Transmittal: So Hill Dump 2014 PRR - Final

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Wed 12/31/2014 12:23 PM

Inbox

To:Chiusano, David (DEC) <david.chiusano@dec.ny.gov>;

3 attachments

report.hw712009.2014-12-31.South_Hill_Dump_2014_PRR-FINAL.pdf; letter.hw712009.2014-12-29.sohilldump.PRROwnerSurvey.pdf; certificate. hw712009.2014-12-29.sohilldump.PRR.pdf;

Dave

Attached is the final 2014 PRR for So. Hill Dump, along with the completed consultant certification and owner survey.

The final PRR incorporates your review comments on the draft PRR.

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Enclosure 1
Institutional and Engineering Controls - Property Owner Survey

Site Details **Box 1**

Site No. 712009

Site Name South Hill Dump

Site Address: South Hill Road Zip Code: 13073
City/Town: Cortlandville
County: Cortland
Site Acreage: 10.9

Reporting Period: November 18, 2013 to December 05, 2014

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2, 3 or 4, include documentation with this form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	☒	☐
7. Are all Institutional Controls (ICs) in place and functioning as designed?	☒	☐

Town of Cortlandville
By: John P. Faher Town Atty
Signature of Property Owner

12/8/14
Date

SITE NO. 712009 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
109.00-01-02.000	CORTLANDVILLE TOWN	Landuse Restriction Monitoring Plan Site Management Plan Ground Water Use Restriction IC/EC Plan

A series of ICs are required to implement, maintain and monitor the ECs. The Environmental Easement (EE) requires compliance with the ICs. The EE for this site was recorded on 10/11/13 in Cortland County as instrument #2013-05304.

The EE ensures that:

- All ECs must be operated and maintained as specified in the SMP
- All ECs on the Site must be inspected and certified at a frequency and in a manner defined in the SMP
- Environmental monitoring must be performed as defined in the SMP
- Data and information pertinent to SM for the Controlled Property must be reported at the frequency and in a manner defined in the SMP
- On-site environmental monitoring devices, including but not limited to groundwater monitoring wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP.

In addition, the Environmental Easement places the following restrictions on the property:

- Required compliance with the approved SMP. Restrict the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) and/or the NYSDEC
- The owner of the Property shall provide information to the NYSDEC to assist it in carrying out its obligation to provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC or Relevant Agency, which will certify that the IC/ECs put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired
- The owner of the Property shall continue in full force and effect any IC/ECs required for the Remedy and shall not, through any act or omission, interfere with the NYSDEC's maintenance and monitoring of such controls, unless the owner first obtains permission to discontinue such controls from the NYSDEC or Relevant Agency, in compliance with the approved SMP subject to modifications as approved by the NYSDEC or Relevant Agency
- Limit the use and development of the property to the current use as a closed and capped/covered landfill only.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
109.00-01-02.000	Fencing/Access Control Cover System

Because remaining contamination is present at this Site, ECs and ICs have been implemented to protect public health and the environment for the applicable future use. The Controlled Property has the following ECs:

- a cover system placed over the landfilled waste;
- site access controls;

Parcel	Engineering Control
• surface water drainage conveyance • landfill gas vents	

Box 5

Periodic Review Report (PRR) Survey Statements

For each Institutional or Engineering control listed in Boxes 3 and/or 4, by checking "YES" below I believe all of the following statements to be true:

(a) the Institutional Control(s) and/or Engineering Control(s) employed at this site remain unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control; and

(d) if a Site Management Plan (SMP) exists, nothing has occurred that would constitute a violation or failure to comply with the SMP for this Control.

YES	NO
☒	☐

Town of Cortlandville

By: John B. Folan Town Atty 12/8/14

Signature of Property Owner Date

Enclosure 2
Survey Instructions

I. Verification of Site Details (Box 1 and Box 2):
Answer the YES/NO questions in the Verification of Site Details Section. The Property Owner may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional / Engineering Controls (Boxes 3, 4, and 5)
Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Property Owner should petition the Department separately to request approval to remove the control.

In Box 5, complete the certification for all components, as applicable, by checking the corresponding YES/NO checkbox.

If you cannot respond "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why a "YES" response could not be rendered. Note that this survey form should be submitted even if an IC or EC cannot be certified at this time.

III. Helpful Definitions
"Change of use" means the erection of any structure on a site, the paving of a site for use as a roadway or parking lot, the creation of a park or other recreational facility on a site, any activity that is likely to disrupt or expose contamination or increase direct human or environmental exposure, or any other conduct that will or may tend to prevent or significantly interfere with a proposed, ongoing, or completed remedial program.

"Site management" means the activities undertaken as the last phase of the remedial program at a site which continue after a certificate of completion is issued. Site management is conducted in accordance with a site management plan, which identifies and implements the institutional and engineering controls required for a site, as well as any necessary monitoring and/or operation and maintenance of the remedy.

IV. Reference Documents

DER-10	http://www.dec.ny.gov/docs/remediation_hudson_pdf/der10.pdf
Part 375-2.2(a)	http://www.dec.ny.gov/regs/4373.html#15089

Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form

Site Details **Box 1**

Site No. 712009

Site Name South Hill Dump

Site Address: South Hill Road Zip Code: 13073
City/Town: Cortlandville
County: Cortland
Site Acreage: 10.9

Reporting Period: November 18, 2013 to ~~December 05~~ December 31, 2014

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. To your knowledge is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Mark Stutmack
Signature of Standby Consultant/Contractor

November 24, 2014
Date

SITE NO. 712009 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
109.00-01-02.000	CORTLANDVILLE TOWN	Landuse Restriction Monitoring Plan Site Management Plan Ground Water Use Restriction IC/EC Plan

A series of ICs are required to implement, maintain and monitor the ECs. The Environmental Easement (EE) requires compliance with the ICs. The EE for this site was recorded on 10/11/13 in Cortland County as instrument #2013-05304.

The EE ensures that:

- All ECs must be operated and maintained as specified in the SMP
- All ECs on the Site must be inspected and certified at a frequency and in a manner defined in the SMP
- Environmental monitoring must be performed as defined in the SMP
- Data and information pertinent to SM for the Controlled Property must be reported at the frequency and in a manner defined in the SMP
- On-site environmental monitoring devices, including but not limited to groundwater monitoring wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP.

