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Document type

Landfill Inspection Report 2020

Date

February 2021

COLDWATER ROAD LANDFILL - MID 005 356 860

LANDFILL INSPECTION REPORT

RAMBOLL Bright ideas. Sustainable change.

COLDWATER ROAD LANDFILL - MID 005 356 860
LANDFILL INSPECTION REPORT

Project name	**RACER Trust Coldwater Road Landfill**
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Date	**February 24, 2021**
Prepared by	**Kevin Schneider**
Checked by	**Clifford Yantz**
Approved by	**Clifford Yantz**
Description	**Landfill Inspection Annual Report**

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1. INTRODUCTION

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), Ramboll Americas Engineering Solutions, Inc. (Ramboll), is presenting this annual Landfill Inspection Report summarizing the 2020 Quarterly Post Closure Inspections at the hazardous waste landfill for the Coldwater Road Landfill (Site) in Flint, Michigan.

Each quarterly inspection event consisted of the following activities:

- A visual inspection of the landfill cap and berms
- A visual inspection of the leachate accumulation above ground storage tank (AST)
- A visual inspection of the site access roads
- A visual inspection of the site perimeter fencing and gates
- An inspection of the leachate collection system
- Testing of the leachate detection alarm system
- A summary of the monthly removal of liquids from the leak detection vaults
- A visual inspection of site drainage structures.

A summary of the inspections is outlined in the following sections and copies of the quarterly inspection reports are included as **Appendix A**. A Site Location Map (**Figure 1**), a Site Layout (**Figure 2**), and a 2020 Incident Location Map (**Figure 3**) are also included.

2. INSPECTION FINDINGS

The below sections summarize the findings and repairs made during the 2020 quarterly inspections.

2.1 Cap and Landfill Berms

The cap and surrounding landfill berms were visually inspected each quarter for deep root penetration, burrowing animals, soil erosion, slope failures, and ponding water, including within the ditch and/or washouts.

Several hundred woody-stemmed plants were removed from the landfill cap between March 2020 and December 2020.

Mole activity was observed during the 1st through 4th quarter inspections at Cell B, Cell D, and Cell E (**Figure 3**). The mole activity was addressed by placing poisonous mole bait and setting traps where mole trails were observed. The mole activity will continue to be addressed during future landfill cap maintenance.

Aside from the mole activity, no other animal burrows were observed during the 2020 quarterly inspections. A fox has been spotted during site visits throughout the year and could potentially be chasing other burrowing animals off site.

During the 3rd and 4th quarters there were several areas where there appeared to be surficial animal activity. Shallow digging and deer hoof prints were observed in these areas. During the inspections the areas were raked smooth and grass seed was spread on areas with bare vegetation.

2.2 Leachate Collection AST

The 15,000-gallon leachate accumulation AST is located in the containment/control building. An inspection of this AST system (tank, piping, containment) is completed and documented during each site visit by Ramboll and during quarterly inspections in accordance with the post-closure care plan (PCCP). No evidence of leakage was observed within the AST secondary containment area or the associated piping.

2.3 Access Roads

The landfill access and perimeter roads were inspected for sufficient gravel and proper drainage during the quarterly inspections.

During the 1st quarter inspection, the access road west of the ponds had areas of ponded water. The wet sections of road were avoided until the road was dry.

Due to the previous per- and polyfluoroalkyl substances (PFAS) investigations and delivery of borrow material for planned middle-pond berm construction as part of the Stormwater Management Improvement activities, the perimeter access roads were rutted, and the grass was worn down. At the end of the berm construction the road will be repaired while equipment is onsite.

No other problems to the access roads were observed during 2020.

2.4 Site Perimeter Fencing and Gates

During the 3rd quarter, and 4th quarter, one previously repaired hole along the west perimeter fence had been reopened. The hole was repaired during the site inspections. During the 4th quarter, two smaller holes (1 to 2 feet in length) were repaired during the site inspection along the northwestern arm of the perimeter fence (**Figure 3**).

2.5 Leachate Collection System

The leachate collection system was inspected quarterly for visible signs of damage. System components inspected include the control panels for the sumps and the leak detection vaults, as well as the visible portions of the vault piping. No evidence of damage was observed for the aboveground components of the system. Additionally, no signs of erosion/washouts were noticed in the areas around the control panels and posts.

2.6 Leachate Detection Alarm System

The PermAlert automated leak detection alarm was tested during each quarterly inspection. The alarm was found to be operating during each of the quarterly inspections.

2.7 Vault Liquid Removal

The leak detection vaults were pumped out monthly during the year except for August 2020. Per the PCCP, which was revised and approved on January 24, 2017, dewatering can occur on an every other month basis unless more than 300 gallons of liquid were removed from a vault during a dewatering event. If more than 300 gallons were removed from a vault, then that vault was dewatered the following month and continued to be dewatered on a monthly basis until less than 150 gallons were removed during a single dewatering event, after which dewatering for that vault reverts back to every other month. If three or more vaults had more than 300 gallons removed during a dewatering event, then the next monthly dewatering event included all the vaults. The volumes of liquid evacuated from each cell are provided in **Table 1** and were reported in the Quarterly Status Reports.

