

September 9, 2010

Mr. George Jacob Project Manager Emergency & Remedial Response Division USEPA Region II 290 Broadway, 20th Floor New York, New York 10007-1866

Subject: Town of Ramapo Landfill

USEPA 3rd 5-Year Review Report (December 2009)

STERLING File #20010 - Task 402 Monitoring Well Survey

Dear Mr. Jacob,

Sterling Environmental Engineering, P.C. (STERLING) conducted a survey of existing monitoring wells that are not currently sampled as part of the annual post-closure monitoring event at the Town of Ramapo Landfill (Landfill), Rockland County, New York. The survey was conducted on July 1 and 2, 2010.

The purpose of the survey was to determine the condition of each well and assess if the wells are usable for future monitoring of the Landfill. The attached Figure 1, Monitoring Well Survey July 1 & 2 2010, shows thirty-seven (37) monitoring wells installed by various drilling companies (STERLING's proposal dated April 20, 2010 to the Town of Ramapo identified forty-three (43) monitoring wells; however, it was determined in the field that locations with two (2) identification numbers (e.g., 2/2A) are for one monitoring well, not two).

STERLING located and inspected fourteen (14) monitoring wells. The located monitoring wells are identified on Figure 1. Located wells (listed from north to south) are 21, 113, 118, 119, 120, 15, 2/2A, 108, 109, 110, 107, 106, 12 and 101. Monitoring well 21 was not inspected because a bee nest in the well casing prevented entry. The monitoring well locations were surveyed using a Geographic Positioning System (GPS). The accuracy of the GPS location is provided on the attached Checklist for each well. Well depths and depths to water were measured and recorded and the condition of the protective casings, riser pipes, well caps and locks for each well were assessed and documented. GPS data and an assessment of the condition of each monitoring well are summarized on the attached USEPA Region 2 Superfund Well Assessment Checklists.

Some areas surrounding the Landfill are currently under construction. Monitoring wells 4/4A, 6, 5/5A, 8/8A, 10/10A and 18 may have been destroyed as a result of construction activities. In general, the fourteen (14) monitoring wells are in good condition and can be considered for future groundwater monitoring events if needed. Some wells need replacement of the concrete pad and/or protective casings. All wells should be redeveloped by surging and pumping, prior to sampling, to ensure groundwater can enter the well.

Please contact me should you have any questions or require any additional information.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.

Elizabeth M. Davis

Hydrogeologist

liz.davis@sterlingenvironmental.com

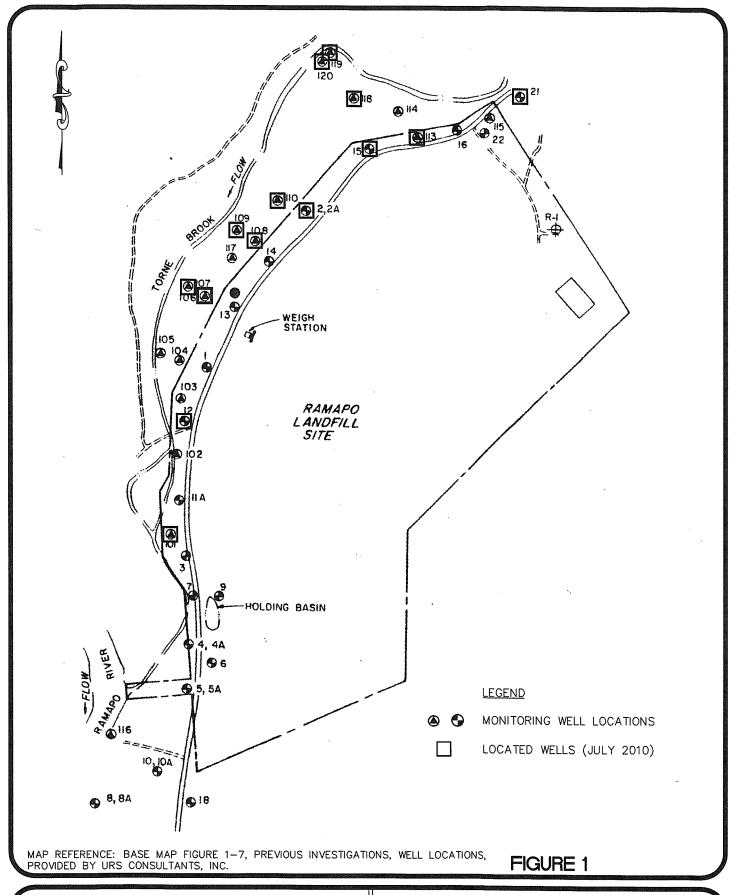
Elizabeth M. Havis

EMD/bc Email/First Class Mail Attachments (Figure 1, EPA Region 2 Superfund Well Assessment Checklists)

cc: Ted Dzurinko, Town of Ramapo Ed Moran, Town of Ramapo Jerry Rider, NYSDEC Central Office

20010/Correspondence/USEPA_Monitoring Well Survey_ltr.doc

EPA Region 2 Superfund Well Assessment Checklist Facility Information EPA Site ID Number: USEPA ID# NYD000511493 Site Name: Ramapo Landfill EPA Project Manager (contact name): George Jacob Site Address Line 1: 198 Torne Valley Road Site Address Line 2: City: Hillburn County: Rockland State: New York Zip Code: 10931 Site Owner: Town of Ramapo Well Locational Information State Well ID Number: 2, 2A Local Well Name (Well Tag ID): Well 2, 2A (1 well with both designations.) By Field GPS Latitude, in decimal degrees 842290.74 N Longitude, in decimal degrees 585758.11 E GPS Instrument used: Trimble GeoXH Datum: NAD83 Accuracy/Precision: Cross streets (if applicable): Torne Valley Road Well Construction Details Type of well (Circle one) Flush Mount Stick up Multilevel Well* Height/Depth of well inner casing above/below ground surface, in feet: 1.88 Well inner casing material: PVC Well inner casing diameter: Well Depth: 12.85 ___as measured, in feet below top of casing Protective outer surface casing material: Steel _____ Protective outer surface casing diameter: inches feet below measuring point (usually top of inner casing) Depth to water: Date: 7-1-10 Time: 18:00 Elevation of Measuring Point, as surveyed (usually top of inner casing) ______Not Available Elevation Datum NGVD29 or NAVD88 * If multilevel well please see attached worksheet. Well 2/2A Page 1 of 2





Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

MONITORING WELL SURVEY JULY 1 & 2, 2010

TOWN OF RAMAPO RAMAPO LANDFILL

TOWN OF RAMAPO

ROCKLAND CO., N.Y.