In addition, the Environmental Easement places the following restrictions on the property:

- Required compliance with the approved SMP. Restrict the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) and/or the NYSDEC
- The owner of the Property shall provide information to the NYSDEC to assist it in carrying out its obligation to provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC or Relevant Agency, which will certify that the IC/ECs put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired
- The owner of the Property shall continue in full force and effect any IC/ECs required for the Remedy and shall not, through any act or omission, interfere with the NYSDEC's maintenance and monitoring of such controls, unless the owner first obtains permission to discontinue such controls from the NYSDEC or Relevant Agency, in compliance with the approved SMP subject to modifications as approved by the NYSDEC or Relevant Agency
- Limit the use and development of the property to the current use as a closed and capped/covered landfill only.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
109.00-01-02.000	Fencing/Access Control Cover System

Because remaining contamination is present at this Site, ECs and ICs have been implemented to protect public health and the environment for the applicable future use. The Controlled Property has the following ECs:

- a cover system placed over the landfilled waste;
- site access controls;

Parcel	Engineering Control
• surface water drainage conveyance; and • landfill gas vents.	

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Mark Gilmack
Signature of Standby Consultant/Contractor

November 24, 2014
Date

IC/EC CERTIFICATIONS

Box 6

Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Mark Stelmack at MACTEC Engineering & Consulting, P.C.
print name

511 Congress St, Suite 200

Portland, ME 04101
(print business address)

am certifying as a .

Signature of

Stamp (Required for PE)

STATE OF NEW YORK
MARK JAMES STELMACK
080317
LICENSED PROFESSIONAL ENGINEER

Date 11.24.14

PERIODIC REVIEW REPORT (2014)
SOUTH HILL DUMP
NYSDEC SITE NO. 712009

WORK ASSIGNMENT NO. D007619-16

Prepared for:

New York State Department of Environmental Conservation
Albany, New York

Prepared by:

MACTEC Engineering and Consulting, P.C.
Portland, Maine

MACTEC: 3617137309

DECEMBER 2014

PERIODIC REVIEW REPORT (2014)
SOUTH HILL DUMP
NYSDEC SITE NO. 712009

WORK ASSIGNMENT NO. D007619-16

Prepared for:

New York State Department of Environmental Conservation
Albany, New York

Prepared by:

MACTEC Engineering and Consulting, P.C.
Portland, Maine

MACTEC: 3617137309

DECEMBER 2014

Submitted by:

Deanna McLean For R. G. with permission
Rebecca Gabryszewski
Senior Regulatory Specialist

Approved by:

Mark Stelmack
Mark J. Stelmack, P.E.
Project Manager

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

EC	engineering controls
IC	institutional controls
LTM	long term monitoring
MACTEC	MACTEC Engineering and Consulting, P.C.
NYS	New York State
NYSDEC	New York State Department of Environmental conservation
PCBs	polychlorinated biphenyls
PRR	Periodic Review Report
ROD	Record of Decision
Site	South Hill Dump
SM	site management
SMP	site management plan
TAL	target analyte list
TCE	trichloroethene
µg/L	microgram(s) per liter
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

The South Hill Dump (Site No. 712009; herein referred to as the Site) is a Class 4 inactive hazardous waste site in the Registry of Hazardous Waste Sites in New York State. It is located in the Town of Cortlandville, Cortland County, New York, approximately two miles south of the Village of McGraw. The Site is comprised of a closed landfill on a 10.9 acre parcel. The Site was remediated in accordance with the Record of Decision (ROD) dated January 2008 (New York State Department of Environmental Conservation, 2008). The Site includes an engineered landfill cover system, which overlies wastes contaminated with polychlorinated biphenyls, volatile organic compounds, and metals. Remedial requirements in the ROD for the Site were established to prevent direct contact with contaminated soil and/or groundwater, and to prevent contaminated surface water and groundwater from migrating off-site. In accordance with the Site Management (SM) Plan (MACTEC Engineering and Consulting, P.C. [MACTEC], 2013), current SM requirements for monitoring the performance and effectiveness of the remedial measures completed at the Site consist of semi-annual Site inspections and environmental monitoring at 15-month intervals.

This Periodic Review Report (PRR) summarizes SM activities completed at the Site during 2014, and includes an evaluation of the effectiveness of the remedial action. During the reporting period SM requirements were met, however results from the environmental monitoring completed during the reporting period were not available at the time of this PRR. The results of the environmental monitoring will be documented in separate reports and discussed in the next PRR. MACTEC concludes that the remedy for the Site is appropriate, and added measures to current SM requirements are not recommended at this time.

1.0 SITE HISTORY

The South Hill Dump Site (Site) is located at in the Town of Cortlandville, Cortland County, New York (Figure 1.1). The Site is currently listed as a Class 4 Inactive hazardous waste site - Site No. 712009 - in the Registry of Hazardous Waste Sites in New York State (NYS).

The Site is located approximately two miles south of the Village of McGraw, on the south side of South Hill Road (Figure 1.1). Much of the property is steeply sloped. The area surrounding the Site includes wooded areas, orchards, as well as active and former farm fields. A mix of forested areas and apple orchards are located east of the Site. The topography in this area slopes to the south, toward an unnamed stream located approximately 1/4 mile south of the Site (MACTEC Engineering and Consulting, P.C. [MACTEC], 2006).

Two residential parcels abut the Site and are located along the southern and eastern sides of South Hill Road; the closest residence is less than ¼ mile southwest of the Site. The area west and north of the Site consists primarily of active farm land. A former apple orchard is located farther west. A mix of meadow, farm land, apple orchards, and forest area is located northeast of the Site. The Tioughnioga River is located within two miles of the Site, to the southwest. The unnamed stream located south and east of the Site discharges to the Tioughnioga River via Hoxie Gorge Creek.

The Site was operated as a municipal waste disposal facility by the Town of Cortlandville from the early 1960s until 1972, although it is reported that local residents used the Site for trash disposal as early as 1949. During its years of operation, wastes were received from the Village of McGraw and the Towns of Cortlandville and Solon, as well as local industry. Access to the Site was reportedly unrestricted during this time. It has also been reported that waste was often permitted to burn during landfill operation, and that at one time a waste oil pit may have existed. Operations are reported to have involved pushing waste over the working face of the landfill with some spreading and compaction. Cover material was reportedly spread one or more times per week. Prior to remedial action, waste was observed protruding from the surface of the landfill across much of the Site, and included road construction debris, brush, stumps, tires, white metal, automobile parts, and miscellaneous industrial waste materials. Numerous decomposed drums were present across many areas of the landfill (MACTEC, 2006).