2.8 Drainage Inspection

The perimeter of the landfill and berm, drainage trenches at the base of the landfill, the Remaining Materials Area (RMA, **Figure 2**), and the pond area were inspected for potential drainage problems. No drainage issues associated with the operation of the landfill were observed during the quarterly inspections for 2020.

The middle pond berm construction activities are intended to allow a no discharge solution for Site storm water drainage, such that storm water will be retained within the pond system on Site as part of the stormwater management improvements being completed at the Site. Furthermore, a small area of ponded water within the RMA was begun to be filled with soil to improve storm water drainage and reduce infiltration within the RMA in accordance with EGLE's approval. This work will be completed as part of the stormwater management improvement activities in 2021.

3. SUMMARY

This summary of the quarterly inspections fulfills the annual inspection reporting requirements for 2020. The first quarter 2021 site inspection will be conducted in March 2021. If you have any questions, feel free to contact me at (313) 333-0211.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

On Behalf of RACER Trust

Clifford S. Yantz
Managing Hydrogeologist – Ramboll Americas Engineering Solutions, Inc.
Agent for RACER Trust

Date: February 24, 2021
cc: file

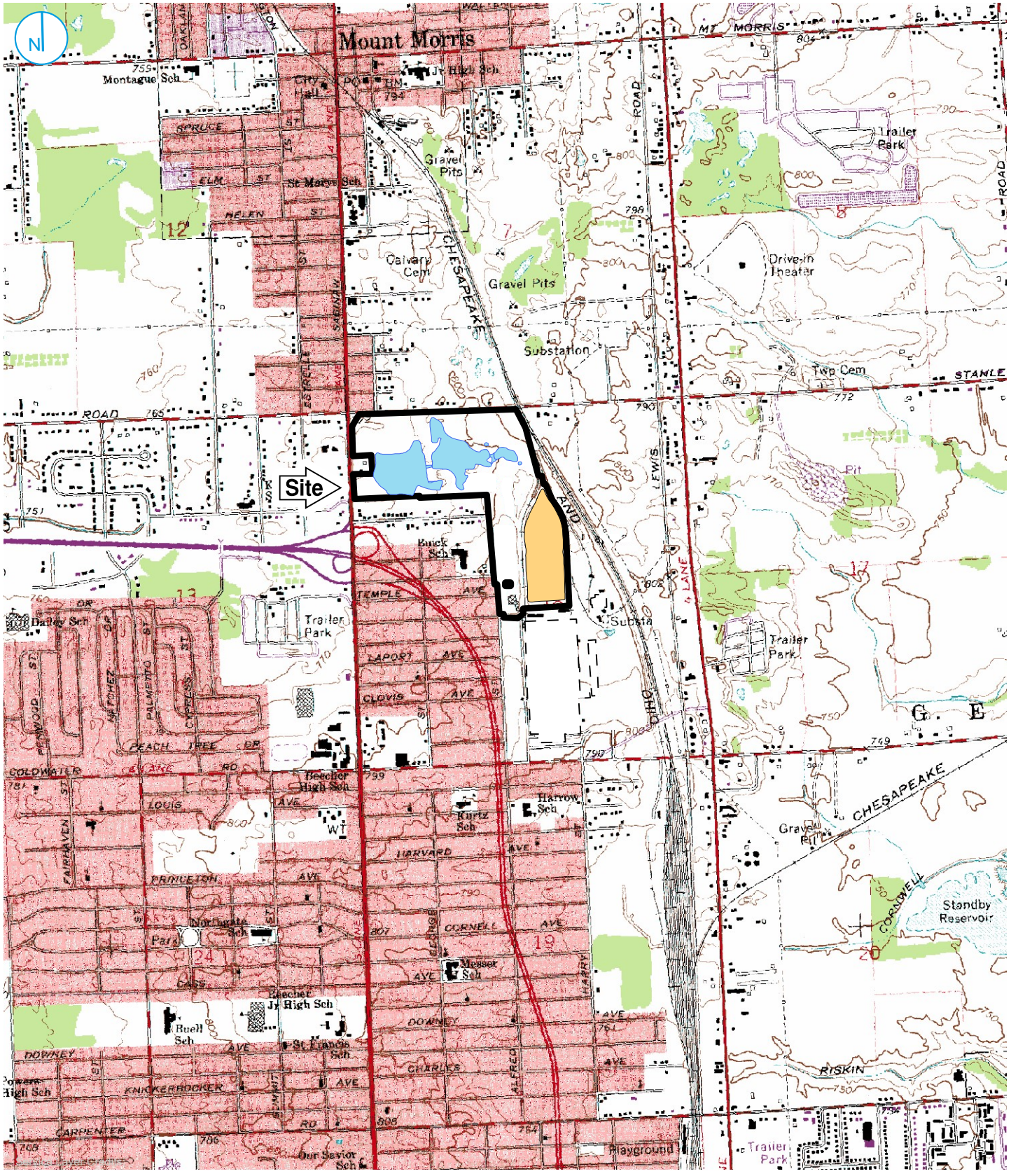
TABLES

TABLE 1
RACER Trust - Coldwater Road
Liquid Volumes Removed from Leak Detection Vaults in 2020

