

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name East Orange Golf Course City Milburn State NJ

Independent Consultant Soil and Water Consulting Date 4/25/2019

Sample Location	TEE	6	11	16		
Sample Identification						
Lab Number		0335-1	0336-1	0337-1		
Total Exchange Capacity (ME/100 g)		3.78	11.19	11.21		
pH	Buffer (SMP/Sikora)	NA	7.1	7.3		
	H ₂ O (1:1)	7.1	6.3	6.5		
Organic Matter (360°C LOI) %		1.23	3.65	3.52		
Estimated Nitrogen Release	lb/A	45	86	85		
ANIONS	SOLUBLE SULFUR*					
	ppm	19	25	21		
	MEHLICH III lb/A P as P ₂ O ₅	641	1292	939		
	ppm of P	140	282	205		
	BRAY II lb/A P as P ₂ O ₅					
	ppm of P					
EXCHANGEABLE CATIONS	OLSEN lb/A P as P ₂ O ₅					
	ppm of P					
	CALCIUM* lb/A	1000	2916	2954		
	ppm	500	1458	1477		
	MAGNESIUM* lb/A	198	348	442		
BASE SATURATION PERCENT	ppm	99	174	221		
	POTASSIUM* lb/A	142	456	362		
	ppm	71	228	181		
	SODIUM* lb/A	52	56	58		
	ppm	26	28	29		
BASE SATURATION PERCENT						
Calcium	%	66.14	65.15	65.88		
Magnesium	%	21.83	12.96	16.43		
Potassium	%	4.82	5.22	4.14		
Sodium	%	2.99	1.09	1.12		
Other Bases	%	4.30	5.10	4.90		
Hydrogen	%	0.00	10.50	7.50		
EXTRACTABLE MINORS						
Boron* (ppm)		0.70	0.82	0.74		
Iron* (ppm)		300	365	316		
Manganese* (ppm)		25	12	14		
Copper* (ppm)		2.32	6.48	4.60		
Zinc* (ppm)		5.82	12.94	7.10		
Aluminum* (ppm)		455	788	698		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	3.0	4.6	2.3		
	NH ₄ -N (ppm)	8.1	7.3	8.6		

* Mehlich III Extractable

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Sample Location <u>FAIRWAY</u>		6	11	16		
Sample Identification						
Lab Number		0338-1	0339-1	0340-1		
Total Exchange Capacity (ME/100 g)		12.93	11.18	9.98		
pH	Buffer (SMP/Sikora)	7.2	7.2	7.2		
	H ₂ O (1:1)	6.3	6.1	6.3		
Organic Matter (360°C LOI) %		4.86	4.26	4.01		
Estimated Nitrogen Release lb/A		99	93	90		
ANIONS	SOLUBLE SULFUR*	ppm	16	16	15	
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅ ppm of P	289	311	229	
			63	68	50	
		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	3382	2748	2586	
		ppm	1691	1374	1293	
	MAGNESIUM*	lb/A	456	416	374	
		ppm	228	208	187	
	POTASSIUM*	lb/A	320	278	208	
		ppm	160	139	104	
	SODIUM*	lb/A	66	60	62	
		ppm	33	30	31	
BASE SATURATION PERCENT						
	Calcium	%	65.39	61.45	64.78	
	Magnesium	%	14.69	15.50	15.61	
	Potassium	%	3.17	3.19	2.67	
	Sodium	%	1.11	1.17	1.35	
	Other Bases	%	5.10	5.20	5.10	
	Hydrogen	%	10.50	13.50	10.50	
EXTRACTABLE MINORS						
	Boron* (ppm)		0.74	0.47	0.66	
	Iron* (ppm)		231	221	187	
	Manganese* (ppm)		32	22	30	
	Copper* (ppm)		3.90	3.48	3.08	
	Zinc* (ppm)		3.44	2.75	2.21	
	Aluminum* (ppm)		704	757	693	
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		2.6	4.1	3.7	
	NH ₄ -N (ppm)		10.3	7.5	7.9	

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Sample Location <u>GREEN</u>		6	11	16		
Sample Identification						
Lab Number		0341-1	0342-1	0343-1		
Total Exchange Capacity (ME/100 g)		10.19	11.10	11.96		
pH	Buffer (SMP/Sikora)	NA	7.4	7.4		
	H ₂ O (1:1)	7.2	6.8	6.9		
Organic Matter (360°C LOI) %		3.76	4.35	4.41		
Estimated Nitrogen Release lb/A		88	94	94		
ANIONS	SOLUBLE SULFUR*	ppm	18	19	17	
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅ ppm of P	1374	1278	1127	
			300	279	246	
		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	3050	3298	3504	
		ppm	1525	1649	1752	
	MAGNESIUM*	lb/A	370	364	462	
		ppm	185	182	231	
	POTASSIUM*	lb/A	360	296	340	
		ppm	180	148	170	
	SODIUM*	lb/A	60	54	56	
		ppm	30	27	28	
BASE SATURATION PERCENT						
	Calcium	%	74.83	74.28	73.24	
	Magnesium	%	15.13	13.66	16.10	
	Potassium	%	4.53	3.42	3.64	
	Sodium	%	1.28	1.06	1.02	
	Other Bases	%	4.20	4.60	4.50	
	Hydrogen	%	0.00	3.00	1.50	
EXTRACTABLE MINORS						
	Boron* (ppm)		0.68	0.84	0.69	
	Iron* (ppm)		399	414	363	
	Manganese* (ppm)		19	22	20	
	Copper* (ppm)		11.23	9.66	9.35	
	Zinc* (ppm)		28.37	25.01	26.14	
	Aluminum* (ppm)		470	461	478	
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		2.1	4.0	3.4	
	NH ₄ -N (ppm)		8.7	6.8	6.6	

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