.039	0.002	
12-34938	-	-	-	-	-	0.085	0.035	0.001	
12-34939	-	-	-	-	-	0.60	0.021	0.001	
12-34940	-	-	-	-	-	0.50	<0.005	<0.001	
12-34941	-	-	-	-	-	0.50	<0.005	<0.001	*
Blank	-	-	-	-	-	<0.005	<0.005	<0.001	
Control	-	-	-	-	-	0.046	0.015	0.047	
Control Target	-	-	-	-	-	0.048	0.016	0.048	
12-34941	-	-	-	-	-	0.50	<0.005	<0.001	
12-34941	-	-	-	-	-	0.49	<0.005	<0.001	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34934	<0.005	<0.005	<0.003	0.004	<0.005	-	-	-	
12-34936	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
12-34937	-	-	-	-	<0.005	-	-	-	
12-34938	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
12-34939	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
12-34940	0.010	0.023	0.010	<0.001	<0.005	-	-	-	
12-34941	0.010	0.023	0.010	<0.001	<0.005	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
Control	0.085	0.084	0.086	0.015	0.083	-	-	-	
Control Target	0.088	0.088	0.088	0.016	0.088	-	-	-	
12-34941	0.010	0.024	0.010	<0.001	<0.005	-	-	-	
12-34941	0.009	0.022	0.010	<0.001	<0.005	-	-	-	
** reporting limits lowered for certain elements - analysis by ICP-MS									

ASU #	14274		**Report ID:**	Dye-M W32
Client:	ESG		**Date Submitted:**	30-Jul-12
			Date tested:	31-Jul-12
Site:	Dye-M		**Date:**	31-Jul-12
	12-101		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34934	2.1			
12-34936	<2.0			
12-34937	2.6			
12-34938	3.9			
12-34939	<2.0			
12-34940	<2.0			
12-34941	3.3			
Blank	<2.0			
Control	16.1			
Control Target	15.8			
Results relate only to the items tested				

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Client :	**ESG**	ASG Login No:	22880
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-101
	P.O. Box 17000, Stn. Forces	Samples Received:	30-Jul-12
	Kingston, Ontario K7K 7B4	Date of analysis:	31-Jul-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	31-Jul-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34934	< 0.4
34936	< 0.4
34938	< 0.4
34939	< 0.4
34940	< 0.4
34941	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Blank	< 0.4
Control Target	4.0
Control Sample	4.1

^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Fax: (613) 541-6596

ASG Login No: 22880
Site: Dye-M
Client No: 12-101
Samples Received: 30-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 037
Date Reported: 01-Aug-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34934	7.23
34936	7.44
34938	6.94
34939	9.57
34940	5.38
34941	5.34

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

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Fax: (613) 541-6596

ASG Login No: 22880
Site: Dye-M
Client Login No: 12-101
Samples Received: 30-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 023
Date Reported: 1-Aug-12

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34934	34935	34936	34937	34938	34939	34940	34941	Blank	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	0.0056	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010
Toluene	< 0.002	0.016	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010
m+p-Xylene	< 0.002	0.012	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.020	0.020
o-Xylene	< 0.002	0.0069	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.010	0.010

Results in PPM

ASU #	14234		**Report ID:**	Dye-M W18					
Client:	ESG		**Date Submitted:**	13-Jul-12					
			Date tested:	13-Jul-12					
Site:	Dye-M		**Date:**	17-Jul-12					
	12-050		**Matrix:**	Water					
Report of Analysis **									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34892	-	-	-	-	-	0.026	0.016	0.002	
12-34893	-	-	-	-	-	-	<0.005	-	
12-34904	-	-	-	-	-	0.064	0.020	<0.001	
12-34905	-	-	-	-	-	4.9	0.042	0.003	
12-34906	-	-	-	-	-	0.27	<0.005	<0.001	*
Blank	-	-	-	-	-	<0.005	<0.005	<0.001	
Control	-	-	-	-	-	0.047	0.015	0.047	
Control Target	-	-	-	-	-	0.048	0.016	0.048	
12-34906	-	-	-	-	-	0.28	<0.005	<0.001	
12-34906	-	-	-	-	-	0.27	<0.005	<0.001	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-34892	<0.005	0.006	<0.003	<0.001	<0.005	-	-	-	
12-34895	-	-	-	-	<0.005	-	-	-	
12-34904	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
12-34905	0.009	<0.005	0.004	<0.001	<0.005	-	-	-	
12-34906	<0.005	<0.005	<0.003	0.001	<0.005	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-	
Control	0.088	0.084	0.088	0.015	0.086	-	-	-	
Control Target	0.088	0.088	0.088	0.016	0.088	-	-	-	
12-34906	<0.005	<0.005	<0.003	0.001	<0.005	-	-	-	
12-34906	<0.005	<0.005	<0.003	0.001	<0.005	-	-	-	
** reporting limits lowered for certain elements - analysis by ICP-MS									

ASU #	14234		**Report ID:**	Dye-M W19
Client:	ESG		**Date Submitted:**	13-Jul-12
			Date tested:	16-Jul-12
Site:	Dye-M		**Date:**	16-Jul-12
	12-050		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34892	<2.0			
12-34893	<2.0			
12-34895	<2.0			
12-34896	<2.0			
12-34904	<2.0			
12-34905	<2.0			
12-34906	<2.0			
Blank	<2.0			
Control	15.5			
Control Target	15.7			
Results relate only to the items tested				

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Fax: (613) 541-6596

ASG Login No: 22801
Site: Dye-M
Client No: 12-050
Samples Received: 13-Jul-12
Date of analysis: 16-Jul-12
Method No: ASG 037
Date Reported: 16-Jul-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34892	6.15
34904	7.25
34905	6.94
34906*	7.55

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34906* ; Duplicate	7.54 ; 7.55
Control	7.02
Control Target	7.00

ASU #	14219		**Report ID:**	Dye-M W14
Client:	ESG		**Date Submitted:**	05-Jul-12
			Date tested:	10-Jul-12
Site:	Dye-M		**Date:**	11-Jul-12
	12-039		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34880	<2.0			
12-34881	<2.0			
12-34882	10.2			
Blank	<2.0			
Control	17.6			
Control Target	15.9			
Results relate only to the items tested				

ASU #	14244		**Report ID:**	Dye-M W23
Client:	ESG		**Date Submitted:**	18-Jul-12
			Date tested:	19-Jul-12
Site:	Dye-M		**Date:**	19-Jul-12
	12-064		**Matrix:**	water

Report of Analysis

Sample	Oil & Grease mg/L
12-34908	<2.0
12-34910	<2.0
12-34911	<2.0
Blank	<2.0
Control	15.5
Control Target	15.7

Results relate only to the items tested

ASU #	14264	**Report ID:**	Dye-M W27	
Client:	ESG	**Date Submitted:**	26-Jul-12	
		Date tested:	27-Jul-12	
Site:	Dye-M	**Date:**	30-Jul-12	
	12-080	**Matrix:**	Water	

Report of Analysis

Results relate only to the items tested

Total Metals Results in mg/L

SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As
12-34920	-	-	-	-	-	0.12	<0.005	-
12-34921	-	-	-	-	-	0.11	<0.005	-
Blank	-	-	-	-	-	<0.005	<0.005	-
Control	-	-	-	-	-	0.048	0.016	-
Control Target	-	-	-	-	-	0.048	0.016	-

** reporting limits lowered for certain elements - analysis by ICP-MS

ASU #	14264		**Report ID:**	Dye-M W28
Client:	ESG		**Date Submitted:**	26-Jul-12
			Date tested:	31-Jul-12
Site:	Dye-M		**Date:**	01-Aug-12
	12-080		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34919	<2.0			
12-34920	<2.0			
12-34921	<2.0			
12-34922	<2.0			
Blank	<2.0			
Control	16.1			
Control Target	15.8			
Results relate only to the items tested				

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Fax: (613) 541-6596

ASG Login No: 22870
Site: Dye-M
Client No: 12-080
Samples Received: 26-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 037
Date Reported: 01-Aug-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34920	6.85
34921*	6.82

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34921* ; Duplicate	6.81 ; 6.83
Control	7.01
Control Target	7.00

ASU #	14249		**Report ID:**	Dye-M W24
Client:	ESG		**Date Submitted:**	24-Jul-12
			Date tested:	25-Jul-12
Site:	Dye-M		**Date:**	25-Jul-12
	12-070		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34917	<2.0			
Blank	<2.0			
Control	15.5			
Control Target	15.8			
Results relate only to the items tested				

ASU #	14228		**Report ID:**	Dye-M W15
Client:	ESG		**Date Submitted:**	10-Jul-12
			Date tested:	10-Jul-12
Site:	Dye-M		**Date:**	11-Jul-12
	12-043		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34888	6.1			
12-34889	<2.0			
12-34890	<2.0			
12-34891	<2.0			
Blank	<2.0			
Control	17.6			
Control Target	15.9			
Results relate only to the items tested				

ASU #	14228		**Report ID:**	Dye-M W16				
Client:	ESG		**Date Submitted:**	10-Jul-12				
			Date tested:	11-Jul-12				
Site:	Dye-M		**Date:**	12-Jul-12				
	12-043		**Matrix:**	Water				
Report of Analysis **								
Results relate only to the items tested								
Total Metals	Results in mg/L							
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As
12-34888	-	-	-	-	-	0.65	<0.005	<0.001
Blank	-	-	-	-	-	<0.005	<0.005	<0.001
Control	-	-	-	-	-	0.044	0.015	0.045
Control Target	-	-	-	-	-	0.048	0.016	0.048
12-34888	-	-	-	-	-	0.69	<0.005	<0.001
12-34888	-	-	-	-	-	0.61	<0.005	<0.001
Dissolved Metals	Results in mg/L							
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As
12-34888	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-
Blank	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-
Control	0.083	0.083	0.085	0.014	0.086	-	-	-
Control Target	0.088	0.088	0.088	0.016	0.088	-	-	-
12-34888	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-
12-34888	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-
** reporting limits lowered for certain elements - analysis by ICP-MS								

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ASG Login No: 22790
Site: Dye-M
Client No: 12-043
Samples Received: 10-Jul-12
Date of analysis: 10-Jul-12
Method No: ASG 015
Date Reported: 12-Jul-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34888*	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34888*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.011
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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ASG Login No: 22790
Site: Dye-M
Client No: 12-043
Samples Received: 10-Jul-12
Date of analysis: 16-Jul-12
Method No: ASG 037
Date Reported: 16-Jul-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34888*	7.86

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
34888* ; Duplicate	7.86 ; 7.85
Control	7.02
Control Target	7.00

ASU #	14239		**Report ID:**	Dye-M W21	
Client:	ESG		**Date Submitted:**	16-Jul-12	
			Date tested:	16-Jul-12	
Site:	Dye-M		**Date:**	17-Jul-12	
	12-058		**Matrix:**	Water	
Report of Analysis **					
Results relate only to the items tested					
Total Metals					
SAMPLE	Cr				
	mg/L				
12-34907	<0.005	*			
Blank	<0.005				
Control	0.015				
Control Target	0.016				
12-34907	<0.005				
12-34907	<0.005				
** reporting limits lowered for certain elements - analysis by ICP-MS					
ASU #	14233		**Report ID:**	Dye-M W17	
Client:	ESG		**Date Submitted:**	13-Jul-12	
			Date tested:	13-Jul-12	
Site:	Dye-M		**Date:**	16-Jul-12	
	12-049		**Matrix:**	Water	
Report of Analysis **					
Results relate only to the items tested					
Total Metals					
SAMPLE	Cr				
	mg/L				
12-34894	<0.005				
Blank	<0.005				
Control	0.015				
Control Target	0.016				
** reporting limits lowered for certain elements - analysis by ICP-MS					

ASU #	14273		**Report ID:**	Dye-M W31
Client:	ESG		**Date Submitted:**	30-Jul-12
			Date tested:	31-Jul-12
Site:	Dye-M		**Date:**	31-Jul-12
	12-106		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34942	4.4			
Blank	<2.0			
Control	16.1			
Control Target	15.8			
Results relate only to the items tested				

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Royal Military College of Canada - Collège militaire royal du Canada
P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22883
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-106
	P.O. Box 17000, Stn. Forces	Samples Received:	30-Jul-12
	Kingston, Ontario K7K 7B4	Date of analysis:	31-Jul-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	31-Jul-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34942*	0.9

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 34942*	0.7 ; 1.1
Blank	< 0.4
Control Target	4.0
Control Sample	4.1

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Client: **ESG**
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P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22883
Site: Dye-M
Client No: 12-106
Samples Received: 30-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 015
Date Reported: 01-Aug-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34942	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Control Sample	mg/L	< 0.003	0.013
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22883
Site: Dye-M
Client No: 12-106
Samples Received: 30-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 037
Date Reported: 01-Aug-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34942	6.97

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

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Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22883
Site: Dye-M
Client Login No: 12-106
Samples Received: 30-Jul-12
Date of analysis: 31-Jul-12
Method No: ASG 023
Date Reported: 1-Aug-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34942	Blank	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	0.010	0.010
m+p-Xylene	< 0.002	< 0.002	0.020	0.020
o-Xylene	< 0.002	< 0.002	0.010	0.010

Results in PPM

Sharilyn Hoobin
Environmental Sciences Group
The Royal Military College of Canada
PO Box 17000 Stn. Forces
Kingston, ON K7K 7B4

Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
350 Albert Street, Suite 1720
Ottawa ON K1A 0K3

Tuesday, February 19, 2013

RE: Analytical Results for Wastewater Samples Collected at DYE-M in August 2012

The following report summarizes results of the analysis of wastewater samples as per the DYE-M (Cape Dyer) DEW Line Cleanup Project (DLCU) Specifications.