Date 2020	VAULT A	VAULT B	VAULT C	VAULT D	VAULT E	VAULT F	TOTAL LDS GALLONS
2020-JAN-15	--	704	--	--	673	--	1,377
2020-FEB-18	224*	690	72*	109*	699	0*	1,794
2020-MAR-27	--	507	--	--	664	--	1,171
2020-APR-16	88*	285	45*	88*	477	8*	991
2020-MAY-12	--	--	--	--	514	--	514
2020-JUN-22	310*	569*	69*	231*	1,066	349*	2,594
2020-JUL-15	124	135	62	132	275	0	728
2020-AUGUST	--	--	--	--	--	--	--
2020-SEP-15	315*	318*	185*	264*	1,097*	19*	2,198
2020-OCT-14	209	196	81	112	681	20	1,299
2020-NOV-12	--	--	--	--	598	--	598
2020-DEC-16	331*	574*	59*	195*	666	7*	1,832
YEAR END TOTAL	**1,601**	**3,978**	**573**	**1,131**	**7,410**	**403**	**15,096**

Notes
Liquid volumes in gallons
LDS - Leak Detection System
-- Vault not dewatered
* Indicates 2 month totals
Pre the revised Post Closure Care Plan October 2014, dewatering occurred on an every other month basis unless more than 300 gallons of liquid were removed from a vault during a dewatering event. If more than 300 gallons were removed from a vault, then that vault was dewatered the following month and continued to be dewatered on a monthly basis until less than 150 gallons were removed during a single dewatering event, after which dewatering for that vault reverted back to every other month. If three or more vaults had more than 300 gallons removed during a dewatering event, then the next monthly dewatering event included all the vaults.

FIGURES



Map Scale: 1:1:24,000;
Map Center: 83°41'9"W 43°5'51"N

SITE LOCATION

FIGURE 01

RACER TRUST
Coldwater Road Landfill Facility
Flint, Michigan

O'BRIEN & GERE ENGINEERS, INC.
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 169000XXXX | DATED: 8/11/2020 | DESIGNER: MONETANT I:\Racer-Trust.15388\75178.Coldwater-2020\Docs\Reports\LDS\Semi-Annual Jun 2020\Figure\001 - Site_Location SA Rpts (2020-08)_08112020.mxd

