

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name Randall's Island Park Alliance City New York State NY

Independent Consultant Soil and Water Consulting Date 10/30/2017

Sample Location		SUNKEN MEADOWS	FIELDS				
Sample Identification							
Lab Number		0316-1					
Total Exchange Capacity (ME/100 g)		4.31					
pH	Buffer (SMP/Sikora)	7.5					
	H ₂ O (1:1)	6.6					
Organic Matter (360°C LOI) %		1.04					
Estimated Nitrogen Release lb/A		41					
ANIONS	SOLUBLE SULFUR*		ppm	14			
	PHOSPHORUS	MEHLICH III	lb/A P as P ₂ O ₅ ppm of P	884			
		BRAY II	lb/A P as P ₂ O ₅ ppm of P	193			
		OLSEN	lb/A P as P ₂ O ₅ ppm of P				
	EXCHANGEABLE CATIONS	CALCIUM*	lb/A	1164			
		ppm	582				
MAGNESIUM*		lb/A	138				
		ppm	69				
POTASSIUM*		lb/A	164				
	ppm	82					
	SODIUM*	lb/A	70				
	ppm	35					
BASE SATURATION PERCENT							
	Calcium	%	67.52				
	Magnesium	%	13.34				
	Potassium	%	4.88				
	Sodium	%	3.53				
	Other Bases	%	4.80				
	Hydrogen	%	6.00				
EXTRACTABLE MINORS							
	Boron* (ppm)		0.29				
	Iron* (ppm)		327				
	Manganese* (ppm)		17				
	Copper* (ppm)		5.66				
	Zinc* (ppm)		12.71				
	Aluminum* (ppm)		375				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		9.1				
	NH ₄ -N (ppm)		4.0				

* Mehlich III Extractable

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Sample Location		EAST RIVER	FIELD				
Sample Identification			#80				
Lab Number			0317-1				
Total Exchange Capacity (ME/100 g)			3.47				
pH	Buffer (SMP/Sikora)		7.5				
	H ₂ O (1:1)		6.6				
Organic Matter (360°C LOI) %			1.31				
Estimated Nitrogen Release lb/A			46				
ANIONS	SOLUBLE SULFUR*						
	PHOSPHORUS		ppm	11			
		MEHLICH III	lb/A P as P ₂ O ₅ ppm of P	1319 288			
		BRAY II	lb/A P as P ₂ O ₅ ppm of P				
		OLSEN	lb/A P as P ₂ O ₅ ppm of P				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	868				
		ppm	434				
	MAGNESIUM*	lb/A	134				
		ppm	67				
	POTASSIUM*	lb/A	196				
		ppm	98				
	SODIUM*	lb/A	52				
		ppm	26				
BASE SATURATION PERCENT							
Calcium	%	62.54					
Magnesium	%	16.09					
Potassium	%	7.24					
Sodium	%	3.26					
Other Bases	%	4.80					
Hydrogen	%	6.00					
EXTRACTABLE MINORS							
	Boron* (ppm)		0.45				
	Iron* (ppm)		494				
	Manganese* (ppm)		12				
	Copper* (ppm)		3.48				
	Zinc* (ppm)		12.42				
	Aluminum* (ppm)		391				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			7.1			
	NH ₄ -N (ppm)			17.3			

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Sample Location EAST RIVER				FIELD		FIELD				
Sample Identification				#81		#71				
Lab Number				0318-1		0319-1				
Total Exchange Capacity (ME/100 g)				2.46		2.98				
pH		Buffer (SMP/Sikora) H ₂ O (1:1)		a	NA	a	NA	— — —	— — —	— — —
Organic Matter (360°C LOI) %				1.04		1.07				
Estimated Nitrogen Release lb/A				41		41				
ANIONS	SOLUBLE SULFUR*			ppm		11		11		
	PHOSPHORUS	MEHLICH III	lb/A	P as P ₂ O ₅ ppm of P		1168		1168		
					255		255			
		BRAY II	lb/A	P as P ₂ O ₅ ppm of P						
	OLSEN	lb/A	P as P ₂ O ₅ ppm of P							
EXCHANGEABLE CATIONS	CALCIUM*		lb/A	578		746				
			ppm	289		373				
	MAGNESIUM*		lb/A	124		140				
			ppm	62		70				
	POTASSIUM*		lb/A	226		232				
			ppm	113		116				
	SODIUM*		lb/A	56		54				
			ppm	28		27				
BASE SATURATION PERCENT										
Calcium		%	58.74		62.58					
Magnesium		%	21.00		19.57					
Potassium		%	11.78		9.98					
Sodium		%	4.95		3.94					
Other Bases		%	3.70		4.00					
Hydrogen		%	0.00		0.00					
EXTRACTABLE MINORS										
Boron* (ppm)			0.40		0.42					
Iron* (ppm)			532		477					
Manganese* (ppm)			13		14					
Copper* (ppm)			4.01		3.26					
Zinc* (ppm)			10.26		16.97					
Aluminum* (ppm)			448		384					
OTHER TESTS	Soluble Salts (mmhos/cm)									
	Chlorides (ppm)									
	NO ₃ -N (ppm)			6.6		10.1				
	NH ₄ -N (ppm)			88.2		52.2				