The remedial action was conducted at the Site in 2011 and 2012, in accordance with the Record of Decision (ROD), and as documented in the Final Engineering Report (MACTEC, 2014a).

The remedial action included the following activities:

- Installation of stabilized vehicle entrance
- Installation of perimeter erosion and sedimentation controls
- Clearing of trees and brush above the ground surface
- Grubbing of areas within the limit of grading, and disposal of grubbings on-site (beneath the new landfill cover)
- Excavation of on-site waste outside the new solid waste boundary and consolidation within the new solid waste boundary
- Decommissioning of two existing groundwater monitoring wells (MW-3S and MW-3B)
- Installation of additional erosion and sedimentation controls and measures, including a sedimentation basin, in preparation for landfill grading and soil cover installation
- Grading of the landfill within the new solid waste boundary to achieve subgrade
- Excavation for installation of landfill storm water controls (slope benches and downdrains) within the new solid waste boundary
- Removal of bulky waste items uncovered during the course of waste consolidation and landfill grading, with off-site disposal of removed bulky wastes
- Characterization and offsite disposal of uncovered buried waste drums, drum nests, and drum remnants
- Installation of 24 inch landfill cover system including associated landfill storm water controls
- Installation of landfill gas vents
- Installation of perimeter access road with waterbars
- Installation of perimeter storm water controls including riprap drainage channels and culverts
- Conversion of the sedimentation basin to a storm water detention basin
- Installation of two new groundwater monitoring wells (MW-3SR and MW-3BR)
- Seeding and mulching of all disturbed areas within the limit of work.

2.0 SITE MANAGEMENT STATUS

This Periodic Review Report (PRR) documents the site management (SM) activities conducted by MACTEC and its subcontractors during the period November 18, 2013 to December 31, 2014:

- June 2014 site inspection
- June 2014 installation and development of two groundwater monitoring wells
- November 2014 slug testing and Hydra Sleeve installation
- December 2014 groundwater, surface water, and sediment sampling

This PRR was completed using site specific documentation, which includes the Site's ROD (New York State Department of Environmental Conservation [NYSDEC], 2008), the Site Management Plan (SMP) (MACTEC, 2013), and the August 2014 Field Activities Report (MACTEC, 2014b) and Field Data Records for installation and development of the new monitoring wells. This PRR was prepared to document that established controls required by the SMP are operational and effective, that the SMP is being implemented and conducted accordingly, and that the remedy remains protective of the environment and/or public health.

SM requirements as defined in the SMP are provided in Table 2.1. These include:

- annual review/inspection of institutional/engineering controls (IC/EC) at the Site
- long term monitoring (LTM) and analysis of groundwater, surface water and sediment (Figure 2.1).

Existing shallow and deep monitoring wells are monitored to evaluate contaminant concentrations in groundwater as compared to site cleanup goals (NYS Class GA Standards [6 New York Codes, Rules and Regulations Parts 700-705] for volatile organic compounds (VOCs), target analyte list [TAL] metals and polychlorinated biphenyls (PCBs) (NYSDEC, 1999). Surface water sample results are monitored for comparison to site cleanup goals for PCBs (Technical and Operational Guidance Series 1.1.1, "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" [NYSDEC, 1998]).

SM activities completed during the reporting period and an evaluation of the performance, protectiveness, and effectiveness of the remedial action are summarized below.

2.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS PLAN

Because remaining contamination is present at this Site, ECs and ICs have been implemented to protect public health and the environment for applicable future use. The Controlled Property has the following ECs:

- a cover system placed over the landfilled waste
- site access controls
- surface water drainage conveyance
- landfill gas vents

A series of ICs are required to implement, maintain and monitor these ECs. The Environmental Easement requires compliance with these ICs, to ensure that:

- All ECs must be operated and maintained as specified in the SMP
- All ECs on the Site must be inspected and certified at a frequency and in a manner defined in the SMP
- Environmental monitoring must be performed as defined in the SMP
- Data and information pertinent to SM for the Controlled Property must be reported at the frequency and in a manner defined in the SMP
- On-site environmental monitoring devices, including but not limited to groundwater monitoring wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP.

During the reporting period, the ECs were inspected in June 2014 in accordance with the SMP. The inspection report is included in Appendix A. These controls are in place; during the site inspection the following conditions were noted:

- Landfill grass cover and overgrown vegetation at other locations needs mowing/cutting
- The stone check dam in the southeast corner of the site is in disrepair
- Two erosion gullies were observed cutting across the perimeter road exiting the southeast corner of the downdrain terminus
- An erosion gully was observed in the southwest extension of the perimeter road starting downgradient of the end of the west drainage swale downgradient of culvert C-3
- The eastern drainage swale has areas where the geotextile fabric is exposed; rip rap appears to have slid, exposing the geotextile, which is bunched up to a depth of approximately two feet at some locations.

2.2 LONG TERM MONITORING PLAN

The LTM program defined in the SMP includes groundwater elevation monitoring; monitoring well inventory and repair; groundwater sampling and analysis; and surface water sampling and analysis. The LTM program was conducted in December 2014. The Site monitoring locations are shown on Figure 2.1. Table 2.2 summarizes the sampling and analysis plan for site monitoring locations.

2.2.1 Groundwater Elevation Monitoring

Groundwater elevations were collected during the December LTM event and are not available for inclusion in this report. Groundwater elevations, anticipated to be largely unchanged from those measured during the previous reporting period, will be documented in a separate report and discussed in the next PRR. Figures 2.2 and 2.3 illustrate groundwater elevations measured during the previous reporting period and show groundwater flow to be in a southerly direction.

2.2.2 Monitoring Well Inventory and Repair and Monitoring Well Installation

During the June 2014 site inspection, existing groundwater monitoring wells were observed to be in good condition and not in need of repair.

In June 2014 two new monitoring wells (MW-3SR2, MW-3BR2) were installed and developed in down gradient locations relative to the landfill. Trichloroethene (TCE) concentrations reported during historic site groundwater sampling at MW-3S and MW-3B consistently exceeded the groundwater standard. The concentration of TCE reported in 2013 in the replacement overburden well MW-3SR (20 micrograms per liter [ug/L]) was significantly less that the concentration of TCE in MW-3S in 1997 (80 ug/L) and in 2001 (200 ug/L). TCE was not detected in the replacement bedrock well MW-3BR. MW-3SR2 and MW-3BR2 were installed in an attempt to replicate the groundwater flow path position of MW-3S/3R.

