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February 11, 2016

Mr. Steven Parisio
Regional Geologist
Division of Solid and Hazardous Materials
New York State Department of Environmental Conservation, Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1696

RE: DC Airport Joint Landfill, Town of Wappinger, Dutchess County
2015 Annual Report - Post-Closure Monitoring and Facility Maintenance
MA # 202412.415

Dear Mr. Parisio:

Enclosed is an electronic copy on disk of the Annual Monitoring Report for the above facility which is provided for review by the Department. This report is based on sampling for wells MW4D, MW-15, MW-20, and MW-30 as wells as upstream and downstream surface locations in the Wappinger Creek that occurred on September 28, 2015 (see attached site map/orthophoto in Appendix A).

Included with the document is the statistical comparison of the monitoring results for the upgradient groundwater well (i.e. MW4D) as well as the downgradient well network consisting of MW-15, MW-20 and MW-30.

If there are any questions or additional information needed, please feel free to contact me at (845) 454-3411, ext. 47.

Very truly yours,
MORRIS ASSOCIATES
Engineering & Surveying Consultants, PLLC

Joseph P. Dennis, P.E.
Senior Engineer

Encl.
JPD/slj

cc: Todd Tancredi, Landfill Board Chairperson
Joseph Chenier, Asst. Civil Engineer, C/ Poughkeepsie
Lori Jiava, Supervisor, T/ Wappinger
Alan Bell, Supervisor, T/ LaGrange
John Karge, Clerk, V/ Wappingers Falls
Al Roberts, Esq., T/ Wappinger
Don Beer, Morris Associates

2015 ANNUAL REPORT
POST-CLOSURE MONITORING AND FACILITY MAINTENANCE
DUTCHESS COUNTY AIRPORT JOINT LANDFILL
TOWN OF WAPPINGER
DUTCHESS COUNTY, NY

PREPARED FOR:

JOINT LANDFILL BOARD OF GOVERNORS
C/O TOWN OF POUGHKEEPSIE
ONE OVEROCKER ROAD
POUGHKEEPSIE, NEW YORK 12603

MA PROJECT NUMBER:

202412.415

FEBRUARY 2016

PREPARED BY:

MORRIS ASSOCIATES
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DUTCHESS COUNTY AIRPORT LANDFILL
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APPENDICES

1.0 Introduction

As part of the Order on Consent (#R3-20020628-75 effective date November 3, 2003), the Joint Landfill Board has performed an upgrade to the facility by installing a final cover system and methane (gas) venting system to comply with 6 NYCRR Part 360 regulations dated effective December 31, 1988. This report addresses the long-term monitoring and maintenance of these systems for compliance to the applicable portions of 6 NYCRR Part 360.

This Annual Report details the post-closure monitoring activities along with a summary of the supporting technical data associated with the Dutchess County Airport Joint Landfill. The closure of the solid waste facility was conducted in conformance with 6 NYCRR Part 360 and the Order on Consent. This report also includes a detailed description of maintenance activities performed at the Joint Landfill. Further detail is provided within the accompanying appendices which include copies of inspection reports.

2.0 Site Description and Project History

The Dutchess County Airport Landfill is located in the Town of Wappinger, Dutchess County, adjacent to the Dutchess County Airport and NYS Route 376. The site is located on the same parcel as the airport on County-owned land. The site is also located adjacent to wetlands and borders on the Wappinger Creek. The site is situated in a rural residential area (See Figure 1 in Appendix A).

According to available records, the landfill was operated from 1968 to 1974 serving the City of Poughkeepsie, the Towns of Poughkeepsie, Wappinger and LaGrange, as well as the Village of Wappingers Falls. The landfill accepted mainly municipal solid waste, although commercial and non-hazardous wastes were also accepted.

Based on available records, the Dutchess County Airport Landfill was closed and graded with final cover in 1974. Evidently, very little on-site soil was available for use as final cover since soil had to be imported from various sources. A leachate collection/re-circulation system was installed to control leachate runoff from the site. During maximum operation, the facility received approximately 250 tons of refuse per day. The landfill footprint is approximately 25 +/- acres and the average waste depth is twenty-five feet. The total in place volume of waste and cover soil is approximately 1,100,000 cubic yards.

Several years later, it was observed by NYSDEC that the original closure was insufficient since the leachate recirculation system had become ineffective and there were reported releases from the landfill into the Wappinger Creek. As per the Order on Consent cited above (#R3-20020628-75 effective date November 3, 2003), the Joint Landfill Board commenced a detailed hydrogeologic study of the subsurface conditions and characterized the local groundwater regime. As a result of the study, the prescribed remedy was to install an upgraded final cover which satisfies the requirements of the 1988 version of 6NYCRR Part 360.

In July 2004, a closure plan was submitted to the Department and was subsequently approved in January 2005. The project was circulated for public bids and contract awarded in August 2005. Closure construction commenced in September 2005 and substantial completion was achieved in January 2007. Final completion including re-seeding and repair of erosion was completed in the fall of 2007.

3.0 Environmental Monitoring

3.1 Groundwater Monitoring Well Network

The existing monitoring well network was modified with an approval from NYSDEC via letter dated July 3, 2014 (see Appendix D). Upon an evaluation of prior data, it was determined that wells MW-6 and MW-29 would be eliminated from additional monitoring.

The groundwater monitoring well network consists of six monitoring wells around the waste perimeter and four water level piezometers within the waste mass footprint. These are shown on the site map (see Appendix A). These monitoring locations must be maintained on a perpetual basis. The Joint Landfill Board has employed the services of a qualified environmental company to conduct the groundwater monitoring stipulated below.

The following wells are part of the long-term monitoring well network:

Well MW-4D. Monitoring well MW-4D is used for long-term monitoring of upgradient areas between the landfill and the Dutchess County Airport facility. This monitoring well was installed in conformance with monitoring well specifications described in 6 NYCRR Part 360-2.15.

Wells MW-15, MW-20 and MW-30. One-inch piezometers PZ-15 and PZ-20 installed during the Closure Investigation Report have been replaced with permanent 2-inch monitoring wells installed in conformance with 6 NYCRR part 360-2.15 monitoring well construction criteria. These two monitoring wells are directly downgradient from the main body of the landfill and are installed with screens positioned in a shallow, sandy unit recognized during the CIR as providing a horizon through which landfill leachate migrates downgradient and away from the landfill. Monitoring well MW-30 is situated west of the main landfill body and monitor groundwater to the west of the landfill and downgradient of the waste relocation area.

Piezometers PZ-10, PZ-11S and PZ-12S/D. Are located within the waste mass. Piezometers PZ-10, PZ-11S and the couplet PZ-12S and PZ- 12D can be used to monitor groundwater levels under the waste mass.

Groundwater from each of the four monitoring wells (MW) listed above has been sampled and analyzed using appropriate purge, sampling, and sample custody protocols, and requiring sample analysis for baseline parameters listed in 6 NYCRR Part 360-2.11(d)(6). Low flow sampling techniques were used to reduce purge volumes and sample turbidity.

Since groundwater at the site has been monitored for ten or more quarters, Well MW-4D, MW-15, MW-20 and MW-30, will be monitored annually for water levels and baseline parameters. Water level measurements will be recorded annually in piezometers PZ-10, PZ-11S and PZ-12S/D. These wells installed within the waste mass were not sampled for water quality.

3.2 Groundwater and Surfacewater Monitoring

Groundwater and surfacewater monitoring during 2015 at the Airport Landfill occurred in upgradient well MW-4D, two landfill mass piezometers PZ-10 and PZ-11S, three downgradient monitoring wells MW-15, MW-20, MW-30 and two Wappinger Creek surfacewater locations situated upstream, and downstream to the landfill. The downgradient monitoring wells were installed near the end of 2006 during completion of landfill closure activities. On the basis of prior site monitoring, the site was approved during 2007 for a transition from quarterly to annual sampling. As a result, baseline sampling was conducted in each subsequent year thereafter.

The midpoint surface water sampling point adjacent to the landfill and in between the up and downstream sampling points has been discontinued from this and future monitoring reports. The reasoning for this discontinuation is that any contribution of contaminates can be observed through the difference in the results between up and down stream sampling

Trigger values for baseline parameters without standards found in TOGS 1.1.1 are suggested on Table 1 (see Appendix B) showing 90th percentile data from upgradient well MW-4D. Derivation of the 90th percentile values are found on appropriate sheets on Table 2a-n. Groundwater monitoring has ceased in MW-6, so the 90th percentile values from well MW-4D are suggested as site trigger values.

Tables 2a-n (in Appendix B) present parameter histories for select analytes with more than occasional exceedences of either standards or trigger values. Surface water creek samples rarely detected any significant differences between up and down stream results. Thus any significant contribution from the landfill onto surface water was rarely detected.

Chlorobenzene was detected in wells MW-15 at 16 µg/L and MW-20 at 29 µg/L. This is consistent with low concentrations of VOCs identified in the piezometer network previously evaluated in this area during the Closure Investigation. Additional discussion of test results is included in Section 3.3.

Water level data (Table 4) identify generally stable water level status in monitoring wells and piezometers.

3.3 Discussion of Results

All samples were taken September 28, 2015. The results of the sampling are shown on tables in Appendix B and summarized below in Table 1. The table lists the parameters that have exceeded the site trigger value or standard/guidance value for this monitoring period. All sample results are presented in comparable units to the trigger/ guidance values.

Table 1: Summary of Groundwater Quality Exceedances

Parameter	[1]Trigger Value / Standard Guidance Value	MW-4D (u)	MW-15 (d)	MW-20 (d)	MW-30 (d)
Ammonia	2,000 µg/l	-	14,800	46,600	4,300
COD	31.0 mg/l	-	45.0	68.0	-
BOD	10.2 mg/l	-	-	10.2	-
TOC	3.8 mg/l	-	9.8	13.5	6.1
TDS	659 mg/l	-	-	-	700
Alkalinity	250 mg/l	-	600	530	430
Total Hardness	460 mg/l	-	-	-	547
Iron	300 µg/l	1,470	20,400	59,600	13,000
Manganese	300 µg/l	744	2,620	2,180	4,630
Sodium	20,000 µg/l	-	25,100	74,500	40,200

Sampling Date: September 28, 2015

Notes:
(u) = Upgradient Monitoring Well
(d) = Downgradient Monitoring Well
[1] Recommended site trigger value or Standard or Guidance Value (GV) per NYS DEC Division of Water, T.O.G.S. – 1.1.1 and 6 NYCRR §703.
- = Either non-detect or not exceeded this period

For purposes of this discussion, the highest readings from the noted sampling date are reflected below.

Ammonia

- Downgradient wells MW-15, MW-20 and MW-30 exceeded the standard of 2,000 µg/L with the highest value of 46,600 µg/L in well MW-20. With the exception of MW-15, the results in the wells show a stable or decreasing trend.

Chemical Oxygen Demand (C.O.D.)

- Downgradient wells MW-15 and MW-20 exceeded the trigger value of 31.0 mg/L with the highest value of 68.0 mg/L in well MW-20. The results are either stable or decreasing with the exception of well MW-15 which has a slight upward trend.

Biochemical Oxygen Demand (B.O.D.)

- The BOD trigger value of 10.2 mg/L was exceeded by well MW-20 with a value of 10.2 mg/L. All wells exhibit a stable trend.

Total Organic Carbon

- Downgradient wells MW-15, MW-20 and MW-30 exceeded the trigger value of 3.8 mg/L with the highest value of 13.5 mg/L in well MW-20. All wells exhibit either a stable or decreasing trend.

Total Dissolved Solids

- Downgradient well MW-30 exceeded the trigger valve of 659.0 mg/L with a value of 700 mg/L. All wells exhibit either a stable or decreasing trend.

Sulfate

- The sulfate standard value of 250,000 µg/L was not exceeded by any of the wells during this monitoring period. All wells exhibit either a stable or decreasing trend.

Alkalinity

- Downgradient wells MW-15, MW-20 and MW-30 exceeded the trigger value of 250.0 mg/L with the highest value of 600 mg/L in MW-15. With the exception of MW-15, the results in the wells show a stable or decreasing trend.

Chloride

- The chloride standard value of 250,000 µg/L was not exceeded by any of the wells during this monitoring period. With the exception of MW-15, the results in the wells show a stable or decreasing trend.

Total Hardness

- Downgradient well MW-30 exceeded the trigger value of 460.0 mg/L with a value of 547 mg/L. All wells exhibit either a stable or decreasing trend.

Iron

- Upgradient well MW-4D exceeded the standard of 300 µg/L with the value of 1,470 µg/L. Downgradient wells MW-15, MW-20 and MW-30 exceeded the standard with the highest value of 59,600 µg/L in MW-20. Both MW-20 and MW-30 show a slight upward trend.

Manganese

- Upgradient well MW-4D exceeded the standard of 300 µg/L with a value of 744 µg/L. Downgradient wells MW-15, MW-20 and MW-30 exceeded the standard with the highest value of 4,630 µg/L in MW-30. Both MW-20 and MW-30 show a slight upward trend.

Sodium

- Downgradient wells MW-15, MW-20 and MW-30 exceeded the standard of 20,000 µg/L with the highest value of 74,500 µg/L in MW-20. Well MW-15 indicates a slight upward trend whereas other wells are decreasing.

The results of surfacewater sampling at the two locations (upstream and downstream as shown in Tables 2a-2n) do not exhibit any significant levels of the compounds identified above. Although certain parameters indicate higher levels as compared with trigger values, there is no appreciable difference in downstream versus upstream results. Therefore, this indicates that the landfill is not having a direct impact on surface water quality.

3.4 Explosive Gas Monitoring

Quarterly explosive gas monitoring was conducted during 2015 at the Airport Landfill in passive gas vents GV-1 through GV-59 and in two perimeter locations EX-1 and EX-2 (refer to site map in Appendix A). Portable field instruments were used to evaluate methane and hydrogen sulfide emissions concentrations. Oxygen and carbon monoxide concentrations were also recorded at emission sampling points. The Data is summarized in Table 3 (see Appendix B). The oxygen and methane data demonstrates active waste decomposition within the landfill with low hydrogen sulfide generation. The upgradient perimeter data identified two quarters with some off-footprint gas migration and one quarter with only negligible off-footprint migration. There are no buildings within several hundred feet in these directions and ample uncovered soils to allow simple gas dissipation.

During site visits to record landfill gas emissions, no soil cracks or stressed vegetation suggestive of uncontrolled gas emissions were noted.

4.0 Landfill Surface Inspections

As required in 6 NYCRR Part 360 and by the approved Post-Closure Monitoring and Facility Maintenance Manual (PCM&FMM revised August 2007), a routine surface inspection was performed on an annual basis. This inspection was conducted on November 23rd and utilizes the standard Department approved forms which are included in Appendix D.

In general, the report discusses routine and expected maintenance activities for a closed site. This included minor erosion repair, broken gas vents, inoperable well locks or well cap maintenance. Due to the time of year, it is not practical to address these items until Spring of 2016. Therefore, these items will be addressed no later than June 30th, 2016. Areas that needed repair due to holes from animal burrowing noted in past reports have been repaired. The locations of the holes were repaired in the summer of 2015 by placing stone in the void.

Around the time of the substantial completion of Closure Construction, in January 2007, two locations of leachate seepage were observed. These locations are noted as Areas 1 and 2 on the site plan within Appendix A. These locations received a soil cover consisting of approximately six inches of compacted clay and six inches of soil suitable to support vegetation. This capping activity was performed in January 2007. A third area of leachate seepage was identified in June 2007. This area was covered in a similar manner in September 2007. The locations of all three locations are depicted on the site map.

Since these locations have been covered, Area 1 has exhibited no evidence of further seepage. The locations of seepage at Areas 2 and 3 were identified as areas that needed repair and were addressed in the summer of 2009. The areas were scraped off and a six inch layer of sand was placed on them. Top soil was then brought in and placed over the sand layer and hay and seed were placed on the two areas. As per the PCM&FMM, these locations will continue to be monitored as part of upcoming quarterly events. Any dramatic change in conditions or additional breakouts will be reported to the Department, as warranted.

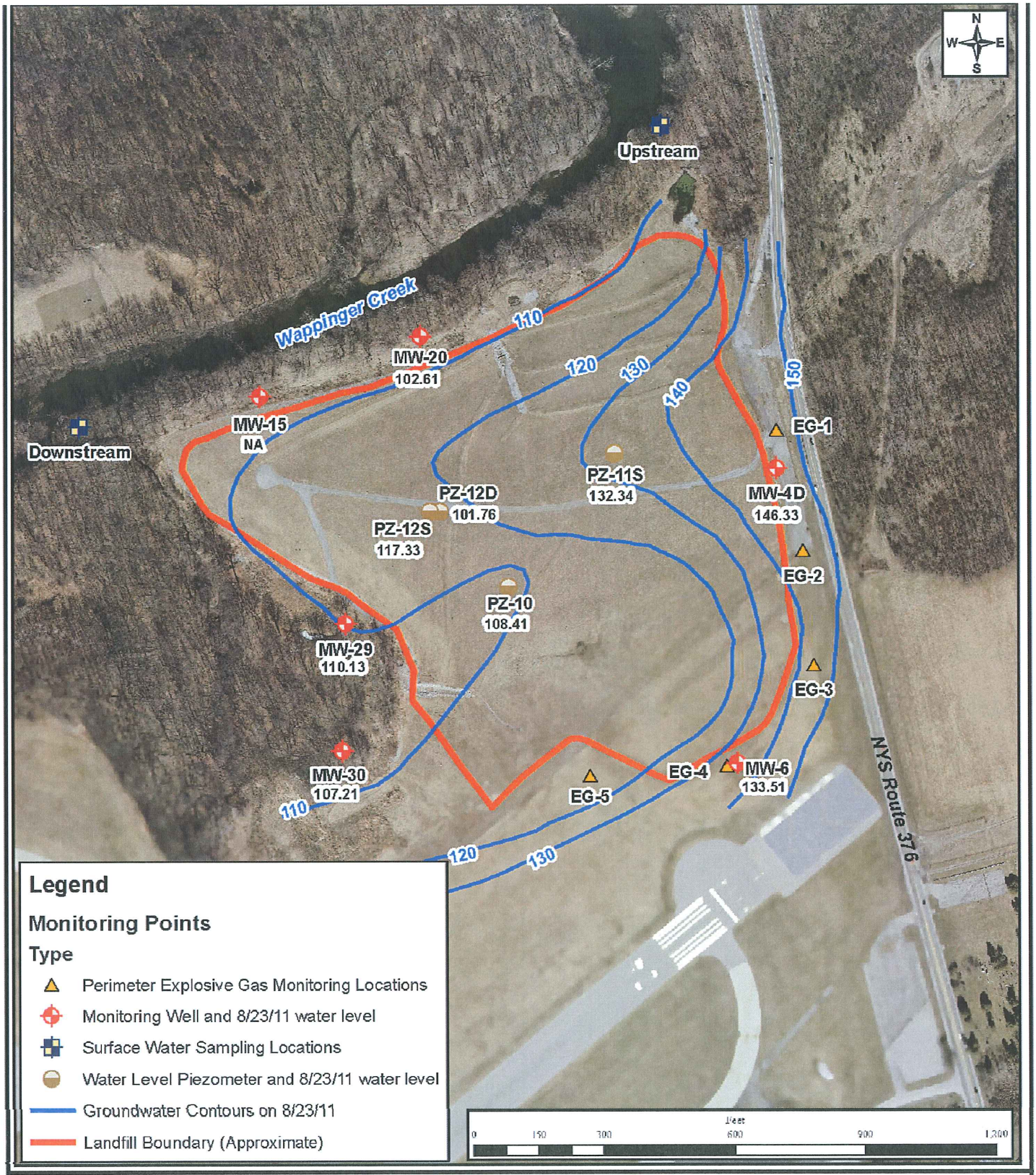
Also as per the PCM&FMM, the landfill margin between the actual waste footprint and the shoreline of the creek was assessed for evidence of a breakout of leachate in this area; however, no visible evidence was found. Due to seasonal variations and creek level fluctuations, it is difficult to say with certainty that this did not occur at some point during the year. A review of surface water sampling (see previous section 3.3) indicates that the closed landfill is not adversely affecting the water quality of the Wappinger Creek.