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Sample Location		CENTRAL FIELDS				
Sample Identification						
Lab Number		0320-1				
Total Exchange Capacity (ME/100 g)		2.59				
pH		Buffer (SMP/Sikora) NA H₂O (1:1) 7.2				
Organic Matter (360°C LOI) %		1.28				
Estimated Nitrogen Release lb/A		46				
ANIONS	SOLUBLE SULFUR*		ppm			
	PHOSPHORUS	MEHLICH III	lb/A	P as P ₂ O ₅	1163	
				ppm of P	254	
		BRAY II	lb/A	P as P ₂ O ₅		
				ppm of P		
	OLSEN	lb/A	P as P ₂ O ₅			
			ppm of P			
EXCHANGEABLE CATIONS	CALCIUM*		lb/A	662		
			ppm	331		
	MAGNESIUM*		lb/A	116		
			ppm	58		
	POTASSIUM*		lb/A	172		
			ppm	86		
	SODIUM*		lb/A	58		
			ppm	29		
BASE SATURATION PERCENT						
	Calcium	%	63.90			
	Magnesium	%	18.66			
	Potassium	%	8.51			
	Sodium	%	4.87			
	Other Bases	%	4.20			
	Hydrogen	%	0.00			
EXTRACTABLE MINORS						
	Boron* (ppm)		0.42			
	Iron* (ppm)		519			
	Manganese* (ppm)		12			
	Copper* (ppm)		3.97			
	Zinc* (ppm)		12.90			
	Aluminum* (ppm)		380			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		6.8			
	NH ₄ -N (ppm)		52.2			

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Sample Location		BRONX SHORE	FIELDS				
Sample Identification							
Lab Number		0321-1					
Total Exchange Capacity (ME/100 g)		12.25					
pH		Buffer (SMP/Sikora)	NA				
		H ₂ O (1:1)	7.2				
Organic Matter (360°C LOI) %		4.98					
Estimated Nitrogen Release lb/A		100					
ANIONS	SOLUBLE SULFUR*		ppm	22			
	PHOSPHORUS	MEHLICH III	lb/A P as P ₂ O ₅ ppm of P	710			
		BRAY II	lb/A P as P ₂ O ₅ ppm of P	155			
		OLSEN	lb/A P as P ₂ O ₅ ppm of P				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	3458				
		ppm	1729				
	MAGNESIUM*	lb/A	504				
		ppm	252				
	POTASSIUM*	lb/A	558				
	ppm	279					
	SODIUM*	lb/A	126				
	ppm	63					
BASE SATURATION PERCENT							
	Calcium	%	70.57				
	Magnesium	%	17.14				
	Potassium	%	5.84				
	Sodium	%	2.24				
	Other Bases	%	4.20				
	Hydrogen	%	0.00				
EXTRACTABLE MINORS							
	Boron* (ppm)		0.69				
	Iron* (ppm)		354				
	Manganese* (ppm)		35				
	Copper* (ppm)		5.82				
	Zinc* (ppm)		14.99				
	Aluminum* (ppm)		890				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		16.0				
	NH ₄ -N (ppm)		< 0.5				