2.2.3 Environmental Sampling and Analysis

Groundwater, surface water, and sediment samples were collected in December 2014 as part of the LTM event and were analyzed for VOCs, PCBs, and TAL metals.

Results from the sampling event were not available for inclusion in this PRR but will be referenced in next year's PRR. The results of the LTM event will also be forwarded to NYSDEC under separate cover early in 2015.

2.2.3.1 Groundwater

During the reporting period, groundwater samples were collected from eleven locations at the Site. Groundwater monitoring wells were sampled using Hydra Sleeve 'no purge' sampling technique. Samples were collected and analyzed for metals and VOCs by United States Environmental Protection Agency (USEPA) Method 6010B and 8260B, respectively.

Results of the sampling were not available at the time of this report. Results will be forwarded to NYSDEC under a separate LTM report early in 2015, and referenced in the 2015 PRR.

2.2.3.2 Surface Water and Sediment Sampling

During the reporting period, one surface water and one sediment sample was collected from the storm water detention basin outfall located at the southern end of the Site. Samples were collected and analyzed for metals (USEPA method 6010B), VOCs (8260B), and PCBs (8082).

Results of this sampling were not available at the time of this report. Results will be forwarded to NYSDEC under a separate LTM report early in 2015, and referenced in the 2015 PRR.

2.3 O&M PLAN

The SMP recommends that periodic inspections of the Site be conducted; the site inspections are to include the landfill cover system, surface water drainage conveyance system, landfill gas vents, monitoring wells, and perimeter fence.

During the reporting period a site inspection was conducted (in June 2014) in accordance with the SMP. Inspection observations were recorded using Post Closure Inspection Forms, photographic logs, and field notes included with the Field Activities Report (MACTEC, 2014b); the inspection report is included in Appendix A. Inspection findings are discussed in Section 2.1 of this report. Site deficiencies (i.e., overgrown grass and vegetative cover, stone check dam in disrepair, eroded areas in the perimeter road, and eroded riprap in the eastern drainage swale) noted during the inspection were repaired by NYSDEC's standby contractor Aztech Technologies, Inc. during the week of November 17, 2014 in accordance with the scope of work provided by MACTEC (MACTEC, 2014c). Aztech was not able to complete mowing of the grass and vegetative cover and will return to complete the mowing in Spring 2015.

The Site's SMP requirements have been met with respect to the content and frequency at which the recommended tasks have been performed since the SM Work Assignment was issued in November 2013.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Current SM activities being conducted at the Site are in compliance with the requirements of the Site's SMP (see Table 2.1). As noted earlier in this report, results from the 2014 monitoring event were not available for this report. Results will be discussed in a separate LTM report and in the PRR for 2015.

Based on the findings presented in this PRR, the following recommendations are provided:

ICs/ECs Plan

Based on a review of the environmental easement and site inspection reports, no actions are needed relative to the ICs/ECs.

Monitoring Plan

LTM activities should continue as scheduled (next 15 month sampling event is scheduled for March 2016).

Based on the findings presented herein, adherence to the SMP requirements for the Site is effective in monitoring the status of remedial requirements established in the ROD because:

- direct contact with the waste at the Site is eliminated
- migration of contaminants via groundwater is prevented
- migration of contaminants via surface water is prevented.

Additional corrective measures for the Site beyond those currently being planned or implemented are not recommended or needed at this time.

4.0 REFERENCES

MACTEC Engineering and Consulting, P.C. (MACTEC), 2014a. Final Engineering Report, South Hill Dump Remedial Action, Site No. 712009. February 2014.

MACTEC, 2014b. Field Activities Report, Groundwater Monitoring Well Installation and Landfill Inspection, South Hill Dump Site (Site No. 712009). August 2014.

MACTEC, 2014c. November 2014 Site Management Services Scope of Work, South Hill Dump Site (Site No. 712009). November 6, 2014.

MACTEC, 2013. South Hill Dump Site, Cortland County, New York, Site Management Plan. October 2013.

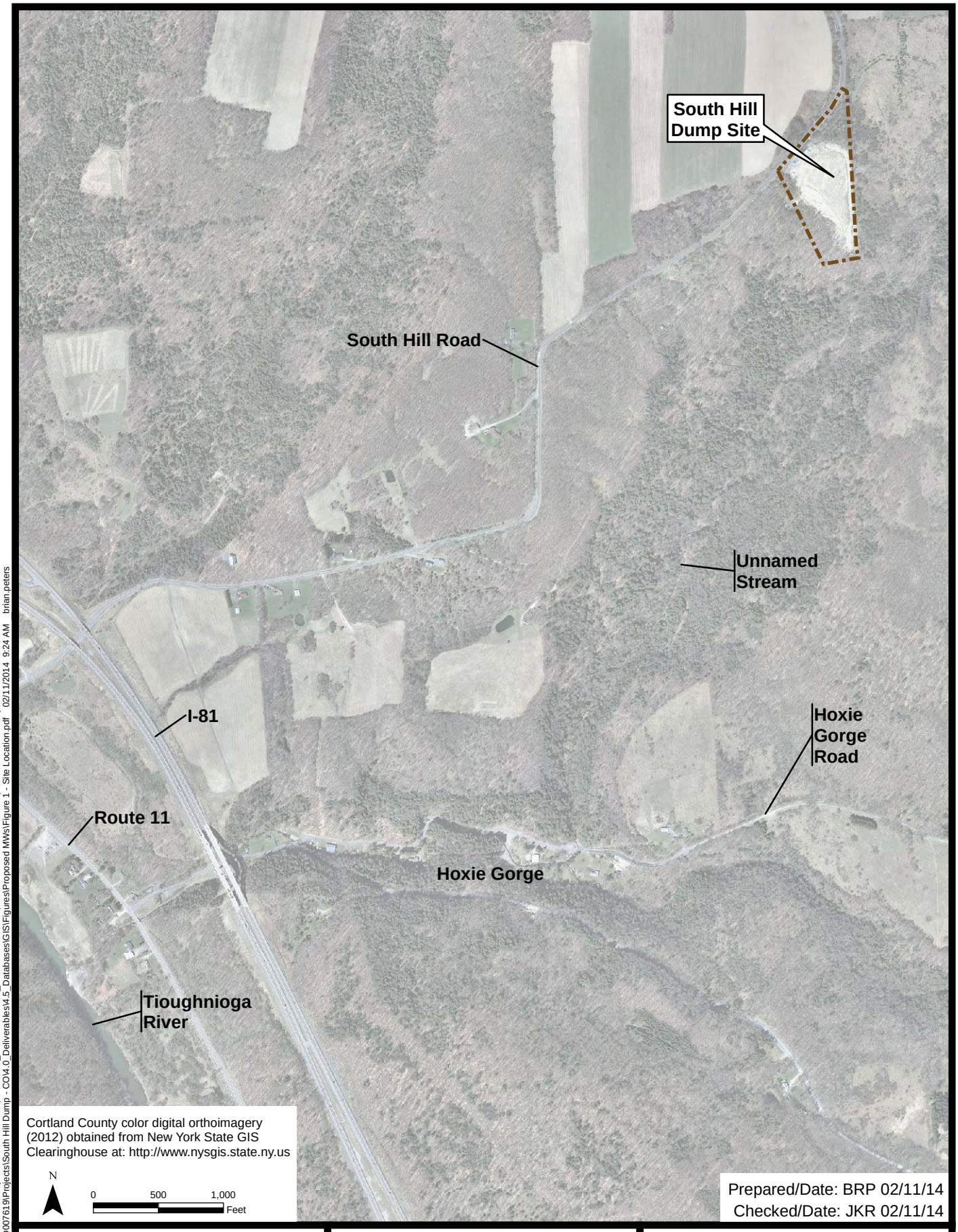
MACTEC Engineering and Consulting, P.C. (MACTEC), 2006. Feasibility Study Report: South Hill Dump, NYSDEC Site No. 712009. December 2006.