The DYE-M specifications require that "wash water, melt water collection, rinse water resulting from the cleaning of fuel tanks and pipelines, and/or any other liquid effluent stream" meet the following guidelines prior to their discharge to land (01560.4.1):

Parameter	Maximum Allowable Concentration	Units
pH	6.0 – 9.0	pH units
Total Arsenic	0.10	mg/L
Dissolved Cadmium	0.01	mg/L
Total Chromium	0.10	mg/L
Dissolved Cobalt	0.05	mg/L
Dissolved Copper	0.20	mg/L
Dissolved Lead	0.05	mg/L
Total Mercury	0.60	µg/L
Dissolved Nickel	0.200	mg/L
Total Zinc	0.50	mg/L
Oil & Grease	5.0	mg/L
PCBs	1,000	µg/L
Benzene	370	µg/L
Toluene	2.0	µg/L
Ethyl benzene	90	µg/L

*In respect to application to a road surface

WASTEWATER SAMPLES

Eight wastewater samples were collected at DYE-M and analyzed in August 2012. A summary of the details of these results follows. Laboratory results are provided in Appendix A.

LOCATION: LOWER SITE NON-HAZARDOUS WASTE LANDFILL
GPS COORDINATES: 562962 / 7387043
SAMPLE: 12-34948
DATE: AUGUST 4, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34948
pH	6.0 – 9.0	pH units	7.2*
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.200	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	-
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

*Measurement was taken in the field

Photograph 1 (DSC4280): Sample collected from the Lower Site Non-Hazardous Waste Landfill, facing southeast.

*Waste water from the Lower Site Non-Hazardous Waste Landfill was discharged to the ground on August 7, 2012. The water was discharged on the northeast side of the facility away from the area. (*563140, 7387099*).*

LOCATION: WASTEWATER HOLDING BASIN 1
GPS COORDINATES: 0563046 / 7387598
SAMPLE: 12-34970/71
DATE: AUGUST 13, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34970/71
pH	6.0 – 9.0	pH units	-
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.200	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 2 (DSC04297): Collecting sample from Holding Basin 1, facing east.

Waste water from Holding Basin 1 was discharged to the ground on August 15, 2012. The water was discharged on the northeast side of the Holding Basins away from the area. (0563059/ 7387729).

LOCATION: WASTEWATER HOLDING TANK 8
GPS COORDINATES: 563026/ 7387565
SAMPLE: 12-34960/61
DATE: AUGUST 9, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34960/61
pH	6.0 – 9.0	pH units	7.4
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.200	mg/L	-
Total Zinc	0.50	mg/L	0.090
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

Photograph 3 (DSC04290): Collecting sample from Holding Tank 8, facing east.

Waste water from Holding Tank 8 was discharged to the ground on August 15, 2012. The water was discharged on the northeast side of the Holding Basins away from the area. (0563059/ 7387729).

LOCATION: WASTEWATER HOLDING TANK 9
GPS COORDINATES: 0562612 / 7387930
SAMPLE: 12-34962
DATE: AUGUST 9, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34962
pH	6.0 – 9.0	pH units	***5.3****
Total Arsenic	0.10	mg/L	-
Dissolved Cadmium	0.01	mg/L	-
Total Chromium	0.10	mg/L	-
Dissolved Cobalt	0.05	mg/L	-
Dissolved Copper	0.20	mg/L	-
Dissolved Lead	0.05	mg/L	-
Total Mercury	0.60	µg/L	-
Dissolved Nickel	0.200	mg/L	-
Total Zinc	0.50	mg/L	-
Oil & Grease	5.0	mg/L	-
PCBs	1,000	µg/L	-
Benzene	370	µg/L	-
Toluene	2.0	µg/L	-
Ethyl benzene	90	µg/L	-

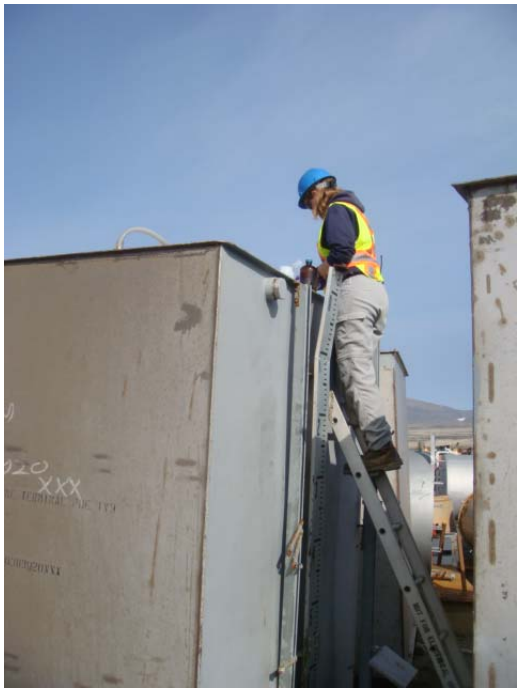
*Measurement was taken in the field.

Photograph 4 (DSC04288): Collecting sample from Holding Tank 9, facing east.

Waste water from Holding Tank 9 was discharged to the ground on August 12, 2012 without ESGs recommendation. The water was discharged on the northeast side of the Landfarm away from the area. (0563059/ 7387729).

LOCATION: WASTEWATER HOLDING TANK 9
GPS COORDINATES: 0562612 / 7387930
SAMPLE: 12-34969
DATE: AUGUST 13, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-34969
pH	6.0 – 9.0	pH units	***9.1***
Total Arsenic	0.10	mg/L	0.010
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	0.010
Dissolved Lead	0.05	mg/L	0.0092
Total Mercury	0.60	µg/L	***6.1***
Dissolved Nickel	0.200	mg/L	0.044
Total Zinc	0.50	mg/L	2.3
Oil & Grease	5.0	mg/L	***37***
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	3.0
Toluene	2.0	µg/L	***10.0***
Ethyl benzene	90	µg/L	2.2



Photograph 5 (DSC04296): Collecting sample from Holding Tank 9, facing northeast.

Waste water was not discharged from the area.

LOCATION: WASTEWATER FLOWER POT 1
GPS COORDINATES: 563026/ 7387566
SAMPLE: 12-44349
DATE: AUGUST 30, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-44349
pH	6.0 – 9.0	pH units	***9.1***
Total Arsenic	0.10	mg/L	***0.14***
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	0.0060
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.200	mg/L	<0.0050
Total Zinc	0.50	mg/L	<0.010
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 6 (DSC04608): Wastewater samples collected from Wastwater Flower Pot 1, facing southwest.

Waste water was not discharged from the area.

LOCATION: WASTEWATER FLOWER POT 2
GPS COORDINATES: 563027/ 7387569
SAMPLE: 12-44350/51
DATE: AUGUST 30, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-44350/51
pH	6.0 – 9.0	pH units	8.2
Total Arsenic	0.10	mg/L	0.030
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.200	mg/L	0.010
Total Zinc	0.50	mg/L	<0.010
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 7 (DSC04610): Wastewater samples collected from Wastwater Flower Pot 2, facing south.

Waste water from Flower Pot 2 was discharged to the ground on September 11, 2012. The water was discharged on the northeast side of the holding basins away from the area. (563059, 7387729).

LOCATION: WASTEWATER FLOWER POT 3
GPS COORDINATES: 563028/ 7387573
SAMPLE: 12-44352
DATE: AUGUST 30, 2012

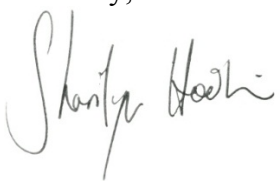
Parameter	Maximum Allowable Concentration	Units	Sample # 12-44352
pH	6.0 – 9.0	pH units	8.2
Total Arsenic	0.10	mg/L	0.011
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	0.011
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	***5.5***
Dissolved Nickel	0.200	mg/L	0.011
Total Zinc	0.50	mg/L	0.010
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 8 (DSC04609): Wastewater samples collected from Wastwater Flower Pot 3, facing southwest.

Waste water was not discharged from the area.

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,



Sharilyn Hoobin
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode

APPENDIX A
LABORATORY RESULTS

ASU #	14298		**Report ID:**	Dye-M W35
Client:	ESG		**Date Submitted:**	15-Aug-12
			Date tested:	15-Aug-12
Site:	Dye-M		**Date:**	15-Aug-12
	12-123		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-34969	37.0			
12-34970	<2.0			
12-34971	<2.0			
Blank	<2.0			
Control	14.9			
Control Target	15.8			
Results relate only to the items tested				

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Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client: **ESG**
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Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22927
Site: Dye-M
Client No: 12-123
Samples Received: 15-Aug-12
Date of analysis: 17-Aug-12
Method No: ASG 037
Date Reported: 17-Aug-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34969	9.08

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.00
Control Target	7.00

ASU #	14298		**Report ID:**	Dye-M W36				
Client:	ESG		**Date Submitted:**	15-Aug-12				
			Date tested:	16-Aug-12				
Site:	Dye-M		**Date:**	17-Aug-12				
	12-123		**Matrix:**	Water				
Report of Analysis **								
Results relate only to the items tested								
Total Metals	Results in mg/L							
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As
12-34969	-	-	-	-	-	2.3	<0.005	0.010
Blank	-	-	-	-	-	<0.005	<0.005	<0.001
Control	-	-	-	-	-	0.049	0.016	0.045
Control Target	-	-	-	-	-	0.048	0.016	0.048
Dissolved Metals	Results in mg/L							
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As
12-34969	0.013	0.044	<0.003	<0.001	0.009	-	-	-
Blank	<0.005	<0.005	<0.003	<0.001	<0.005	-	-	-
Control	0.090	0.087	0.089	0.016	0.086	-	-	-
Control Target	0.088	0.088	0.088	0.016	0.088	-	-	-
** reporting limits lowered for certain elements - analysis by ICP-MS								

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P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22927
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client Login No:	12-123
	P.O. Box 17000, Stn. Forces	Samples Received:	15-Aug-12
	Kingston, Ontario K7K 7B4	Date of analysis:	20-Aug-12
	(613) 541-6000 ext 6567	Method No:	ASG 023
	Fax: (613) 541-6596	Date Reported:	21-Aug-12
		Page:	1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	34969*	Blank	Duplicate ; 34969*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	0.0030	< 0.002	0.0030 ; 0.0029	0.010	0.010
Toluene	0.011	< 0.002	0.011 ; 0.010	0.010	0.010
Ethylbenzene	0.0022	< 0.002	0.0022 ; 0.0021	0.010	0.010
m+p-Xylene	0.0068	< 0.002	0.0069 ; 0.0067	0.020	0.020
o-Xylene	0.0035	< 0.002	0.0035 ; 0.0035	0.010	0.010

Results in PPM

Dept. of Chem. / Chem. Eng., RMC
P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

Client No:	12-123
Samples Received:	15-Aug-12
Date of analysis:	20-Aug-12
Method No:	ASG 015
Date Reported:	21-Aug-12
Sheet No:	1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	34969*	mg/L	< 0.003	< 0.003

*Average result of duplicate

Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 34969*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.012
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22927
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-123
	P.O. Box 17000, Stn. Forces	Samples Received:	15-Aug-12
	Kingston, Ontario K7K 7B4	Date of analysis:	20-Aug-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	20-Aug-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
34969	6.1

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Blank	< 0.4
Control Target	4.00
Control Sample	4.20

^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

ASU #	14295		**Report ID:**	Dye-M W34						
Client:	ESG		**Date Submitted:**	13-Aug-12						
			Date tested:	14-Aug-12						
Site:	Dye-M		**Date:**	16-Aug-12						
	12-121		**Matrix:**	Water						
Report of Analysis										
Results relate only to the items tested										
Total Metals	Results in mg/L									
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As		
12-34960	-	-	-	-	-	0.090	<0.005	-		
12-34961	-	-	-	-	-	0.089	<0.005	-	*	
Blank	-	-	-	-	-	<0.005	<0.005	-		
Control	-	-	-	-	-	0.054	0.016	-		
Control Target	-	-	-	-	-	0.048	0.016	-		
12-34961	-	-	-	-	-	0.089	<0.005	-		
12-34961	-	-	-	-	-	0.088	<0.005	-		

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Client: **ESG**
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Fax: (613) 541-6596

ASG Login No: 22926
Site: Dye-M
Client No: 12-121
Samples Received: 15-Aug-12
Date of analysis: 17-Aug-12
Method No: ASG 037
Date Reported: 17-Aug-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
34960	7.47
34961*	7.20

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Duplicate ; 34961	7.20 ;7.19
Control	7.00
Control Target	7.00

ASU #	14295		**Report ID:**	Dye-M W33
Client:	ESG		**Date Submitted:**	13-Aug-12
			Date tested:	15-Aug-12
Site:	Dye-M		**Date:**	15-Aug-12
	12-121		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease mg/L			
12-34960	<2.0			
12-34961	<2.0			
Blank	<2.0			
Control	14.9			
Control Target	15.8			
Results relate only to the items tested				