PROJ. No.:

20010 DATE:

8-18-10

SCALE: NOT TO SCALE DWG. NO.

20010016 FIGURE

EPA Region 2	Superfun	d Well A	ssessme	nt Chea	klist
Well Headspace Read	lings				
PID/FID Reading taken inside to	p of casing:		0	ppm	
Multi-gas/CGI meter Readings ta	ken: LE O2 CC H2	: ::	0 20.9 0 0	% LEL 40% Vol ppm ppm	
Do readings indicate unsafe cond	litions exist?		Yes		No No
Well Condition					
Is the concrete pad in good condition in the concrete pad in good condition in the well surface casing in good is the protective outer surface casts the inner cap or well seal in plants there been physical damage. Is measuring point marked? Is the well clearly labeled? Is the well lock functional? Type of lock and key number: Flush mount - Are bolts and gask Flush mount - Any evidence of plants the well currently used for war is the well currently used for war Other Comments:	ion or settling? I condition? sing vertical and in gace? to the well? No lock; catet in good condition onded water? er-level measureme	nnot close prote 1? nts?	Yes	all the way.	No N
Recommendations					1000
Does the well require any of the Well needs to be redeveloped Well needs to be re-surveyed. Well needs to be repaired. Well needs to be replaced. Well needs new lock or security Well needs to be properly decomposition.	device.		ply) Protective Casir	ng, Concrete F	Pad
Comments					
Date of Inspection: 7-1-	ica Sgambati 10 abeth M. Davis				(Print)
Well 2/2A	of the state of th	L-101-5			(Sign) Page 2 of 2

Facility Informa	tion				
EPA Site ID Number:	USEPA ID# NYD000	511493			
Site Name:	Ramapo Landfill	****			
EPA Project Manager (co	ontact name): George Jaco	_			
Site Address Line 1:	198 Torne Valley Roa				
Site Address Line 2:					
City:	Hillburn				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
County:	Rockland				
State:	New York				
Zip Code:	40004				
Site Owner:	Town of Ramapo				
Well Locational	Information				
C4-4- W-11 ID Noveles	1.5				
State Well ID Number: Local Well Name (Well	15 Tog ID):Well 15				
Local Well Name (Well	Tag ID):Well 15		D1	7:-14 OPG	
	T 0414			Field GPS	
	Latitude, in decimal de			967.31 N	
	Longitude, in decimal de	grees	586	274.71 E	
GPS Instrument used:	Trimble GeoXH				
Datum:					
Accuracy/Precision:					
Cross streets (if applicab	le): Torne Valley Road				
Well Constructi	on Details				
T. C. 11 (C' 1			21		
Type of well (Circle one	•	(Stick up		Multilevel Well*
Height/Depth of well inn	_	<i>c</i> ,			
above/below ground surf	,	.5'			
Well inner casing materi					
Well inner casing diamet					inches
Well Depth:	<u>1</u> ′	7.25'	as	s measured,	in feet below top of casing
Protective outer surface of	casing material: S	teel			
Protective outer surface of	_				inches
Depth to water:	14.2 Date: 7-2-10	fee	et below measur		sually top of inner casing)
Elevation of Measuring l	Point, as surveyed (usually	y top of in		Not A	Available
* If multilevel well pleas	se see attached worksheet.				

EPA Region	n 2 Superfi	und We	II Assess	ment (Checklist	- 1 - SEP
Well Headspace R PID/FID Reading taken insi			0	p	om	
Multi-gas/CGI meter Readin	ngs taken:	LEL: O2: CO: H2S:	0 20.8 0 0	4(LEL 0% Vol. om	
Do readings indicate unsafe	conditions exist?			Yes	No	
Well Condition						
Is the concrete pad in good of Is there any evidence of soil Is the well surface casing in Is the protective outer surfact Is the inner cap or well seal Has there been physical dam Is measuring point marked? Is the well clearly labeled? Is the well lock functional? Type of lock and key number Is the well currently used for Is the well currently used for Is the well currently used for Other Comments:	derosion or settling? good condition? ce casing vertical and in place? nage to the well? er: Protective casing lock. It gasket in good condete of ponded water? or water-level measure or water-quality samp	d in good conding lid closes had the lid closes had		Yes	No N	
Does the well require any o Well needs to be redeveloped Well needs to be re-surveyed Well needs to be repaired. Well needs to be replaced. Well needs new lock or second well needs to be properly described.	ed ed. urity device.	ns? (Check all	that apply) ✓ - Concrete	e Pad		
Comments						
Inspected by: Date of Inspection: Reviewed by:	Jessica Sgambati 7-2-10 Elizabeth M. Davis	S. Pauis				(Print) (Sign)
Well 15	•				Page	2 of 2

EPA Region 2 Superfund Well Assessment Checklist Facility Information EPA Site ID Number: USEPA ID# NYD000511493 Site Name: Ramapo Landfill EPA Project Manager (contact name): George Jacob Site Address Line 1: 198 Torne Valley Road Site Address Line 2: City: Hillburn Rockland County: State: New York Zip Code: 10931 Site Owner: Town of Ramapo **Well Locational Information** State Well ID Number: Local Well Name (Well Tag ID): ___ Well 12 By Field GPS Latitude, in decimal degrees 841338.1 N Longitude, in decimal degrees 585316.14 E GPS Instrument used: Trimble GeoXH Datum: NAD83 1.1' Accuracy/Precision: Cross streets (if applicable): Torne Valley Road **Well Construction Details**