NYSDEC, 2008. Record of Decision. South Hill Dump Site, Town of Cortlandville, Cortland County, New York, Site No. 712009. January 2008.

NYSDEC, 1999. 6 NYCRR Part 703, Surface Water and Groundwater Quality Standards and Effluent Limitations. August, 1999.

NYSDEC, 1998. Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. October 1998 (revised).

FIGURES



Prepared/Date: BRP 02/11/14
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SOUTH HILL DUMP SITE
CORTLANDVILLE, NEW YORK

MACTEC

SITE LOCATION

Project 3617137309 Figure 1.1

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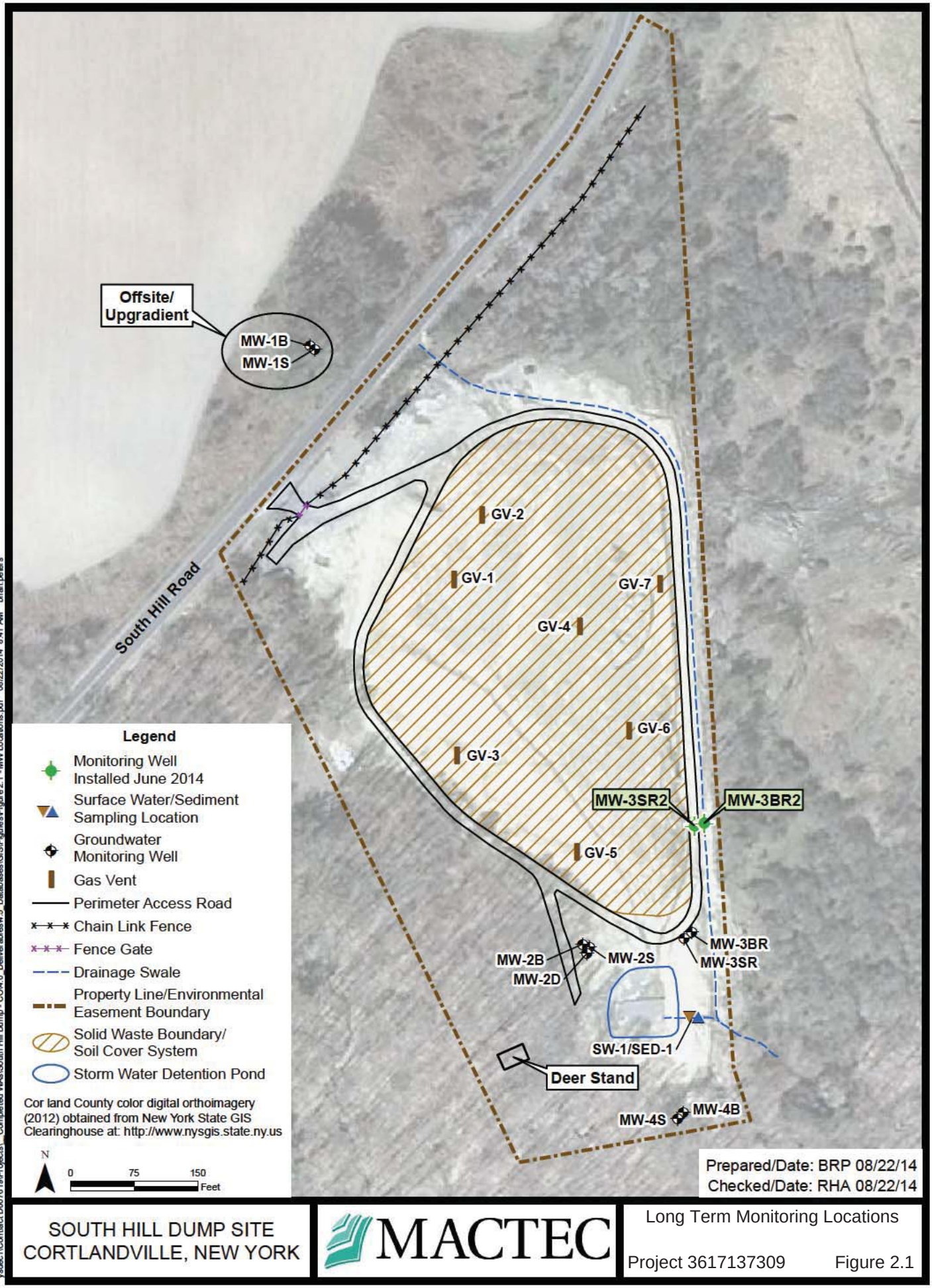