5.0 Conclusion

The completed final capping system is expected to significantly eliminate surface water and precipitation infiltration into the waste mass thereby reducing impacts to local groundwater quality as the waste mass desiccates. Most of the exceedences of groundwater standards or guidance values at monitoring wells can be attributed, in part, to either naturally occurring background concentrations or more significantly, to the landfill. Monitoring data indicates that the landfill is contributing to the elevated levels recorded in the monitoring wells. Future monitoring events will be studied to observe long-term trends in groundwater and surface water quality.

APPENDIX A

FIGURES/MAPS



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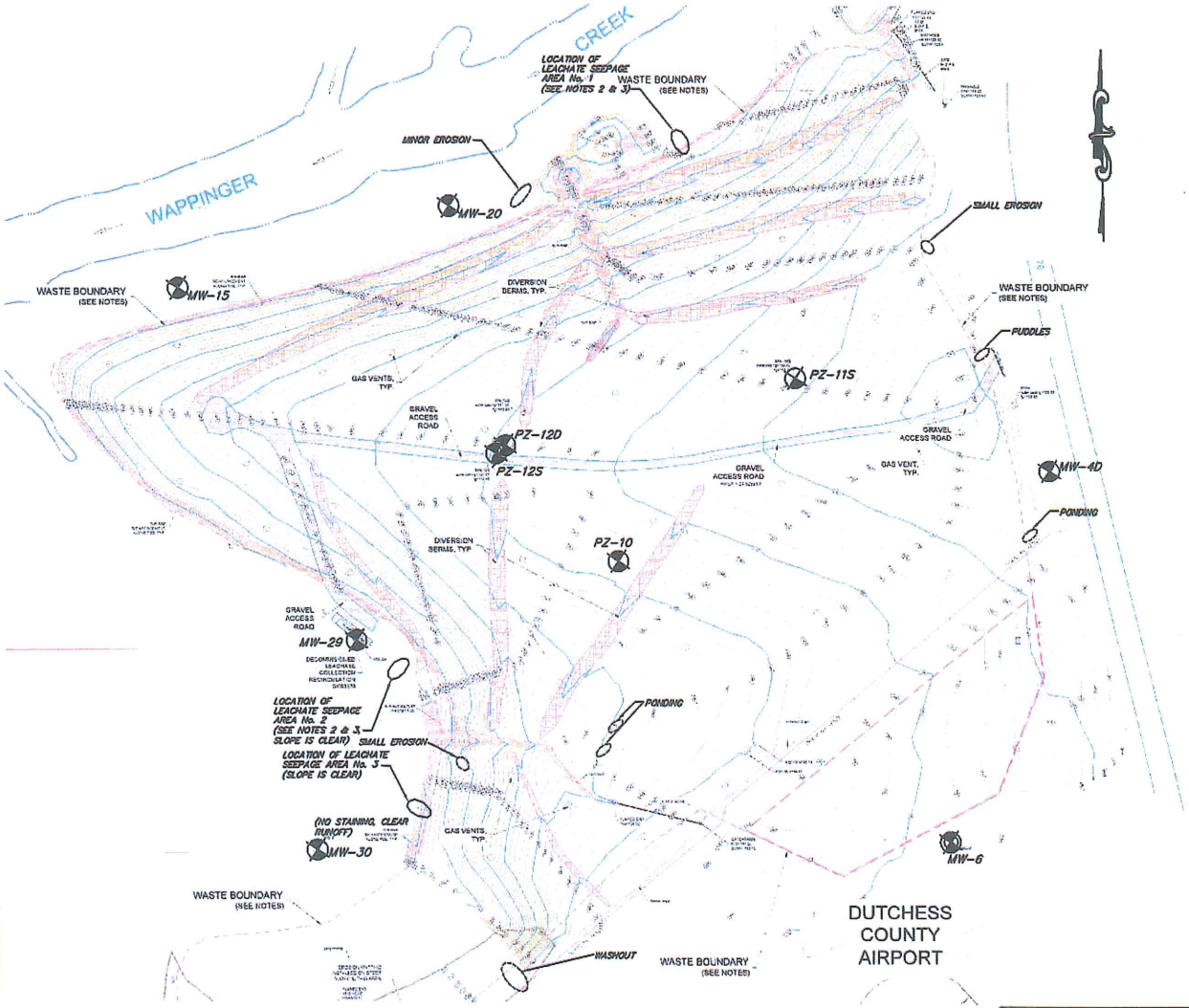
Dutchess County Airport Landfill

Figure 1 - Site Vicinity Map

N.Y.S. Route 376
Town of Wappinger, Dutchess County, New York

Source: N.Y.S. Office of Cyber Security and Critical Infrastructure Coordination 2009 Orthoimagery; Site features mapped by Chazen/Morris Associates, 2005-2010.

Drawn:	EJO
Date:	February 2012
Scale:	1:3,600
Project:	40922.11
Figure:	1



NOTES:

1. TOPOGRAPHY OBTAINED FROM SURVEY DATED JANUARY 25, 2007 PERFORMED BY PAGGI, MARTIN AND DEL BENE, LLP.
2. SURFACE SEEP LOCATIONS FOR AREAS No.1 AND No.2 AS OBTAINED BY PAGGI, MARTIN AND DEL BENE INC. ON JANUARY 12, 2007. THE LOCATION OF SEEP AREA No. 3 IS APPROXIMATED.
3. THE SURFACE SEEPS WERE COVERED WITH A MINIMUM 6-INCH LAYER OF COMPACTED CLAY AND APPROXIMATELY 6-INCHES OF OF SOIL TO SUPPORT VEGETATION. THE COVERING OF SEEP AREAS No. 1 AND No.2 PERFORMED BY URS CORP. ON JANUARY 17 AND 18, 2007 AND WITNESSEDBY MORRIS ASSOCIATES. THE COVERING OF AREA No. 3 WAS ALSO PERFORMED BY URS ON SEPTEMBER 21, 2007.

REV. No.	DESCRIPTION	DATE	BY
3	ISSUE WITH ANNUAL REPORT	3-16-11	SFC
2	ISSUE WITH ANNUAL REPORT	3-27-09	JPD
1	ISSUE WITH ANNUAL REPORT	2-20-08	JPD

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DUTCHESS COUNTY AIRPORT JOINT LANDFILL CLOSURE PLAN

TOWN OF WAPPINGERS — DUTCHESS COUNTY, NY

SITE PLAN DEPICTING KNOWN LEACHATE SEEP AREAS

DATE	SCALE	DESIGNED BY: JPD / DRAWN BY: KES / CHECKED BY: MA	FILE No.
02/19/08	NONE		202412.31

DWG 1 of 1

APPENDIX B

SUMMARY TABLES

Table 1: Updated Recommended Trigger Values for 2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DCAL - Trigger Values*, mg/L		
Well ID	PZ-4D	**Recommended Trigger Value**
Position	Upgradient	
Formation	Overburden	
C.O.D.	31.0	**31.0**
B.O.D.	10.2	**10.2**
Total Organic Carbon	3.8	**3.8**
Total Dissolved Solids	659.0	**659.0**
Alkalinity	250.0	**250.0**
Total Hardness	460.0	**460.0**

* Trigger Values are based on the lowest 90th percentile value from site upgradient monitoring well MW-4D.

Morris Associates
December 2015

Table 2A: Ammonia Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

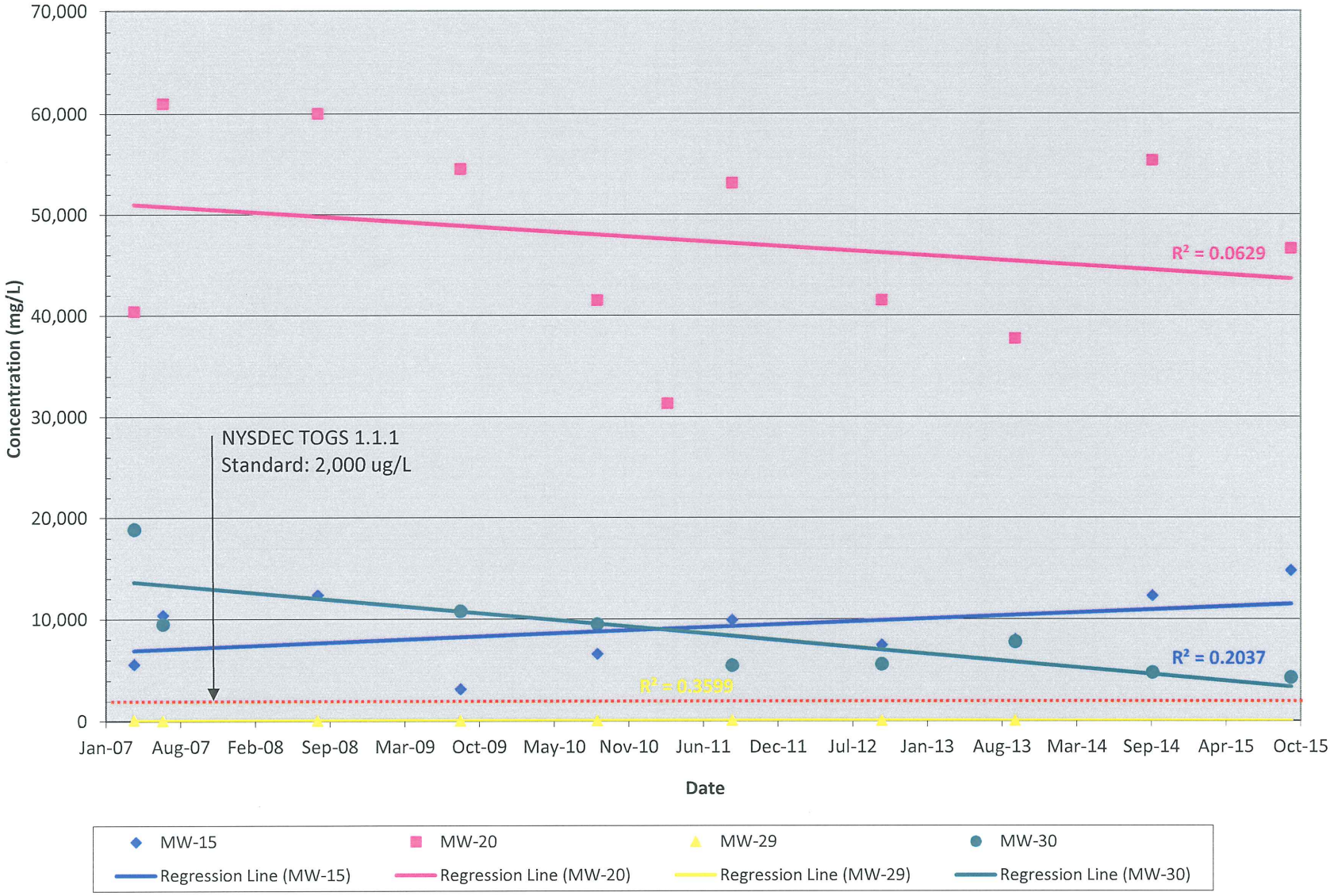
DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - AMMONIA, ug/L																							
Well ID	MW-4D		MW-6		MW-15		MW-20		MW-29		MW-30		Upstream		Mixing Point		Downstream	
Position	Upgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient		Upgradient		Mixing Point		Downgradient	
Formation	Overburden		Overburden		Overburden		Overburden		Overburden		Overburden		Surface water		Surface water		Surface water	
Nov-02													50.0	u	90		150	
Feb-03													100		120		160	
May-03													160		580		160	
Aug-03													50.0	u	930		50.0	u
Dec-03	50.0	u	340										50.0	u	50.0	u	50.0	u
Mar-04	240		1,200										50.0	u	150		50.0	u
Jun-04	60.0		640										50.0	u	60		50.0	u
Aug-04	60.0		240										560		140		550	
Nov-04	50.0	u	81.0										50.0	u	**5,520**		50.0	u
Feb-05	60.0		50.0	u									50.0	u	50.0	u	50.0	u
Jun-05	50.0	u	50.0	u									50.0	u	50.0	u	50.0	u
Sep-05	240		**2,360**										310		310		350	
Nov-05	590		**2,790**										50.0	u	240		100	
Mar-06	170		1,630										70		**2,240**		130	
Apr-07	50.0	u			**5,610**		**40,400**		680		**18,900**		50.0		100		80.0	
Jun-07	60.0		1,070		**10,400**		**61,000**		**3,250**		**9,510**		90.0		290		180	
Aug-08	110.0		1,340		**12,400**		**60,000**		**5,000**				260.0		DISCONTINUED		340	
Aug-09	110.0		1,230		**3,180**		**54,500**		330		**10,800**		70.0				50.0	u
Aug-10	50.0	u	1,060		**6,600**		**41,500**		**4,790**		**9,510**		70.0				140.0	
Mar-11	50.0	u					**31,300**											
Aug-11	50.0	u	458		**9,920**		**53,100**		1,900		**5,490**		50.0	u			50.0	u
Sep-12	100.0		1,000		**7,500**		**41,500**		800		**5,600**		200.0				100.0	
Sep-13	100.0		900		**8,000**		**37,700**		**4,500**		**7,800**		100.0				100.0	
Sep-14	100.0				**12,300**		**55,300**				**4,800**		100.0				100.0	
Sep-15	1500.0				**14,800**		**46,600**				**4,300**		100.0				100.0	
Summary Statistics																		
Count	21		17		10		11		8		9		24		16		24	
Minimum	50.0	u	50.0	u	3,180.0		31,300.0		330.0		4,300.0		50.0	u	50.0	u	50.0	u
Maximum	1,500		2,790		14,800		61,000		5,000		18,900		560		5,520		550	
Mean	183.33		967.00		9,071.00		47,536.36		2,656.25		8,523.33		114.17		682.50		132.92	
St. Dev.	325.77		780.43		3,546.84		9,805.03		1,968.78		4,538.38		118.02		1,403.80		121.24	
Median	60.0		1,000.0		8,960.0		46,600.0		2,575.0		7,800.0		70.0		145.0		100.0	
10-Prcntl	50.00		68.60		5367.00		37700.00		575.00		4700.00		50.00		50.00		50.00	
90-Prcntl	240.00		1922.00		12640.00		60000.00		4853.00		12420.00		242.00		1585.00		292.00	

Notes:

1. Values exceeding the applicable groundwater quality standard for ammonia (2,000 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