Type of well (Circle one)	Flush Mount		Stick u	ip)	Multilevel Well*
Height/Depth of well inner casi above/below ground surface, in	_	3.42'			
Well inner casing material:		Steel			
Well inner casing diameter:		2			inches
Well Depth:		20.55		as measured	l, in feet below top of casing
Protective outer surface casing		Steel			
Protective outer surface casing	diameter:	4			inches
Depth to water:	10.6 Date:	7-1-10		asuring point (14:45	usually top of inner casing)
Elevation of Measuring Point, a					2
	Elevat	ion Datur	n NGVI	029 or NAVD	88
* If multilevel well please see a	attached worksh	eet			

EPA Regi	on 2 Super	tund Well	Assess	ment (Checklist
Well Headspace	Readings				
PID/FID Reading taken i	nside top of casing:		0.8	p	pm
Multi-gas/CGI meter Rea	idings taken:	LEL:	0	o	% LEL
β · · ·		O2:	20.5		0% Vol.
		CO: H2S:	0		pm
		1125.			pm
Do readings indicate unsa	afe conditions exist?			Yes	No
Well Condition					
Is the concrete pad in goo	od condition? – Cai	nnot See Concrete	e Pad	Yes	No - NA
Is there any evidence of s	oil erosion or settling			Yes	No
Is the well surface casing			0	Yes	No
Is the protective outer sur Is the inner cap or well se		and in good conditi	on?	Yes Yes	No
Has there been physical of				Yes	No
Is measuring point marke				Yes	No
Is the well clearly labeled				Yes	No
Is the well lock functional		_		Yes	No
Type of lock and key nur				T 7	
Flush mount - Are bolts a Flush mount - Any evide				Yes Yes	No - N/A
Is the well currently used				Yes	$\frac{\text{No} - \text{N/A}}{\text{No}}$
Is the well currently used				Yes	No
Other Comments:					
	· · · · · · · · · · · · · · · · · · ·				
Recommendatio	ns				
Does the well require any	of the following act	ions? (Check all th	at apply)		
Well needs to be redeveled			✓		
Well needs to be re-surve	•				
Well needs to be repaired					
Well needs to be replaced Well needs new lock or s			─		
Well needs to be properly	•				
Comments					
Inspected by:	Jessica Sgambati				
Date of Inspection:	7-1-10	•			
Reviewed by:	Elizabeth M. Day	71S			(Print)
-	CHILDREN M	TUUUO			(Sign)
Well 12					Page 2 of 2

Facility Informat	ion							
EPA Site ID Number:	USEPA ID# NYD00	0511493						
Site Name:	Ramapo Landfill							
EPA Project Manager (con								
Site Address Line 1:	198 Torne Valley Ro							
Site Address Line 2:	_							
City:	Hillburn							
County:	Rockland							
State:	New York							
Zip Code:	10931							
Site Owner:	Town of Ramapo							
Well Locational	Information							
State Well ID Number:	101							
Local Well Name (Well T		1		-				
	<u> </u>	<u> </u>	R	y Field GPS				
	Latitude, in decimal of	legrees		40806.87 N				
	Longitude, in decimal d			85293.54 E				
GPS Instrument used:	Trimble GeoXH	iogrees		00 2)3.34 L				
Datum:	NAD83							
Accuracy/Precision:	Not Available							
Cross streets (if applicable								
Cross streets (if applicable								
Well Construction	n Details							
Type of well (Circle one)	Eluch Massat		041.1			1 111		
• • • • • • • • • • • • • • • • • • • •			Stick u	P	Multileve	I Well*		
Height/Depth of well inne above/below ground surfa		1.13'						
-						7 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		
Well inner casing materia								
Well inner casing diamete								
Well Depth:		23.1		_as measured,	in feet below	top of casing		
Protective outer surface ca	asing material:	Steel						
Protective outer surface ca		4				inches		
Depth to water:	21.04	:	feet below mea	suring point (u	isually top of	inner casing)		
-	Date: <u>7-1-</u>	10	Time:	<u>13:45</u>		mile tueling)		
Elevation of Measuring Po			inner casing) ₋ NGVD29 or N		Available			
	Elevation I	Jaium .	NG V D29 OF N.	AVD88				
* If multilevel well please	see attached workshee	et.						

LPA Region 2 Sup	eriulia wei	<u>i Assessme</u>	nt Checklis	<u>it </u>
Well Headspace Readings				
PID/FID Reading taken inside top of casin	ng:	0	ppm	
Multi-gas/CGI meter Readings taken:	LEL:	0	% LEL	
	O2: CO:	20.9	40% Vol. ppm	
	H2S:	0	ppm	
Do readings indicate unsafe conditions exi	ist?	Yes	S No	
Well Condition				
Is the concrete pad in good condition? — Is there any evidence of soil erosion or set Is the well surface casing in good conditio Is the protective outer surface casing vertic Is the inner cap or well seal in place? Has there been physical damage to the we Is measuring point marked? Is the well clearly labeled? Is the well lock functional? Type of lock and key number:	tling? on? cal and in good condit ll? – Well lid broke; do lock because prote d condition? ater? measurements?	ion? Yes Yes can't lock Yes Yes Yes Yes	No No No No No No No No	
Recommendations				
Does the well require any of the following Well needs to be redeveloped Well needs to be re-surveyed. Well needs to be repaired. Well needs to be replaced. Well needs new lock or security device. Well needs to be properly decommissione		hat apply)	<u>ng</u>	
Comments				
Inspected by: Jessica Sgam	bati			
Date of Inspection: 7-1-10 Reviewed by: Elizabeth M.	Davis			(Print)
- Elizaheth	CM Daws			(Sign)
Well 101			Pag	e 2 of 2