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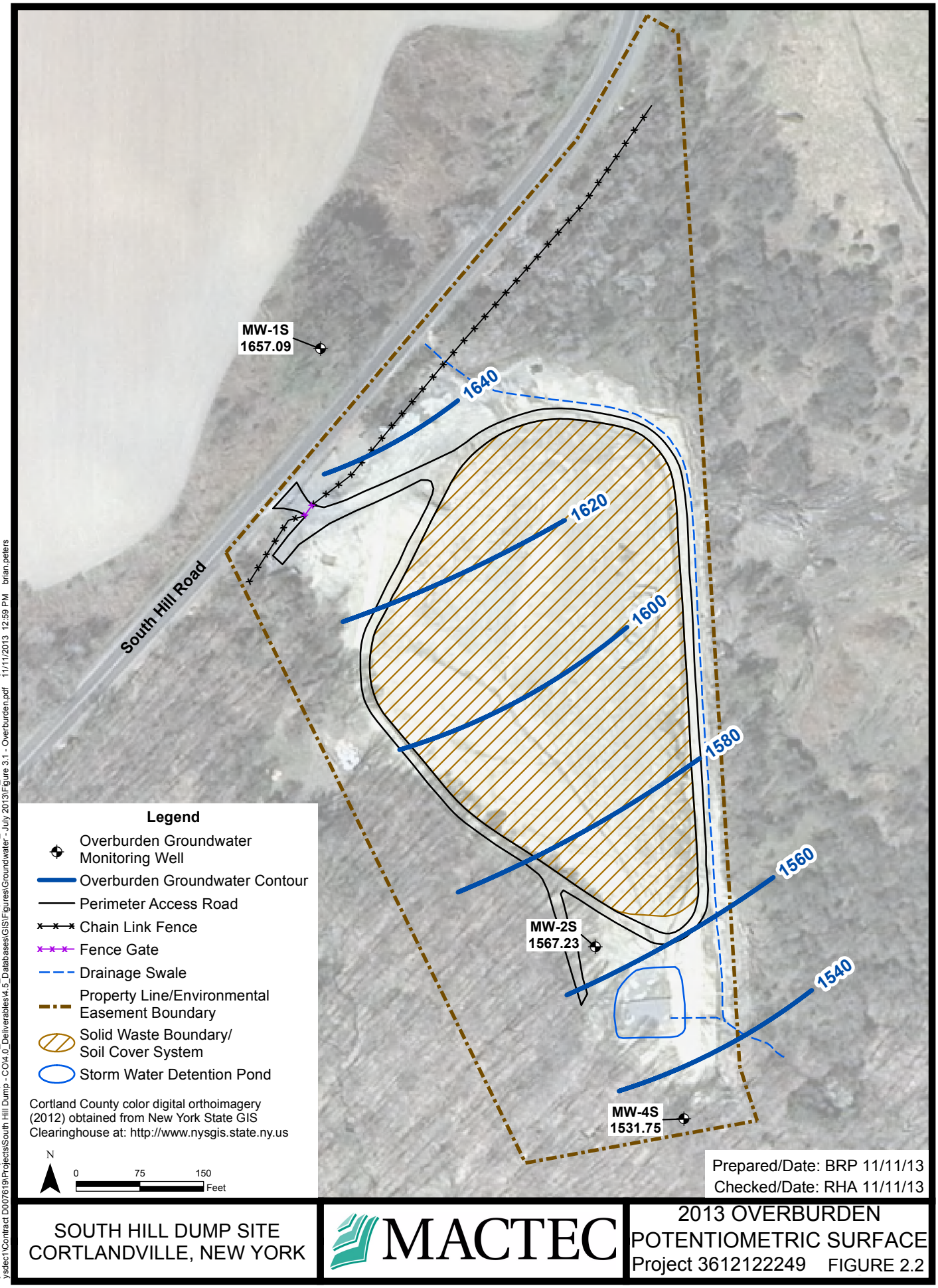
ysdec1\Contract D00776 19\Projects_Completed WAs\South Hill Dump - CO4.0_Deliverables\4.5_Databases\GIS\Figures\Figure 2.1 - MW Locations.pdf 08/22/2014 8:41 AM brian.peters

SOUTH HILL DUMP SITE
CORTLANDVILLE, NEW YORK

MACTEC

Long Term Monitoring Locations

Project 3617137309 Figure 2.1



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Checked/Date: RHA 11/11/13

SOUTH HILL DUMP SITE
CORTLANDVILLE, NEW YORK

MACTEC

2013 OVERBURDEN POTENTIOMETRIC SURFACE
Project 3612122249 FIGURE 2.2

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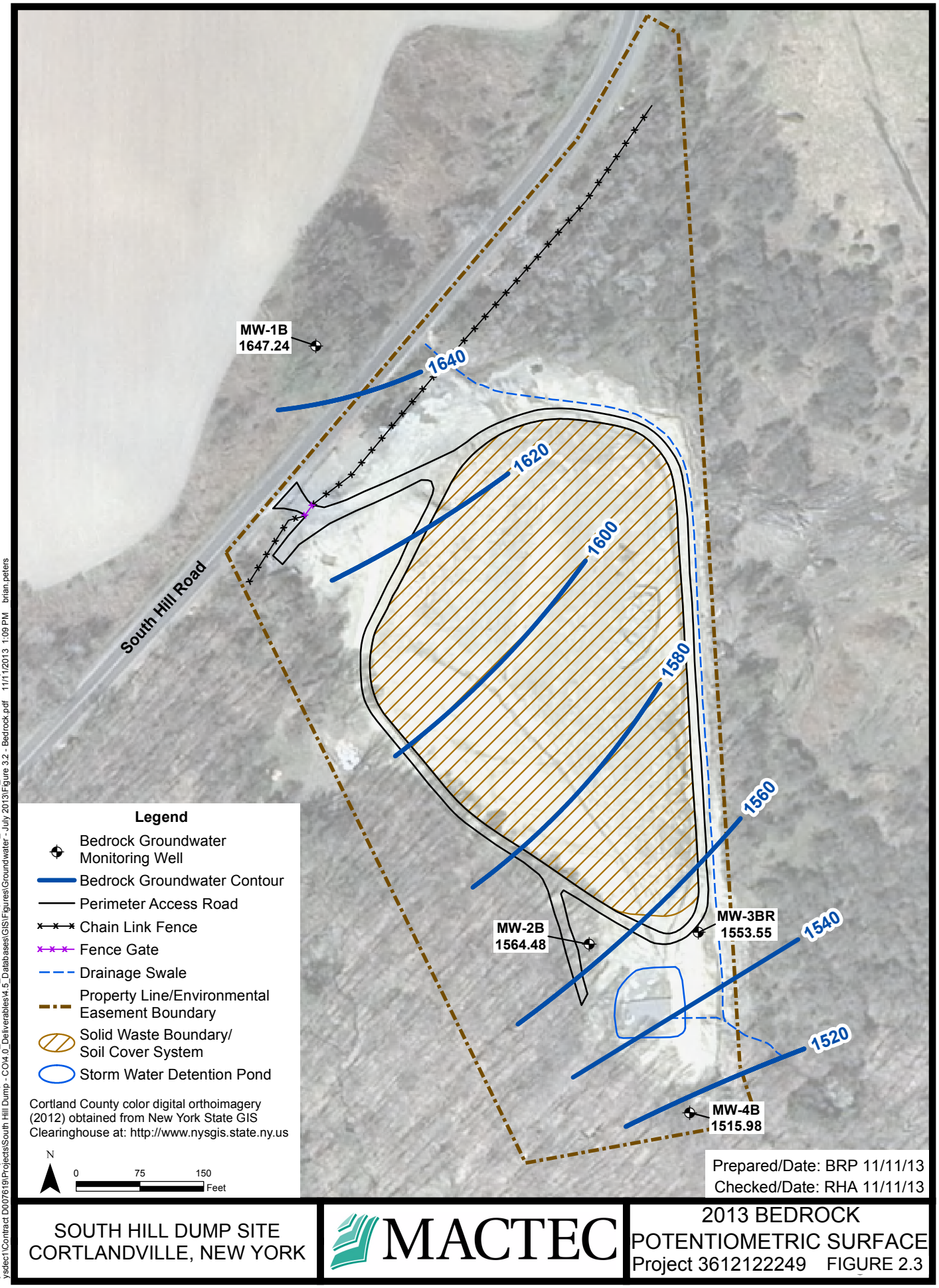