Graph 2B: Ammonia in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York



Morris Associates
December 2015

Table 2B: C.O.D. Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

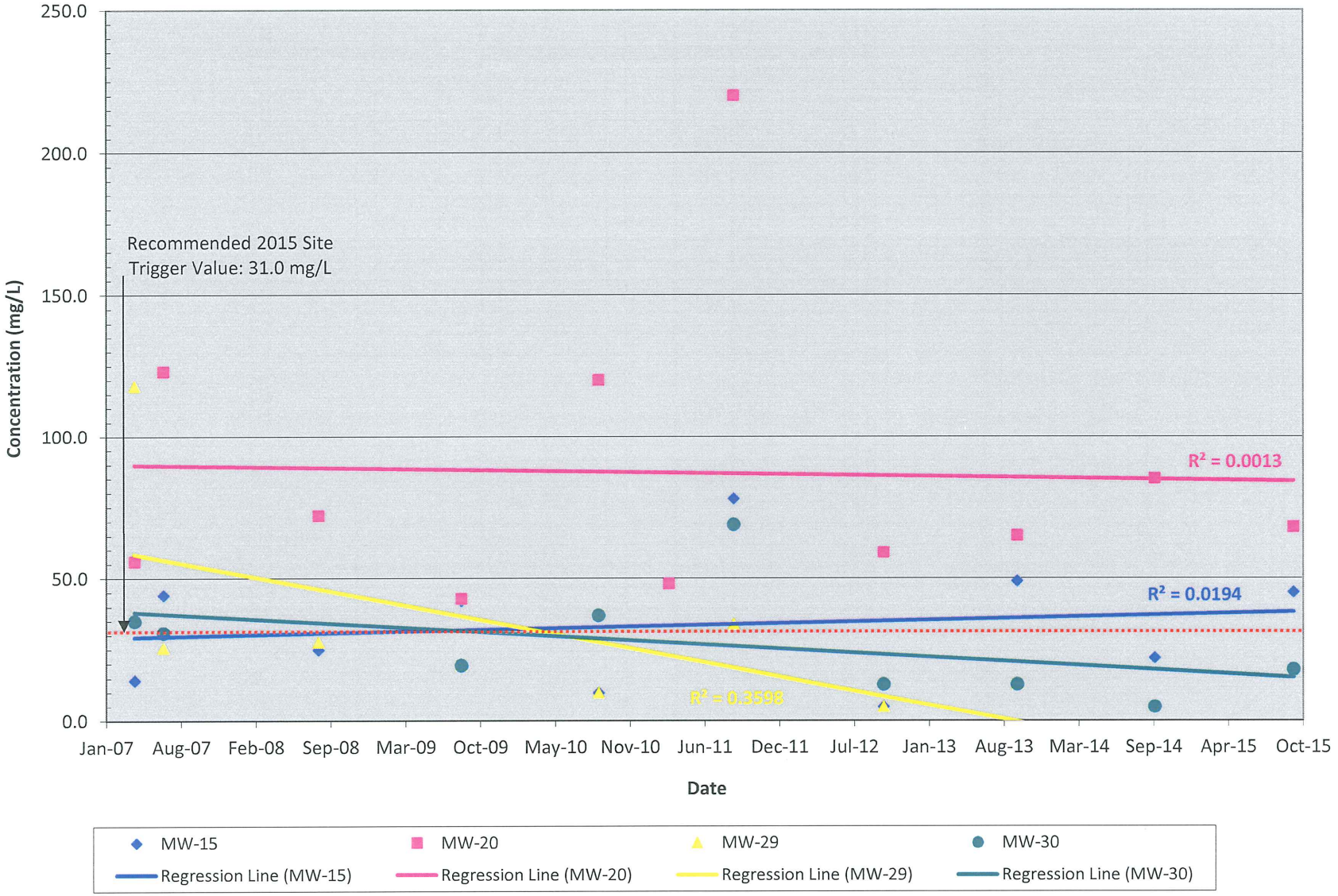
DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - Chemical Oxygen Demand (C.O.D.), mg/L																		
Well ID	MW-4D		MW-6		MW-15		MW-20		MW-29		MW-30		Upstream		Mixing Point		Downstream	
Position	Upgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient		Upgradient		Mixing Point		Downgradient	
Formation	Overburden		Overburden		Overburden		Overburden		Overburden		Overburden		Surface water		Surface water		Surface water	
Nov-02													**30.0**		**45.0**		**30.0**	
Feb-03													24.0		24.0		10.0	u
May-03													**101**		**84.0**		**84.0**	
Aug-03													10.0		14.0		14.0	
Dec-03	10.0	u	10.0	u									10.0	u	10.0	u	10.0	u
Mar-04	10.0	u	23.9										10.0	u	16.2		11.1	
Jun-04	10.0	u	13.6										10.0	u	10.0	u	10.0	u
Aug-04	10.0	u	**26.5**										13.6		11.1		16.0	
Nov-04	10.0	u	18.7										10.0	u	10.0	u	10.0	u
Feb-05	10.0	u	23.2										10.0	u	10.0	u	10.0	u
Jun-05	10.0	u	21.0										10.0	u	10.0	u	10.3	
Sep-05	10.0	u	15.4										13.0		10.0	u	10.0	
Nov-05	15.4		18.0										15.4		10.3		18.0	
Mar-06	10.0	u	24.8										11.9		24.8		10.0	u
Apr-07	**35.1**				14.4		**55.8**		**118.0**		**35.1**		14.4		14.4		11.9	
Jun-07	10.0	u	10.0	u	**44.1**		**123.0**		**25.6**		**30.9**		21.1		10.0	u	20.3	
Aug-08	10.0	u	**25.0**		**25.0**		**72.0**		**27.6**				22.0		DISCONTINUED		19.7	
Aug-09	10.0	u	14.5		**42.1**		**42.7**		**19.5**		**19.5**		10.0	u			11.9	
Aug-10	**44.0**		10.0	u	10.0	u	**120.0**		10.0	u	**37.0**		10.0	u			10.0	u
Mar-11	12.0						**48.0**											
Aug-11	**31.0**		**90.0**		**78.0**		**220.0**		**34.0**		**69.0**		**60.0**				**60.0**	
Sep-12	9.0		9.0		5.0		**59.0**		5.0		13.0		9.0				5.0	
Sep-13	5.0		**45.0**		**49.0**		**65.0**		13.0		13.0		9.0				9.0	
Sep-14	5.0				22.0		**85.0**				5.0		5.0				5.0	
Sep-15	5.0				**45.0**		**68.0**				18.0		5.0				5.0	
Summary Statistics																		
Count	21		17		10		11		8		9		24		16		24	
Minimum	5.0	u	9.0	u	5.0		42.7		5.0		5.0		5.0	u	10.0	u	5.0	u
Maximum	44.0		90.0		78.0		220.0		118.0		69.0		101.0		84.0		84.0	
Mean	13.4		23.4		33.5		87.1		31.6		26.7		18.5		19.6		17.1	
St. Dev.	10.23		19.30		22.29		51.37		36.23		19.23		20.88		19.52		18.12	
Median	10.0		18.7		33.6		68.0		22.6		19.5		10.0		10.7		10.2	
10-Prcntl	5.0		10.0		9.5		48.0		8.5		11.4		9.0		10.0		6.2	
90-Prcntl	31.0		33.9		51.9		123.0		59.2		43.4		28.2		34.9		27.1	

Notes:

1. Values exceeding a 2015 recommended site trigger value of 31.0 mg/L are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

Graph 2B: C.O.D. in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York



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December 2015

Table 2C: B.O.D. Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - Biochemical Oxygen Demand (B.O.D.), mg/L																							
Well ID	MW-4D		MW-6		MW-15		MW-20		MW-29		MW-30		Upstream		Mixing Point		Downstream	
Position	Upgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient		Upgradient		Mixing Point		Downgradient	
Formation	Overburden		Overburden		Overburden		Overburden		Overburden		Overburden		Surface water		Surface water		Surface water	
Nov-02													1.0	u	1.0		1.0	u
Feb-03													4.0		5.0		1.0	
Dec-03	5.0		**12**										**7.0**		**7.0**		**6.0**	
Mar-04	**9.0**		2.0										1.0		2.0		1.0	
Jun-04	1.0		**6.0**										1.0	u	1.0		3.0	
Aug-04	3.0		2.0										3.0		3.0		4.0	
Nov-04	2.0		5.0										2.0		**8.0**		3.0	
Feb-05	1.0		**14**										2.0		2.0		3.0	
Apr-07	1.0	u			1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u
Jun-07	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u
Aug-08	1.0	u	1.0	u	**7.0**		**11**		1.0	u			1.0	u	DISCONTINUED		1.0	u
Aug-09	1.0	u	1.0	u	1.0	u	**7.0**		1.0	u	1.0	u	1.0	u			1.0	u
Aug-10	1.0	u	**6.0**		**16.0**		**160**		**18.0**		**46.0**		4.0				1.0	u
Mar-11	**12.0**						4.0											
Aug-11	1.0	u	3.0		4.0		**9.0**		1.0	u	1.0	u	1.0	u			1.0	u
Sep-12	**22.0**		9.0		6.0		**15.0**		4.0		3.0	j	4.0				4.0	
Sep-13	4.0		**53.0**		6.0		7.0		4.0		3.0	j	4.0				4.0	
Sep-14	4.0				6.0		10.0	j			4.0		4.0				4.0	
Sep-15	4.0				3.6	j	**10.2**	j			4.0		4.0				4.0	
									4									
Count	17		13		10		11		8		9		18		10		18	
Minimum	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u
Maximum	22.0		53.0		16.0		160.0		18.0		46.0		7.0		8.0		6.0	
Mean	4.3		8.8		5.2		21.4		3.9		7.1		2.6		3.1		2.4	
St. Dev.	5.5		13.9		4.5		46.2		5.9		14.6		1.8		2.6		1.6	
Median	2.0		5.0		5.0		9.0		1.0		3.0		2.0		2.0		2.0	
10-Prcntl	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
90-Prcntl	10.2		13.6		7.9		15.0		8.2		12.4		4.0		7.1		4.0	

Notes:
1. Values exceeding a 2015 recommended site trigger value of 10.2 mg/L are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

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December 2015

Graph 2C: B.O.D. in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York

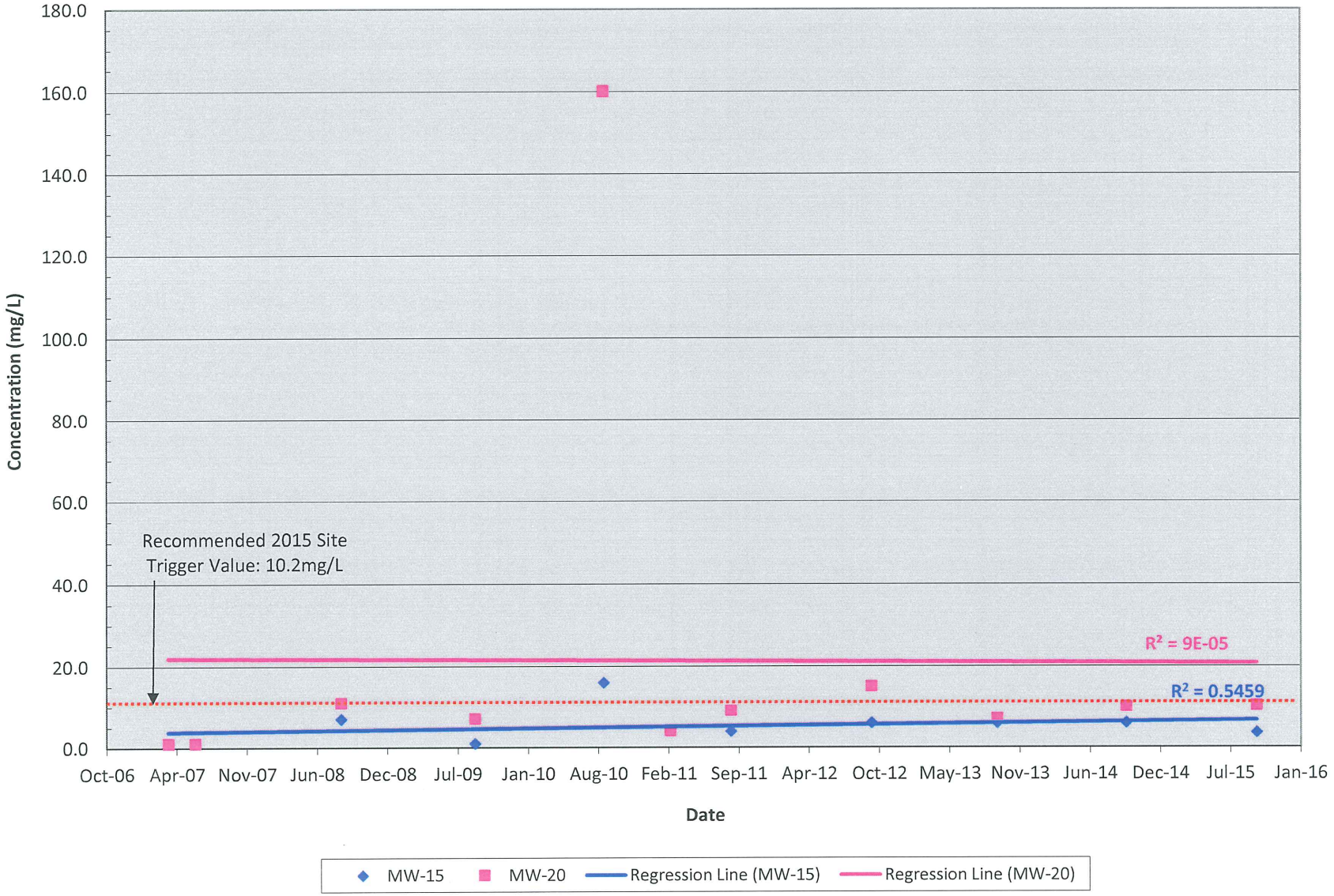

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Table 2D: Total Organic Carbon Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY -TOTAL ORGANIC CARBON, mg/L																				
Well ID	MW-4D		MW-6		MW-15		MW-20		MW-29		MW-30		Upstream		Mixing Point		Downstream	
Position	Upgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient		Upgradient		Mixing Point		Downgradient	
Formation	Overburden		Overburden		Overburden		Overburden		Overburden		Overburden		Surface water		Surface water		Surface water	
Nov-02													**5.0**		**3.8**		3.3	
Feb-03													2.6		3.4		3.3	
May-03													2.9		3.3		2.8	
Aug-03													3.2		2.8		2.7	
Dec-03	1.0	u	2.6										2.9		3.0		3.1	
Mar-04	1.0	u	**4.1**										2.2		2.3		2.1	
Jun-04	1.0	u	2.4										2.3		2.3		2.3	
Aug-04	1.0	u	2.8										**4.3**		**4.2**		**4.1**	
Nov-04	1.0	u	**4.5**										2.2		**3.9**		2.3	
Feb-05	1.0	u	3.2										1.6		1.6		1.4	
Jun-05	1.0	u	**6.1**										2.3		3.2		3.2	
Sep-05	1.0	u	**4.1**										2.2		2.2		2.3	
Nov-05	1.0	u	2.5										2.8		2.8		2.9	
Mar-06	1.1		2.9										1.8		2.3		2.1	
Apr-07	**3.8**				**5.1**		**24.0**		**5.4**		**10.0**		2.9		2.8		2.9	
Jun-07	3.5		**5.7**		**16.0**		**4.1**		**10.0**		**14.0**		**6.1**		**4.9**		**5.3**	
Aug-08	1.0	u	2.2		**8.0**		**17.0**		**8.4**				**5.2**		DISCONTINUED		**4.4**	
Aug-09	1.0	u	2.0		**5.1**		**12.0**		**5.3**		**6.0**		3.5				3.3	
Aug-10	**17.0**		2.5		**5.3**		**11.0**		**6.3**		**6.5**		2.8				2.9	
Mar-11	2.30						3.55											
Aug-11	**14.3**		**6.18**		**7.58**		**18.3**		4.03		**6.54**		3.83				3.55	
Sep-12	2.7		5.30		**7.40**		**13.1**		5.40		**7.50**		4.30				4.30	
Sep-13	1.0		**6.80**		**10.50**		**15.7**		**6.30**		**7.40**		3.10				3.50	
Sep-14	1.7				**9.30**		**14.7**				**5.70**		2.10				2.00	
Sep-15	1.9				**9.50**		**13.5**				**6.10**		2.50				2.30	
Summary Statistics																		
Count	21		17		10		11		8		9		24		16		24	
Minimum	1.0	u	2.0		5.1		3.6		4.0		5.7		1.6		1.6		1.4	
Maximum	17.0		6.8		16.0		24.0		10.0		14.0		6.1		4.9		5.3	
Mean	2.9		3.9		8.4		13.4		6.4		7.7		3.1		3.1		3.0	
St. Dev.	4.36		1.60		3.29		5.90		1.92		2.68		1.15		0.85		0.89	
Median	1.0		3.2		7.8		13.5		5.9		6.5		2.9		2.9		2.9	
10-Prcntl	1.0		2.3		5.1		4.1		4.9		5.9		2.1		2.3		2.1	
90-Prcntl	3.8		6.1		11.1		18.3		8.9		10.8		4.8		4.1		4.2	

Notes:
1. Values exceeding a 2015 recommended site trigger value of 3.8 mg/L are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Graph 2D: Total Organic Carbon in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York

Morris Associates
December 2015

Table 2E: Total Dissolved Solids Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - TOTAL DISSOLVED SOLIDS, mg/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							5.0	3.8	3.3
Feb-03							2.6	3.4	3.3
May-03							2.9	3.3	2.8
Aug-03							3.2	2.8	2.7
Dec-03	420	**955**					2.9	3.0	3.1
Mar-04	375	**590**					2.2	2.3	2.1
Jun-04	305	**913**					2.3	2.3	2.3
Aug-04	219	**838**					4.3	4.2	4.1
Nov-04	330	**614**					2.2	3.9	2.3
Feb-05	310	**910**					1.6	1.6	1.4
Jun-05	215	**746**					2.3	3.2	3.2
Sep-05	370	**980**					2.2	2.2	2.3
Nov-05	387	**1,120**					2.8	2.8	2.9
Mar-06	319	**896**					1.8	2.3	2.1
Apr-07	404		**1,560**	**863**	**634**	**878**	139	147	132
Jun-07	**470**	**750**	**1,570**	**890**	**1,030**	**865**	230	224	240
Aug-08	413	**740**	**1,631**	**782**	**1,566**		200	DISCONTINUED	208
Aug-09	371	**688**	**1,179**	**870**	**1,703**	**1,002**	180		226
Aug-10	**1,960**	**771**	**932**	**693**	**1,360**	**857**	262		263
Mar-11	**980**			**820**					
Aug-11	659	**835**	**853**	**791**	**1,080**	**879**	197		190
Sep-12	425	615	**1,110**	490	**1,180**	**940**	130		155
Sep-13	425	680	**735**	635	**770**	640	210		215
Sep-14	455		**760**	**695**		635	320		325
Sep-15	435		645	650		**700**	290		275
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	215	590	645	490	634	635	2	2	1
Maximum	1,960	1,120	1,631	890	1,703	1,002	320	224	325
Mean	488	802	1,098	744	1,165	822	92	26	94
St. Dev.	373.1	146.9	375.0	122.9	368.8	131.7	114.0	63.9	116.5
Median	404	771	1,021	782	1,130	865	4	3	3
10-Prcntl	305	615	726	635	729	639	2	2	2
90-Prcntl	659	965	1,576	870	1,607	952	252	76	256

Notes:
1. Values exceeding a 2015 recommended site trigger value of 659 mg/L are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

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December 2015

Graph 2E: Total Dissolved Solids in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York

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December 2015

Table 2F: Sulfate Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - SULFATE, ug/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							29,800	27,200	28,900
Feb-03							17,800	16,100	16,700
May-03							16,200	16,100	16,100
Aug-03							17,700	17,300	17,300
Dec-03	98,600	8,580					14,000	14,000	14,100
Mar-04	80,100	9,170					15,300	15.0	15,200
Jun-04	85,200	11,000					13,900	13,800	13,900
Aug-04	85,000	10,700					15,600	15,100	15,100
Nov-04	112,000	25,600					16,100	14,600	15,700
Feb-05	101,000	11,300					16,600	16,500	16,200
Jun-05	79,300	13,900					12,600	127,000	12,600
Sep-05	95,200	11,900					25,600	26,000	25,600
Nov-05	98,600	98,600					21,400	21,500	29,300
Mar-06	78,800	10,400					18,800	16,800	17,000
Apr-07	141,000		**1,030,000**	1,390	**292,000**	**282,000**	152,000	15,300	13,900
Jun-07	123,000	9,020	**1,079,000**	20,600	**523,000**	184,000	17,400	17,900	17,500
Aug-08	106,000	6,500	**820,000**	110	**538,000**		12,100	DISCONTINUED	12,900
Aug-09	97,700	8,860	**640,000**	139,000	**769,000**	**339,000**	12,300		12,000
Aug-10	**1,140,000**	4,560	**468,000**	166,000	**625,000**	113,000	40,600		31,700
Mar-11	**299,000**			**376,000**					
Aug-11	**279,000**	7,140	**401,000**	10,600	**501,000**	185,000	12,500		12,600
Sep-12	97,200	6,430	**736,000**	67,100	**569,000**	**295,000**	17,400		16,800
Sep-13	89,800	4,280	125,000	2,000	213,000	77,800	12,100		12,200
Sep-14	94,800		66,000	2,000		67,400	18,400		18,500
Sep-15	105,000		41,200	4,000		107,000	17,600		16,500
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	78,800	4,280	41,200	110	213,000	67,400	12,100	15	12,000
Maximum	**1,140,000**	98,600	1,079,000	376,000	769,000	339,000	152,000	127,000	31,700
Mean	166,014	15,173	540,620	71,709	503,750	183,356	23,492	23,451	17,429
St. Dev.	230,871	22,024	384,078	116,942	177,378	101,113	28,107	28,240	5,605
Median	98,600	9,170	554,000	10,600	530,500	184,000	17,000	16,300	16,150
10-Prcntl	80,100	5,682	63,520	1,390	268,300	75,720	12,360	13,900	12,600
90-Prcntl	279,000	18,580	1,034,900	166,000	668,200	303,800	28,540	26,600	27,910