EPA Site ID Number:	USEPA ID# NYD00051149	3	
Site Name:	Ramapo Landfill		
	ontact name): George Jacob		
Site Address Line 1:	198 Torne Valley Road	, , , , , , , , , , , , , , , , , , , ,	
Site Address Line 2:			
City:	Hillburn		
County:	Rockland		
State:	New York		
Zip Code:	10021		
Site Owner:	Town of Ramapo		
Well Locational	Information		
State Well ID Number:	106		
Local Well Name (Well			
		By Field	GPS
	Latitude, in decimal degrees	842052.	
	Longitude, in decimal degrees	585508.	
GPS Instrument used:	Trimble GeoXH	200000.	10 L
Datum:	NIADO2		
Datum.			
Accuracy/Precision	1.07		
Accuracy/Precision: Cross streets (if applicab)			
Accuracy/Precision: Cross streets (if applicable)			
•	e): Torne Valley Road		
Cross streets (if applicable) Well Construction	on Details		Multilevel Well*
Cross streets (if applicable Well Construction Type of well (Circle one)	on Details Flush Mount	Stick up	Multilevel Well*
Well Construction Type of well (Circle one) Height/Depth of well inn	on Details Flush Mount er casing	Stick up	,
Well Construction Type of well (Circle one) Height/Depth of well innuabove/below ground surf	on Details Flush Mount er casing face, in feet: 1'	Stick up	
Well Construction Type of well (Circle one) Height/Depth of well innuabove/below ground surf Well inner casing material	Torne Valley Road On Details Flush Mount er casing ace, in feet: 1' PVC	Stick up	
Well Construction Type of well (Circle one) Height/Depth of well innumber above/below ground surf Well inner casing materia Well inner casing diamet	representation of the property	Stick up	inche
Well Construction Type of well (Circle one) Height/Depth of well innabove/below ground surf Well inner casing material	representation of the property	Stick up	
Well Construction Type of well (Circle one) Height/Depth of well innumber above/below ground surf Well inner casing materia Well inner casing diamet Well Depth: Protective outer surface of	representation of the property	Stick up as mea	inches
Well Construction Type of well (Circle one) Height/Depth of well innumber above/below ground surf Well inner casing materia Well inner casing diamet Well Depth:	residence on Details Flush Mount er casing face, in feet: 1' PVC er: 2 14.55' casing material: Steel	Stick up as mea	inche
Well Construction Type of well (Circle one) Height/Depth of well innum above/below ground surform Well inner casing materia Well inner casing diamet Well Depth: Protective outer surface of Protective outer surface of the construction of the co	representation of the property	Stick up as mea	inches inches
Well Construction Type of well (Circle one) Height/Depth of well innumbred above/below ground surform Well inner casing material Well inner casing diamet Well Depth: Protective outer surface of Protective outer surface of Depth to water:	residence on Details Flush Mount er casing face, in feet: 1' PVC er: 2 14.55' casing material: Steel	as meafeet below measuring pTime: 15:50	inchest in feet below top of casing inchest in

EPA Region 2 S	upertund \	Well Asse	ssment	Checklist
Well Headspace Readin	gs			
PID/FID Reading taken inside top of	casing:	0		_ppm
Multi-gas/CGI meter Readings taken	: LEL:	0		% LEL
Train Bus Col more readings taken	O2:	20).8	40% Vol.
	CO: H2S:	0		_ppm _ppm
Do readings indicate unsafe condition	ns exist?		Yes	No
Well Condition				
Is the concrete pad in good condition	n?		Yes	No
Is there any evidence of soil erosion	or settling?		Yes	No
Is the well surface casing in good co		11.1	Yes	No
Is the protective outer surface casing Is the inner cap or well seal in place		condition?	Yes Yes	No
Has there been physical damage to the			Yes	No No
Is measuring point marked?			Yes	No
Is the well clearly labeled?			Yes	No
Is the well lock functional? Type of lock and key number:	No lock.		Yes	No
Flush mount - Are bolts and gasket i			Yes	No - N / A
Flush mount - Any evidence of pond			Yes	No - N/A
Is the well currently used for water-l	evel measurements?		Yes	No
Is the well currently used for water-o	quality samplng?		Yes	No
Other Comments:				
Recommendations				
Does the well require any of the foll	owing actions? (Chee	ck all that apply)		
Well needs to be redeveloped Well needs to be re-surveyed.		v		
Well needs to be repaired.				
Well needs to be replaced.		✓ - Protec	ctive Casing, C	Concrete Pad
Well needs new lock or security dev			_	
Well needs to be properly decommis	ssioned.			
Comments				
_	Sgambati			
Date of Inspection: 7-1-10 Reviewed by: Elizabe	th M. Davis			(Print)
Uiza	heth M. Donne)		(Sign)
W-11 106				
Well 106				Page 2 of 2

EPA Regi	on 2 Superi	und M	Vell Asses	smen	t Checklist	
Facility Informa	tion					
EPA Site ID Number:	USEPA ID# NYD	000511493	***			
Site Name:	Ramapo Landfill					
EPA Project Manager (co				· · · · · · · ·		
Site Address Line 1:	198 Torne Valley	Road				
Site Address Line 2:	-					
City:	<u>Hillburn</u>					
County:	Rockland				1,500-1	
State:	New York		Section	-		
Zip Code:	10931	T. annual visition				
Site Owner:	Town of Ramapo					
Well Locational	Information					
O W 11 ID N 1	107					
State Well ID Number:	107					
Local Well Name (Well	rag iD):weii	107	D D	11.000		
	1			ield GPS		
	Latitude, in decima			12.13 N		
	Longitude, in decima	I degrees	5854	145.63 E		
GPS Instrument used:	Trimble GeoXH					
Datum:	NAD83					
Accuracy/Precision:	1.7'					
Cross streets (if applicable	le): Torne Valley Roa	d				
Well Construction	on Details					
T. C. 11 (C' 1)	D1 1 3 4		Q:: 1			
Type of well (Circle one)		(Stick up		Multilevel Well*	
Height/Depth of well inn		1.52				
above/below ground surf		1.5'				
Well inner casing materia		PVC		-		
Well inner casing diamet	er:	2			incl	
Well Depth:		29.8'	as	measured,	in feet below top of casi	ng

Protective outer surface casing material:

Steel

Protective outer surface casing diameter:

Depth to water: feet below measuring point (usually top of inner casing) Date: <u>7-1-10</u>

Time: 16:05

Elevation of Measuring Point, as surveyed (usually top of inner casing) Not Available

Elevation Datum NGVD29 or NAVD88

Well 107

inches

^{*} If multilevel well please see attached worksheet.