LEACHATE COLLECTION SUMP

ACCESS PORT FOR LEAK DECTION VAULT

PROPERTY BOUNDARY

0 175 350
Feet

SITE LAYOUT

RACER TRUST
Coldwater Road Landfill Facility
Flint, Michigan

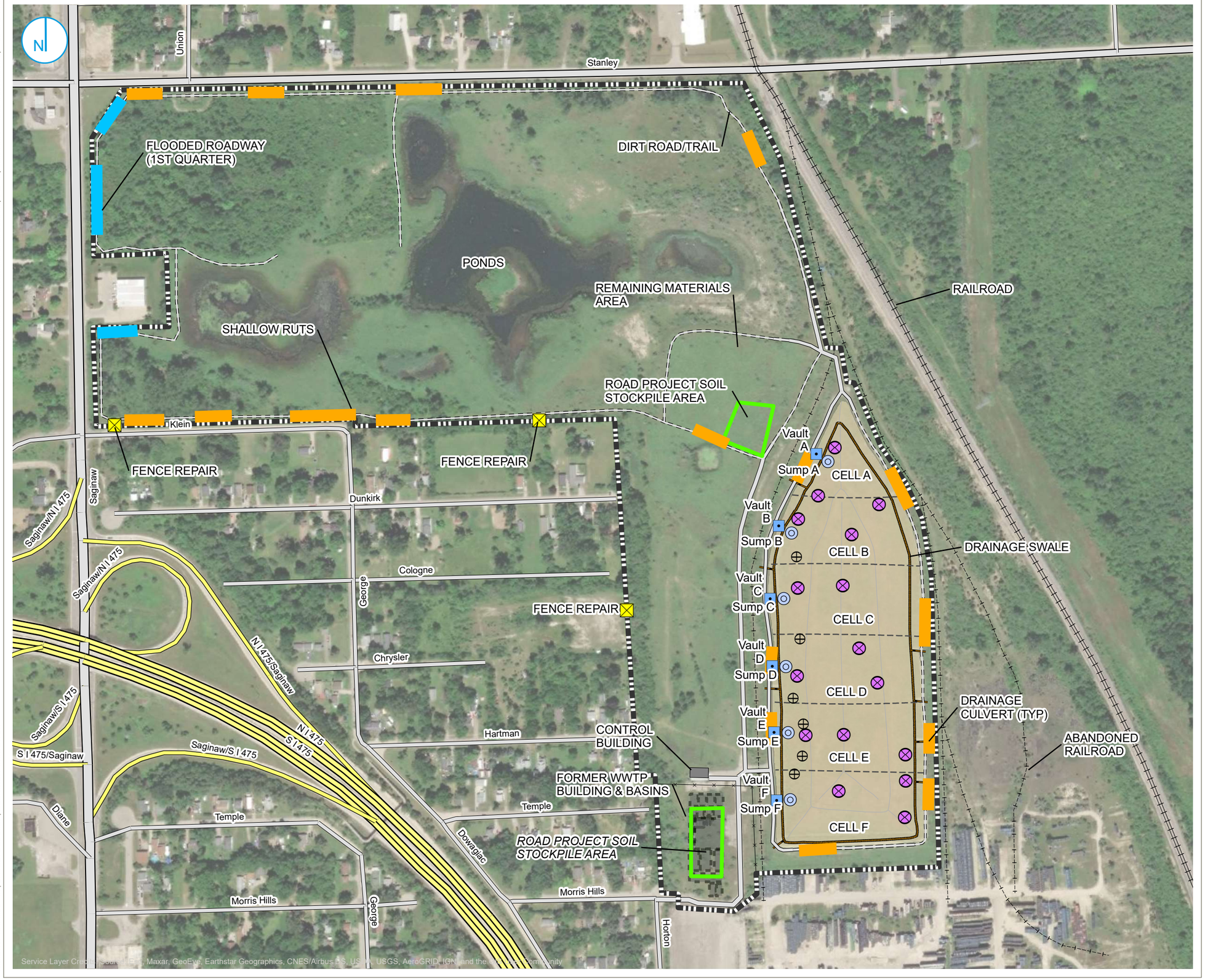
FIGURE 02

O'BRIEN & GERE ENGINEERS, INC.
A RAMBOLL COMPANY

RAMBOLL

I:\Racer-Trust.15388\75178.Coldwater-2020\Docs\Reports\LDS\Semi-Annual Jun 2020\Figure\002 - Site_Layout 2020 SA Rpts (LDS-Rpt) (2020-08)_08112020.mxd
PROJECT: 169000XXXX | DATED: 8/11/2020 | DESIGNER: MONETANT

I:\Racer-Trust.153887\5178.Coldwater-2020\Docs\Reports\Inspection\003 - Incident Location Map Feb-2021.mxd



- LEACHAGE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT
- FENCE REPAIR
- ANIMAL ACTIVITY
- MOLE ACTIVITY
- FLOODED ROADWAY 1ST QUARTER
- SHALLOW RUTS IN ROADWAY
- SOIL STOCKPILE AREA
- PROPERTY BOUNDARY

0 175 350 Feet

2020 INCIDENT LOCATION MAP

RACER TRUST
Coldwater Road
Flint, Michigan

FIGURE 03

O'BRIEN & GERE ENGINEERS, INC.
A RAMBOLL COMPANY

RAMBOLL

PROJECT: 169000XXXX | DATED: 2/22/2021 | DESIGNER: MONETANT

APPENDIX A
INSPECTION LOGS

Quarterly Post Closure Inspection Log Sheet

Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 75178

Inspector's Name/Title Kevin Schneider Scientist II

Inspector's Signature/Date/Time K Schl 3/11/20

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken	Date Corrected
Cell A	No	No	No	No	No	No		
Cell B	No	No	No	No	No	No		
Cell C	No	No	No	No	No	No		
Cell D	No	No	No	No	No	No		
Cell E	No	No	No	No	No	No		
Cell F	No	No	No	No	No	No		
Berms	No	No	No	No	No	No		

Woody Plant Removal Activities

Summarize monthly activities:

few evergreen trees pulled during inspection
few shallow divots in a few cells due to deer activity
landfill cap & vegetation in good condition
mole mounds were observed cells B, D, E

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

			If yes to any, describe issue, location, and actions taken	Date Corrected
Cracks or holes observed in tank?	No X	Yes___		
Liquid dripping or running from tank?	No X	Yes___		
Staining observed on the tank surface?	No X	Yes___		

Piping

			If yes to any, describe issue, location, and actions taken	Date Corrected
Is piping sagging, cracked or punctured?	No X	Yes___		
Liquid dripping or running from piping?	No X	Yes___		
Is the tank discharge valve open?	No X	Yes___		
Staining observed on the piping surface?	No X	Yes___		

Emergency Response

			If no to any, describe issue, location, and actions taken	Date Corrected
Are drums present in accumulation building?	No___	Yes X		
Are sandbags present in accumulation building?	No___	Yes X		
Are shovels present in accumulation building?	No___	Yes X		