Notes:
1. Values exceeding the applicable water quality standard for sulfate (250,000 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

Graph 2F: Sulfate in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York

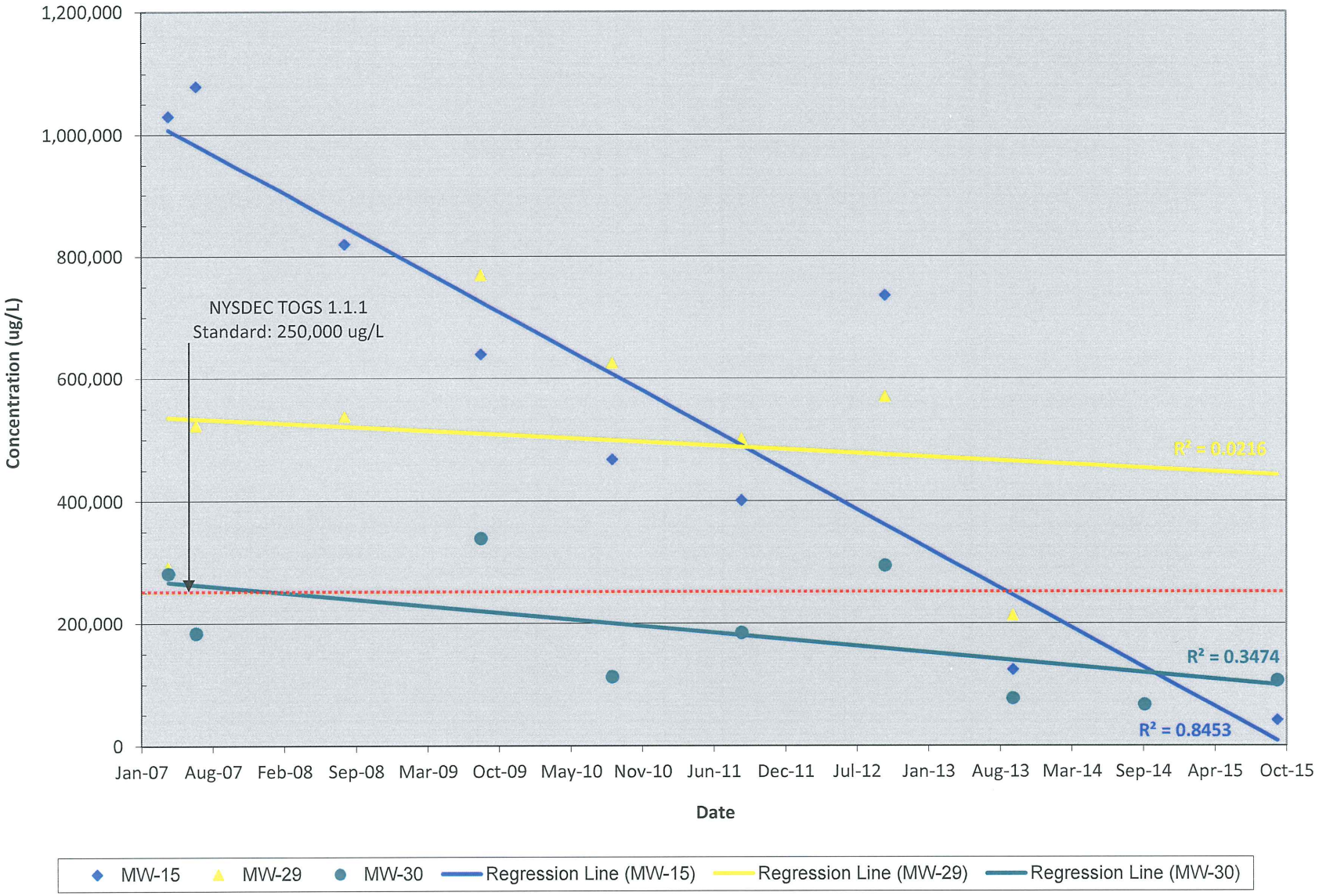

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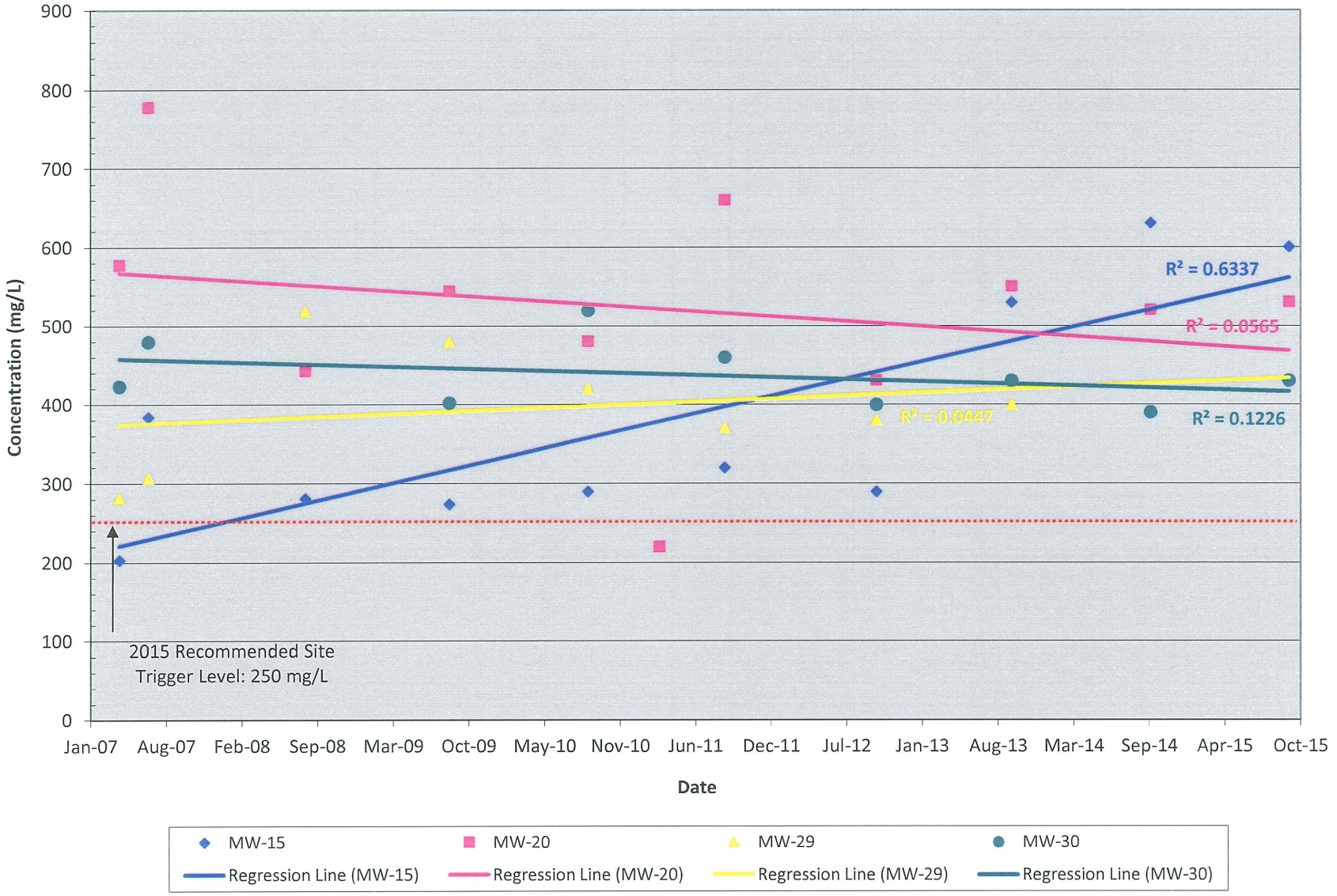
Table 2G: Alkalinity Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - ALKALINITY, mg/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							120	116	116
Feb-03							80.0	84.0	80.0
May-03							112	120	116
Aug-03							116	130	120
Dec-03	160	216					80.0	92.0	80.0
Mar-04	200	**440**					60.0	90.0	80.0
Jun-04	88.0	204					130	134	130
Aug-04	62.0	**280**					116	118	116
Nov-04	138	126					130	190	128
Feb-05	104	240					110	106	100
Jun-05	58.0	**278**					138	134	140
Sep-05	235	**282**					216	188	235
Nov-05	237	237					142	152	127
Mar-06	133	**367**					70.2	**250**	144
Apr-07	216		203	**577**	**282**	**423**	2.0 u	86.5	82.7
Jun-07	**461**	**250**	**384**	**778**	**307**	**480**	144	144	154
Aug-08	204	194	**281**	**442**	**519**		111	DISCONTINUED	102
Aug-09	211	157	**274**	**544**	**480**	**402**	98.0		108
Aug-10	250	220	**290**	**480**	**420**	**520**	110		120
Mar-11	**370**			220					
Aug-11	210	230	**320**	**660**	**370**	**460**	92		110
Sep-12	210	210	**290**	**430**	**380**	**400**	85		110
Sep-13	230	230	**530**	**550**	**400**	**430**	100		150
Sep-14	230		**630**	**520**		**390**	140		145
Sep-15	244		**600**	**530**		**430**	148		150
Count	21	17	10	11	8	9	24	16	24
Minimum	58.0	126	203	220	282	390	2.0	84.0	80.0
Maximum	461	440	630	778	519	520	216	250	235
Mean	202	245	380	521	395	437	110	133	123
St. Dev.	94.1	73.3	151	140	80	42	39.7	44.7	33.1
Median	210	230	305	530	390	430	112	125	118
10-Prcntl	88.0	179	267	430	300	398	73.1	88.3	80.8
90-Prcntl	250	316	603	660	492	488	143	189	150

Notes:
1. Values exceeding a 2015 recommended site trigger value of 250.0 mg/L are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Graph 2G: Alkalinity in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York



Morris Associates
December 2015

Table 2H: Chloride Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - CHLORIDE, ug/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							46,600	83,000	51,600
Feb-03							63,400	67,900	68,500
May-03							51,600	52,700	51,700
Aug-03							50,600	53,900	50,800
Dec-03	23,700	**418,000**					27,700	27,800	27,600
Mar-04	24,600	133,000					46,700	47,500	47,500
Jun-04	27,300	222,000					43,000	43,400	43,200
Aug-04	30,600	222,000					40,200	40,600	40,100
Nov-04	29,200	**272,000**					46,900	56,300	44,900
Feb-05	31,200	32,200					40,000	39,800	39,700
Jun-05	38,100	**315,000**					43,700	44,200	44,000
Sep-05	26,400	**387,000**					63,500	63,200	63,000
Nov-05	40,300	**426,000**					41,000	40,900	41,000
Mar-06	69,800	**849,000**					43,900	44,800	41,200
Apr-07	29,300		16,700	130,000	22,600	73,700	31,600	31,800	31,600
Jun-07	31,100	**352,000**	43,700	193,000	30,400	160,000	55,600	55,600	55,000
Aug-08	31,800	**312,000**	19,800	154,000	67,700		35,100	DISCONTINUED	34,800
Aug-09	28,500	**301,000**	5,900	105,000	31,200	76,800	37,400		38,000
Aug-10	2,100	219,000	14,200	90,700	34,900	99,200	53,500		53,400
Mar-11	690 u			12,700					
Aug-11	17,400	213,000	13,200	124,000	11,000	63,600	37,300		37,500
Sep-12	29,400	**287,000**	5,340	89,200	4,490	36,300	35,900		36,300
Sep-13	27,000	**264,000**	20,500	104,000	31,000	82,400	38,600		39,300
Sep-14	26,100		22,700	121,000		39,700	57,600		58,300
Sep-15	24,600		32,800	122,000		86,800	82,700		77,500
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	690 u	32,200	5,340	12,700	4,490	36,300	27,700	27,800	27,600
Maximum	69,800	849,000	43,700	193,000	67,700	160,000	82,700	83,000	77,500
Mean	28,342	307,306	17,418	111,400	29,161	84,571	44,264	49,588	44,577
St. Dev.	13,463	171,225	11,714	44,614	18,931	36,526	12,104	13,867	11,868
Median	28,500	287,000	18,250	121,000	30,700	76,800	43,800	46,150	43,600
10-Prcntl	17,400	181,000	5,844	89,200	9,047	39,020	35,340	35,800	35,250
90-Prcntl	38,100	421,200	33,890	154,000	44,740	111,360	61,660	65,550	61,590

Notes:
1. Values exceeding the applicable groundwater quality standard for chloride (250,000 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Table 2I: Total Hardness Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - TOTAL HARDNESS, mg/L CaCO3									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							143	139	140
Feb-03							103	101	102
May-03							141	142	142
Aug-03							145	147	146
Dec-03	308	100					96.1	96.8	97.3
Mar-04	271	**391**					126	127	127
Jun-04	264	**381**					142	142	144
Aug-04	252	**458**					129	129	129
Nov-04	234	252					137	188	136
Feb-05	278	**359**					120	120	121
Jun-05	263	**359**					139	138	139
Sep-05	305	**377**					166	167	166
Nov-05	289	**333**					120	122	122
Mar-06	186	**358**					122	128	120
Apr-07	**350**		**1,150**	**539**	**551**	**569**	95	94	94
Jun-07	336	294	**1,150**	**405**	**862**	**613**	145	145	144
Aug-08	299	289	**1,050**	**372**	**1,010**		105	DISCONTINUED	103
Aug-09	299	264	**891**	**472**	**1,240**	**658**	121		123
Aug-10	**1,380**	296	**713**	**360**	**984**	**601**	155		157
Mar-11	**778**			**466**					
Aug-11	**460**	353	**696**	**415**	**867**	**586**	116		115
Sep-12	334	315	**1,078**	366	**1,073**	**683**	138		136
Sep-13	327	266	**621**	377	**590**	**455**	149		59
Sep-14	339		**658**	**400**		**429**	176		179
Sep-15	365		367	368		**547**	190		189
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	186	100	367	360	551	429	95	94	59
Maximum	1,380	458	1,150	539	1,240	683	190	188	189
Mean	377	320	837	413	897	571	134	133	130
St. Dev.	258.0	78.3	266.1	56.9	234.5	84.6	23.7	24.4	28.3
Median	305	333	802	400	926	586	138	134	133
10-Prcntl	252	259	596	366	578	450	104	99	99
90-Prcntl	460	385	1,150	472	1,123	663	163	157	163

Notes:
1. Values exceeding a 2015 recommended site trigger value of 460.0 mg/L are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Graph 2I: Total Hardness in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York

Morris Associates
December 2015

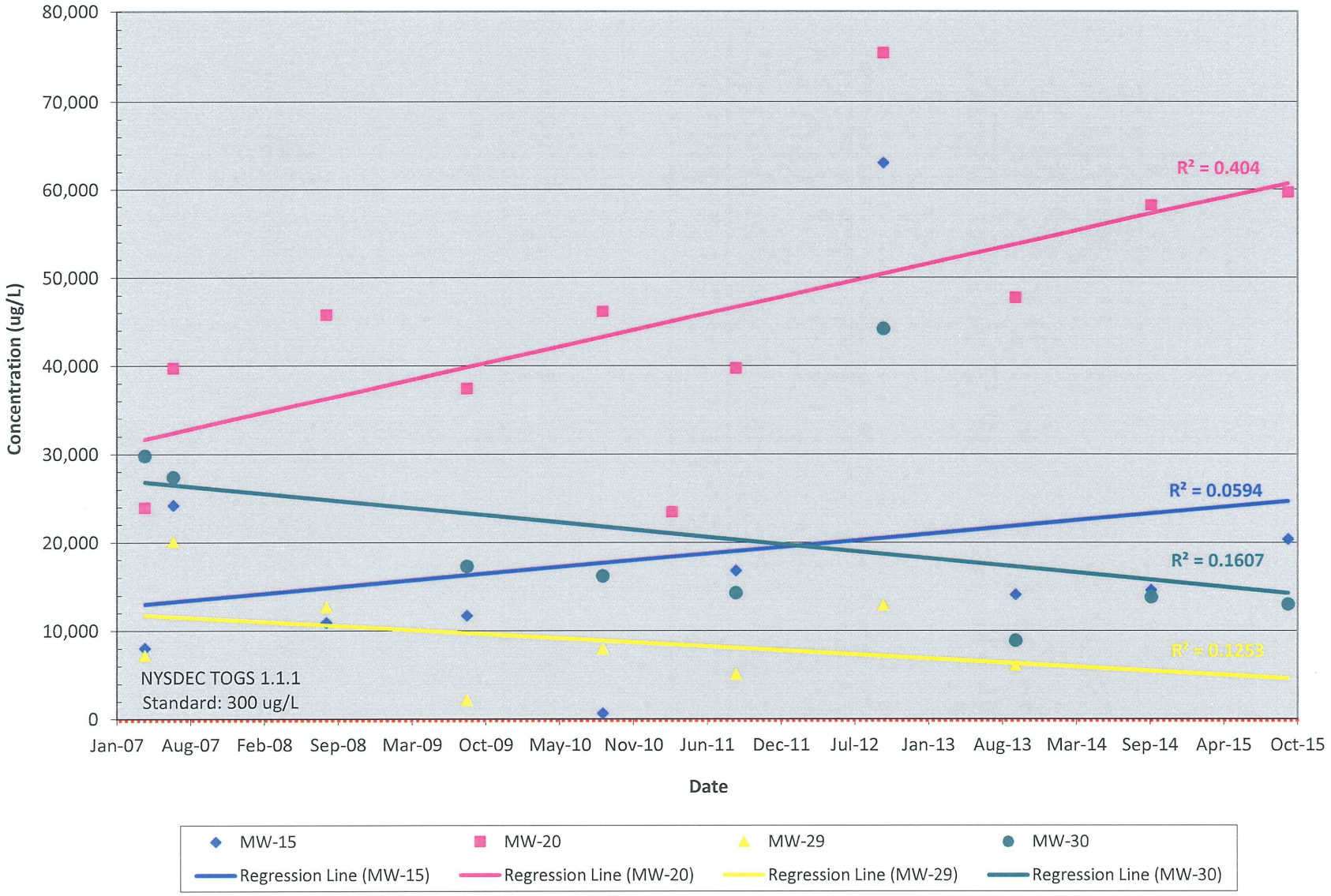
Table 2J: Iron Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - IRON, ug/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							**449**	74.0	134
Feb-03							177	286	299
May-03							87.0	228	124
Aug-03							238	168	64.0
Dec-03	277	**551**					138	205	145
Mar-04	130	**6,620**					133	**318**	148
Jun-04	211	**7,750**					93.0	272	**354**
Aug-04	276	**3,900**					120	235	136
Nov-04	121	**27,100**					62.0	**6,700**	100
Feb-05	100	**8,630**					90.0	145	160
Jun-05	101	**6,730**					108	194	135
Sep-05	165	**6,640**					**1,830**	99.0	106
Nov-05	**726**	**9,680**					71.0	112	111
Mar-06	23	**7,810**					103	**1,250**	105
Apr-07	**1,140**		**8,040**	**23,900**	**7,230**	**29,800**	156	109	157
Jun-07	**445**	**6,840**	**24,200**	**39,700**	**20,100**	**27,400**	156	156	122
Aug-08	**1,450**	**6,660**	**10,900**	**45,700**	**12,700**		157	DISCONTINUED	144
Aug-09	165	**5,940**	**11,700**	**37,400**	**2,200**	**17,300**	103		91
Aug-10	**345**	**6,250**	**636**	**46,100**	**7,940**	**16,200**	63.0		173
Mar-11	**3,270**			**23,400**					
Aug-11	**1,050**	**4,270**	**16,800**	**39,700**	**5,090**	**14,300**	108		116
Sep-12	**10,300**	**18,800**	**63,000**	**75,400**	**12,900**	**44,200**	64		76
Sep-13	128	**2,740**	**14,100**	**47,700**	**6,120**	**8,890**	50		63
Sep-14	**1,020**		**14,600**	**58,100**		**13,800**	50		74
Sep-15	**1,470**		**20,400**	**59,600**		**13,000**	71		76
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	23	551	636	23,400	2,200	8,890	50	74	63
Maximum	10,300	27,100	63,000	75,400	20,100	44,200	1,830	6,700	354
Mean	1,091	8,054	18,438	45,155	9,285	20,543	195	659	134
St. Dev.	2,243	6,197	16,952	15,308	5,676	11,174	358	1,634	67
Median	277	6,660	14,350	45,700	7,585	16,200	106	200	123
10-Prcntl	101	3,436	7,300	23,900	4,223	12,178	62	104	75
90-Prcntl	1,470	13,328	28,080	59,600	15,060	32,680	220	784	169