EPA Region 2 Super	runa Well	Assessmen	it Checklist
Well Headspace Readings			
PID/FID Reading taken inside top of casing:		0	ppm
Multi-gas/CGI meter Readings taken:	LEL:	0	% LEL
	O2: CO:	20.9	40% Vol. ppm
	H2S:	0	ppm ppm
Do readings indicate unsafe conditions exist?		Yes	No
Well Condition			
Is the concrete pad in good condition?		Yes) <u>N</u> o
Is there any evidence of soil erosion or settling	g?	Yes	No
Is the well surface casing in good condition? Is the protective outer surface casing vertical a	and in good condition	on? Yes	O No No
Is the inner cap or well seal in place? Has there been physical damage to the well?		Yes	No
Is measuring point marked?		Yes	No No
Is the well clearly labeled?		Yes	No
Is the well lock functional? Type of lock and key number:No lock	ock. Cannot close	Yes protective casing lid	No
Flush mount - Are bolts and gasket in good co	ondition?	Yes	No – N/A
Flush mount - Any evidence of ponded water' Is the well currently used for water-level mean		Yes	$N_0 - N/A$
Is the well currently used for water-quality sa		Yes Yes	No
Other Comments:			
Recommendations			
Does the well require any of the following act	tions? (Check all the	at apply)	
Well needs to be redeveloped Well needs to be re-surveyed.		<u> </u>	
Well needs to be repaired.		✓ - Protective Casing	,
Well needs to be replaced. Well needs new lock or security device.			
Well needs to be properly decommissioned.			
Comments			
Inspected by: Jessica Sgambati Date of Inspection: 7-1-10	Ĭ		
Date of Inspection: 7-1-10 Reviewed by: Elizabeth M. Day	vis		(Print)
Wizehith 7	M. Davis		(Sign)
Well 107			Page 2 of 2

EPA Region 2 Superfund Well Assessment Checklist Facility Information EPA Site ID Number: USEPA ID# NYD000511493 Site Name: Ramapo Landfill EPA Project Manager (contact name): George Jacob Site Address Line 1: 198 Torne Valley Road Site Address Line 2: City: Hillburn Rockland County: State: New York Zip Code: 10931 Site Owner: Town of Ramapo **Well Locational Information** State Well ID Number: Local Well Name (Well Tag ID): Well 108 By Field GPS Latitude, in decimal degrees 842111.42 N Longitude, in decimal degrees 585562.30 E GPS Instrument used: Trimble GeoXH Datum: NAD83 2.6' Accuracy/Precision: Cross streets (if applicable): Torne Valley Road **Well Construction Details** Type of well (Circle one) Flush Mount Stick up Multilevel Well* Height/Depth of well inner casing above/below ground surface, in feet: 2.67 Well inner casing material: PVC Well inner casing diameter: inches Well Depth: 21.95 as measured, in feet below top of casing Protective outer surface casing material: Steel Protective outer surface casing diameter: 5.75 inches Depth to water: <u>12.13</u> <u>feet below measuring point (usually top of inner casing)</u> Date: 7-1-10 Time: 18:15 Elevation of Measuring Point, as surveyed (usually top of inner casing) Not Available Elevation Datum NGVD29 or NAVD88

* If multilevel well please see attached worksheet.

EPA Region 2 Supe	rfund Wel	l Assessm	ent Ch	ecklist
Well Headspace Readings				
PID/FID Reading taken inside top of casing	:	0	ppm	
Multi-gas/CGI meter Readings taken:	LEL: O2: CO: H2S:	0 21.0 0 0	% LE 40% 7 ppm ppm	
Do readings indicate unsafe conditions exist	t?	7	Yes	No
Well Condition				
Is the concrete pad in good condition? - Brown Is there any evidence of soil erosion or settle Is the well surface casing in good condition. Is the protective outer surface casing vertical Is the inner cap or well seal in place? Has there been physical damage to the well. Is measuring point marked? Is the well clearly labeled? Is the well lock functional? Type of lock and key number: Respectively. Respectively. Respectively. Respectively. Is the well currently used for water-level measurements and control of the well currently used for water-quality such that well currently used for water-quality such comments:	ing? ? al and in good condit ? placed lock with Al condition? er? easurements?	ion?	Yes	No N
Recommendations				
Does the well require any of the following a Well needs to be redeveloped Well needs to be re-surveyed. Well needs to be repaired. Well needs to be replaced. Well needs new lock or security device. Well needs to be properly decommissioned.		nat apply) ✓ - Concrete Pac	<u>1</u>	
Comments				
Inspected by: Date of Inspection: Reviewed by: Jessica Sgamba 7-1-10 Elizabeth M. D Urzelyth	Davis			(Print) (Sign)
Well 108				Page 2 of 2

Facility Informat	tion						
EPA Site ID Number:	LICEDA ID# NIVE	00061140	2				
Site Name:	USEPA ID# NYD	<u>)00051149</u>	3				
	Ramapo Landfill	T 1.					
EPA Project Manager (con Site Address Line 1:	198 Torne Valley					**********	
Site Address Line 1:	198 Tome valley	Koau			-		
	Hillburn						
City:	Rockland						
County: State:	New York						
Zip Code:	10931						
Site Owner:	Town of Ramapo				, , , , , , , , , , , , , , , , , , ,		
Site Owner.	10wii oi Kamapo				- 		
Well Locational	Information						
State Well ID Number:	109						
Local Well Name (Well T	ag ID): Well	109					
				By Fie	ld GPS		
***************************************	Latitude, in decima	al degrees		84222	3.32 N	*********	-
	Longitude, in decima	al degrees		58564	1.06 E		
GPS Instrument used:	Trimble GeoXH						
Datum:	NAD92						
Accuracy/Precision:	2.12			*****			
Cross streets (if applicable							
Cross streets (if applicable). Tome valley Roa						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Well Construction	n Details						
Type of well (Circle one)	Flush Mount			Stick up		Multilev	el Well*
Height/Depth of well inne	er cacina					1,10,10110	
above/below ground surfa		1.5'					
Well inner casing material		PVC					
Well inner casing diamete							
Well Depth:	4.	2 24.45'		00 2			
w си рерш.		<u> </u>		as II	icasured,	m teet belo	w top of casing
Protective outer surface ca	asing material:	Steel					
Protective outer surface ca		4					
David to me	0.75		C (1 1	•	•		
Depth to water:	9.75 Data: 7	1 10	reet belo	w measurin		isually top c	of inner casing)

Elevation of Measuring Point, as surveyed (usually top of inner casing) Not Available

Elevation Datum NGVD29 or NAVD88

^{*} If multilevel well please see attached worksheet.