ASU #	14337		**Report ID:**	Dye-M W40					
Client:	ESG		**Date Submitted:**	04-Sep-12					
			Date tested:	07-Sep-12					
Site:	Dye-M		**Date:**	10-Sep-12					
	12-167		**Matrix:**	Water					
Report of Analysis									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-44349	-	-	-	-	-	<0.010	<0.005	0.14	
12-44350	-	-	-	-	-	<0.010	<0.005	0.029	
12-44351	-	-	-	-	-	<0.010	<0.005	0.030	
12-44352	-	-	-	-	-	0.012	<0.005	0.017	*
Blank	-	-	-	-	-	<0.010	<0.005	<0.003	
Control	-	-	-	-	-	2.9	0.81	0.82	
Control Target	-	-	-	-	-	3.0	0.80	0.80	
12-44352	-	-	-	-	-	0.012	<0.005	0.018	
12-44352	-	-	-	-	-	0.013	<0.005	0.017	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-44349	0.006	<0.005	<0.003	<0.001	<0.010	-	-	-	
12-44350	<0.005	0.010	<0.003	<0.001	<0.010	-	-	-	
12-44351	<0.005	0.010	<0.003	<0.001	<0.010	-	-	-	
12-44352	0.015	0.017	<0.003	<0.001	<0.010	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
Control	1.60	1.61	1.61	0.75	7.87	-	-	-	
Control Target	1.60	1.60	1.60	0.80	8.00	-	-	-	
12-44352	0.015	0.017	<0.003	<0.001	<0.010	-	-	-	
12-44352	0.015	0.017	<0.003	<0.001	<0.010	-	-	-	

ASU #	14337		**Report ID:**	Dye-M W41
Client:	ESG		**Date Submitted:**	04-Sep-12
			Date tested:	05-Sep-12
Site:	Dye-M		**Date:**	06-Sep-12
	12-167		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-44349	<2.0			
12-44350	<2.0			
12-44351	<2.0			
12-44352	<2.0			
Blank	<2.0			
Control	14.4			
Control Target	15.8			
Results relate only to the items tested				

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Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client :	**ESG**	ASG Login No:	22983
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-167
	P.O. Box 17000, Stn. Forces	Samples Received:	04-Sep-12
	Kingston, Ontario K7K 7B4	Date of analysis:	11-Sep-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	11-Sep-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
44349	< 0.4
44350	< 0.4
44351	< 0.4
44352*	5.5

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 44352*	4.9 ; 6.2
Blank	< 0.4
Control Target	4.00
Control Sample	4.00

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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Fax: (613) 541-6596

ASG Login No: 22983
Site: Dye-M
Client No: 12-167
Samples Received: 04-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 037
Date Reported: 05-Sep-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
44349	9.05
44350*	8.16
44351	8.13
44352	8.18

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Duplicate ; 44350	8.16 ; 8.16
Control	7.01
Control Target	7.00

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ASG Login No: 22983
Site: Dye-M
Client Login No: 12-167
Samples Received: 4-Sep-12
Date of analysis: 6-Sep-12
Method No: ASG 023
Date Reported: 7-Sep-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	44349*	44350	44351	44352	Blank	Duplicate ; 44349*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.020	0.020
o-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.010	0.010

Results in PPM

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ASG Login No: 22983
Site: Dye-M
Client No: 12-167
Samples Received: 04-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 015
Date Reported: 06-Sep-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	44349*	mg/L	< 0.003	< 0.003
W	44350	mg/L	< 0.003	< 0.003
W	44351	mg/L	< 0.003	< 0.003
W	44352	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 44349*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.016
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

Tom Partridge
Environmental Sciences Group
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Tamara Van Dyck
Environmental Officer
Defence Construction Canada
DEW Line Cleanup PMO
350 Albert Street, Suite 1720
Ottawa ON K1A 0K3

Tuesday, February 19, 2013

RE: Analytical Results for the Wastewater Sample Collected at DYE-M in September 2012

The following report summarizes results of the analysis of the wastewater sample as per the DYE-M (Cape Dyer) DEW Line Cleanup Project (DLCU) Specifications.

The DYE-M specifications require that "wash water, melt water collection, rinse water resulting from the cleaning of fuel tanks and pipelines, and/or any other liquid effluent stream" meet the following guidelines prior to their discharge to land (01560.4.1):

Parameter	Maximum Allowable Concentration	Units
pH	6.0 – 9.0	pH units
Total Arsenic	0.10	mg/L
Dissolved Cadmium	0.01	mg/L
Total Chromium	0.10	mg/L
Dissolved Cobalt	0.05	mg/L
Dissolved Copper	0.20	mg/L
Dissolved Lead	0.05	mg/L
Total Mercury	0.60	µg/L
Dissolved Nickel	0.20	mg/L
Total Zinc	0.50	mg/L
Oil & Grease	5.0	mg/L
PCBs	1,000	µg/L
Benzene	370	µg/L
Toluene	2.0	µg/L
Ethyl benzene	90	µg/L

*In respect to application to a road surface

WASTEWATER SAMPLE

One wastewater sample was collected at DYE-M and analyzed in September 2012. A summary of the details of the results follows. Laboratory results provided in Appendix A.

LOCATION: LOWER SITE TIER II DISPOSAL FACILITY
GPS COORDINATES: 561908 / 7388330
SAMPLE: 12-43537
DATE: SEPTEMBER 3, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-43537
pH	6.0 – 9.0	pH units	7.8
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	0.0087
Dissolved Copper	0.20	mg/L	<0.0050
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.010
Total Zinc	0.50	mg/L	<0.010
Oil & Grease	5.0	mg/L	<2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 1 (DSCO4659): Sample collected from the Lower Site Tier II Disposal Facility, photo facing northeast.

Waste water was not discharged from the area.

LOCATION: PLASTIC BARREL 1 IN WAREHOUSE B13E
GPS COORDINATES: 563013 / 7387093
SAMPLE: 12-29473
DATE: SEPTEMBER 5, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-29473
pH	6.0 – 9.0	pH units	8.1
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	<0.0010
Total Chromium	0.10	mg/L	0.011
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	0.15
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.023
Total Zinc	0.50	mg/L	***0.80***
Oil & Grease	5.0	mg/L	2.0
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 2 (DSCO4702): Sample collected from the Plastic Barrel 1 in Warehouse B13E.

Waste water was not discharged from the area.

LOCATION: PLASTIC BARREL 2 IN WAREHOUSE B13E
GPS COORDINATES: 563013 / 7387093
SAMPLE: 12-29474
DATE: SEPTEMBER 5, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-29474
pH	6.0 – 9.0	pH units	8.1
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	0.0013
Total Chromium	0.10	mg/L	0.010
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	***0.22***
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.025
Total Zinc	0.50	mg/L	***0.53***
Oil & Grease	5.0	mg/L	3.5
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 3 (DSCO4706): Sample collected from the Plastic Barrel 2 in Warehouse B13E.

Waste water was not discharged from the area.

LOCATION: PLASTIC BARREL 3 IN WAREHOUSE B13E
GPS COORDINATES: 563013 / 7387093
SAMPLE: 12-29475
DATE: SEPTEMBER 5, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-29475
pH	6.0 – 9.0	pH units	8.0
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	0.0012
Total Chromium	0.10	mg/L	<0.0050
Dissolved Cobalt	0.05	mg/L	<0.0030
Dissolved Copper	0.20	mg/L	0.15
Dissolved Lead	0.05	mg/L	<0.010
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.010
Total Zinc	0.50	mg/L	0.22
Oil & Grease	5.0	mg/L	***5.9***
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 4 (DSCO4707): Sample collected from the Plastic Barrel 3 in Warehouse B13E.

Waste water was not discharged from the area.

LOCATION: TOTE TANK IN MARINE CONTAINER
GPS COORDINATES: 562925 / 7387097
SAMPLE: 12-29476
DATE: SEPTEMBER 5, 2012

Parameter	Maximum Allowable Concentration	Units	Sample # 12-29476
pH	6.0 – 9.0	pH units	***1.8***
Total Arsenic	0.10	mg/L	<0.0030
Dissolved Cadmium	0.01	mg/L	0.0039
Total Chromium	0.10	mg/L	0.069
Dissolved Cobalt	0.05	mg/L	0.0043
Dissolved Copper	0.20	mg/L	0.12
Dissolved Lead	0.05	mg/L	0.13
Total Mercury	0.60	µg/L	<0.40
Dissolved Nickel	0.20	mg/L	0.13
Total Zinc	0.50	mg/L	***1.7***
Oil & Grease	5.0	mg/L	3.1
PCBs	1,000	µg/L	<3.0
Benzene	370	µg/L	<2.0
Toluene	2.0	µg/L	<2.0
Ethyl benzene	90	µg/L	<2.0

Photograph 5 (DSCO4709): Sample collected from the Tote Tank in the Marine Container.

Waste water was not discharged from the area.

We trust that the information provided meets current requirements. Please contact the undersigned if you have any questions or concerns.

Sincerely,

Tom Partridge
Environmental Sciences Group

cc: Eva Schulz (AECOM)
Daniela Loock, Darren White, Shari Reed, Dean Morrow, Ian Goode

APPENDIX A
LABORATORY RESULTS

ASU #	14348		**Report ID:**	Dye-M W42
Client:	ESG		**Date Submitted:**	05-Sep-12
			Date tested:	05-Sep-12
Site:	Dye-M		**Date:**	06-Sep-12
	12-183		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-43537	<2.0			
Blank	<2.0			
Control	14.4			
Control Target	15.8			
Results relate only to the items tested				

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Fax: (613) 541-6596

ASG Login No: 22992
Site: Dye-M
Client Login No: 12-183
Samples Received: 5-Sep-12
Date of analysis: 6-Sep-12
Method No: ASG 023
Date Reported: 7-Sep-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	43517	Blank	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	0.010	0.010
Toluene	< 0.002	< 0.002	0.010	0.010
Ethylbenzene	< 0.002	< 0.002	0.010	0.010
m+p-Xylene	< 0.002	< 0.002	0.020	0.020
o-Xylene	< 0.002	< 0.002	0.010	0.010

Results in PPM

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Client :	**ESG**	ASG Login No:	22992
	12 Verite Ave	Site:	Dye-M
	Dept. of Chem. / Chem. Eng., RMC	Client No:	12-183
	P.O. Box 17000, Stn. Forces	Samples Received:	05-Sep-12
	Kingston, Ontario K7K 7B4	Date of analysis:	06-Sep-12
	(613) 541-6000 ext 6567	Method No:	ASG 021
	Fax: (613) 541-6596	Date Reported:	06-Sep-12
		Sheet:	1 of 1

RESULTS OF MERCURY IN WATER ANALYSIS

Sample ID	Mercury^ µg/L
43537*	< 0.4

LABORATORY QA/QC

Sample ID	Mercury^ µg/L
Duplicate ; 43537*	< 0.4 ; < 0.4
Blank	< 0.4
Control Target	4.00
Control Sample	4.30

* Averaged result of duplicates
^ Acid digestion performed
# Reported at 0.4 µg/L detection limit

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ASG Login No: 22992
Site: Dye-M
Client No: 12-183
Samples Received: 05-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 015
Date Reported: 06-Sep-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	43537	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Control Sample	mg/L	< 0.003	0.016
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

All results corrected for the recovery of the surrogate decachlorobiphenyl

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(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 22992
Site: Dye-M
Client No: 12-183
Samples Received: 05-Sep-12
Date of analysis: 05-Sep-12
Method No: ASG 037
Date Reported: 06-Sep-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
43537	7.80

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Control	7.01
Control Target	7.00

14348		**Report ID:**	Dye-M W43					
ESG		**Date Submitted:**	05-Sep-12					
		Date tested:	07-Sep-12					
Dye-M		**Date:**	10-Sep-12					
12-183		**Matrix:**	Water					
tems tested								
Results in mg/L								
Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
-	-	-	-	-	<0.010	<0.005	<0.003	*
-	-	-	-	-	<0.010	<0.005	<0.003	
-	-	-	-	-	2.9	0.81	0.82	
-	-	-	-	-	3.0	0.80	0.80	
-	-	-	-	-	<0.010	<0.005	<0.003	
-	-	-	-	-	<0.010	<0.005	<0.003	
Results in mg/L								
Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
<0.005	0.013	0.009	<0.001	<0.010	-	-	-	*
<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
1.60	1.61	1.61	0.75	7.87	-	-	-	
1.60	1.60	1.60	0.80	8.00	-	-	-	
<0.005	0.013	0.009	<0.001	<0.010	-	-	-	
<0.005	0.013	0.009	<0.001	<0.010	-	-	-	

ASU #	14362		**Report ID:**	Dye-M W44					
Client:	ESG		**Date Submitted:**	10-Sep-12					
			Date tested:	11-Sep-12					
Site:	Dye-M		**Date:**	12-Sep-12					
	12-185		**Matrix:**	Water					
Report of Analysis									
Results relate only to the items tested									
Total Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-29473	-	-	-	-	-	0.80	0.016	<0.003	
12-29474	-	-	-	-	-	0.53	0.011	<0.003	
12-29475	-	-	-	-	-	0.22	<0.005	<0.003	
12-29476	-	-	-	-	-	1.7	0.069	<0.003	*
Blank	-	-	-	-	-	<0.010	<0.005	<0.003	
Control	-	-	-	-	-	3.0	0.80	0.82	
Control Target	-	-	-	-	-	3.0	0.80	0.80	
12-29476	-	-	-	-	-	1.7	0.074	0.003	
12-29476	-	-	-	-	-	1.7	0.065	<0.003	
Dissolved Metals	Results in mg/L								
SAMPLE	Cu	Ni	Co	Cd	Pb	Zn	Cr	As	
12-29473	0.15	0.023	<0.003	<0.001	<0.010	-	-	-	
12-29474	0.22	0.025	<0.003	0.001	<0.010	-	-	-	
12-29475	0.15	0.015	<0.003	0.001	<0.010	-	-	-	
12-29476	0.12	0.13	0.004	0.004	0.13	-	-	-	*
Blank	<0.005	<0.005	<0.003	<0.001	<0.010	-	-	-	
Control	1.5	1.6	1.6	0.74	7.8	-	-	-	
Control Target	1.6	1.6	1.6	0.80	8.0	-	-	-	
12-29476	0.12	0.13	0.004	0.004	0.13	-	-	-	
12-29476	0.12	0.14	0.004	0.004	0.14	-	-	-	