Notes:
1. Values exceeding the applicable water quality standard for iron (300 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

Graph 2J: Iron in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York



Morris Associates
December 2015

Table 2K: Lead Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - LEAD, ug/L																								
Well ID	MW-4D		MW-6		MW-15		MW-20		MW-29		MW-30		Upstream		Mixing Point		Downstream	
Position	Upgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient		Upgradient		Mixing Point		Downgradient	
Formation	Overburden		Overburden		Overburden		Overburden		Overburden		Overburden		Surface water		Surface water		Surface water	
Nov-02													4.0		3.0	u	3.0	u
Feb-03													3.9	u	5.0	u	5.0	u
May-03													3.9	u	5.0	u	5.0	u
Aug-03													3.9	u	5.0	u	5.0	u
Dec-03	6.0		4.0										3.0	u	3.0	u	3.0	u
Mar-04	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Jun-04	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Aug-04	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Nov-04	3.0	u	3.0	u									3.9	u	3.0	u	3.0	u
Feb-05	3.0	u	3.0										3.9	u	3.0	u	3.0	u
Jun-05	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Sep-05	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Nov-05	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Mar-06	5.0	u	2.9	u									3.9	u	5.0	u	5.0	u
Apr-07	5.0	u			5.0	u	5.0	u	**27.0**		5.0	u	5.0	u	5.0	u	5.0	u
Jun-07	3.0	u	3.0	u	5.0		4.0		10.0		3.0	u	3.0	u	3.0	u	3.0	u
Aug-08	3.0	u	3.0	u	3.0	u	4.0		3.0	u			3.0	u	DISCONTINUED		3.0	u
Aug-09	3.0	u	3.0	u	3.0	u	3.0	u	3.0	u	3.0	u	3.0	u			3.0	u
Aug-10	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	3.0		1.0	u			1.0	u
Mar-11	1.2	u					1.2	u										
Aug-11	3.0	u	3.0	u	3.0	u	3.0	u	3.0	u	3.0	u	3.0	u			3.0	u
Sep-12	5.0		5.0		**30.0**		12.0		5.0		17.0		5.0				5.0	
Sep-13	5.0	u	5.0	u	5.0	u	5.0	u	5.0	u	5.0	u	5.0	u			5.0	u
Sep-14	5.0				5.0		5.0				9.0		5.0				5.0	
Sep-15	5.0				6.0		5.0				12.0		5.0				5.0	
Summary Statistics																		
Count	21		17		10		11		8		9		24		16		24	
Minimum	1.0	u	1.0	u	1.0	u	1.0	u	1.0	u	3.0	u	1.0	u	3.0	u	1.0	u
Maximum	6.0		5.0		30.0		12.0		27.0		17.0		5.0		5.0	u	5.0	u
Mean	4.1		3.1		6.6		4.4		7.1		6.7		3.8		4.4		4.2	
St. Dev.	1.4		0.9		8.4		2.9		8.5		5.0		0.9		1.0		1.2	
Median	5.0		3.0		5.0		4.0		4.0		5.0		3.9		5.0		5.0	
10-Prcntl	3.0		2.9		2.8		1.2		2.4		3.0		3.0		3.0		3.0	
90-Prcntl	5.0		4.4		8.4		5.0		15.1		13.0		5.0		5.0		5.0	

Notes:
1. Values exceeding the applicable groundwater quality standard for lead (25 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

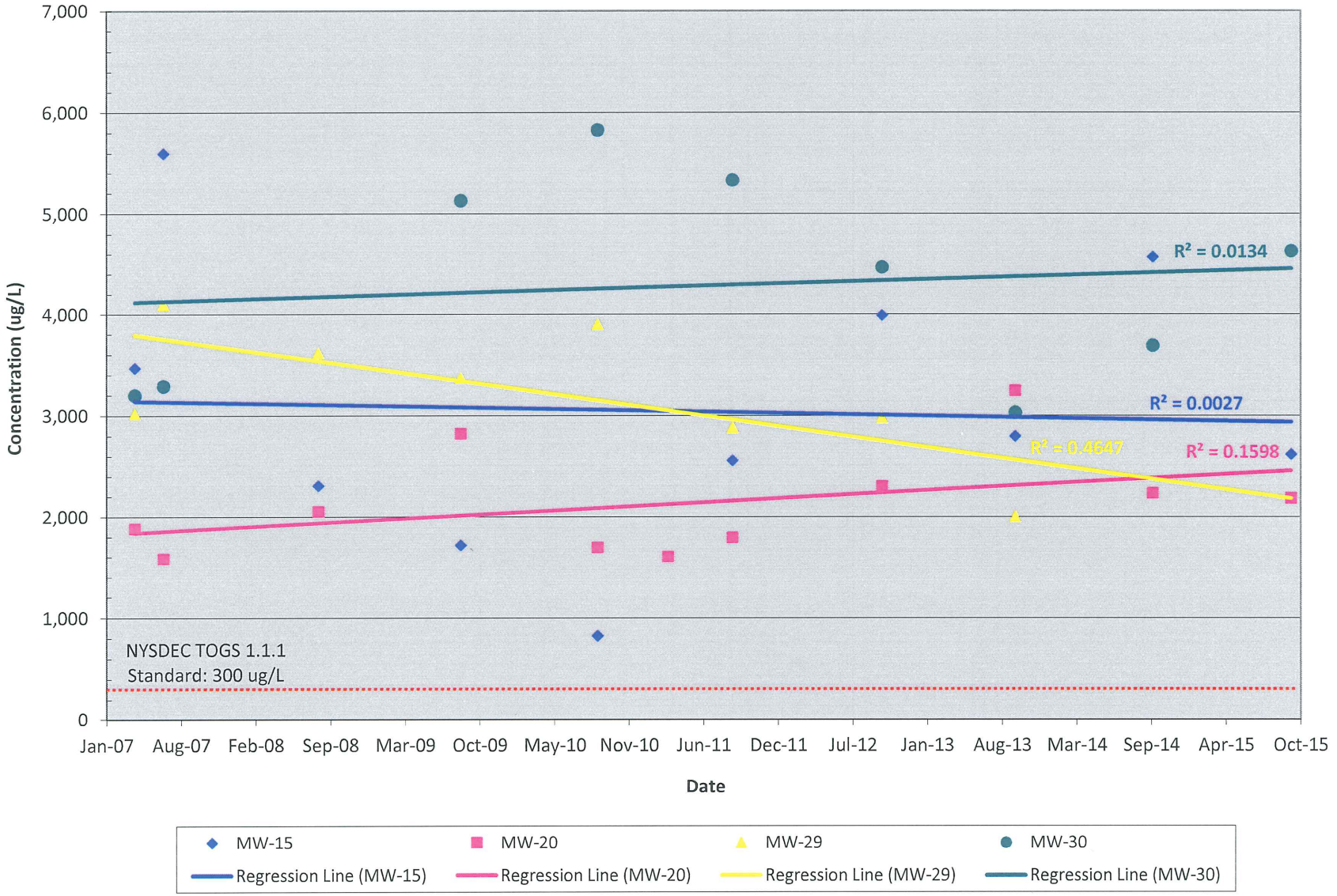
Table 2L: Manganese Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - MANGANESE, ug/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							283	29.0	28.0
Feb-03							72.0	117	112
May-03							44.0	60.0	47.0
Aug-03							147	29.0	22.0
Dec-03	**353**	**2,740**					34.0	51.0	35.0
Mar-04	234	**3,810**					37.0	58.0	41.0
Jun-04	221	**4,590**					46.0	69.0	99.0
Aug-04	230	**2,290**					54.0	69.0	56.0
Nov-04	203	**2,060**					14.0	**750**	17.0
Feb-05	215	**5,350**					32.0	38.0	51.0
Jun-05	201	**4,260**					38.0	45.0	39.0
Sep-05	**328**	**4,190**					47.0	52.0	53.0
Nov-05	298	**5,010**					35.0	25.0	34.0
Mar-06	5.0 u	**4,700**					24.0	84.0	**3,210**
Apr-07	183		**3,470**	**1,880**	**3,020**	**3,200**	65.0	34.0	48.0
Jun-07	**562**	**3,790**	**5,600**	**1,580**	**4,100**	**3,290**	94.0	67.0	60.0
Aug-08	**544**	**3,680**	**2,310**	**2,050**	**3,620**		30.0	DISCONTINUED	28.0
Aug-09	**342**	**3,250**	**1,720**	**2,820**	**3,370**	**5,130**	34.0		32.0
Aug-10	126	**3,470**	**825**	**1,690**	**3,900**	**5,830**	39.0		49.0
Mar-11	**610**			**1,600**					
Aug-11	180	**3,290**	**2,560**	**1,790**	**2,880**	**5,330**	34.0		34.0
Sep-12	**2,040**	**10,200**	**3,990**	**2,300**	**2,980**	**4,470**	22.0		25.0
Sep-13	**345**	**4,620**	**2,800**	**3,240**	**2,000**	**3,030**	20.0		20.0
Sep-14	**464**		**4,570**	**2,230**		**3,690**	20.0		20.0
Sep-15	**744**		**2,620**	**2,180**		**4,630**	35.0		33.0
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	5.0	2,060.0	825.0	1,580.0	2,000.0	3,030.0	14.0	25.0	17.0
Maximum	2,040	10,200	5,600	3,240	4,100	5,830	283	750	3,210
Mean	401	4,194	3,047	2,124	3,234	4,289	54	99	175
St. Dev.	415.6	1,798.8	1,399.5	520.6	667.6	1,027.3	56.3	175.3	646.9
Median	298	3,810	2,710	2,050	3,195	4,470	36	55	37
10-Prcntl	180	2,560	1,631	1,600	2,616	3,166	21	29	21
90-Prcntl	610	5,146	4,673	2,820	3,960	5,430	87	101	87

Notes:
1. Values exceeding the applicable water quality standard for manganese (300 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

Graph 2L: Manganese in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York



Morris Associates
December 2015

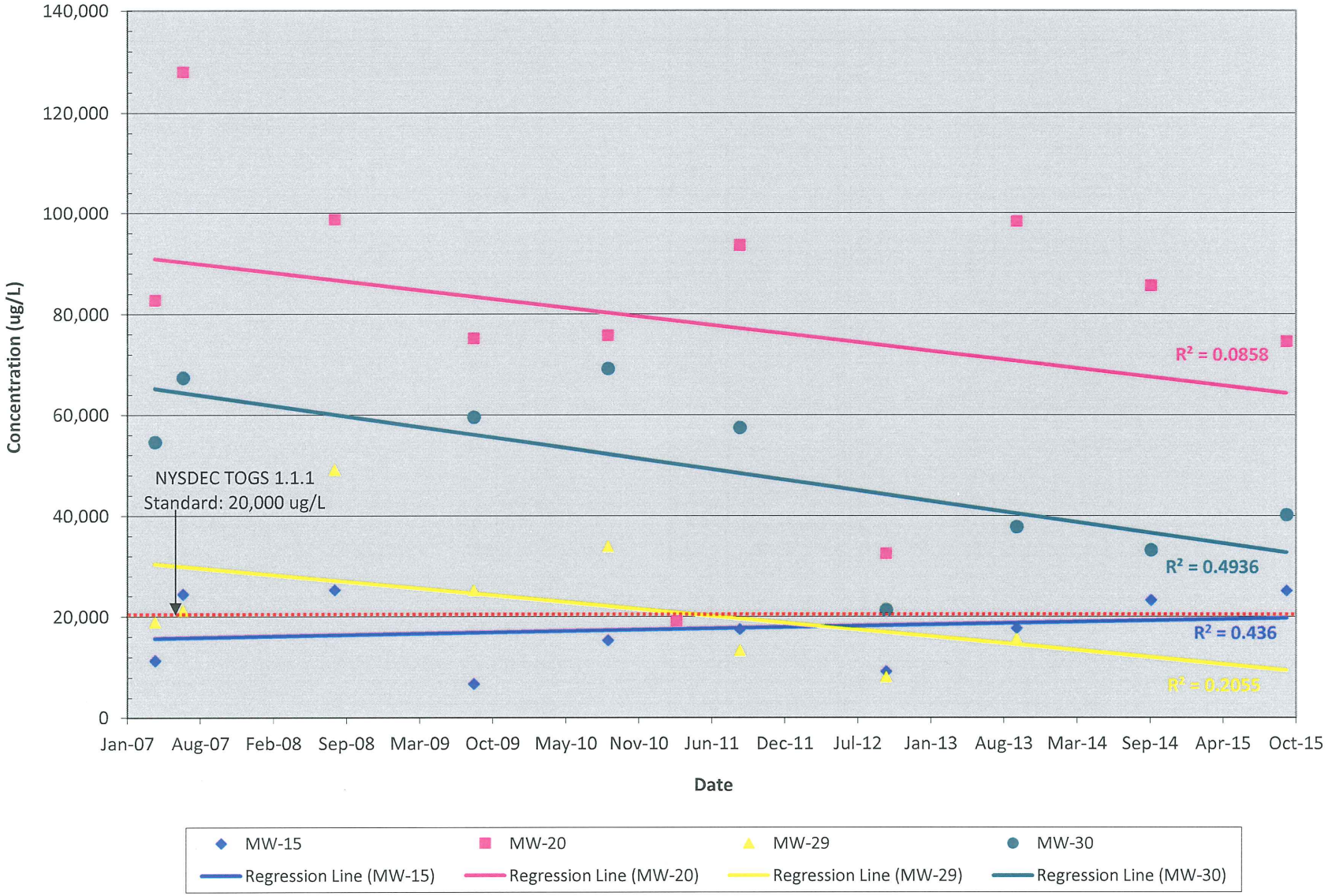
Table 2M: Sodium Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - SODIUM, ug/L									
Well ID	MW-4D	MW-6	MW-15	MW-20	MW-29	MW-30	Upstream	Mixing Point	Downstream
Position	Upgradient	Upgradient	Downgradient	Downgradient	Downgradient	Downgradient	Upgradient	Mixing Point	Downgradient
Formation	Overburden	Overburden	Overburden	Overburden	Overburden	Overburden	Surface water	Surface water	Surface water
Nov-02							**21,500**	**21,600**	**21,500**
Feb-03							**23,200**	**24,200**	**25,000**
May-03							19,400	19,800	19,900
Aug-03							**22,300**	**22,800**	**22,500**
Dec-03	9,870	**225,000**					12,900	13,000	13,200
Mar-04	14,600	**146,000**					19,500	19,700	19,700
Jun-04	12,700	**173,000**					**20,100**	19,900	**20,300**
Aug-04	11,800	**137,000**					19,400	19,600	19,400
Nov-04	10,800	**124,000**					1,830	**32,900**	18,200
Feb-05	11,900	**179,000**					18,200	18,400	18,400
Jun-05	11,100	**173,000**					**20,800**	**20,700**	**20,800**
Sep-05	8,670	**164,000**					**30,100**	**30,300**	**30,200**
Nov-05	10,800	**192,000**					17,900	18,200	18,100
Mar-06	16,900	**172,000**					19,600	**21,700**	19,000
Apr-07	12,700		11,400	**82,700**	18,900	**54,600**	13,900	13,900	14,100
Jun-07	11,300	**169,000**	**24,400**	**128,000**	**21,200**	**67,400**	**23,600**	**23,700**	**23,400**
Aug-08	13,400	**167,000**	**25,200**	**98,600**	**49,100**		16,900	DISCONTINUED	16,900
Aug-09	15,300	**156,000**	6,770	**75,100**	**25,100**	**59,600**	**20,900**		**21,500**
Aug-10	4,020	**157,000**	15,300	**75,700**	**33,800**	**69,200**	**31,200**		**30,900**
Mar-11	2,220			19,000					
Aug-11	9,060	**138,000**	17,500	**93,500**	13,200	**57,500**	**22,200**		**22,300**
Sep-12	10,100	**125,000**	9,250	**32,400**	8,120	**21,300**	15,300		15,100
Sep-13	13,400	**217,000**	17,700	**98,200**	15,500	**37,800**	**21,800**		**22,400**
Sep-14	14,800		**23,200**	**85,500**		**33,200**	**31,800**		**32,600**
Sep-15	14,400		**25,100**	**74,500**		**40,200**	**36,500**		**35,900**
Summary Statistics									
Count	21	17	10	11	8	9	24	16	24
Minimum	2,220	124,000	6,770	19,000	8,120	21,300	1,830	13,000	13,200
Maximum	16,900	225,000	25,200	128,000	49,100	69,200	36,500	32,900	35,900
Mean	11,421	165,529	17,582	78,473	23,115	48,978	20,868	21,275	21,721
St. Dev.	3,497	28,198	6,851	30,389	13,071	16,517	6,976	5,059	5,703
Median	11,800	167,000	17,600	82,700	20,050	54,600	20,450	20,300	20,550
10-Prcntl	8,670	132,200	9,002	32,400	11,676	30,820	14,320	16,050	15,640
90-Prcntl	14,800	202,000	25,110	98,600	38,390	67,760	30,870	27,250	30,690

Notes:
1. Values exceeding the applicable Class B surface water quality for sodium (20,000 ug/L) from TOGS 1.1.1 are shown in bold.
2. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
3. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
4. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
5. MW-30 was dry during the August 2008 sampling event, so no sample was collected.