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Sample Location		HELL GATE	FIELDS	FIELDS			
Sample Identification			#62?	#60=			
Lab Number			0322-1	0323-1			
Total Exchange Capacity (ME/100 g)			12.80	3.54			
pH	Buffer (SMP/Sikora)	a	NA	7.4			
	H ₂ O (1:1)		7.5	6.3			
Organic Matter (360°C LOI) %			6.00	1.67			
Estimated Nitrogen Release		lb/A	105	53			
ANIONS	SOLUBLE SULFUR*						
		ppm	59	12			
	PHOSPHORUS	MEHLICH III	lb/A	P as P ₂ O ₅	522	1031	
				ppm of P	114	225	
		BRAY II	lb/A	P as P ₂ O ₅			
EXCHANGEABLE CATIONS	CATIONS			ppm of P			
		OLSEN	lb/A	P as P ₂ O ₅			
				ppm of P			
		CALCIUM*	lb/A		3848	872	
			ppm		1924	436	
EXCHANGEABLE CATIONS	CATIONS	MAGNESIUM*	lb/A		442	114	
			ppm		221	57	
		POTASSIUM*	lb/A		408	172	
			ppm		204	86	
		SODIUM*	lb/A		144	52	
EXCHANGEABLE CATIONS	CATIONS		ppm		72	26	
		BASE SATURATION PERCENT					
		Calcium	%		75.16	61.58	
		Magnesium	%		14.39	13.42	
		Potassium	%		4.09	6.23	
EXCHANGEABLE CATIONS	CATIONS	Sodium	%		2.45	3.19	
		Other Bases	%		3.90	5.10	
		Hydrogen	%		0.00	10.50	
		EXTRACTABLE MINORS					
EXTRACTABLE MINORS	EXTRACTABLE MINORS	Boron* (ppm)			0.83	0.40	
		Iron* (ppm)			340	449	
		Manganese* (ppm)			21	8	
		Copper* (ppm)			6.53	3.48	
		Zinc* (ppm)			17.08	13.29	
EXTRACTABLE MINORS	EXTRACTABLE MINORS	Aluminum* (ppm)			662	320	
		Soluble Salts (mmhos/cm)					
		Chlorides (ppm)					
		NO ₃ -N (ppm)			12.0	6.6	
		NH ₄ -N (ppm)			2.2	7.1	
OTHER TESTS	OTHER TESTS						

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Sample Location		HARLEM RIVER		EVENTS				
Sample Identification				AREA				
Lab Number				0324-1				
Total Exchange Capacity (ME/100 g)				12.64				
pH	Buffer (SMP/Sikora)			7.5				
	H ₂ O (1:1)			6.8				
Organic Matter (360°C LOI) %				4.02				
Estimated Nitrogen Release lb/A				90				
ANIONS	SOLUBLE SULFUR*			14				
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅ ppm of P		1012				
		BRAY II lb/A P as P ₂ O ₅ ppm of P		221				
		OLSEN lb/A P as P ₂ O ₅ ppm of P						
EXCHANGEABLE CATIONS	CALCIUM*	lb/A		3720				
		ppm		1860				
	MAGNESIUM*	lb/A		382				
		ppm		191				
	POTASSIUM*	lb/A		486				
	ppm		243					
	SODIUM*	lb/A		74				
	ppm		37					
BASE SATURATION PERCENT								
Calcium %				73.58				
Magnesium %				12.59				
Potassium %				4.93				
Sodium %				1.27				
Other Bases %				4.60				
Hydrogen %				3.00				
EXTRACTABLE MINORS								
Boron* (ppm)				0.79				
Iron* (ppm)				368				
Manganese* (ppm)				50				
Copper* (ppm)				11.32				
Zinc* (ppm)				14.30				
Aluminum* (ppm)				882				
OTHER TESTS	Soluble Salts (mmhos/cm)							
	Chlorides (ppm)							
	NO ₃ -N (ppm)				22.3			
	NH ₄ -N (ppm)				4.1			

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Sample Location		ICHAN	STADIUM					
Sample Identification								
Lab Number			0325-1					
Total Exchange Capacity (ME/100 g)			3.54					
pH	Buffer (SMP/Sikora)		7.3					
	H ₂ O (1:1)		6.0					
Organic Matter (360°C LOI) %			1.64					
Estimated Nitrogen Release lb/A			53					
ANIONS	SOLUBLE SULFUR*							
		ppm		8				
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅		568				
			ppm of P		124			
		BRAY II lb/A P as P ₂ O ₅						
	ppm of P							
	OLSEN lb/A P as P ₂ O ₅							
	ppm of P							
EXCHANGEABLE CATIONS	CALCIUM*		lb/A	786				
		ppm		393				
	MAGNESIUM*		lb/A	142				
		ppm		71				
	POTASSIUM*		lb/A	124				
		ppm		62				
	SODIUM*		lb/A	48				
		ppm		24				
BASE SATURATION PERCENT								
Calcium %			55.51					
Magnesium %			16.71					
Potassium %			4.49					
Sodium %			2.95					
Other Bases %			5.40					
Hydrogen %			15.00					
EXTRACTABLE MINORS								
Boron* (ppm)			< 0.20					
Iron* (ppm)			236					
Manganese* (ppm)			9					
Copper* (ppm)			1.80					
Zinc* (ppm)			8.27					
Aluminum* (ppm)			451					
OTHER TESTS	Soluble Salts (mmhos/cm)							
	Chlorides (ppm)							
	NO ₃ -N (ppm)			5.0				
	NH ₄ -N (ppm)			3.6				

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