SOUTH HILL DUMP SITE
CORTLANDVILLE, NEW YORK

MACTEC

2013 BEDROCK
POTENTIOMETRIC SURFACE
Project 3612122249 FIGURE 2.3

TABLES

Table 2.1: Site Management Plan Requirements

(Inspection and Long Term Monitoring)

Component	Action	Required Frequency
LANDFILL		
Landfill Cover System	Inspection	Semi-annually in spring and summer*
Landfill Cover System	Mowing	Semi-annually in spring and summer
Site Drainage System	Inspection	Semi-annually in spring and summer*
Site Security	Inspection	Semi-annually in spring and summer
Access Road	Inspection	Semi-annually in spring and summer
Gas Vents	Inspection	Semi-annually in spring and summer
Ground Water Monitoring System	Inspection	Semi-annually in spring and summer
LONG TERM MONITORING		
Ground Water Monitoring Program		
9 monitoring locations	No purge sampling (Hydrasleeve)	Every 15 months (December 2014, Januay 2016)
Surface Water/Sediment Monitoring Program		
1 monitoring location	Surface Water/Sediment grab sampling	Every 15 months (December 2014, January 2015)

Notes:
*Additonal inspections to occur after a major rain event. A major rain event is defined as as a five-year, 24-hour storm.

Table 2.2: Long Term Monitoring Sampling and Analysis Plan Requirements

Sample Locations	Metals (6010B)	PCBs (8082)	VOC (8260B)
MONITORING WELLS			
MW-1S upgradient	X	NA	X
MW-1B upgradient	X	NA	X
MW-2S downgradient	X	NA	X
MW-2D downgradient	X	NA	X
MW-2B downgradient	X	NA	X
MW-3SR downgradient	X	NA	X
MW-3BR downgradient	X	NA	X
MW-4S downgradient	X	NA	X
MW-4B downgradient	X	NA	X
SURFACE WATER			
SW-1 (Detention Basin Outfall)	X	X	X
SEDIMENT			
SED-1 (Detention Basin Outfall)	X	X	X

Notes:
An 'X' marked in a column indicates the analysis to be performed for that sample location.
VOCs = Volatile Organic Compounds
NA = Not Applicable

APPENDIX A

INSPECTION REPORT

APPENDIX I-1

New York Department of Environmental Conservation
Inactive Hazardous Waste Site
Inspection Form-Landfills

Site Name: South Hill Dump	NYSDEC Site Number: 712009	NYSDEC PM: D. Chiusano
Site Location: South Hill Road, Cortlandville, NY	Site Classification # (circle): 1 2 2a 3 (4)	Primary Site Contact: D. Chiusano

Site Inspection Date: 06/23/14	Purpose of Inspection: Annual Inspection		
Name of Inspector: Rick Walzak	Title: Project Scientist	Agency/Company: AMEC	Address: 1090 Elm St. Rocky Hill, CT
Phone Number: 860-529-7191			

Landfill Cover System

Cover System Onsite?	(Yes)	No (Proceed to next Section)		Cover System Observations: Site dry during inspection. Vegitation > 2 ft.
Vegetative Cover Condition	(Good)	Poor	NA	
Evidence of Vegetative Stress	Yes	(No)	NA	
Mowing Required	(Yes)	No	NA	
Presence of Debris	Yes	(No)	NA	
Evidence of Ponded Water	Yes	(No)	NA	
Exposed Geotextile	Yes	(No)	NA	
Evidence of Erosion Settlement	Yes	(No)	NA	
Engineered Drainage Swale Condition	(Good)	Poor	NA	
Evidence of Leachate Seepage	Yes	(No)	NA	
Evidence of Erosion	Yes	(No)	NA	
Presence of Woody Growth	Yes	(No)	NA	
Animal Burrows	Yes	(No)	NA	

Stormwater Collection and Drainage

Drainage Channel Condition	(Good)	Poor	NA	Collection System Observations: Detension Basin Outlet Structure - Chicken wire screen clogged with grass and zip ties loose. Grass removed / ties secured.
Sedimentation	Yes	(No)	NA	
Debris	Yes	(No)	NA	
Erosion/Slope Loss	Yes	(No)	NA	
Evidence of Leachate Seepage	Yes	(No)	NA	
Rip-Rap Condition	(Good)	Poor	NA	
Condition of Synthetic Liner	Good	Poor	(NA)	
Culvert Condition	(Good)	Poor	NA	
Other Drainage Structures/Pipes	(Good)	Poor	NA	
Condition of Drainage Grates	Good	Poor	(NA)	
Retention Ponds	(Good)	Poor	NA	