Morris Associates
December 2015

Graph 2M: Sodium in down-gradient groundwater
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, New York



Morris Associates
December 2015

Table 2N: Total VOCs Record, 2002-2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

DUTCHESS COUNTY AIRPORT LANDFILL, DUTCHESS COUNTY - TOTAL VOCs, ug/L																		
Well ID	MW-4D		MW-6		MW-15		MW-20		MW-29		MW-30		Upstream		Mixing Point		Downstream	
Position	Upgradient		Upgradient		Downgradient		Downgradient		Downgradient		Downgradient		Upgradient		Mixing Point		Downgradient	
Formation	Overburden		Overburden		Overburden		Overburden		Overburden		Overburden		Surface water		Surface water		Surface water	
Nov-02													1	u	1	u	1	u
Jan-03																		
Dec-03	1	u	1	u									1	u	1	u	1	u
Nov-04	1	u	1	u									1	u	1	u	1	u
Feb-05	1	u	1	u									1	u	1	u	1	u
Jun-07	8		10		1	u	29		1	u	1	u	1	u	1	u	1	u
Aug-08	5	u	5	u	7		48		5	u			5	u	DISCONTINUED		5	u
Aug-09	5	u	5	u	5	u	37		5	u	6		5	u			5	u
Aug-10	7.6	JB	4.5	JB	7.2	JB	36.1	JB	4.1	JB	9.6	JB	4.2	JB			4.2	JB
Aug-11	5.0	u	5.0	u	5.8	J	40.1	J	5.0	u	4.73	J	5.0	u			5.0	u
Sep-12																		
Sep-13																		
Sep-14																		
Sep-15																		
Summary Statistics																		
Count	8		8		5		5		5		4		9		5		9	
Minimum	1		1		1		29		1		1		1		1		1	
Maximum	8		10		7	JB	48		5		10	JB	5		1		5	
Mean	4		4		5		38		4		5		3		1		3	
St. Dev.	3		3		3		7		2		4		2		0		2	
Median	5		5		6		37		5		5		1		1		1	
10-Prcntl	1		1		3		32		2		2		1		1		1	
90-Prcntl	8		7		7		45		5		9		5		1		5	

Notes:
1. Laboratory non-detects display lab reporting limit followed by the "u" data qualifier. Summary statistics were calculated using detection limit values.
2. MW-6 was not sampled in April 2007 due to snow obscuring well cover location.
3. Wells MW-15, MW-20, MW-29 and MW-30 were installed during 2006 landfill closure. Wells MW-4D and MW-6 were installed during the Closure Investigation.
4. MW-30 was dry during the August 2008 sampling event, so no sample was collected.
5. The flag 'J' denotes a compound that was detected above the method detection limit but below the laboratory reporting limit, therefore the posted value is an estimate.
6. The flag 'B' denotes a compound that was also detected in the method blank, therefore this detection may represent a laboratory artifact.

Table 3: Explosive Gas Data - 2015
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

Location	12/22/2014		5/7/2015		6/9/2015		8/26/2015	
	Hydrogen Sulfide	% LEL	Hydrogen Sulfide	% LEL	Hydrogen Sulfide	% LEL	Hydrogen Sulfide	% LEL
GV-1	6	>100	3	100	34	100	1	>100
GV-2	<1	>100	<1	100	<1	100	7	>100
GV-3	<1	>100	<1	100	<1	100	13	>100
GV-4	<1	>100	<1	100	<1	100	7	>100
GV-5	1	>100	<1	<1	2	100	30	>100
GV-6	<1	<1	<1	<1	<1	8	25	>100
GV-7	<1	>100	<1	100	1	100	22	>100
GV-8	<1	>100	<1	100	<1	71	18	>100
GV-9	<1	<1	<1	<1	32	100	0	>100
GV-10	7	>100	<1	100	46	100	27	>100
GV-11	<1	>100	<1	100	35	100	21	>100
GV-12	<1	<1	<1	5	<1	100	19	>100
GV-13	1	>100	<1	100	7	100	22	>100
GV-14	<1	>100	<1	100	22	100	39	>100
GV-15	<1	>100	<1	100	2	100	1	>100
GV-16	<1	>100	<1	100	8	100	32	>100
GV-17	<1	>100	<1	100	25	100	25	>100
GV-18	3	>100	<1	100	32	100	30	>100
GV-19	<1	>100	<1	13	<1	100	20	>100
GV-20	<1	>100	<1	100	12	100	38	>100
GV-21	1	>100	<1	100	6	100	27	>100
GV-22	<1	5	<1	100	<1	100	12	>100
GV-23	<1	<1	<1	15	<1	100	0	6
GV-24	<1	<1	<1	100	<1	100	10	>100
GV-25	<1	>100	<1	100	18	100	53	>100
GV-26	<1	>100	<1	18	7	100	15	>100
GV-27	<1	<1	<1	100	<1	100	21	>100
GV-28	<1	<1	<1	100	3	100	31	>100
GV-29	<1	>100	<1	100	4	100	27	>100
GV-30	<1	>100	<1	100	<1	100	20	>100
GV-31	<1	<1	<1	100	7	100	24	>100
GV-32	<1	>100	<1	100	10	100	20	>100
GV-33	<1	>100	<1	100	6	100	30	>100
GV-34	4	>100	<1	100	7	100	25	>100
GV-35	<1	>100	<1	100	<1	100	5	>100
GV-36	<1	>100	<1	100	<1	100	2	>100
GV-37	2	>100	<1	100	7	100	21	>100
GV-38	<1	>100	<1	100	<1	100	8	>100
GV-39	5	>100	<1	100	10	100	23	>100
GV-40	<1	>100	<1	100	<1	100	6	>100
GV-41	<1	>100	<1	100	<1	100	10	>100
GV-42	<1	>100	<1	100	17	100	40	>100
GV-43	<1	>100	<1	100	<1	100	0	32
GV-44	1	>100	<1	100	7	100	7	>100
GV-45	<1	>100	<1	100	<1	100	14	>100
GV-46	1	>100	<1	100	<1	100	8	>100
GV-47	<1	>100	<1	100	<1	100	6	>100
GV-48	1	>100	<1	100	2	100	15	>100
GV-49	<1	>100	<1	100	<1	100	1	>100
GV-50	<1	>100	<1	100	<1	100	21	>100
GV-51	<1	>100	<1	100	6	100	55	>100
GV-52	<1	>100	<1	100	3	100	11	>100
GV-53	<1	>100	<1	100	33	100	15	>100
GV-54	<1	>100	<1	100	<1	100	23	>100
GV-55	<1	>100	<1	100	14	100	16	>100
GV-56	<1	>100	<1	100	14	100	4	>100
GV-57	<1	>100	<1	100	<1	100	10	>100
GV-58	<1	>100	<1	100	2	100	8	>100
GV-59	1	>100	<1	100	3	100	12	>100

Table 4: Water Levels and Elevations
Dutchess County Airport Landfill
N.Y.S. Route 376, Town of Wappinger, Dutchess County, New York

Well ID Piezometers	Diameter and Finish		Casing Elevation	9/28/2015	
				Depth to Water (ft)	Elevation of Water (ft)
PZ-10	2"	Stick-up	142.69	35.10	107.59
PZ-11S	2"	Stick-up	150.53	*	N/A

* Note PZ-11S was inaccessible this sampling period

APPENDIX C

LABORATORY DATA

Adirondack Environmental Services Inc.®
Experience is the solution
314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

October 26, 2015

Mr. Joseph Dennis
Morris Associates
9 Elks Lane
Poughkeepsie, NY 12601

TEL: (845) 454-3411
FAX: (845) 473-1962

Work Order No: 150928029

RE: Dutchess County LF Sampling

Dear Mr. Joseph Dennis:

Adirondack Environmental Services, Inc received 9 samples on 9/28/2015 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Tara Daniels

ELAP#: 10709

Tara Daniels
Laboratory Manager

Adirondack Environmental Services, Inc — CASE NARRATIVE

CLIENT:	Morris Associates	**Date:** *26-Oct-15*
Project:	Dutchess County LF Sampling	
Lab Order:	150928029	

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

		C - Details are above in Case Narrative
Qualifiers:	ND - Not Detected at reporting limit	S - LCS Spike recovery outside acceptable limits(+ is over - is under)
	J - Analyte detected below quantitation limit	R - Duplication outside acceptable limits
	B - Analyte detected in Blank	T - Tentatively Identified Compound-Estimated
	X - Exceeds maximum contamination limit	E -Above quantitation range-Estimated
	H - Hold time exceeded	M - Matrix Spike outside acceptable limits(+ is over - is under)

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-4D
Work Order:	150928029	**Collection Date:**	9/28/2015 11:41:00 AM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***725***	1.0		umhos/cm		9/28/2015 11:41:00 AM
eH	***- 36.5***			mV		9/28/2015 11:41:00 AM
Observation	***Clear***			NA		9/28/2015 11:41:00 AM
pH	***7.5***			S.U.		9/28/2015 11:41:00 AM
Static Water Level	***15.21***			ft		9/28/2015 11:41:00 AM
Temperature	***17***			deg C		9/28/2015 11:41:00 AM
Turbidity	***23***	1.0		NTU		9/28/2015 11:41:00 AM
HARDNESS - SM 2340B						Analyst: **WB**
(Prep: SW3010A - 9/30/2015)						
Total Hardness (As CaCO3)	***365***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7						Analyst: **WB**
(Prep: SW3010A - 9/30/2015)						
Aluminum	***< 0.100***	0.100		mg/L	1	10/13/2015 3:03:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 3:03:00 PM
Arsenic	***0.007***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Barium	***0.027***	0.010		mg/L	1	10/13/2015 3:03:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Boron	***< 0.050***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Calcium	***110***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Iron	***1.47***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Lead	***< 0.005***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Magnesium	***21.9***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Manganese	***0.744***	0.020		mg/L	1	10/13/2015 3:03:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 3:03:00 PM
Potassium	***2.42***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:03:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 3:03:00 PM
Sodium	***14.4***	0.050		mg/L	1	10/13/2015 3:03:00 PM
Thallium	***< 0.010***	0.010	M-	mg/L	1	10/13/2015 3:03:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 3:03:00 PM
Zinc	***< 0.010***	0.010		mg/L	1	10/13/2015 3:03:00 PM
MERCURY - EPA 245.1						Analyst: **MB**
(Prep: E245.1 - 10/1/2015)						

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-4D
Work Order:	150928029	**Collection Date:**	9/28/2015 11:41:00 AM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:36:13 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***24.6***	2.00		mg/L	2	9/29/2015 4:01:56 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 4:01:56 PM
Nitrate, Nitrogen (As N)	***0.12***	0.04		mg/L	2	9/29/2015 4:01:56 PM
Sulfate	***105***	4.00		mg/L	2	9/29/2015 4:01:56 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:07:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:07:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 1:07:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:07:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 1:07:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT: Morris Associates
Work Order: 150928029
Reference: Dutchess County LF Sampling /
PO#:

Client Sample ID: MW-4D
Collection Date: 9/28/2015 11:41:00 AM
Lab Sample ID: 150928029-001
Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Chlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:07:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 1:07:00 AM
Surr: 1,2-Dichloroethane-d4	***101***	80.7-117		%REC	1	10/1/2015 1:07:00 AM
Surr: 4-Bromofluorobenzene	***99.5***	80.2-127		%REC	1	10/1/2015 1:07:00 AM
Surr: Toluene-d8	***95.3***	79.9-122		%REC	1	10/1/2015 1:07:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***244***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***1.5***	0.1		mg/L	1	10/5/2015 1:09:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***< 4***	4		mg/L	1	9/30/2015 11:35:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***< 5***	5		mg/L	1	10/6/2015

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-4D
Work Order:	150928029	**Collection Date:**	9/28/2015 11:41:00 AM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL - EPA 335.4 (**Prep: 9010C - 10/5/2015**)						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:09:00 AM
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 9/30/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***< 0.002***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***435***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***< 1.0***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***1.9***	1.0		mg/L	1	10/13/2015 3:11:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***10***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-15
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***1323***	1.0		umhos/cm		9/28/2015 1:05:00 PM
eH	***- 55.5***			mV		9/28/2015 1:05:00 PM
Observation	***No Odor***			NA		9/28/2015 1:05:00 PM
pH	***6.4***			S.U.		9/28/2015 1:05:00 PM
Static Water Level	***6.21***			ft		9/28/2015 1:05:00 PM
Temperature	***16***			deg C		9/28/2015 1:05:00 PM
Turbidity	***367***	1.0		NTU		9/28/2015 1:05:00 PM
HARDNESS - SM 2340B (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Total Hardness (As CaCO3)	***619***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7 (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Aluminum	***0.191***	0.100		mg/L	1	10/13/2015 3:41:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 3:41:00 PM
Arsenic	***0.007***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Barium	***0.179***	0.010		mg/L	1	10/13/2015 3:41:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Boron	***0.293***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Calcium	***168***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Iron	***20.4***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Lead	***0.006***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Magnesium	***48.9***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Manganese	***2.62***	0.020		mg/L	1	10/13/2015 3:41:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 3:41:00 PM
Potassium	***15.1***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:41:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 3:41:00 PM
Sodium	***25.1***	0.050		mg/L	1	10/13/2015 3:41:00 PM
Thallium	***0.013***	0.010		mg/L	1	10/13/2015 3:41:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 3:41:00 PM
Zinc	***0.018***	0.010		mg/L	1	10/13/2015 3:41:00 PM
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-15
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:37:50 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***32.8***	2.00		mg/L	2	9/29/2015 4:16:31 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 4:16:31 PM
Nitrate, Nitrogen (As N)	***0.13***	0.04		mg/L	2	9/29/2015 4:16:31 PM
Sulfate	***41.2***	4.00		mg/L	2	9/29/2015 4:16:31 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:29:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:29:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 1:29:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:29:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 1:29:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT: Morris Associates
Work Order: 150928029
Reference: Dutchess County LF Sampling /
PO#:

Client Sample ID: MW-15
Collection Date: 9/28/2015 1:05:00 PM
Lab Sample ID: 150928029-002
Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Chlorobenzene	***16***	5		µg/L	1	10/1/2015 1:29:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:29:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 1:29:00 AM
Surr: 1,2-Dichloroethane-d4	***98.1***	80.7-117		%REC	1	10/1/2015 1:29:00 AM
Surr: 4-Bromofluorobenzene	***107***	80.2-127		%REC	1	10/1/2015 1:29:00 AM
Surr: Toluene-d8	***96.6***	79.9-122		%REC	1	10/1/2015 1:29:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***600***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***14.8***	1.0		mg/L	10	10/5/2015 1:11:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***3.6 J***	4		mg/L	1	9/30/2015 11:50:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***45***	5		mg/L	1	10/6/2015

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-15
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL - EPA 335.4 (**Prep: 9010C - 10/5/2015**)						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:11:00 AM
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 9/30/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***< 0.002***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***645***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***16.8***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***9.5***	1.0		mg/L	1	10/13/2015 3:26:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***15***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20
Work Order:	150928029	**Collection Date:**	9/28/2015 1:25:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***1619***	1.0		umhos/cm		9/28/2015 1:25:00 PM
eH	***- 46.3***			mV		9/28/2015 1:25:00 PM
Observation	***Turbid***			NA		9/28/2015 1:25:00 PM
pH	***6.2***			S.U.		9/28/2015 1:25:00 PM
Static Water Level	***7.08***			ft		9/28/2015 1:25:00 PM
Temperature	***16***			deg C		9/28/2015 1:25:00 PM
Turbidity	***226***	1.0		NTU		9/28/2015 1:25:00 PM
HARDNESS - SM 2340B (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Total Hardness (As CaCO3)	***368***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7 (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Aluminum	***0.229***	0.100		mg/L	1	10/13/2015 3:47:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 3:47:00 PM
Arsenic	***0.008***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Barium	***0.365***	0.010		mg/L	1	10/13/2015 3:47:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Boron	***0.364***	0.050		mg/L	1	10/13/2015 3:47:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Calcium	***96.5***	0.050		mg/L	1	10/13/2015 3:47:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 3:47:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Iron	***59.6***	0.050		mg/L	1	10/13/2015 3:47:00 PM
Lead	***< 0.005***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Magnesium	***30.9***	0.050		mg/L	1	10/13/2015 3:47:00 PM
Manganese	***2.18***	0.020		mg/L	1	10/13/2015 3:47:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 3:47:00 PM
Potassium	***33.8***	0.050		mg/L	1	10/13/2015 3:47:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:47:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 3:47:00 PM
Sodium	***74.5***	0.500		mg/L	10	10/13/2015 3:53:00 PM
Thallium	***< 0.010***	0.010		mg/L	1	10/13/2015 3:47:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 3:47:00 PM
Zinc	***< 0.010***	0.010		mg/L	1	10/13/2015 3:47:00 PM
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20
Work Order:	150928029	**Collection Date:**	9/28/2015 1:25:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:39:29 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***122***	2.00		mg/L	2	9/29/2015 4:31:06 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 4:31:06 PM
Nitrate, Nitrogen (As N)	***0.12***	0.04		mg/L	2	9/29/2015 4:31:06 PM
Sulfate	***< 4.00***	4.00		mg/L	2	9/29/2015 4:31:06 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:50:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:50:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 1:50:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 1:50:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 1:50:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT: Morris Associates
Work Order: 150928029
Reference: Dutchess County LF Sampling /
PO#:

Client Sample ID: MW-20
Collection Date: 9/28/2015 1:25:00 PM
Lab Sample ID: 150928029-003
Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Chlorobenzene	***29***	5		µg/L	1	10/1/2015 1:50:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 1:50:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 1:50:00 AM
Surr: 1,2-Dichloroethane-d4	***100***	80.7-117		%REC	1	10/1/2015 1:50:00 AM
Surr: 4-Bromofluorobenzene	***104***	80.2-127		%REC	1	10/1/2015 1:50:00 AM
Surr: Toluene-d8	***97.1***	79.9-122		%REC	1	10/1/2015 1:50:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***530***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***46.6***	5.0		mg/L	50	10/5/2015 1:13:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***10.2 J***	12		mg/L	1	9/30/2015 11:50:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***68***	5		mg/L	1	10/6/2015