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Do areas around building and equipment need to be mowed?	Do access roads need to be mowed?	If yes, describe issue, and actions taken	Date Corrected
A	No	No	No dead and smashed	" "		
B	No	No	down due to snow			
C	No	No				
D	No	No				
E	No	No				
F	No	No				

	very	Deep rooted plants	Mowed	Mowed		
Berms	No	No	No	No		

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe issue, and actions taken	Date Corrected
Roads located approx. west of landfill	shallow ruts will need to repair after berm construction	areas of ponded water		
Roads located approx. east of landfill		No		
Roads located approx. north of wetlands		No		
Roads located approx. south of wetlands		No		
Roads located approx. west of wetlands		areas of ponded water		
Roads located approx. east of wetlands		No		

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Tresspassing Prohibited" and "Private Property" Signs Missing?	If yes to any, describe issue, and actions taken	Date Corrected
Fences along north property line	No	No	No	No		
Fences along south property line	No	No	No	No		
Fences along west property line	No	No	No	No		
Fences along east property line	No	No	No	No		

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
			NO

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Describe any issues and actions taken	Date Corrected

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken	Date Corrected
RMA	NO	NO	NO	Road flooded in section	NO		

Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions	Date Corrected
Perimeter of landfill and berm	No				
Drainage trenches at base of landfill	No				
RMA	No				
Wetlands area	No				
Culverts around landfill	No				
Western drainage swale	No				
North landfill catch basin	No				

3/11/20

1078\PROJECTS\MLC 15388\47850\DOCS\REPORTS\INSPECTION SECURITY REPORT\008.MXD

PLOT DATE: 2/6/2012 kbs

FIGURE 2

N

LEGEND

- LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT

0 150 300 450 600
Feet

FEBRUARY 2012
15388/47850-008

O'BRIEN & GERE ENGINEERS, INC.

Quarterly Post Closure Inspection Log Sheet

Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 75178

Inspector's Name/Title Kern Schneider Scientist II

Inspector's Signature/Date/Time June 26, 2020 Kern Schneider

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken	Date Corrected
Cell A	No	No	No	No	No	No		
Cell B	No	No	No	No	No	No		
Cell C	No	No	No	No	No	No		
Cell D	No	No	No	No	No	No		
Cell E	No	No	No	No	No	No		
Cell F	No	No	No	No	No	No		
Berms	No	No	No	No	No	No		

Woody Plant Removal Activities

Summarize monthly activities: Tree pulling activity was conducted over entire landfill cap over the quarter. No large wood plants observed Mole mounds were observed West side cells B, D, E, F

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

			If yes to any, describe issue, location, and actions taken	Date Corrected
Cracks or holes observed in tank?	No X	Yes ___		
Liquid dripping or running from tank?	No X	Yes ___		
Staining observed on the tank surface?	No X	Yes ___		

Piping

			If yes to any, describe issue, location, and actions taken	Date Corrected
Is piping sagging, cracked or punctured?	No X	Yes ___		
Liquid dripping or running from piping?	No X	Yes ___		
Is the tank discharge valve open?	No X	Yes ___		
Staining observed on the piping surface?	No X	Yes ___		

Emergency Response

			If no to any, describe issue, location, and actions taken	Date Corrected
Are drums present in accumulation building?	No ___	Yes X		
Are sandbags present in accumulation building?	No ___	Yes X		
Are shovels present in accumulation building?	No ___	Yes X		

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Do areas around building and equipment need to be mowed?	Do access roads need to be mowed?	If yes, describe issue, and actions taken	Date Corrected
A	NO	No	Yes scheduled for July	Yes scheduled for July		Mowed 7/15/20
B	NO	fragmites growing in Berm				
C	No	No				
D	No	No				
E	No	No				
F	No	No				

Berms	NO	NO	Yes	Yes		

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe issue, and actions taken	Date Corrected
Roads located approx. west of landfill	Yes few potholes along road	Yes		
Roads located approx. east of landfill	Yes	Yes		
Roads located approx. north of wetlands	Yes few shallow ruts in area	Yes		
Roads located approx. south of wetlands	Yes few shallow ruts in area	Yes		
Roads located approx. west of wetlands	Yes	Yes		
Roads located approx. east of wetlands	Yes few shallow ruts in area	Yes		

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Tresspassing Prohibited" and "Private Property" Signs Missing?	If yes to any, describe issue, and actions taken	Date Corrected
Fences along north property line	NO	NO	NO	NO		
Fences along south property line	NO	NO	NO	NO		
Fences along west property line	NO	NO	NO	NO		
Fences along east property line	NO	NO	NO	NO		

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
			NO

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Describe any issues and actions taken	Date Corrected

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken	Date Corrected
RMA	NO	NO	NO	NO	NO		