ASU #	14362		**Report ID:**	Dye-M W45
Client:	ESG		**Date Submitted:**	10-Sep-12
			Date tested:	10-Sep-12
Site:	Dye-M		**Date:**	12-Sep-12
	12-185		**Matrix:**	water
Report of Analysis				
Sample	Oil & Grease			
	mg/L			
12-29473	2.0			
12-29474	3.5			
12-29475	5.9			
12-29476	3.1			
Blank	<2.0			
Control	14.0			
Control Target	15.7			
Results relate only to the items tested				

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
GROUP DES SCIENCES ANALYTIQUES ET FACILITÉ SLOWPOKE-2 AU CMR
Dept. of Chem. and Chem. Eng. - Dépt. de chimie et de génie chimique
Royal Military College of Canada - Collège militaire royal du Canada
P.O. Box 17000 Stn. Forces, Kingston, ON, K7K 7B4
Tel: 613-541-6000 x6684 / Fax: 613-545-8341

Client: **ESG**
12 Verite Ave
Dept. of Chem. / Chem. Eng., RMC
P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 23001
Site: Dye-M
Client No: 12-185
Samples Received: 10-Sep-12
Date of analysis: 11-Sep-12
Method No: ASG 015
Date Reported: 12-Sep-12
Sheet No: 1 of 1

RESULTS OF PCB IN WATER ANALYSIS

Sample Type **	Sample I.D.	Unit	Aroclor 1254	Aroclor 1260
W	29473*	mg/L	< 0.003	< 0.003
W	29474	mg/L	< 0.003	< 0.003
W	29475	mg/L	< 0.003	< 0.003
W	29476	mg/L	< 0.003	< 0.003

*Average result of duplicate
Report Values in PPM

LABORATORY QA/QC

	Blank	mg/L	< 0.003	< 0.003
	Duplicate ; 29473*	mg/L	< 0.003 ; < 0.003	< 0.003 ; < 0.003
	Control Sample	mg/L	< 0.003	0.014
	Control Sample Target	mg/L	< 0.003	0.015

** S = Soil , C = Concrete , PC = Paint Chip , SW = Swab , P = Plant , W = Water, L = Leachate

ANALYTICAL SCIENCES GROUP AND SLOWPOKE-2 FACILITY AT RMC
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Client: **ESG**
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P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 23001
Site: Dye-M
Client No: 12-185
Samples Received: 10-Sep-12
Date of analysis: 12-Sep-12
Method No: ASG 037
Date Reported: 12-Sep-12
Page: 1 of 1

RESULTS OF pH ANALYSIS

Sample I.D.	pH
29473	8.10
29474	8.11
29475	8.00
29476*	1.81

* Averaged result of duplicates

LABORATORY QA/QC

Sample I.D.	pH
Duplicate ; 29476	1.80 ; 1.81
Control	7.01
Control Target	7.00

Client : **ESG**
12 Verite Ave
Dept. of Chem. / Chem. Eng., RMC
P.O. Box 17000, Stn. Forces
Kingston, Ontario K7K 7B4
(613) 541-6000 ext 6567
Fax: (613) 541-6596

ASG Login No: 23001
Site: Dye-M
Client Login No: 12-185
Samples Received: 10-Sep-12
Date of analysis: 11-Sep-12
Method No: ASG 023
Date Reported: 13-Sep-12
Page: 1 of 1

RESULTS OF BTEX IN WATER ANALYSIS

Compound	29473*	`29474	`29475	`29476	Blank	Duplicate ; 29473*	Control Sample	Control Target
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010
Toluene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010
Ethylbenzene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010
m+p-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.023	0.020
o-Xylene	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 ; < 0.002	0.011	0.010

` Low surrogate recovery
Results in PPM

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR **06-16-2012**	REPORT TIME **11:30 am**	☒ ORIGINAL SPILL REPORT, OR	REPORT NUMBER -
B	OCCURRENCE DATE: MONTH – DAY – YEAR **06-15-2012**	OCCURRENCE TIME **8:30 am**	☐ UPDATE # TO THE ORIGINAL SPILL REPORT	

C	LAND USE PERMIT NUMBER (IF APPLICABLE) **N2008X003**	WATER LICENCE NUMBER (IF APPLICABLE) **1BR-DYE0914**
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM THE NAMED LOCATION **DYE-M Dew Line Site, Cape Dyer**	REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR
E	LATITUDE DEGREES **66** MINUTES **38** SECONDS **29.58**	LONGITUDE DEGREES **61** MINUTES **26** SECONDS **0.06**
F	RESPONSIBLE PARTY OR VESSEL NAME **Defence Construction Canada**	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION **DCC/DGME, 101 Colonel By Dr, Ottawa, ON K1P 0B6**
G	ANY CONTRACTOR INVOLVED **Qikiqtaaluk Logistics**	CONTRACTOR ADDRESS OR OFFICE LOCATION **P.O. Box 1228, Building 2007 West 40, Iqaluit, Nunavut, X0A 0H0**

H	PRODUCT SPILLED **Hydraulic Oil**	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES **265 liters**	U.N. NUMBER **None**
	SECOND PRODUCT SPILLED (IF APPLICABLE) **N/A**	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES **N/A**	U.N. NUMBER **N/A**

I	SPILL SOURCE **Rock Truck**	SPILL CAUSE **Equipment Failure**	AREA OF CONTAMINATION IN SQUARE METRES **100m2**
J	FACTORS AFFECTING SPILL OR RECOVERY **None**	DESCRIBE ANY ASSISTANCE REQUIRED **None**	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT **None. Spill was remediated immediately.**

K — ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

A truck driver was hauling granular material when a metal pipe broke under the truck. The hydraulic oil leaked on the road until the truck stopped running as the operator did not realized the pipe was broken (200m long x 0.5m wide).

Personnel was mobilized with appropriate equipment and tools. Sorbent sheets were immediately used to contain oil. Impacted soil was shoveled by hand where possible and using an excavator for harder surfaces. Soil was placed in the on-site non-hazardous waste landfill to use as intermediate fill. Used sorbent sheets have been containerized for disposal.

L	REPORTED TO SPILL LINE BY **Tamara Van Dyck**	POSITION **Environmental Officer**	EMPLOYER **DCC**	LOCATION CALLING FROM **Ottawa**	TELEPHONE **613-995-9741**
M	ANY ALTERNATE CONTACT **Nahed Farah**	POSITION **Assoc. Proj. Manager**	EMPLOYER **DCC**	ALTERNATE CONTACT LOCATION **Ottawa**	ALTERNATE TELEPHONE **613-996-1137**

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION **Station operator**	EMPLOYER	LOCATION CALLED **Yellowknife, NT**	REPORT LINE NUMBER **(867) 920-8130**

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR **06-16-2012**	REPORT TIME **16:45 pm**	☒ ORIGINAL SPILL REPORT, OR	REPORT NUMBER -
B	OCCURRENCE DATE: MONTH – DAY – YEAR **06-16-2012**	OCCURRENCE TIME **1:45 pm**	☐ UPDATE # TO THE ORIGINAL SPILL REPORT	

C	LAND USE PERMIT NUMBER (IF APPLICABLE) **N2008X003**	WATER LICENCE NUMBER (IF APPLICABLE) **1BR-DYE0914**
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM THE NAMED LOCATION **DYE-M Dew Line Site, Cape Dyer**	REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR
E	LATITUDE DEGREES **66** MINUTES **35** SECONDS **42.39**	LONGITUDE DEGREES **61** MINUTES **38** SECONDS **35.66**
F	RESPONSIBLE PARTY OR VESSEL NAME **Defence Construction Canada**	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION **DCC/DGME, 101 Colonel By Dr, Ottawa, ON K1P 0B6**
G	ANY CONTRACTOR INVOLVED **Qikiqtaaluk Logistics**	CONTRACTOR ADDRESS OR OFFICE LOCATION **P.O. Box 1228, Building 2007 West 40, Iqaluit, Nunavut, X0A 0H0**

H	PRODUCT SPILLED **Diesel Fuel**	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES **400 liters**	U.N. NUMBER **1202**
	SECOND PRODUCT SPILLED (IF APPLICABLE) **N/A**	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES **N/A**	U.N. NUMBER **N/A**

I	SPILL SOURCE **Fuel Truck**	SPILL CAUSE **Overflow due to unattended pump**	AREA OF CONTAMINATION IN SQUARE METRES **10m2**
J	FACTORS AFFECTING SPILL OR RECOVERY **None**	DESCRIBE ANY ASSISTANCE REQUIRED **None**	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT **None. Spill was remediated immediately.**

K — ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

Crew was transfering fuel into a fuel truck. The spotter at the top of the truck got down to assist with opening another resevoir and left the pump running. Employees were reminded not to leave a running pump unattended.

Personnel was mobilized with appropriate equipment and tools. Sorbent booms and sheets were used to contain fuel. Impacted soil was shoveled using an excavator. Soil was placed in the landfarm for treatment. Used sorbent booms and sheets have been containerized for disposal.

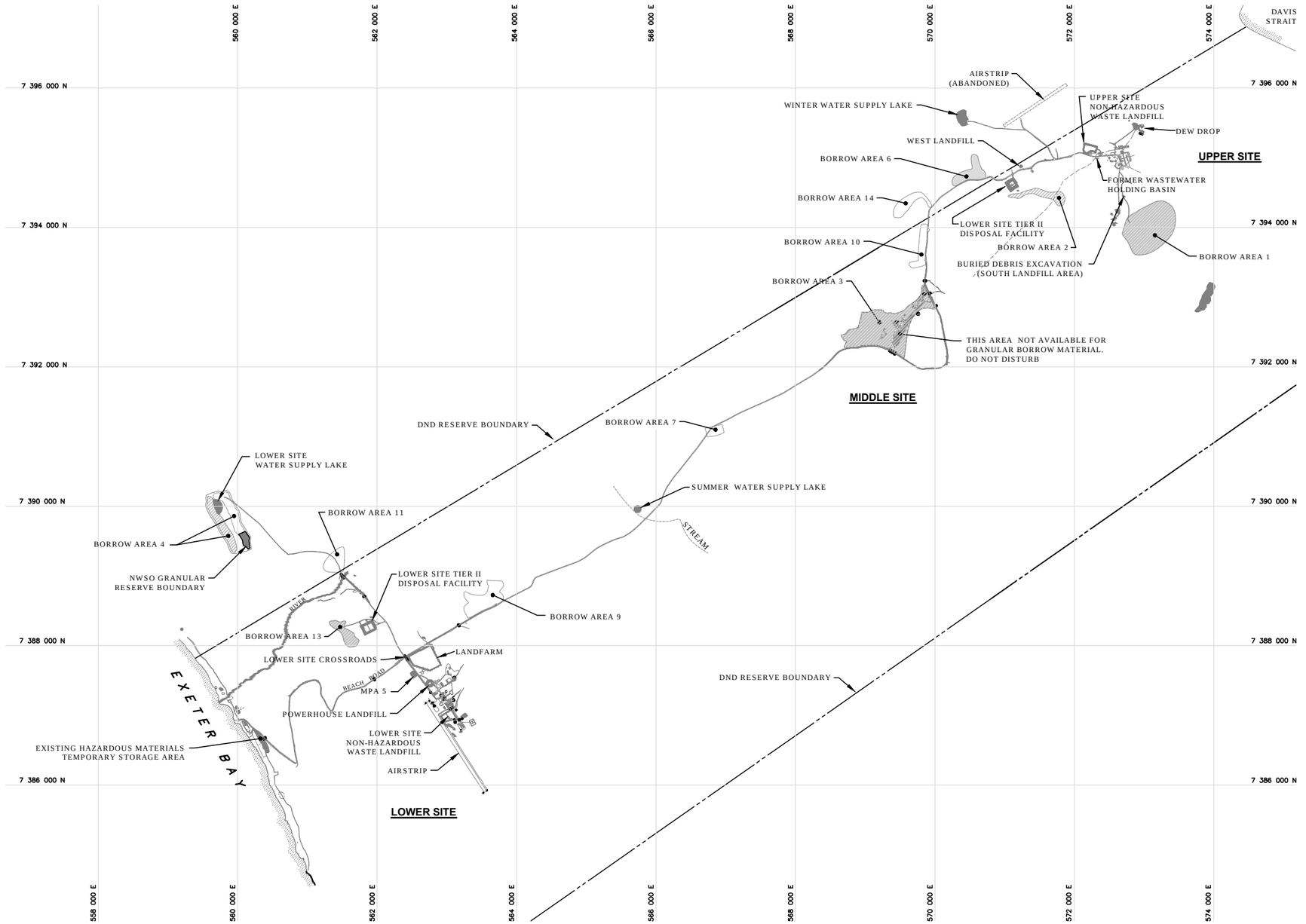
L	REPORTED TO SPILL LINE BY **Tamara Van Dyck**	POSITION **Environmental Office**	EMPLOYER **DCC**	LOCATION CALLING FROM **613-995-9741**	TELEPHONE
M	ANY ALTERNATE CONTACT **Nahed Farah**	POSITION **Nahed Farah**	EMPLOYER **DCC**	ALTERNATE CONTACT LOCATION **613-996-1137**	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION **Station operator**	EMPLOYER	LOCATION CALLED **Yellowknife, NT**	REPORT LINE NUMBER **(867) 920-8130**