EPA Region	2 Superfu	ınd Well	Assess	ment C	hecklist	
Well Headspace Rea	idings					
PID/FID Reading taken inside			0	ppr		
Multi-gas/CGI meter Readings	taken:	CO: H2S:	0 20.9 0 0			
Do readings indicate unsafe co	nditions exist?			Yes	No	
Well Condition						
Is the concrete pad in good con Is there any evidence of soil en Is the well surface casing in go Is the protective outer surface of Is the inner cap or well seal in Has there been physical damag Is measuring point marked? Is the well clearly labeled? Is the well lock functional? Type of lock and key number: Flush mount - Are bolts and gas Flush mount - Any evidence of Is the well currently used for well the well currently used for well the well currently used for well currently us	osion or settling? od condition? casing vertical and place? se to the well? No lock sket in good cond f ponded water? vater-level measur vater-quality samp	t in good conditi x because canno lition? ements? olng?	on?	Yes	No - NA	
Well needs to be redeveloped Well needs to be re-surveyed. Well needs to be repaired. Well needs to be replaced. Well needs new lock or securit Well needs to be properly deco			✓ - Protectiv	e Casing		
Comments						
Date of Inspection: 7- Reviewed by: El	ssica Sgambati 1-10 izabeth M. Davis	Davis			(Print) (Sign)	
Well 109					Page 2 of 2	

EPA Region 2 Superfund Well Assessment Checklist ility Information

Facility Informat	ion						
EPA Site ID Number:	LICEDA ID# NIXDO	00051140	,				200
Site Name:	USEPA ID# NYDO Ramapo Landfill	10031149.)				
EPA Project Manager (con	•	Jacob					
Site Address Line 1:	198 Torne Valley F						
Site Address Line 2:							
City:	Hillburn						
County:	Rockland						
State:	New York						
Zip Code:	10931						
Site Owner:	Town of Ramapo						
							0.50
Well Locational I	nformation						
State Well ID Number:	110						
Local Well Name (Well Ta		10					
				By Field GPS			
	Latitude, in decimal	degrees		842271.69 N			
I	ongitude, in decimal			585707.82 E			
GPS Instrument used:	Trimble GeoXH						
Datum:	NIADO2						
Accuracy/Precision:	2.9'						
Cross streets (if applicable): Torne Valley Road	1					
Well Construction	n Details			SELECTION OF THE SELECT			
Type of well (Circle one)	Flush Mount		Stick	ıın	Multileve	1 Well*	
Height/Depth of well inner			3		1VI GITTIE V C	ar vv chi	
above/below ground surface		1.75'					
Well inner casing material:	:	PVC					
Well inner casing diameter		_					
Well Depth:				as measured,			
Protective outer surface ca		No Casi	ng				
Protective outer surface car	sing diameter:	<u>IN/A</u>				inches	
Depth to water:	11.08			easuring point (usually top of	inner casing)	
Elevation of Massaring Do	Date: 7-1		Time		A '1 1 1		
Elevation of Measuring Po			f inner casing) NGVD29 or N		Available		
* If multilevel well please	see attached workshe	eet.					

EPA Region 2 Supe	erfund Wel	l Assessmen	t Checklist
Well Headspace Readings			
PID/FID Reading taken inside top of casing Multi-gas/CGI meter Readings taken:	g: LEL: O2: CO: H2S:	0 0 20.9 0	ppm% LEL40% Volppm
Do readings indicate unsafe conditions exist with the condition with the condition and the condition is a second transfer of the condition and the condition is a second transfer of the condition and the condition is a second transfer of the condition and the condition is a second transfer of the condition and the condition is a second transfer of the condition and the condition is a second transfer of the condition and the condition is a second transfer of the condition and the condition are second transfer of the condition and the condition and the condition are second transfer of the condition and the condition are second transfer of the condition and the condition are second transfer of the condition and the condition are second transfer of the condition and the condition are second transfer of the condition and the condition are second transfer of the condition and the condition are second transfer of the condition are second transfer of the condition and the condition are second transfer of the condition are second transfer of the condition and the condition are second transfer of th		Yes	ppmNo
Is the concrete pad in good condition? Is there any evidence of soil erosion or sett Is the well surface casing in good condition Is the protective outer surface casing vertical Is the inner cap or well seal in place? Has there been physical damage to the well Is measuring point marked? Is the well clearly labeled? Is the well lock functional?	tling? n? cal and in good condit 1? To lock because no pr d condition? tter? neasurements?	Yes	No - NA No No - None. No - None. No
Does the well require any of the following Well needs to be redeveloped Well needs to be re-surveyed. Well needs to be repaired. Well needs to be replaced. Well needs new lock or security device. Well needs to be properly decommissioned Comments		nat apply) ✓ - Install Protective	Casing
Inspected by: Date of Inspection: Reviewed by: Well 110			(Print) (Sign) Page 2 of 2

Facility Information EPA Site ID Number: <u>USEPA ID# NYD000511493</u> Site Name: Ramapo Landfill EPA Project Manager (contact name): George Jacob Site Address Line 1: 198 Torne Valley Road Site Address Line 2: Hillburn City: County: Rockland State: New York Zip Code: 10931 Site Owner: Town of Ramapo **Well Locational Information** State Well ID Number: 113 Local Well Name (Well Tag ID): Well 113

	By Field GPS	
Latitude, in decimal degrees	842877.3 N	
Longitude, in decimal degrees	586415.5 E	

GPS Instrument used:

Trimble GeoXH

Datum:

NAD83

Accuracy/Precision:

3.3

Cross streets (if applicable): Torne Valley Road

Well Construction Details

Type of well (Circle one)	Flush Mount			Stick up		Multilevel Well*
Height/Depth of well inner ca above/below ground surface,		1.25				
Well inner casing material:		PVC				
Well inner casing diameter:		2				inches
Well Depth:		22.4'		as	s measured	, in feet below top of casing
Protective outer surface casing material: Protective outer surface casing diameter:		Steel 4				inches
Depth to water:	11.75 Date: 7-2	2-10	_feet b	elow measur Time: 11		(usually top of inner casing)
Elevation of Measuring Point			of inne			Available
	Elevation	n Datum	NGV	D29 or NAV	/D88	

^{*} If multilevel well please see attached worksheet.