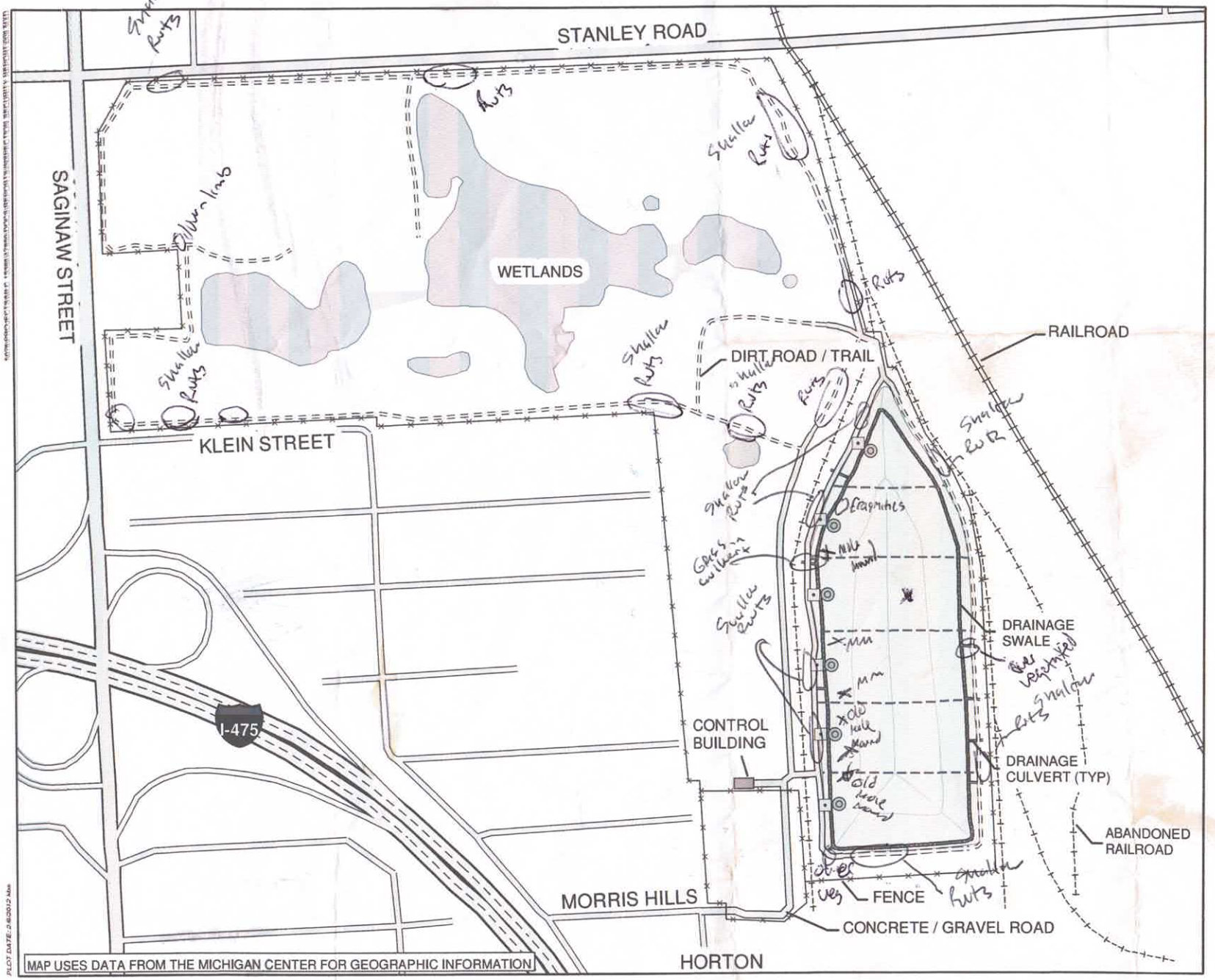
Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions	Date Corrected
Perimeter of landfill and berm	NO				
Drainage trenches at base of landfill	NO				
RMA	NO				
Wetlands area	Berm Construction to start in august				
Culverts around landfill	vegetation in a few of the culverts still no blockage				
Western drainage swale	No				
North landfill catch basin	NO				

6/26/20

FIGURE 2



N

LEGEND

- LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT

0 140 280 420 560
Feet

FEBRUARY 2012
15388/47850-008

O'BRIEN & GERE ENGINEERS, INC.

Quarterly Post Closure Inspection Log Sheet

Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 75178

Inspector's Name/Title Kevin Schneider Scientist II

Inspector's Signature/Date/Time K Schl 9/29/20 900

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken	Date Corrected
Cell A	No	No	No	No	No	No	animal activity A1, A2	
Cell B	No	No	No	No	No	No	B1, B2, B3 animal activity	
Cell C	No	No	No	No	No	No	animal activity C1, C2	
Cell D	No	No	No	No	No	No		
Cell E	No	No	No	No	No	No	animal activity E1, E2, E4	
Cell F	No	No	No	No	No	No		
Berms	No	No	No	No	No	No		

Woody Plant Removal Activities

Summarize monthly activities:

woody plants removed periodically during quarter
animal activity observed @ cells A1, A2, B1, B2, B3, C1, C2, E1, E3, E4
shallow deer prints and shallow digging by possible fox or coyote
a fox has been seen onsite during quarter no repairs needed Backed out areas while on site

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

Cracks or holes observed in tank?	No X	Yes ___
Liquid dripping or running from tank?	No X	Yes ___
Staining observed on the tank surface?	No X	Yes ___