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			



LEGEND:

- WORKED BORROW AREA IN 2011
- WORKED BORROW AREA IN 2012

NOTES

1. DRAWING NOT TO SCALE
2. FIGURE UPDATED FROM EBA 2011 GEOTECH QA SUMMARY REPORT

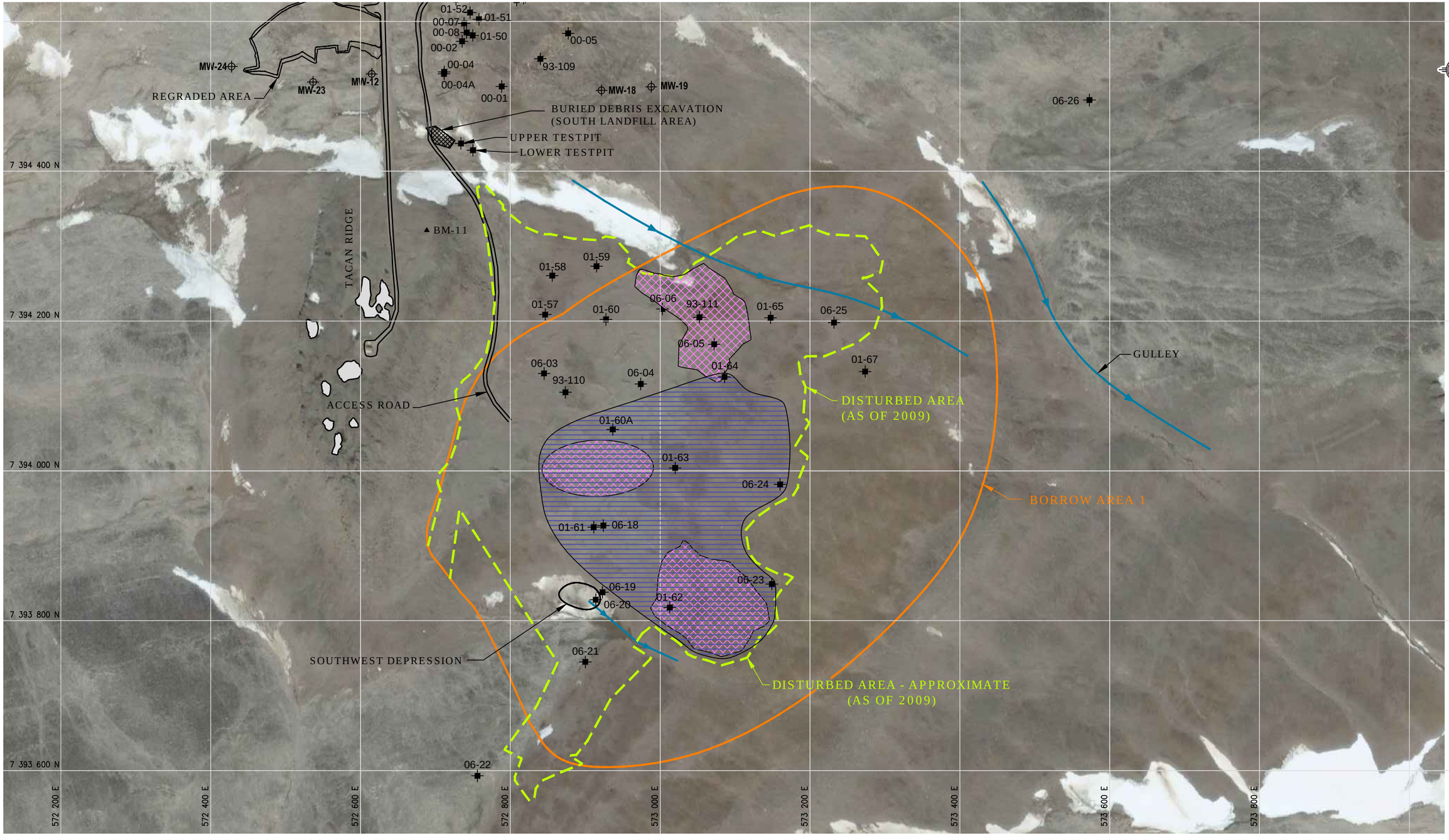
AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

GENERAL SITE PLAN
BORROW SOURCES LOCATIONS

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 1



LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- MONITORING WELL LOCATION
- BM-8 ▲ - BENCHMARK
- APPROXIMATE 2012 BORROW DEVELOPMENT AREA

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

AECOM

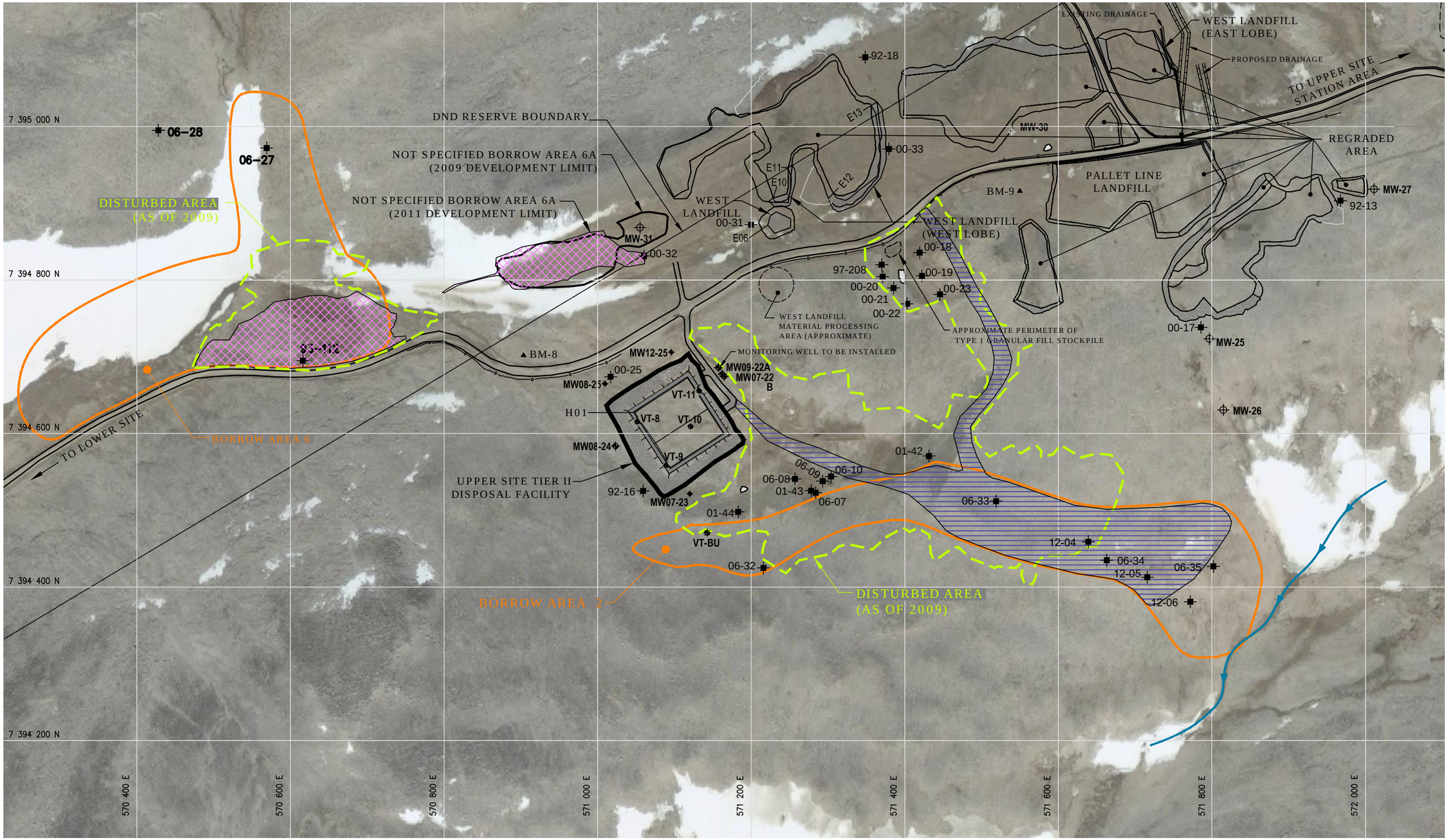
DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 1
BURIED DEBRIS EXCAVATION
(SOUTH LANDFILL AREA)

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE	DATE		
EDM	November 2012		

Figure 2

L:\Market\Sectors\Earth & Water\Projects\0171 DLC\IDYE M\2012 Geotech QC Report\Winnipeg CAD Figures\10995027.011_Figure_2_3_7_11_U.dwg [FIGURE 3] November 13, 2012 - 1:05:36 pm (BY: CLOUSTON, CASSANDRA)



LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- MONITORING WELL LOCATION
- BM-8 ▲ - BENCHMARK
- APPROXIMATE 2012 BORROW DEVELOPMENT AREA

NOTES:

1. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 250

Scale: 1: 5 000 (metres)

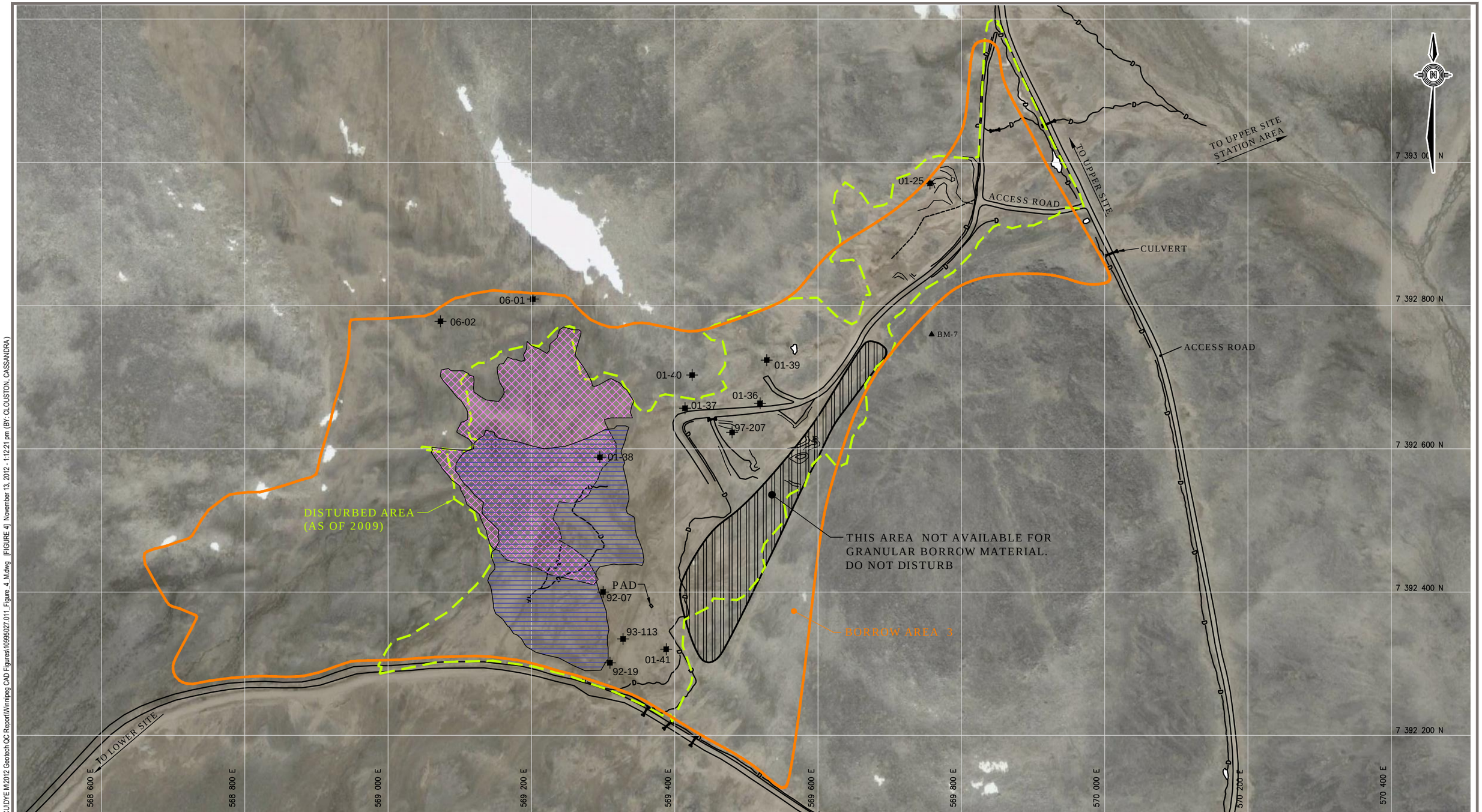
AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 2 AND 6
UNSPECIFIED BORROW AREA 6A