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20
Work Order:	150928029	**Collection Date:**	9/28/2015 1:25:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL - EPA 335.4 (**Prep: 9010C - 10/5/2015**)						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:13:00 AM
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 9/30/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***0.003***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***650***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***46.5***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***13.5***	1.0		mg/L	1	10/13/2015 3:42:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***40***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-30
Work Order:	150928029	**Collection Date:**	9/28/2015 12:20:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***1277***	1.0		umhos/cm		9/28/2015 12:20:00 PM
eH	***- 54.6***			mV		9/28/2015 12:20:00 PM
Observation	***No Odor***			NA		9/28/2015 12:20:00 PM
pH	***6.5***			S.U.		9/28/2015 12:20:00 PM
Static Water Level	***7.80***			ft		9/28/2015 12:20:00 PM
Temperature	***14***			deg C		9/28/2015 12:20:00 PM
Turbidity	***26***	1.0		NTU		9/28/2015 12:20:00 PM
HARDNESS - SM 2340B (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Total Hardness (As CaCO3)	***547***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7 (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Aluminum	***0.594***	0.100		mg/L	1	10/13/2015 3:58:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 3:58:00 PM
Arsenic	***0.011***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Barium	***0.228***	0.010		mg/L	1	10/13/2015 3:58:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Boron	***0.098***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Calcium	***154***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Iron	***13.0***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Lead	***0.012***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Magnesium	***39.3***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Manganese	***4.63***	0.020		mg/L	1	10/13/2015 3:58:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 3:58:00 PM
Potassium	***9.80***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 3:58:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 3:58:00 PM
Sodium	***40.2***	0.050		mg/L	1	10/13/2015 3:58:00 PM
Thallium	***0.018***	0.010		mg/L	1	10/13/2015 3:58:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 3:58:00 PM
Zinc	***0.013***	0.010		mg/L	1	10/13/2015 3:58:00 PM
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-30
Work Order:	150928029	**Collection Date:**	9/28/2015 12:20:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:41:02 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***86.8***	2.00		mg/L	2	9/29/2015 4:45:42 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 4:45:42 PM
Nitrate, Nitrogen (As N)	***0.09***	0.04		mg/L	2	9/29/2015 4:45:42 PM
Sulfate	***107***	4.00		mg/L	2	9/29/2015 4:45:42 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:11:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:11:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 2:11:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:11:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 2:11:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-30
Work Order:	150928029	**Collection Date:**	9/28/2015 12:20:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Chlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:11:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 2:11:00 AM
Surr: 1,2-Dichloroethane-d4	***96.9***	80.7-117		%REC	1	10/1/2015 2:11:00 AM
Surr: 4-Bromofluorobenzene	***104***	80.2-127		%REC	1	10/1/2015 2:11:00 AM
Surr: Toluene-d8	***97.6***	79.9-122		%REC	1	10/1/2015 2:11:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***430***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***4.3***	0.5		mg/L	5	10/5/2015 1:15:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***< 4***	4		mg/L	1	9/30/2015 11:50:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***18***	5		mg/L	1	10/6/2015

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-30
Work Order:	150928029	**Collection Date:**	9/28/2015 12:20:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL - EPA 335.4 (**Prep: 9010C - 10/5/2015**)						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:19:00 AM
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 9/30/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***< 0.002***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***700***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***5.6***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***6.1***	1.0		mg/L	1	10/13/2015 3:58:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***10***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20 DUP
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-005
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***1619***	1.0		umhos/cm		9/28/2015 1:05:00 PM
eH	***- 46.3***			mV		9/28/2015 1:05:00 PM
Observation	***Turbid***			NA		9/28/2015 1:05:00 PM
pH	***6.2***			S.U.		9/28/2015 1:05:00 PM
Static Water Level	***7.08***			ft		9/28/2015 1:05:00 PM
Temperature	***16***			deg C		9/28/2015 1:05:00 PM
Turbidity	***226***	1.0		NTU		9/28/2015 1:05:00 PM
HARDNESS - SM 2340B (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Total Hardness (As CaCO3)	***359***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7 (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Aluminum	***< 0.100***	0.100		mg/L	1	10/13/2015 4:05:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 4:05:00 PM
Arsenic	***0.006***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Barium	***0.363***	0.010		mg/L	1	10/13/2015 4:05:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Boron	***0.354***	0.050		mg/L	1	10/13/2015 4:05:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Calcium	***94.3***	0.050		mg/L	1	10/13/2015 4:05:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 4:05:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Iron	***58.8***	0.050		mg/L	1	10/13/2015 4:05:00 PM
Lead	***< 0.005***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Magnesium	***30.1***	0.050		mg/L	1	10/13/2015 4:05:00 PM
Manganese	***2.09***	0.020		mg/L	1	10/13/2015 4:05:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 4:05:00 PM
Potassium	***32.9***	0.050		mg/L	1	10/13/2015 4:05:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:05:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 4:05:00 PM
Sodium	***67.7***	0.500		mg/L	10	10/13/2015 4:11:00 PM
Thallium	***< 0.010***	0.010		mg/L	1	10/13/2015 4:05:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 4:05:00 PM
Zinc	***< 0.010***	0.010		mg/L	1	10/13/2015 4:05:00 PM
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20 DUP
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-005
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:42:35 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***122***	2.00		mg/L	2	9/29/2015 5:00:18 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 5:00:18 PM
Nitrate, Nitrogen (As N)	***0.12***	0.04		mg/L	2	9/29/2015 5:00:18 PM
Sulfate	***< 4.00***	4.00		mg/L	2	9/29/2015 5:00:18 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:33:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:33:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 2:33:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:33:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 2:33:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20 DUP
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-005
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Chlorobenzene	***31***	5		µg/L	1	10/1/2015 2:33:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:33:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 2:33:00 AM
Surr: 1,2-Dichloroethane-d4	***97.5***	80.7-117		%REC	1	10/1/2015 2:33:00 AM
Surr: 4-Bromofluorobenzene	***103***	80.2-127		%REC	1	10/1/2015 2:33:00 AM
Surr: Toluene-d8	***96.9***	79.9-122		%REC	1	10/1/2015 2:33:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***540***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***45.5***	5.0		mg/L	50	10/5/2015 1:17:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***10.8 J***	12		mg/L	1	9/30/2015 11:50:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***65***	5		mg/L	1	10/6/2015

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	MW-20 DUP
Work Order:	150928029	**Collection Date:**	9/28/2015 1:05:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-005
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL - EPA 335.4 (**Prep: 9010C - 10/5/2015**)						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:22:00 AM
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 10/1/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***< 0.002***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***635***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***43.7***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***13.6***	1.0		mg/L	1	10/13/2015 4:14:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***40***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	PZ-10
Work Order:	150928029	**Collection Date:**	9/28/2015 10:45:00 AM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-006
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Static Water Level	***35.01***			ft		9/28/2015 10:45:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	PZ-11S
Work Order:	150928029	**Collection Date:**	9/28/2015 10:50:00 AM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-007
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Static Water Level	***Inaccessible***			ft		9/28/2015 10:50:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT: Morris Associates
Work Order: 150928029
Reference: Dutchess County LF Sampling /
PO#:

Client Sample ID: Upstream
Collection Date: 9/28/2015 1:45:00 PM
Lab Sample ID: 150928029-008
Matrix: SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***586***	1.0		umhos/cm		9/28/2015 1:45:00 PM
eH	***3.0***			mV		9/28/2015 1:45:00 PM
Observation	***Clear***			NA		9/28/2015 1:45:00 PM
pH	***8.2***			S.U.		9/28/2015 1:45:00 PM
Temperature	***18***			deg C		9/28/2015 1:45:00 PM
Turbidity	***8***	1.0		NTU		9/28/2015 1:45:00 PM
HARDNESS - SM 2340B (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Total Hardness (As CaCO3)	***190***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7 (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Aluminum	***< 0.100***	0.100		mg/L	1	10/13/2015 4:15:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 4:15:00 PM
Arsenic	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Barium	***0.017***	0.010		mg/L	1	10/13/2015 4:15:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Boron	***< 0.050***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Calcium	***51.5***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Iron	***0.071***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Lead	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Magnesium	***14.8***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Manganese	***0.035***	0.020		mg/L	1	10/13/2015 4:15:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 4:15:00 PM
Potassium	***1.52***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:15:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 4:15:00 PM
Sodium	***36.5***	0.050		mg/L	1	10/13/2015 4:15:00 PM
Thallium	***< 0.010***	0.010		mg/L	1	10/13/2015 4:15:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 4:15:00 PM
Zinc	***< 0.010***	0.010		mg/L	1	10/13/2015 4:15:00 PM
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:44:07 PM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT: Morris Associates
Work Order: 150928029
Reference: Dutchess County LF Sampling /
PO#:

Client Sample ID: Upstream
Collection Date: 9/28/2015 1:45:00 PM
Lab Sample ID: 150928029-008
Matrix: SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***82.7***	2.00		mg/L	2	9/29/2015 5:14:53 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 5:14:53 PM
Nitrate, Nitrogen (As N)	***0.37***	0.04		mg/L	2	9/29/2015 5:14:53 PM
Sulfate	***17.6***	4.00		mg/L	2	9/29/2015 5:14:53 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:54:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:54:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 2:54:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 2:54:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 2:54:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT: Morris Associates
Work Order: 150928029
Reference: Dutchess County LF Sampling /
PO#:

Client Sample ID: Upstream
Collection Date: 9/28/2015 1:45:00 PM
Lab Sample ID: 150928029-008
Matrix: SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Chlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 2:54:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 2:54:00 AM
Surr: 1,2-Dichloroethane-d4	***99.9***	80.7-117		%REC	1	10/1/2015 2:54:00 AM
Surr: 4-Bromofluorobenzene	***103***	80.2-127		%REC	1	10/1/2015 2:54:00 AM
Surr: Toluene-d8	***97.5***	79.9-122		%REC	1	10/1/2015 2:54:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***148***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***< 0.1***	0.1		mg/L	1	10/5/2015 1:19:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***< 4***	4		mg/L	1	9/30/2015 11:50:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***< 5***	5		mg/L	1	10/9/2015
CYANIDE, TOTAL - EPA 335.4 (Prep: 9010C - 10/5/2015)						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:24:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	Upstream
Work Order:	150928029	**Collection Date:**	9/28/2015 1:45:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-008
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 10/2/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***< 0.002***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***290***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***< 1.0***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***2.5***	1.0		mg/L	1	10/13/2015 5:02:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***10***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	Downstream
Work Order:	150928029	**Collection Date:**	9/28/2015 12:50:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-009
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity	***589***	1.0		umhos/cm		9/28/2015 12:50:00 PM
eH	***45.4***			mV		9/28/2015 12:50:00 PM
Observation	***Clear***			NA		9/28/2015 12:50:00 PM
pH	***7.8***			S.U.		9/28/2015 12:50:00 PM
Temperature	***17***			deg C		9/28/2015 12:50:00 PM
Turbidity	***12***	1.0		NTU		9/28/2015 12:50:00 PM
HARDNESS - SM 2340B (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Total Hardness (As CaCO3)	***189***	5		mg/L CaCO3	1	10/13/2015
ICP METALS - EPA 200.7 (**Prep: SW3010A - 9/30/2015**)						Analyst: **WB**
Aluminum	***< 0.100***	0.100		mg/L	1	10/13/2015 4:39:00 PM
Antimony	***< 0.060***	0.060		mg/L	1	10/13/2015 4:39:00 PM
Arsenic	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Barium	***0.017***	0.010		mg/L	1	10/13/2015 4:39:00 PM
Beryllium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Boron	***< 0.050***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Cadmium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Calcium	***51.3***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Chromium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Cobalt	***< 0.050***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Copper	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Iron	***0.076***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Lead	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Magnesium	***14.8***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Manganese	***0.033***	0.020		mg/L	1	10/13/2015 4:39:00 PM
Nickel	***< 0.020***	0.020		mg/L	1	10/13/2015 4:39:00 PM
Potassium	***1.53***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Selenium	***< 0.005***	0.005		mg/L	1	10/13/2015 4:39:00 PM
Silver	***< 0.010***	0.010		mg/L	1	10/13/2015 4:39:00 PM
Sodium	***35.9***	0.050		mg/L	1	10/13/2015 4:39:00 PM
Thallium	***< 0.010***	0.010		mg/L	1	10/13/2015 4:39:00 PM
Vanadium	***< 0.020***	0.020		mg/L	1	10/13/2015 4:39:00 PM
Zinc	***< 0.010***	0.010		mg/L	1	10/13/2015 4:39:00 PM
MERCURY - EPA 245.1 (**Prep: E245.1 - 10/1/2015**)						Analyst: **MB**
Mercury	***< 0.0002***	0.0002		mg/L	1	10/1/2015 5:45:38 PM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	Downstream
Work Order:	150928029	**Collection Date:**	9/28/2015 12:50:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-009
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0						Analyst: **CS**
Chloride	***77.5***	2.00		mg/L	2	9/29/2015 5:29:29 PM
Bromide	***< 2.00***	2.00		mg/L	2	9/29/2015 5:29:29 PM
Nitrate, Nitrogen (As N)	***0.34***	0.04		mg/L	2	9/29/2015 5:29:29 PM
Sulfate	***16.5***	4.00		mg/L	2	9/29/2015 5:29:29 PM
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
Chloromethane	***< 10***	10	S-	µg/L	1	10/1/2015 3:16:00 AM
Bromomethane	***< 10***	10	S-	µg/L	1	10/1/2015 3:16:00 AM
Vinyl chloride	***< 10***	10	S-	µg/L	1	10/1/2015 3:16:00 AM
Chloroethane	***< 10***	10	S-	µg/L	1	10/1/2015 3:16:00 AM
Methylene chloride	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Acetone	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Iodomethane	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Acrylonitrile	***< 25***	25		µg/L	1	10/1/2015 3:16:00 AM
Trichlorofluoromethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Carbon disulfide	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,1-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,1-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
trans-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
2,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
cis-1,2-Dichloroethene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Bromochloromethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Chloroform	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,2-Dichloroethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
2-Butanone	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
1,1,1-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Carbon tetrachloride	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Vinyl acetate	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Bromodichloromethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,2-Dichloropropane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
cis-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,2,3-Trichloropropane	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Dibromomethane	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Trichloroethene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Dibromochloromethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,1,2-Trichloroethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Benzene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
trans-1,3-Dichloropropene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Bromoform	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM

CLIENT:	Morris Associates	**Client Sample ID:**	Downstream
Work Order:	150928029	**Collection Date:**	9/28/2015 12:50:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-009
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BASELINE VOLATILES EPA 8260C - (SW5030C PREP)						Analyst: **SMD**
2-Hexanone	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
4-Methyl-2-pentanone	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Tetrachloroethene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,1,2,2-Tetrachloroethane	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,2-Dibromoethane	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Toluene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Chlorobenzene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,1,1,2-Tetrachloroethane	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Ethylbenzene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
Styrene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
o-Xylene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
m,p-Xylene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
trans-1,4-Dichloro-2-butene	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
1,3-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,4-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,2-Dichlorobenzene	***< 5***	5		µg/L	1	10/1/2015 3:16:00 AM
1,2-Dibromo-3-chloropropane	***< 10***	10		µg/L	1	10/1/2015 3:16:00 AM
Surr: 1,2-Dichloroethane-d4	***97.3***	80.7-117		%REC	1	10/1/2015 3:16:00 AM
Surr: 4-Bromofluorobenzene	***102***	80.2-127		%REC	1	10/1/2015 3:16:00 AM
Surr: Toluene-d8	***99.2***	79.9-122		%REC	1	10/1/2015 3:16:00 AM
ALKALINITY TO PH 4.5 -SM 2320B						Analyst: **AS**
Alkalinity, Total (As CaCO3)	***150***	1		mg/L CaCO3	1	10/6/2015
AMMONIA (NON-DISTILLED) - EPA 350.1						Analyst: **RK**
Nitrogen, Ammonia (As N)	***< 0.1***	0.1		mg/L	1	10/5/2015 1:20:00 PM
BOD, 5 DAY, 20°C - SM 5210B						Analyst: **SH**
Biochemical Oxygen Demand	***< 4***	4		mg/L	1	9/30/2015 11:50:00 AM
CHEMICAL OXYGEN DEMAND - EPA 410.4						Analyst: **SH**
Chemical Oxygen Demand	***< 5***	5		mg/L	1	10/9/2015
CYANIDE, TOTAL - EPA 335.4 **(Prep: 9010C - 10/5/2015)**						Analyst: **KB**
Cyanide	***< 0.010***	0.010		mg/L	1	10/6/2015 11:30:00 AM

Adirondack Environmental Services, Inc

Date: *26-Oct-15*

CLIENT:	Morris Associates	**Client Sample ID:**	Downstream
Work Order:	150928029	**Collection Date:**	9/28/2015 12:50:00 PM
Reference:	Dutchess County LF Sampling /	**Lab Sample ID:**	150928029-009
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
PHENOLS, TOTAL - EPA 420.1 (**Prep: Method - 10/2/2015**)						Analyst: **KB**
Phenolics, Total Recoverable	***< 0.002***	0.002		mg/L	1	10/13/2015
TOTAL DISSOLVED SOLIDS - SM 2540C						Analyst: **CS**
TDS (Residue, Filterable)	***275***	5		mg/L	1	9/29/2015
TKN (INCLUDES PREP) - SM 4500 N C						Analyst: **TS**
Nitrogen, Kjeldahl, Total	***< 1.0***	1.0		mg/L	1	10/5/2015
TOTAL ORGANIC CARBON - SM 5310C						Analyst: **RK**
Total Organic Carbon	***2.3***	1.0		mg/L	1	10/13/2015 5:18:00 PM
COLOR (PLATINUM-COBALT) - SM 2120B						Analyst: **KB**
Color	***5***	5		cpu	1	9/29/2015 3:15:00 PM
HEXAVALENT CHROMIUM - SM3500-CR D						Analyst: **AS**
Chromium, Hexavalent	***< 0.02***	0.02		mg/L	1	9/29/2015 10:10:00 AM

Adirondack Environmental Services Inc.®
314 North Pearl Street
Albany, New York 12207
518-434-4546♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#: 15092 8029

EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: Morris Associates	Address:	
Send Report to: Joe Dennis Client Phone No: Client Fax No:	Project Name (Location): Dutchess County Landfill PO #:	Samplers Name: Eric Hurley Samplers Signature:

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	MW-4D	9/28/15	11:41	A P	GW			9	Baseline-93
				A P					Field: pH, Temp., Spec. Cond.,
				A P					eH,Turbidity,Observation,SWL
002	MW-15		1:05	A P	GW		G	9	"
003	MW-20		1:25	A P	GW		G	9	"
004	MW-30		12:20	A P	GW		G	9	"
005	MW-20 dup		1:05	A P	GW		G	9	"
006	PZ-10		10:45	A P	GW		G	0	SWL
007	PZ-11S		10:50	A	GW		G	0	"
				P					
				A P					

Shipment Arrived Via:
FedEx UPS Client (AES) Other:_____

Special Instructions/Remarks:

Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☐ Normal
☐ 2 -Day ☐ 5 Day

	Date	Time		Date	Time
Relinquished by: (Signature) Eric Hurley	9/28/15	345	Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			**Received for Laboratory by:**	9/28/15	3:49 PM

Sample Temperature
Ambient Chilled
~~Chilling Process begun~~
Notes: 4°C

Properly Preserved
(Y) N
Notes:

Received Within Holding Times
(Y) N
Notes:

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Albany, New York 12207
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CHAIN OF CUSTODY RECORD

AES Work Order#: 150928029

EXPERIENCE IS THE SOLUTION

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Client Name: Morris Associates	Address:	
Send Report to: Joe Dennis Client Phone No: Client Fax No:	Project Name (Location): Dutchess County Landfill PO #:	Samplers Name: Eric Hurley Samplers Signature:

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
008	**Upstream**	9/28/15	1:45	A (P)	SW		G	9	**Baseline-93**
				A P					**Field: pH, Temp., Spec. Cond.,**
				A P					**eH, Turbidity, DO**
009	**Downstream**	9/28/15	12:50	A (P)	SW		G	9	"
				A P					
				A P					
				A P					
				A P					
				A P					
				A P					
				A P					
				A P					
				A P					

Shipment Arrived Via:
FedEx UPS Client (AES) Other:_____

Special Instructions/Remarks:

Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☐ Normal
☐ 2 -Day ☐ 5 Day

	Date	Time		Date	Time
Relinquished by: (Signature) Eric Hurley	9/28/15	5:45	Received by: (Signature)		
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	**Received for Laboratory by:**	Date	Time
				9/28/15	3:49 PM

Sample Temperature
Ambient Chilled
~~Chilling Process begun~~
Notes: 4°C

Properly Preserved
(Y) N
Notes:

Received Within Holding Times
(Y) N
Notes:

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Experience is the solution
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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.**, nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of Adirondack Environmental Services, Inc. as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.**, its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

(g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

APPENDIX D

RELATED CORRESPONDENCE/FIELD REPORTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

This report form provides a standard format for owners of closed municipal solid waste landfills to report to the Department regarding post-closure monitoring and maintenance activities which have occurred during the past year. Use of this form will ensure that information needed by the operator and Department staff is readily available. Reporting of non-essential information is avoided. By completing and submitting this form on an annual basis, all reporting requirements connected with the closed landfill are satisfied and there is no need to submit any additional reports or paperwork. This form should be submitted once per year on a schedule which coincides with completion of the annual or fourth quarter groundwater monitoring event.