If yes to any, describe issue, location, and actions taken	Date Corrected

Piping

Is piping sagging, cracked or punctured?	No X	Yes ___
Liquid dripping or running from piping?	No X	Yes ___
Is the tank discharge valve open?	No X	Yes ___
Staining observed on the piping surface?	No X	Yes ___

If yes to any, describe issue, location, and actions taken	Date Corrected

Emergency Response

Are drums present in accumulation building?	No ___	Yes X
Are sandbags present in accumulation building?	No ___	Yes X
Are shovels present in accumulation building?	No ___	Yes X

If no to any, describe issue, location, and actions taken	Date Corrected

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Do areas around building and equipment need to be mowed?	Do access roads need to be mowed?	If yes, describe issue, and actions taken	Date Corrected
A	No	No	Mowing NO completed 7/15/20	Mowing completed 7/15/20 NO		7/15/20
B	No	No	↓	↓		
C	No	No				
D	No	No				
E	No	No				
F	No	No				
Berms	No	No				

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe issue, and actions taken	Date Corrected
Roads located approx. west of landfill	Yes few shallow ruts	Yes	Road Repairs will be made	
Roads located approx. east of landfill	Yes few shallow ruts	Yes	once berm construction is complete	
Roads located approx. north of wetlands	Yes few shallow ruts	Yes		
Roads located approx. south of wetlands	Yes few shallow ruts	Yes		
Roads located approx. west of wetlands	Yes few shallow ruts	Yes		
Roads located approx. east of wetlands	Yes few shallow ruts	Yes		

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Tresspassing Prohibited" and "Private Property" Signs Missing?	If yes to any, describe issue, and actions taken	Date Corrected
Fences along north property line	No	No	No	No		
Fences along south property line	No	No	No	No		
Fences along west property line	Pervious note opened yes	NO	NO	NO	Previous opening open	Repaired while on site
Fences along east property line	No	No	No	No		

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
			NO

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Describe any issues and actions taken	Date Corrected

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken	Date Corrected
RMA	NO	NO	NO	NO	NO	Soil being stockpiled in area	

Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions	Date Corrected
Perimeter of landfill and berm	NO				
Drainage trenches at base of landfill	No				
RMA	NO				
Wetlands area	Berm under construction				
Culverts around landfill	Vegetation (Grass) in a few of the culverts No. Blockage	See map			
Western drainage swale	No				
North landfill catch basin	No				