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 3



LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- MONITORING WELL LOCATION
- BM-8 ▲ - BENCHMARK
- APPROXIMATE 2012 BORROW DEVELOPMENT AREA

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 250

Scale: 1: 5 000 (metres)

AECOM

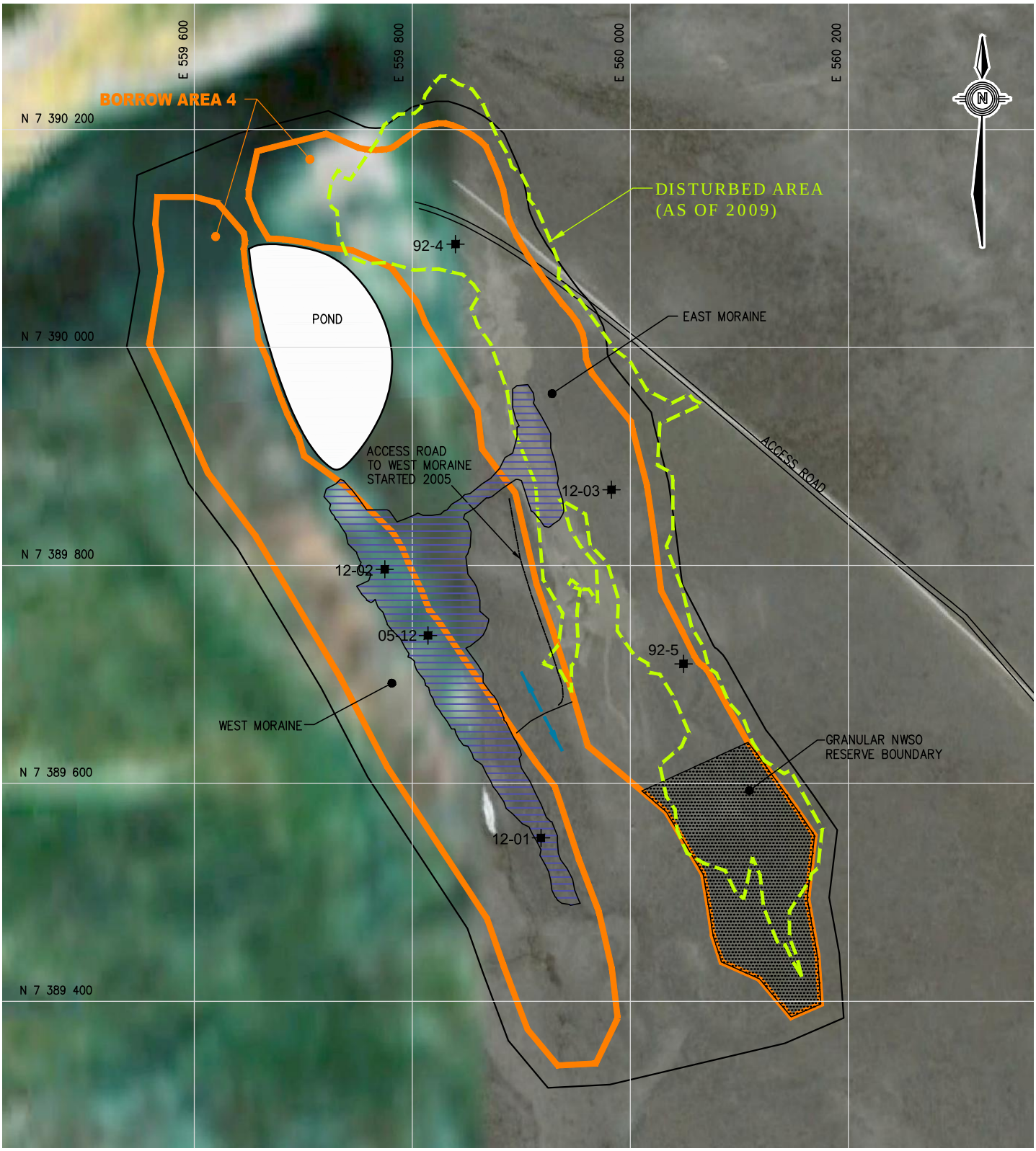
DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 3

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 4

L:\Market\Sectors\Earth & Water\Projects\0171 DLCUDYE.M\2012 Geotech QC Report\Winnipeg CAD Figures\109950271 011_Figure_4_M.dwg [FIGURE 4] November 13, 2012 - 1:12:21 pm (BY: CLOUSTON, CASSANDRA)



NOTES

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 250

Scale: 1: 5 000 (metres)

LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- APPROXIMATE 2012 BORROW DEVELOPMENT AREA

AECOM

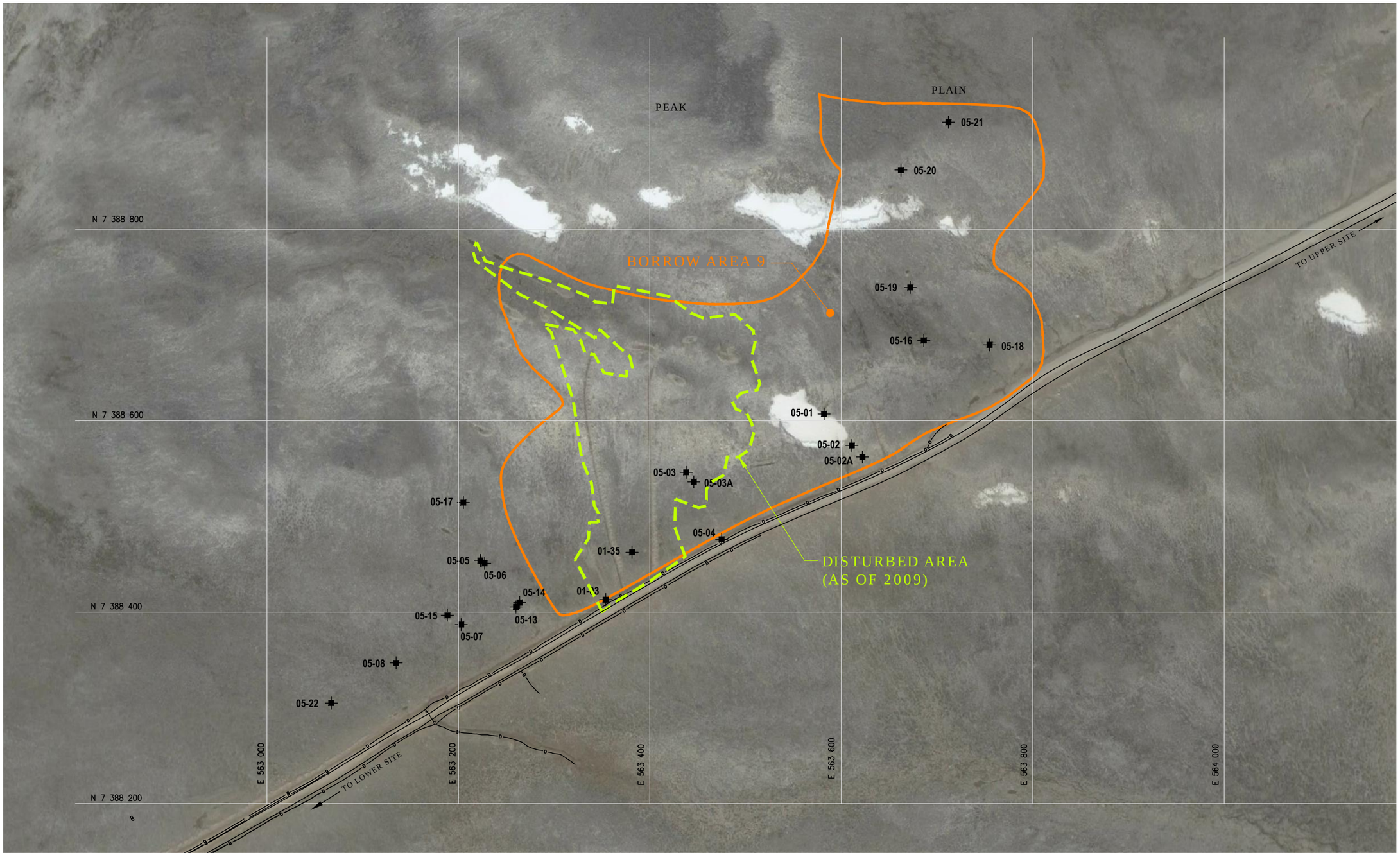
DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 4

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0

OFFICE	DATE
EDM	November 2012

Figure 5



LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- MONITORING WELL LOCATION
- BM-8 ▲ - BENCHMARK

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 200

Scale: 1: 4 000 (metres)

AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

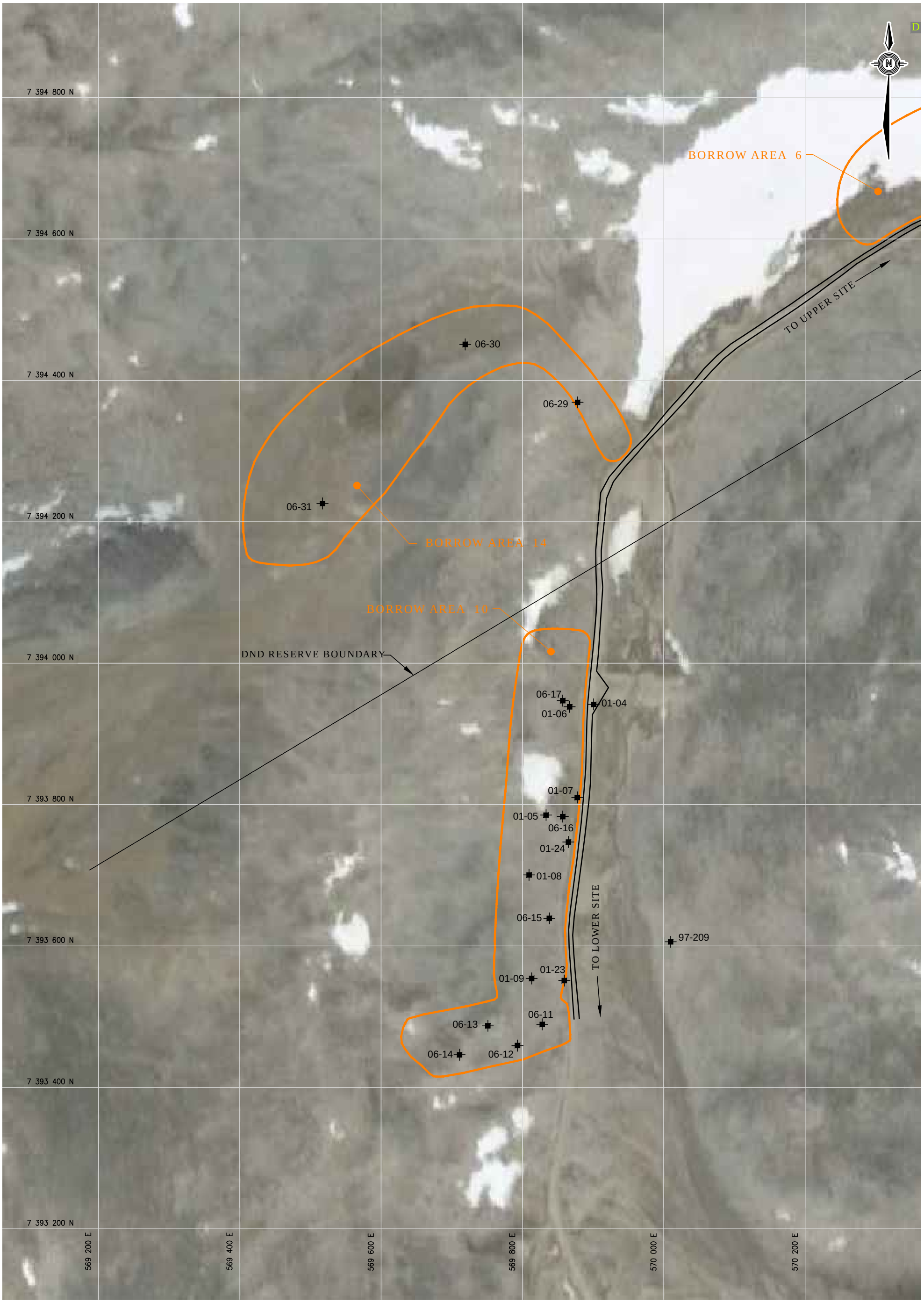
BORROW AREA 9

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0

OFFICE: EDM
DATE: November 2012

Figure 6

L:\MarketSectors\Earth & Water\Projects\0171 DLCU\DYE M\2012 Geotech QC Report\Winnipeg CAD Figures\10995027.011_Figure_2,_3,_7_,11_U.dwg [FIGURE 7] November 13, 2012 - 1:06:08 pm (BY: CLOUSTON, CASSANDRA)



LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 250

Scale: 1: 5 000 (metres)

AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 10 AND 14

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0

OFFICE	DATE
EDM	November 2012

Figure 7

LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- MONITORING WELL LOCATION
- BM-8 ▲ - BENCHMARK

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 200

Scale: 1: 4 000 (metres)