EFA Region 2	Superiu	nu wen As:	<u>sessmen</u>	it Cneckii	IST
Well Headspace Read	lings				
PID/FID Reading taken inside top			0	ppm	
Multi-gas/CGI meter Readings ta	kan:	LEL:	0	0/ 1 771	
Muni-gas/Col meter Readings ta		O2:	20.7	% LEL 40% Vol.	
		CO:	0	ppm	
		H2S:	0	ppm	
Do readings indicate unsafe cond	itions exist?		Yes	No	
Well Condition					100 SH
Is the concrete pad in good condi	tion? - Broken		Yes	No	
Is there any evidence of soil erosi			Yes	No	
Is the well surface casing in good			Yes	No	
Is the protective outer surface case		in good condition?	Yes	No	
Is the inner cap or well seal in pla			Yes	No	
Has there been physical damage t	to the well?		Yes	No	
Is measuring point marked?			Yes	No	
Is the well clearly labeled? Is the well lock functional?			Yes) No	
	Protoctive essiv	a lid aloese however	Yes	No No	.1
	Abus lock.	g lid closes, however	l lock note is	too small to rep	nace with
Flush mount - Are bolts and gask		tion?	Yes	No – I	N/A
Flush mount - Any evidence of p			Yes	No – I	
Is the well currently used for wat		ments?	Yes	No	.V/A
Is the well currently used for wat			Yes	No	
Other Comments:					
					ALL THE PERSON NAMED IN COLUMN TO TH
Recommendations					
Does the well require any of the	following actions	s? (Check all that appl	y)		
Well needs to be redeveloped					
Well needs to be re-surveyed.					
Well needs to be repaired.		✓ - Co	oncrete Pad		
Well needs to be replaced.	1 .				
Well needs new lock or security well needs to be properly decom					
wen needs to be properly decom	illissioned.				
Comments					
					<u> </u>
Inspected by	an Combati				
Inspected by: Jess: Date of Inspection: 7-2-	ca Sgambati				
	abeth M. Davis	~			(Print)
74	zaheth M.S	Daws			(Sign)
	0	<u> </u>			DIRIL
Well 113				Pa	age 2 of 2

EPA Region 2 Superfund Well Assessment Checklist Facility Information EPA Site ID Number: USEPA ID# NYD000511493 Site Name: Ramapo Landfill EPA Project Manager (contact name): George Jacob Site Address Line 1: 198 Torne Valley Road Site Address Line 2: City: Hillburn County: Rockland State: New York Zip Code: 10931 Site Owner: Town of Ramapo **Well Locational Information** State Well ID Number: 118 Well 118 Local Well Name (Well Tag ID): By Field GPS Latitude, in decimal degrees 843110.87 N 586188.77 E Longitude, in decimal degrees GPS Instrument used: Trimble GeoXH Datum: NAD83 2.3 Accuracy/Precision: Cross streets (if applicable): Torne Valley Road Well Construction Details Type of well (Circle one) Flush Mount Stick up Multilevel Well* Height/Depth of well inner casing above/below ground surface, in feet: 1.29 PVC Well inner casing material: Well inner casing diameter: inches Well Depth: 17.23 ____as measured, in feet below top of casing

Protective outer surface casing material: Protective outer surface casing diameter:

No Casing

N/A

feet below measuring point (usually top of inner casing) Depth to water:

Date: 7-2-10 Time: 12:35

Elevation of Measuring Point, as surveyed (usually top of inner casing) Not Available

Elevation Datum NGVD29 or NAVD88

inches

^{*} If multilevel well please see attached worksheet.

EPA Reg	ion 2 Super	fund We	II Assess	ment (Checklist
Well Headspace	Readings				
PID/FID Reading taken	inside top of casing:		0	p	pm
Multi-gas/CGI meter Re	eadings taken:	LEL: O2: CO: H2S:	0 20.6 0	4(LEL 0% Vol. pm pm
Do readings indicate un	safe conditions exist?			Yes	No
Well Condition					
Is the concrete pad in go Is there any evidence of Is the well surface casin Is the protective outer so Is the inner cap or well so Has there been physical Is measuring point mark Is the well clearly labeled Is the well lock function Type of lock and key not Flush mount - Are bolts Flush mount - Any evid Is the well currently use Is the well currently use Other Comments:	soil erosion or settling g in good condition? urface casing vertical a seal in place? damage to the well? ted? ed? all? Mo lock beca and gasket in good coence of ponded water? d for water-level meas	nd in good conding the second	ition?	Yes	No - NA No No - No casing No - N/A No No - No casing No
Recommendation	ons				
Does the well require ar Well needs to be redeve Well needs to be re-surv Well needs to be repaire Well needs to be replace Well needs new lock or Well needs to be proper	eloped veyed. ed. ed. security device.	ions? (Check all	✓	rotective Casi	ng
Comments					
Inspected by: Date of Inspection: Reviewed by:	Jessica Sgambati 7-2-10 Elizabeth M. Dav				(Print) (Sign)
Well 118	0				Page 2 of 2