SECTION A - FACILITY DATA

1. REPORTING PERIOD (mm/dd/yy to mm/dd/yy): _____ to 11-23-15

2. OWNER OF LANDFILL: _____

3. ADDRESS OF LANDFILL: _____ Route 376 Wappinger NY

_____

4. LOCATION OF LANDFILL: County: Dutch Municipality: ~~Town of Wappinger~~ Dutch County

5. CONTACT PERSON: Name: _____ Address: _____
Phone: _____ _____

6. SIZE OF LANDFILL (Acres): _____

7. PERIOD OF OPERATION (Yr to Yr): _____

8. DATE OF COMPLETION OF CLOSURE CONSTRUCTION (mm/yy): _____

9. TYPE OF LANDFILL CAP (check one): X Geomembrane ____ Clay ____ Composite
____ Other - Specify _____

10. LANDFILL GAS MANAGEMENT (Check all that apply): X Passive Venting ____ Flares
____ Gas Filter ____ Gas Collection ____ Power Generation ____ Other- Specify _____

11. LEACHATE MANAGEMENT: Does the landfill have a leachate collection system ? __ Y X N

12. DATE OF CLOSURE CERTIFICATION (mm/dd/yy): _____

13. NAME OF CERTIFYING ENGINEER: _____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

14. GRANTED REGULATORY RELIEF VARIANCES (Check all that apply): ___Topsoil Layer ___Barrier Layer ___Barrier Protection Layer ____Gas Vent Layer I ___Gas Vent Layer II ___Post Closure Monitoring I ___Post Closure Monitoring II

15. DATE OF LAST MOWING OF VEGETATIVE COVER: Nov 2015

SECTION B - LANDFILL INSPECTION

1. DATE OF LAST INSPECTION (mm/dd/yy): 11-23-15

2. NAME(S) OF INSPECTOR(S): Timothy Richard

3. Was entire landfill surface and entire landfill perimeter inspected ? X Y __ N; If no, describe extent of inspection:

4. Was the entire landfill surface covered with suitable vegetation (e.g. shallow rooting) and free of soil erosion ? ___ Y X N; If no, identify problems identified and corrective actions taken or planned:

- See No 6.
- Outlet weir needs weeds trimmed & cut
- The western berm should be cut/trimmed.
- The north west grass rip rap strip should be grass cut trim.

5. Were active leachate discharges, iron-stained surface soils or other signs of leachate breakouts noted ? X Y ___ N; If yes, describe the nature of the problem and corrective actions taken or planned:

6. Were areas of surface water ponding observed on the landfill surface ? X Y ___ N; If yes, describe the nature of the problem and corrective actions taken or planned:

Slight ponding west of access culvert about 50' south of north chain link fence border.

Putnam Co. Landfill
Nov. 23. 2015

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

Conditions: Wind N 15° @ 39° F Temp.

7. Were odors detected on or in the vicinity of the landfill ? X Y ___ N; If yes, describe the nature of the problem and corrective actions taken or planned:

Moderate rotten egg smell in south west area recommend vents be monitored so that readings are recorded.

8. Were vectors or evidence of vectors observed ? ___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

9. Was damage to the landfill cover system, gas vents, monitoring wells, leachate collection system or other landfill components observed ? ___ Y ___ N; If yes, describe the nature of the problem and corrective actions taken or planned:

- MW not capped and secured... photo taken
- MW not capped and secured... photo taken.
- MW not secured (not locked)... photo taken

10. Were there signs of dumping, ruts caused by vehicle tires, camp fires, or other signs of unauthorized public access or encroachment ? ___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

11. Were any other problems noted in addition to those identified in items 4 through 10, above ? X Y ___ N; If yes, describe the nature of the problem and corrective actions taken or planned:

mower deck appears to have scraped ground on or along berms ... these areas should be vegetated!

→ White 6 inch Schedule 40 vent is broke off need end cap, two 90° elbows drill, saw to REPAIR. Glue

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING AND MAINTENANCE REPORT FOR LANDFILLS

SECTION C - WATER QUALITY MONITORING

1. CURRENT WATER QUALITY MONITORING PROGRAM (Check One):

_____ Quarterly Routine/Annual Baseline _____ Semi-Annual Baseline _____ Annual Baseline
_____ Other - Specify:_____

2. DATE OF MOST RECENT WATER QUALITY SAMPLING EVENT (mm/dd/yy): _____

3. INDICATE EACH SAMPLING EVENT COMPLETED DURING PAST YEAR AND ATTACH THE *DATA SUMMARY SHEETS* FOR EACH SAMPLING EVENT:

____ 1st Quarter ____ 2nd Quarter ____ 3rd Quarter _____ 4th Quarter

4. LIST AND DESCRIBE THE WATER QUALITY MONITORING POINTS INCLUDED IN THE PROGRAM BY COMPLETING THE TABLE BELOW:

ID Number	Description: Indicate whether the monitoring point is for groundwater or surface water, upgradient or downgradient, completed in overburden or bedrock, and, if part of a well couplet, shallow or deep

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5. Using the following table, summarize each parameter detected during the reporting period, at a downgradient monitoring point, at a concentration exceeding the applicable water quality standard. (Include parameters which are undetected, if detection limit exceeds the standard.)

Sample Date	Sampling Point	Parameter	Units	Sample Result	Applicable Standard	Upgradient Results

6. Do results of the most recent water quality monitoring event indicate an improvement or a worsening in water quality when compared with those of previous water quality monitoring events ? ___ Y ___ N; If yes, describe change, attach graphs or tables if appropriate.

_____

_____

_____

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SECTION D - IMPACTED OR POTENTIALLY IMPACTED RESIDENTIAL WATER SUPPLY WELLS

1. Are there residences served by private water supply wells located less than one mile from the landfill in the downgradient direction and not separated from the landfill by an intervening perennial stream or other groundwater discharge zone ? __Y __N;

If yes, provide the information requested in items 2 through 5, below.

2. Indicate the distance between the downgradient edge of the landfill and the nearest residential water supply well, in feet: _____

3. Have residential wells been sampled to determine whether there has been landfill-water quality impact ? ___Y ___N; If yes, provide the following information:

Date of most recent sampling event (mm/dd/yy): _____ Number of wells tested: _____

Samples collected by: _____ Was the County Health Department notified __Y __N

Parameters tested: _____

4. Using the following table, summarize each parameter detected during the reporting period, at a downgradient monitoring point, at a concentration exceeding the applicable drinking water standard. (Include parameters which are undetected, if detection limit exceeds the standard.)

Sample Date	Homeowner Name or Well ID	Parameter	Units	Sample Result	Applicable Standard

5. Explain cause of parameters exceeding standards, and if due to landfill-derived contamination, indicate what actions have been taken or are planned to mitigate water quality impact.

_____

_____

_____

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SECTION E - GAS MONITORING

1. Is landfill gas monitoring carried out at the landfill ? __Y __N; If yes, provide the following information:

Type of monitoring (Check all that are applicable):
___ Landfill perimeter survey using temporary boreholes
___ Landfill perimeter survey using permanent gas monitoring wells
___ Landfill gas vents within waste mass (as well as inspection for blockage)
___ Interior survey of on-site and nearby structures
___ Landfill final cover areas where stressed vegetation and/or fissures are evident
___ Continuous automatic monitoring devices installed in buildings
___ Other - Specify: _____

Frequency of Monitoring: __ Quarterly __Semi-annual __Annual __Other- Specify_____

Date of Most Recent Monitoring Event (mm/dd.yy):_____ (Attach data sheet and site plan showing sampling locations)

2. Have any explosive gas readings exceeding 25% of the lower explosive limit been detected during sampling events carried out during the past year ? __Y __N; If yes, indicate whether the readings indicate a potential threat to public safety, what actions have been taken or are planned to mitigate potential safety concerns or the rationale for why corrective action is not needed.

_____
_____
_____
_____

SECTION F - CERTIFICATION OF ACCURACY

I certify that the information provided in this form is accurate and complete, to the best of my knowledge. I understand, that knowingly providing false information, may be grounds for enforcement action.

Timothy Richard — Name
Staff Engineer — Title
Timothy Richard — Signature
11/23/15 — Date

Both Access gates double locked 11/23/15

Dutch CTY LANDFILL

Bare dirt areas

Mon. Well missing Cap & lock
PZ-10

berm: high growth

Monitor well unlocked

2014

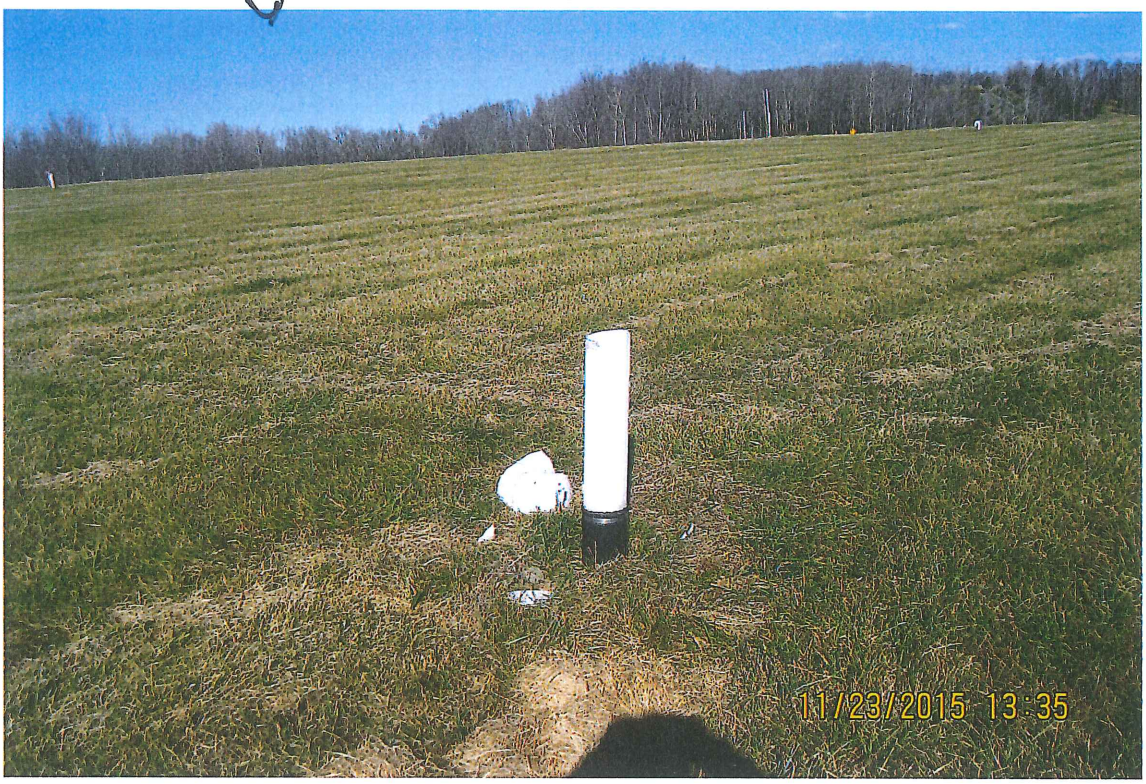
Outlet channel - heavy growth

Outlet channel - heavy growth

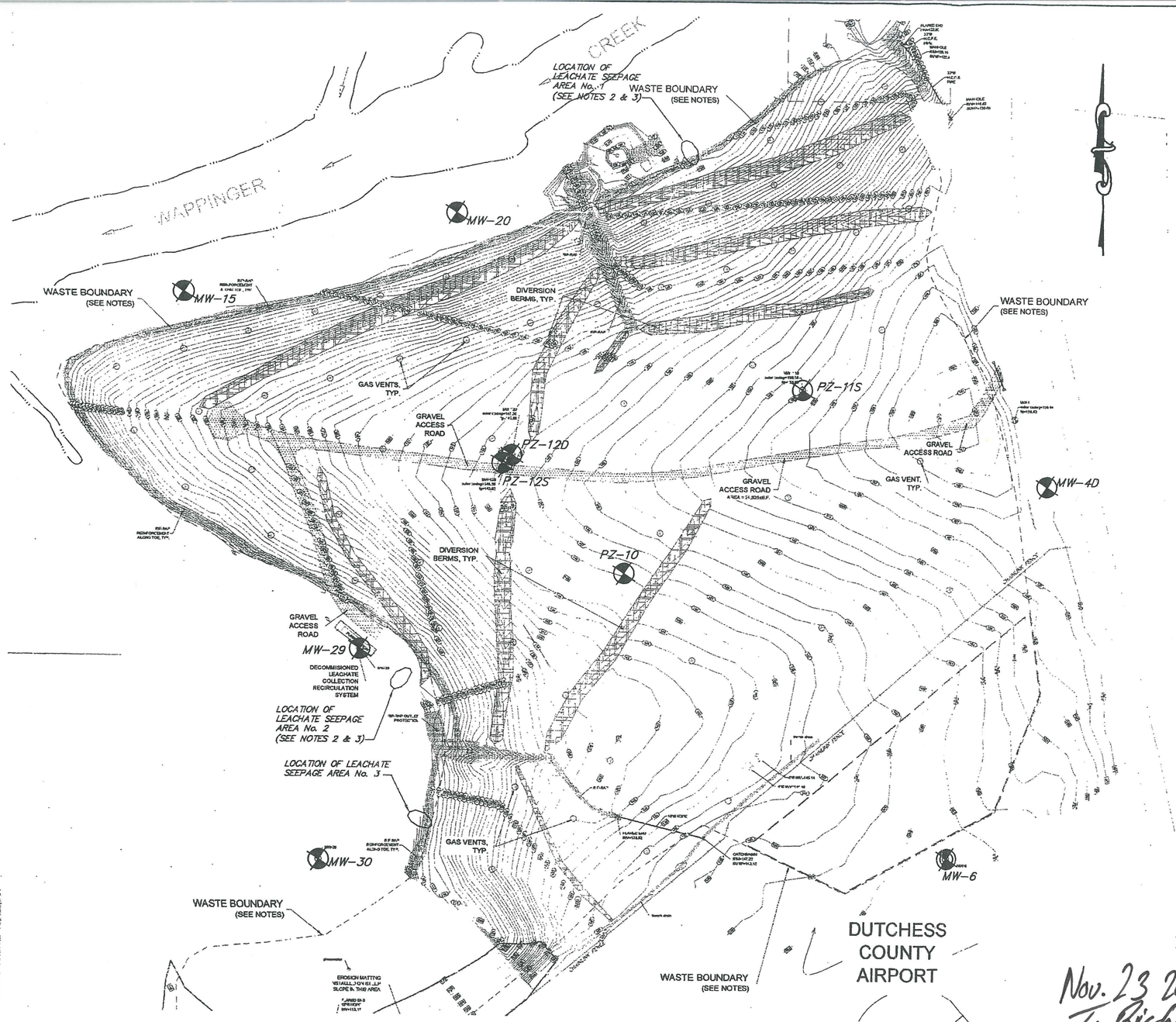
PZ-12 Mon well cap dislodged.

bare dirt areas

gas vent broken



Scraped bare dirt areas



NOTES:

1. TOPOGRAPHY OBTAINED FROM SURVEY DATED JANUARY 25, 2007 PERFORMED BY PAGGI, MARTIN AND DEL BENE, LLP.
2. SURFACE SEEP LOCATIONS FOR AREAS No.1 AND No.2 AS OBTAINED BY PAGGI, MARTIN AND DEL BENE INC. ON JANUARY 12, 2007. THE LOCATION OF SEEP AREA No. 3 IS APPROXIMATED.
3. THE SURFACE SEEPS WERE COVERED WITH A MINIMUM 6-INCH LAYER OF COMPACTED CLAY AND APPROXIMATELY 6-INCHES OF OF SOIL TO SUPPORT VEGETATION. THE COVERING OF SEEP AREAS No. 1 AND No.2 PERFORMED BY URS CORP. ON JANUARY 17 AND 18, 2007 AND WITNESSEDBY MORRIS ASSOCIATES. THE COVERING OF AREA No. 3 WAS ALSO PERFORMED BY URS ON SEPTEMBER 21, 2007.

Post Monitor Inspection:

> bare areas should be seeded
> outlet rip rap channels should be cut trimmed
> monitor wells should be re-secured & locked
> gas vent should be repaired
> "rotten egg smell" southwest quadrant!

Nov. 23 2015
T. Richard, SE 202412.415

REV. No.	DESCRIPTION	DATE	BY
1	ISSUE WITH ANNUAL REPORT	2-20-08	JPD

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ENGINEERING CONSULTANTS
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Phone No. (845) 454-3411
Fax No. (845) 473-1962
389 Fairview Ave. Hudson, New York 12534
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DATE	SCALE	DESIGNED BY:	FILE No.
02/19/08	NONE	JPD	202412.31
		DRAWN BY: KES	
		CHECKED BY: MA	

DUTCHESS COUNTY AIRPORT JOINT LANDFILL CLOSURE PLAN

TOWN OF WAPPINGERS — DUTCHESS COUNTY, NY

SITE PLAN DEPICTING KNOWN LEACHATE SEEP AREAS

DWG 1 of

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