AECOM

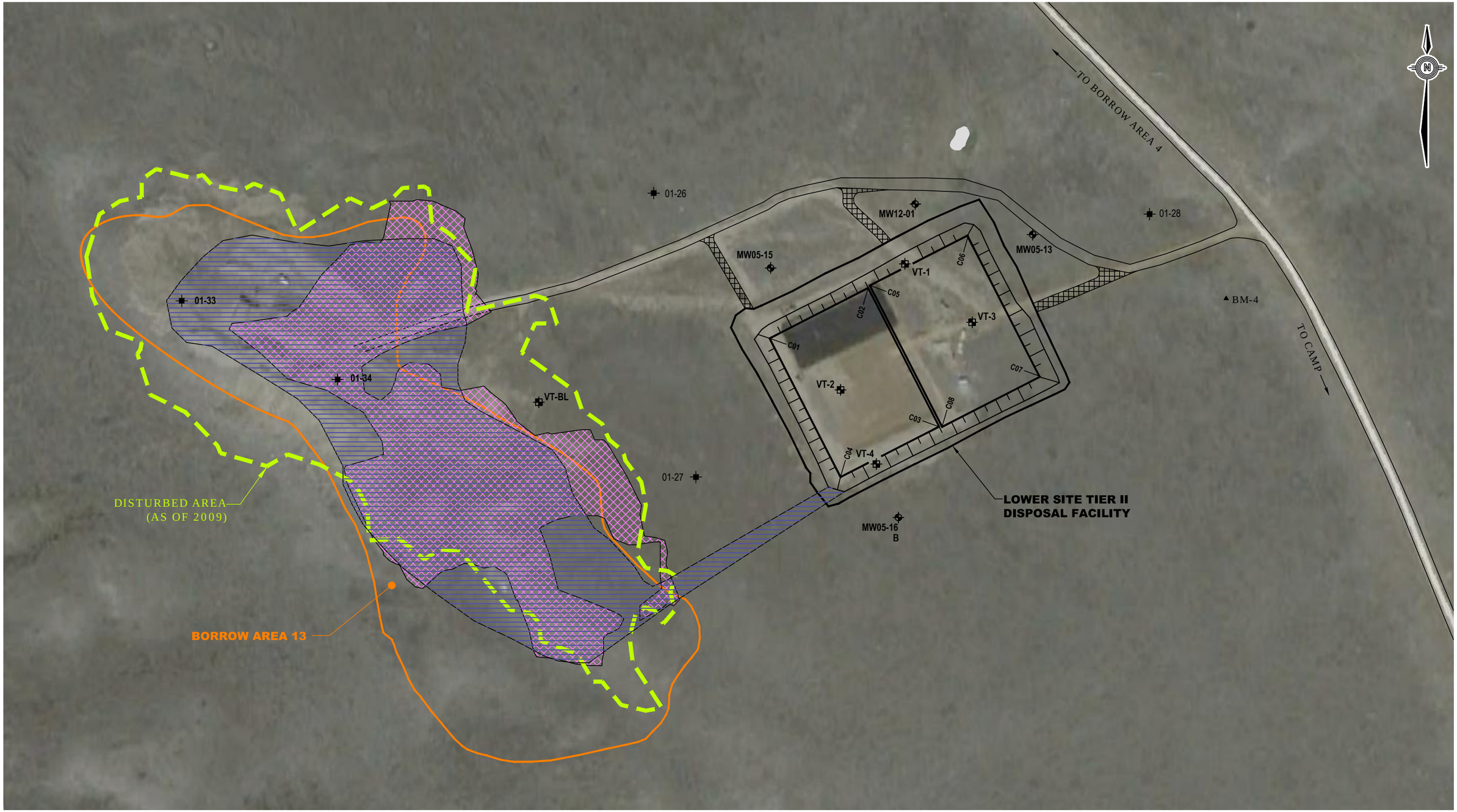
DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 11

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 8

L:\Market\Sectors\Earth & Water\Projects\0171 DLCUDYE M\2012 Geotech QC Report\Winnipeg CAD Figures\109950271 011_Figure_5,6,8,9,10,12,L.dwg [FIGURE 8] November 13, 2012 - 12h08 pm (BY: CLOUSTON, CASSANDRA)



LEGEND:

- DRAINAGE
- SPECIFIED BORROW LIMITS
- DISTURBED AREA (AS OF 2009)
- APPROXIMATE 2011 BORROW DEVELOPMENT AREA
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- MONITORING WELL LOCATION
- BM-8 ▲ - BENCHMARK
- APPROXIMATE 2012 BORROW DEVELOPMENT AREA

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 100

Scale: 1: 2 500 (metres)

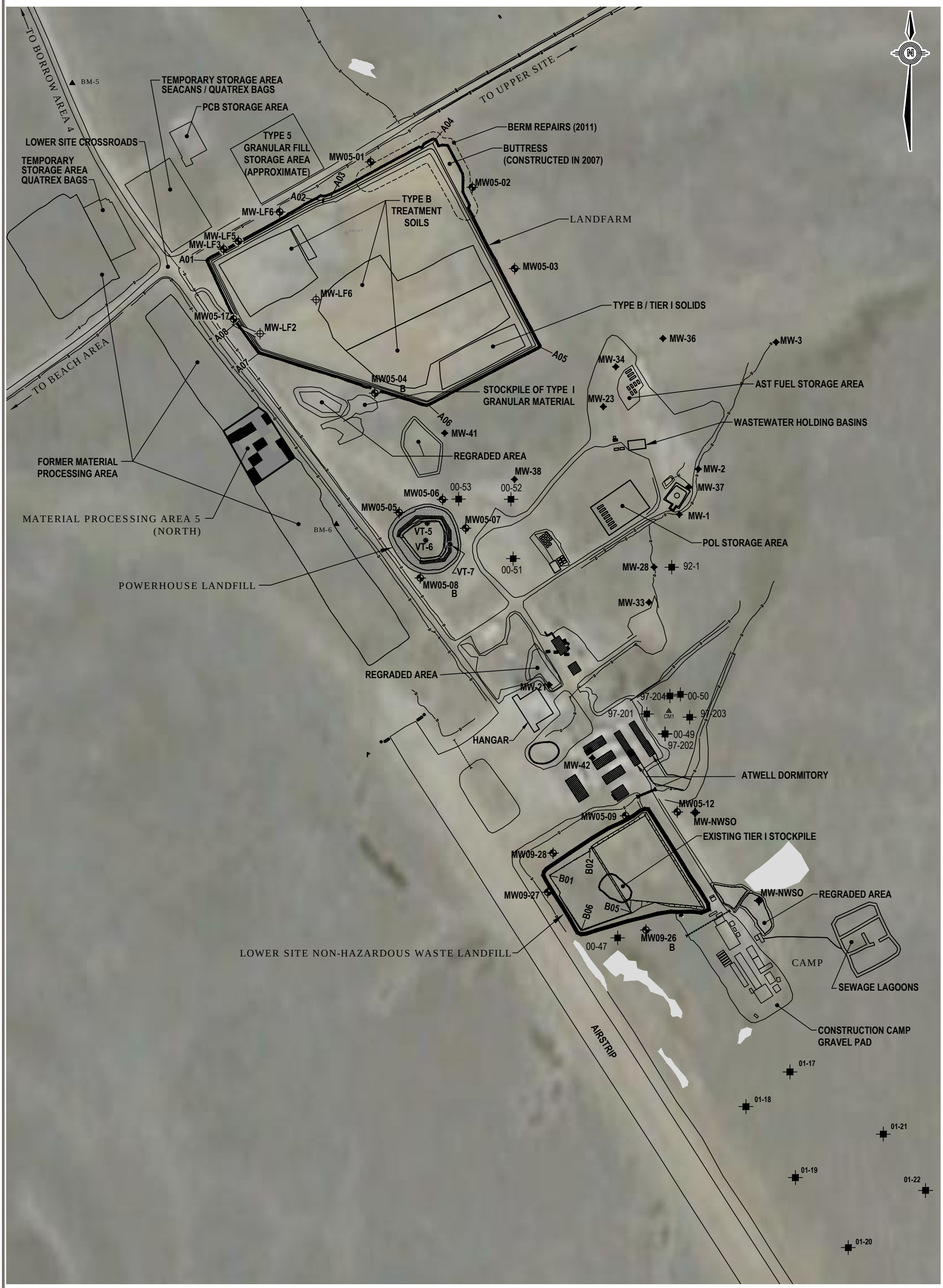
AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BORROW AREA 13
LOWER SITE TIER II DISPOSAL FACILITY

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 9



LEGEND:

- DRAINAGE
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- BM-5 ▲ - BENCHMARK

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 250

Scale: 1: 5 000 (metres)

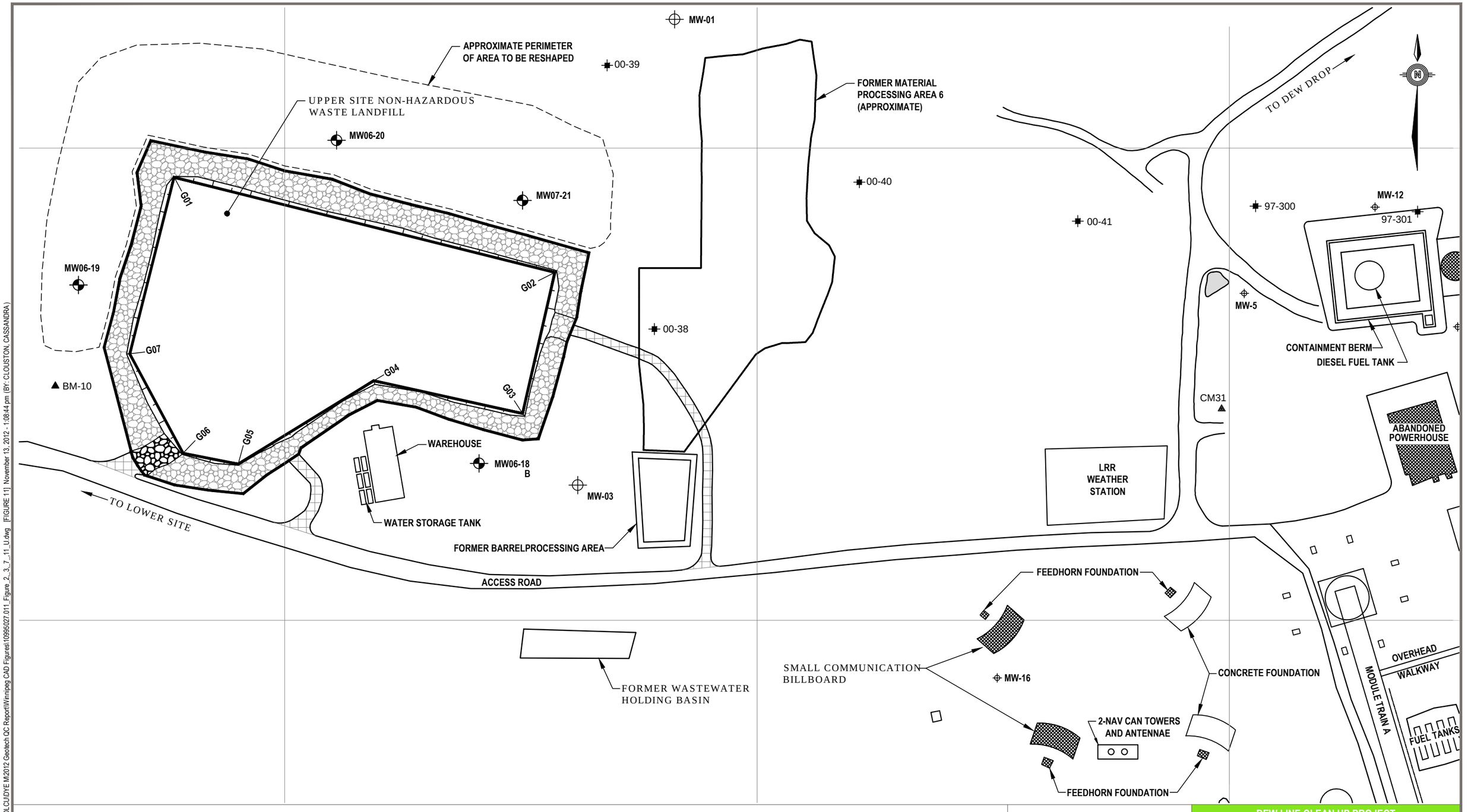
AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

LANDFARM
LOWER SITE NON-HAZARDOUS WASTE LANDFILL

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 10



LEGEND:

- DRAINAGE
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- MONITORING WELL LOCATION

BM-10 ▲ - BENCHMARK

NOTES

1. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 50

Scale: 1: 1 500 (metres)