tion		
USEPA ID# NYD0005	11493	
	11175	
	0	
,	<u> </u>	
Hillburn		
Rockland		
New York		
10931		
Town of Ramapo		
Information		
110		
rag iD): well 119	D. Field CDC	
I otituda in danimal dan		
	rees 380139.70 E	
ie). Tome valley Road		
on Details		
on Details		
on Details) Flush Mount	Stick up	Multilevel Well*
) Flush Mount ner casing		
) Flush Mount ner casing face, in feet: <u>1.6</u>	53'	Multilevel Well*
) Flush Mount ner casing face, in feet: 1.6	53'	
) Flush Mount ner casing face, in feet: 1.6 al: PV ter: 2	7C	inches
) Flush Mount ner casing face, in feet: 1.6 al: PV ter: 2	53', CC	inches
) Flush Mount ner casing 1.6 face, in feet: 1.6 al: PV ter: 2 6.6 6	7C as measured	inches in feet below top of casing
) Flush Mount ner casing 1.6 face, in feet: 1.6 al: PV ter: 2 6.6 6	7C	inches
Flush Mount ner casing face, in feet: al: PV ter: 6.6 casing material: State casing diameter:	53' CC 65' as measured	inches d, in feet below top of casing inches
) Flush Mount her casing face, in feet: 1.6 al: PV ter: 2 6.6 casing material: Ste casing diameter: 4	feet below measuring point	inches d, in feet below top of casinginches
) Flush Mount her casing face, in feet: 1.6 al: PV ter: 2 6.6 casing material: Ste casing diameter: 4 No water Date: 7-2-10 Point, as surveyed (usually	53' CC 65' as measured	inches d, in feet below top of casing inches usually top of inner casing)
	USEPA ID# NYD0005 Ramapo Landfill contact name): George Jacob 198 Torne Valley Road Hillburn Rockland New York 10931 Town of Ramapo Information 119 Tag ID): Well 119 Latitude, in decimal deg	USEPA ID# NYD000511493 Ramapo Landfill contact name): George Jacob 198 Torne Valley Road Hillburn Rockland New York 10931 Town of Ramapo Information 119 Tag ID): Well 119 By Field GPS Latitude, in decimal degrees 843138.16 N Longitude, in decimal degrees 586159.76 E Trimble GeoXH NAD83 2.0'

* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist	
Well Headspace Readings	
PID/FID Reading taken inside top of casing: 0 ppm	
Multi-gas/CGI meter Readings taken: LEL: 0 % LEL	
O2: 20.6 40% Vol. CO: 0 ppm	
H2S: ppm	
Do readings indicate unsafe conditions exist? Yes No	
Well Condition	
Is the concrete pad in good condition? – Cannot see concrete pad Yes $N_0 - N/A$	
Is there any evidence of soil erosion or settling? Yes No	
Is the well surface casing in good condition? Yes No	
Is the protective outer surface casing vertical and in good condition? Yes No No No	
Has there been physical damage to the well? Yes No	
Is measuring point marked? Yes No	
Is the well clearly labeled? Yes No	
Is the well lock functional? Type of lock and key number: Protective casing lid closes, however lock hole is too small to replace	• . •
Type of lock and key number: Protective casing lid closes, however lock hole is too small to replace Abus lock.	with
Flush mount - Are bolts and gasket in good condition? Yes $N_0 - N/A$	
Flush mount - Any evidence of ponded water? Yes $N_0 - N/A$	
Is the well currently used for water-level measurements? Yes No	
Is the well currently used for water-quality sampling? Yes No	
Other Comments:	
Recommendations	
Does the well require one of the fellowing of the 1 all the second of th	
Does the well require any of the following actions? (Check all that apply) Well needs to be redeveloped ✓	
Well needs to be re-surveyed.	
Well needs to be repaired.	
Well needs to be replaced.	
Well needs new lock or security device. ✓	
Well needs to be properly decommissioned.	
Comments	
Inspected by: Jessica Sgambati	
Date of Inspection: 7-2-10	
	Print)
70 4 6 70 11	Sign)
II .	

Facility Informa	tion					
EPA Site ID Number:	USEPA ID# NYD	000051140°	2			
Site Name:	Ramapo Landfill	200031149.	<u></u>			
EPA Project Manager (co		e Iacob	ARAUMA			
Site Address Line 1:	198 Torne Valley					
Site Address Line 2:	190 Torne vancy	Road				, martin 1
City:	Hillburn			*		
County:	Rockland				•	
State:	New York					
Zip Code:	10931					
Site Owner:	Town of Ramapo					
Well Locational	Information					
State Well ID Number:	120					
Local Well Name (Well	Tag ID): Well	120				
			I	By Field GPS		
	Latitude, in decima	al degrees		843082.15 N		
	Longitude, in decima	al degrees		586110.04 E		
GPS Instrument used:	Trimble GeoXH					
Datum:	NAD83					
Accuracy/Precision:	2.9'					
Cross streets (if applicab	le): <u>Torne Valley Roa</u>	ad				
Well Constructi	on Details					
Type of well (Circle one)) Flush Mount		Stick 1	ıb	Multileve	el Well*
Height/Depth of well inn						
above/below ground surf	ace, in feet:	1.54'				
Well inner casing materia	al:	PVC				
Well inner casing diamet	er:	2				
Well Depth:		20.0'		_as measured,	, in feet belov	w top of casing
Protective outer surface of	casing material:	Steel				
Protective outer surface of	•	4				
Depth to water:	12.7		_feet below mea			
Deput to water.	Date: 7	-2-10	Time:	asuring point (t	asuany 10p 0	i iiiicr casing)
Elevation of Measuring I					Available	

Elevation Datum NGVD29 or NAVD88

* If multilevel well please see attached worksheet.

EPA Regi	ion 2 Superi	fund We	ll Assess	ment (Checklist	
Well Headspace	Readings					
PID/FID Reading taken i	inside top of casing:		0	p	pm	
Multi-gas/CGI meter Rea	adings taken:	LEL: O2: CO: H2S:	0 20.6 0	4	6 LEL 0% Vol. pm pm	
Do readings indicate uns	afe conditions exist?			Yes	No	
Well Condition						
Is the concrete pad in good Is there any evidence of a state well surface casing Is the protective outer surface in the inner cap or well such that there been physical of the surface Is measuring point marked Is the well clearly labeled Is the well lock functional Type of lock and key number of lock and key number of lock and the well surrently used Is the well currently used Is the well currently used Is the Comments:	soil erosion or settling g in good condition? arface casing vertical areal in place? damage to the well? ed? d? al? mber: Protective ca Abus lock. and gasket in good contence of ponded water? d for water-level meast d for water-quality same	? Ind in good condition? Indication? Indication?	ition?	Yes	No - NA No	with
Does the well require any Well needs to be re-surved Well needs to be re-surved Well needs to be repaired Well needs to be replace Well needs new lock or sewell needs to be properly	oped eyed. d. d. security device.	ons? (Check all	that apply)			
Comments						
Inspected by: Date of Inspection: Reviewed by:	Jessica Sgambati 7-2-10 Elizabeth M. Davi Lizabeth M. X	is Jaun				Print) Sign)
Well 120	-				Page 2	2 of 2