9/29/20

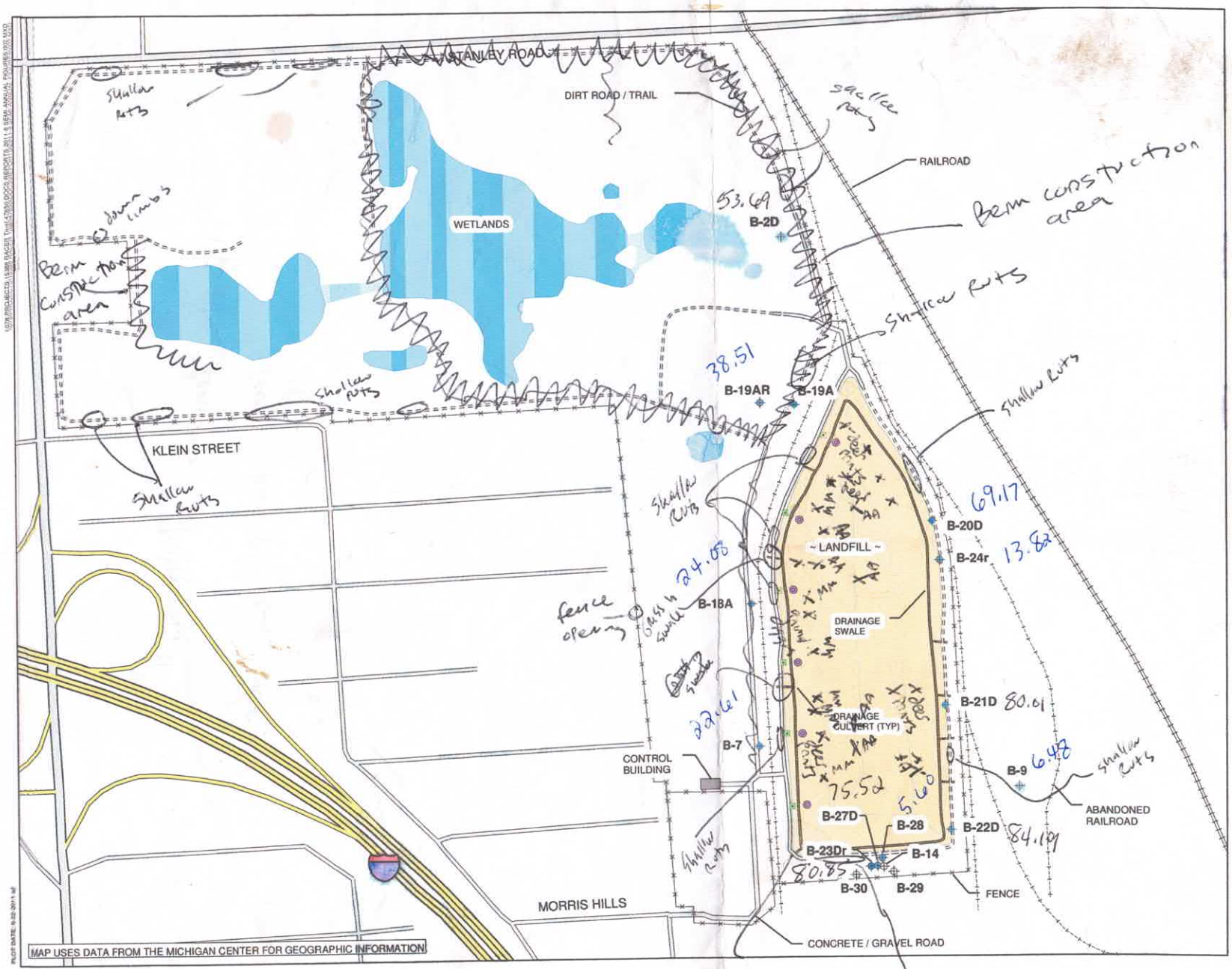


FIGURE 2

N

LEGEND

- LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT
- MONITORING WELL
- ABANDONED WELL

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT

0 150 300 450 600
Feet

O'BRIEN & GERE ENGINEERS, INC

AUGUST 2011
15388/47850/002

Quarterly Post Closure Inspection Log Sheet

Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 75178

Inspector's Name/Title Kevin Schneider

Inspector's Signature/Date/Time 12/21/20 Senior Project Scientist

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken	Date Corrected
Cell A	No	No	No	No	No	No	animal activity A1	
Cell B	No	No	No	No	No	No	animal activity B1, B3	
Cell C	No	No	No	No	No	No	animal activity C1, C2, C4	
Cell D	No	No	No	No	No	No	animal activity D1, B3	
Cell E	No	No	No	No	No	No	animal activity E1, E4	
Cell F	No	No	No	No	No	No	animal activity F2, F3	
Berms	No	No	No	No	No	No		

Woody Plant Removal Activities

Summarize monthly activities:

animal activity observed shallow digging/deer prints @ cells A1, B1, B3, C1, C2, C4 D1, B3, E1, E4, F2, F3
fox/coyote has been seen on site animal bones @ C4

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

			If yes to any, describe issue, location, and actions taken	Date Corrected
Cracks or holes observed in tank?	No X	Yes		
Liquid dripping or running from tank?	No X	Yes		
Staining observed on the tank surface?	No X	Yes		

Piping

			If yes to any, describe issue, location, and actions taken	Date Corrected
Is piping sagging, cracked or punctured?	No X	Yes		
Liquid dripping or running from piping?	No X	Yes		
Is the tank discharge valve open?	No X	Yes		
Staining observed on the piping surface?	No X	Yes		

Emergency Response

			If no to any, describe issue, location, and actions taken	Date Corrected
Are drums present in accumulation building?	No	Yes X		
Are sandbags present in accumulation building?	No	Yes X		
Are shovels present in accumulation building?	No	Yes X		

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Do areas around building and equipment need to be mowed?	Do access roads need to be mowed?	If yes, describe issue, and actions taken	Date Corrected
A	No	No	NO	NO		
B	No	No				
C	No	No				
D	No	No				
E	No	No				
F	No	No				
Berms	NO	No				

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe issue, and actions taken	Date Corrected
Roads located approx. west of landfill	Yes few shallow Ruts in spots	yes	Road Repairs will be made	
Roads located approx. east of landfill	Yes few shallow Ruts in spots		once berm construction is complete	
Roads located approx. north of wetlands	Yes Shallow Ruts			
Roads located approx. south of wetlands				
Roads located approx. west of wetlands				
Roads located approx. east of wetlands				

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Tresspassing Prohibited" and "Private Property" Signs Missing?	If yes to any, describe issue, and actions taken	Date Corrected
Fences along north property line	No	No	No	No	No	
Fences along south property line	No	No	No	No	No	
Fences along west property line	one hole that was previously open two small holes along western arm	No	No	No	No	12/21/20 closed up during inspection
Fences along east property line	No	No	No	No	No	

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
			No

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Describe any issues and actions taken	Date Corrected

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken	Date Corrected
RMA	No	No	No	No	No	Soil being stockpiled in area Staging area for berm construction	

Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions	Date Corrected
Perimeter of landfill and berm	No				
Drainage trenches at base of landfill	No				
RMA	No				
Wetlands area	Berm Construction				
Culverts around landfill	No grass in a few culverts	No Blockage			
Western drainage swale	No				
North landfill catch basin	No				

10/21/20

FIGURE 2

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LEGEND

- LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT

RACER TRUST
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT

0 150 300 450 600
Feet

FEBRUARY 2012
15388/47850-008

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 2/6/2012 kbs

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