Building Structures

Are there any building structures at the site?	Yes	(No) (Proceed to next section)		Building Condition Observations:
Overall Exterior Condition	Good	Poor	NA	
Overall Interior Condition	Good	Poor	NA	
Interior Floor	Good	Poor	NA	
Vaulted Areas	Good	Poor	NA	

Leachate Collection System

Is there a leachate collection system at the site?	Yes	(No) (Proceed to next section)		Collection System Observations:
Collection Trench Condition	Good	Poor	NA	
Transfer Flow Pipes	Good	Poor	NA	
Condition of Valves	Good	Poor	NA	
Leachate Pump Condition	Good	Poor	NA	
Holding Tank(s) Condition	Good	Poor	NA	
Leachate Transfer/Loading Area	Good	Poor	NA	
List other applicable components and their overall condition				

Environmental Monitoring Locations

Is there a monitoring network at the site?	(Yes)	No (Proceed to next section)		Monitoring Network Observations: MW's condition good. MW-1 + MW-4 series overgrown with vegitation MW-2 + MW-3 series needs mowing.
Monitoring Wells/Piezometers	(Good)	Poor	NA	
Soil Gas Monitoring Probes	Good	Poor	(NA)	
Landfill Gas Vents	(Good)	Poor	NA	
List other applicable location types and their overall condition	NA			

APPENDIX I-1

New York Department of Environmental Conservation
Inactive Hazardous Waste Site
Inspection Form-Landfills

Interviews/Additional Contacts			
Name/Title	Phone:	Company/Entity	Contact Information
None			

Additional Observation Notes:

See report.

Photograph Log: Attached to report

Photograph 1

Photograph 2

Photograph 3

Photograph 4

Photograph 5

Photograph 6

Photograph 7

Photograph 8

Photograph 9

Photograph 10

Performance Monitoring

Were check samples collected during this visit? Yes (No)

Sample type collected *(circle or write in other)*: Groundwater Sediment Soil Leachate Air Surface Water

List Parameters/Methods Collected Per Media:

Analytical Laboratory/Location:

Sample Observations:

JULY 2014 LANDFILL INSPECTION
SOUTH HILL DUMP SITE, SITE NO 712009
SOUTH HILL ROAD, CORTLANDVILLE, NY

ATTACHMENT: PHOTOGRAPHS

JULY 2014 LANDFILL INSPECTION
SOUTH HILL DUMP SITE, SITE NO 712009
SOUTH HILL ROAD, CORTLANDVILLE, NY

Photo 205 Description: Two erosion gullies across perimeter road from the southeast corner of the downdrain terminus near culvert C-1. Orientation: Looking west. Source: MACTEC, July 2014 Site Inspection	
Photo 206 Description: Close up of the gully crossing the road from the downdrain terminus. Orientation: Looking west. Source: MACTEC, July 2014 Site Inspection	

JULY 2014 LANDFILL INSPECTION
SOUTH HILL DUMP SITE, SITE NO 712009
SOUTH HILL ROAD, CORTLANDVILLE, NY

Photo 207 Description: West side of landfill looking east from entrance gate. Source: MACTEC, July 2014 Site Inspection	
Photo 208 Description: Erosion gully cutting into the southwest branch of the perimeter road beginning downgradient of the end of the west drainage swale downgradient of culvert C-3. Source: MACTEC, July 2014 Site Inspection	

JULY 2014 LANDFILL INSPECTION
SOUTH HILL DUMP SITE, SITE NO 712009
SOUTH HILL ROAD, CORTLANDVILLE, NY

Photo 209 Description: Original seep area sample location condition on June 23, 2014. Area dry. No seep observed. Orientation: Looking west. Source: MACTEC, July 2014 Site Inspection	
Photo 210 Description: West perimeter road and west landfill slope. Grass and weeds growing in road. Orientation: Looking south. Source: MACTEC, July 2014 Site Inspection	

JULY 2014 LANDFILL INSPECTION
SOUTH HILL DUMP SITE, SITE NO 712009
SOUTH HILL ROAD, CORTLANDVILLE, NY

Photo 211 Description: East perimeter road with grass and weeds growing in road. Eastern landfill slope. East drainage swale. Orientation: Looking north. Source: MACTEC, July 2014 Site Inspection	
Photo 212 Description: Downdrain terminus. Orientation: Looking northwest from the downdrain terminus. Source: MACTEC, July 2014 Site Inspection	

Photo 213 Description: Detention basin in-flow pipe. Culvert C-1. Orientation: Looking south into the detention basin. Source: MACTEC, July 2014 Site Inspection	
Photo 214 Description: Culvert C-2. Detention basin out-flow pipe into the east drainage swale. Orientation: Looking north toward the landfill. Source: MACTEC, July 2014 Site Inspection	

Photo 215 Description: Exposed geotextile as the east drainage swale exits the site property. Orientation: Looking southeast. Source: MACTEC, July 2014 Site Inspection	
Photo 216 Description: Detention basin outlet structure after repairing chicken wire zip ties and removing grass clogging screen. Source: MACTEC, July 2014 Site Inspection	

Photo 217 Description: West drainage swale looking from top down, facing south. Source: MACTEC, July 2014 Site Inspection	
Photo 218 Description: Site entrance gate and fence. Grasses and weed growing in access road. Orientation: Looking north. Source: MACTEC, July 2014 Site Inspection	

Photo 219 Description: Looking down site access road to the temporary drum storage area. Orientation: Looking northeast. Source: MACTEC, July 2014 Site Inspection	
Photo 220 Description: Two exposed geotextile areas at the head of the east drainage swale. Orientation: Looking north. Source: MACTEC, July 2014 Site Inspection	

Photo 221 Description: Close up of the exposed geotextile area at the head of the east drainage swale showing rip rap bunching up below the exposed area. Orientation: Looking south. Source: MACTEC, July 2014 Site Inspection	
Photo 222 Description: Rip rap sliding down steep slope exposing geotextile fabric at South Hill Road and the head of the east drainage swale. Orientation: Looking north. Source: MACTEC, July 2014 Site Inspection	

Photo 223 Description: Slope Bench 4 (SB-4) viewed north to south. Source: MACTEC, July 2014 Site Inspection	
Photo 224 Description: Landfill cover eastern slope looking north to south. Source: MACTEC, July 2014 Site Inspection