AECOM

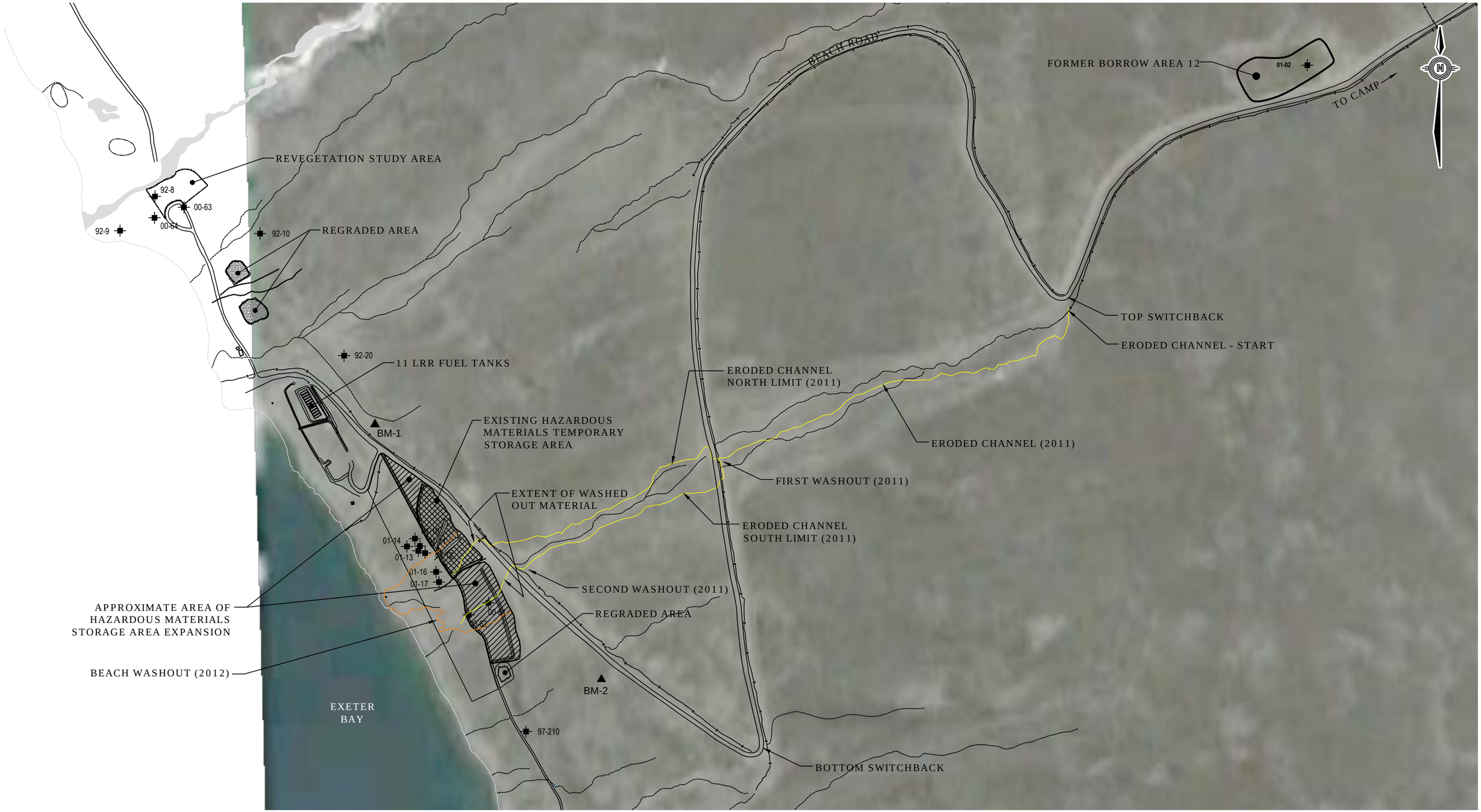
DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

UPPER SITE NON-HAZARDOUS WASTE LANDFILL
FORMER WASTEWATER HOLDING BASIN
SMALL BILLBOARD FOUNDATIONS

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 11

L:\Market\Sectors\Earth & Water\Projects\0171 DLC\DYE M\2012 Geotech QC Report\Winnipeg CAD Figures\10995027.011_Figure_2_3_7_11_U.dwg [FIGURE 11] November 13, 2012 - 1:08:44 pm (BY: CLOUSTON, CASSANDRA)



LEGEND:

- DRAINAGE
- TESTPIT (EXCAVATION YEAR DENOTED BY FIRST TWO DIGITS OF TESTPIT ID)
- GROUND TEMPERATURE CABLE LOCATION
- BM-2 ▲ - BENCHMARK

NOTES:

1. SATELLITE IMAGE FROM GOOGLE EARTH
2. FIGURE UPDATED FROM EBA 2011 GEOTEH QA SUMMARY REPORT

0 200 m

Approximate Scale: 1: 6 000

AECOM

DEW LINE CLEAN UP PROJECT
DYE-M, CAPE DYER, NU

BEACH AREA
EXISTING HAZARDOUS MATERIALS TEMPORARY STORAGE AREA

PROJECT NO.	DWN	CKD	REV
60263380	CLC	DM	0
OFFICE: EDM	DATE: November 2012		

Figure 12

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 1	**Date:** June 15, 2012

Direction Photo Taken:

South

Description:

Upper Site Tier I DF..

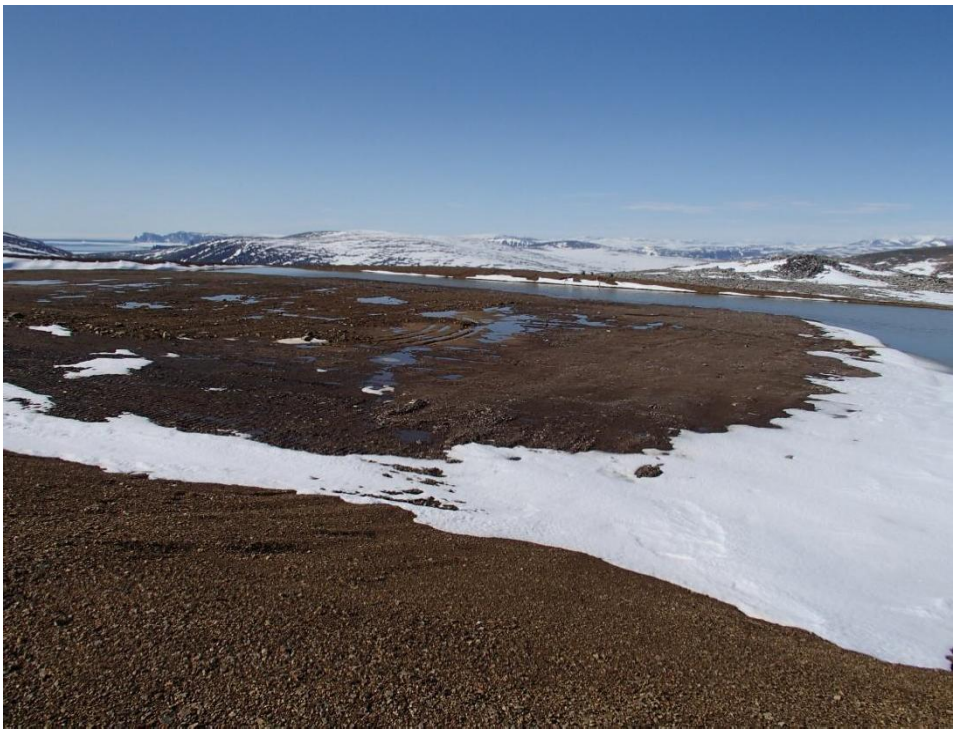


Photo No. 2	**Date:** June 15, 2012

Direction Photo Taken:

North

Description:

Upper Site NHWL

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 3	**Date:** June 20, 2012

Direction Photo Taken:

South

Description:

Borrow Area 4 – Access roadway construction.

Photo No. 4	**Date:** June 20, 2012

Direction Photo Taken:

North

Description:

Landfarm.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 5	**Date:** June 20, 2012

Direction Photo Taken:

North

Description:

Upper Site NHWL.

Photo No. 6	**Date:** June 25, 2012

Direction Photo Taken:

South

Description:
Borrow Area 4 – Screening Type 2 Granular Fill.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 7	**Date:** July 4, 2012

Direction Photo Taken:

East

Description:

Lower Site NHWL – Construction of Type 2 Granular Cover Layer.

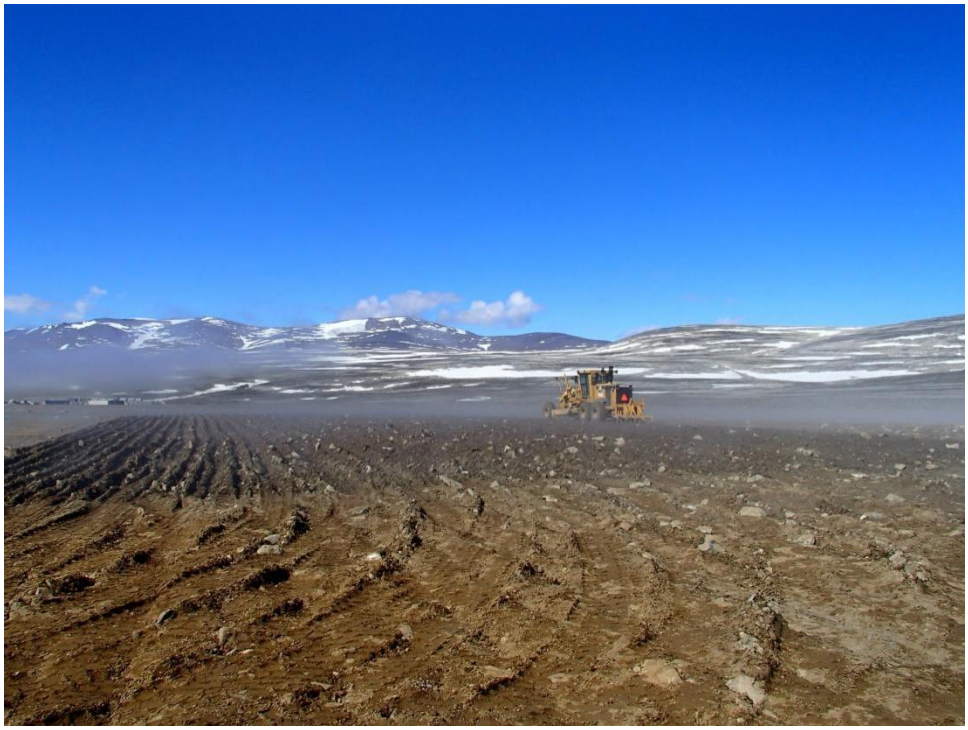
Photo No. 8	**Date:** July 6, 2012

Direction Photo Taken:

North

Description:

Landfarm – Tilling Event.



PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 9	**Date:** July 11, 2012

Direction Photo Taken:

East

Description:

Pallet Line Landfill – Type 1 Granular Fill Placement.

Photo No. 10	**Date:** July 20, 2012

Direction Photo Taken:

North

Description:

Lower Site Tier II DF – Removal of Spilled Soils.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No.	**Date:**
11	July 21, 2012

Direction Photo Taken:

Northeast

Description:

DEW Drop Area – Large Billboard Demolition.

Photo No.	**Date:**
12	July 24, 2012

Direction Photo Taken:

West

Description:

Upper Site NHWL – Segmentation of Large Generators.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 13	**Date:** August 3, 2012

Direction Photo Taken:

West

Description:

Unloading Sealift.

Photo No. 14	**Date:** August 10, 2012

Direction Photo Taken:

South

Description:

Upper Site NHWL – Landfilling of Large Billboard.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 15	**Date:** August 11, 2012

Direction Photo Taken:

South

Description:

Upper Site Tier II DF – Installation of Geotextile.

Photo No. 16	**Date:** August 20, 2012

Direction Photo Taken:

Northwest

Description:

Upper Site Tier II DF – Backfilling Ramp Area.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 17	**Date:** August 21, 2012

Direction Photo Taken:

Not Applicable

Description:

Upper Site Tier II DF – Installation of Geomembrane Boot on VT-10..

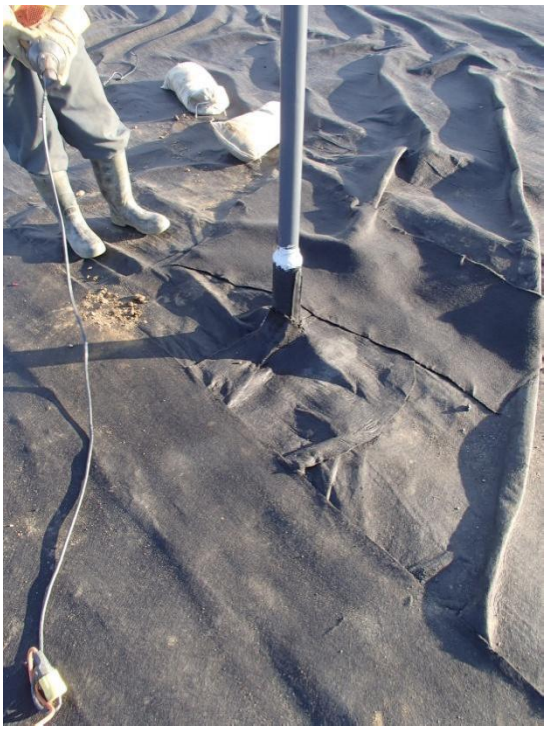


Photo No. 18	**Date:** August 30, 2012

Direction Photo Taken:

West

Description:

Lower Site Station Area – Demolition of Warehouse B13F.

PHOTOGRAPHIC LOG

Site Name: DYE-M	**Site Location:** Cape Dyer, NU	**Project No.** 60263359

Photo No. 19	**Date:** Sept 8, 2012

Direction Photo Taken:

West

Description:

Upper Site Tier II DF – Construction of Type 2 Granular Cover Layer.

Photo No. 20	**Date:** Sept 13, 2012

Direction Photo Taken:

North

Description:

Lower Site Tier II DF – Placement of Winter Cover Layer on Cell 2.