

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

90089-2

Name Back Creek Golf Club City Middletown State DE

Independent Consultant Soil and Water Consulting Date 5/31/2023

Sample Location	TEE	1	18			
Sample Identification						
Lab Number		1803-1	1804-1			
Total Exchange Capacity (ME/100 g)		2.41	2.04			
pH	Buffer (SMP/Sikora)	7.3	7.3			
	H ₂ O (1:1)	6.4	6.2			
Organic Matter (360°C LOI) %		1.44	1.33			
Estimated Nitrogen Release	lb/A	49	47			
ANIONS	SOLUBLE SULFUR*					
	ppm	16	7			
	MEHLICH III lb/A P as P ₂ O ₅	202	119			
	ppm of P	44	26			
	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	626	494		
	ppm		313	247		
	MAGNESIUM*	lb/A	72	68		
	ppm		36	34		
	POTASSIUM*	lb/A	90	66		
	ppm		45	33		
	SODIUM*	lb/A	44	40		
	ppm		22	20		
BASE SATURATION PERCENT						
	Calcium %		64.94	60.54		
	Magnesium %		12.45	13.89		
	Potassium %		4.79	4.15		
	Sodium %		3.97	4.26		
	Other Bases %		5.00	5.20		
	Hydrogen %		9.00	12.00		
EXTRACTABLE MINORS						
	Boron* (ppm)		0.21	< 0.20		
	Iron* (ppm)		229	189		
	Manganese* (ppm)		15	12		
	Copper* (ppm)		2.19	0.64		
	Zinc* (ppm)		2.71	2.19		
	Aluminum* (ppm)		173	156		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		0.5	0.9		
	NH ₄ -N (ppm)		3.4	3.3		

* Mehlich III Extractable

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Sample Location	FAIRWAY	1	18			
Sample Identification						
Lab Number		1805-1	1806-1			
Total Exchange Capacity (ME/100 g)		6.66	6.76			
pH	Buffer (SMP/Sikora)	7.3	7.3			
	H ₂ O (1:1)	6.0	6.0			
Organic Matter (360°C LOI) %		4.21	3.66			
Estimated Nitrogen Release	lb/A	92	87			
ANIONS	SOLUBLE SULFUR*					
	ppm	18	16			
	MEHLICH III lb/A P as P ₂ O ₅	202	293			
	ppm of P	44	64			
	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	1498	1568		
	ppm		749	784		
	MAGNESIUM*	lb/A	242	224		
	ppm		121	112		
	POTASSIUM*	lb/A	306	302		
	ppm		153	151		
	SODIUM*	lb/A	70	64		
	ppm		35	32		
BASE SATURATION PERCENT						
	Calcium	%	56.23	57.99		
	Magnesium	%	15.14	13.81		
	Potassium	%	5.89	5.73		
	Sodium	%	2.28	2.06		
	Other Bases	%	5.40	5.40		
	Hydrogen	%	15.00	15.00		
EXTRACTABLE MINORS						
	Boron* (ppm)		0.36	0.30		
	Iron* (ppm)		264	260		
	Manganese* (ppm)		65	70		
	Copper* (ppm)		0.98	1.13		
	Zinc* (ppm)		2.31	2.56		
	Aluminum* (ppm)		782	772		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		1.4	2.3		
	NH ₄ -N (ppm)		6.5	5.8		

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Sample Location	GREEN	1	18			
Sample Identification						
Lab Number		1807-1	1808-1			
Total Exchange Capacity (ME/100 g)		1.99	1.98			
pH	Buffer (SMP/Sikora)	7.3	7.4			
	H ₂ O (1:1)	6.0	5.9			
Organic Matter (360°C LOI) %		0.99	0.78			
Estimated Nitrogen Release	lb/A	40	31			
ANIONS	SOLUBLE SULFUR*					
	ppm	9	10			
	MEHLICH III lb/A P as P ₂ O ₅	215	229			
	ppm of P	47	50			
	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	474	468			
	ppm	237	234			
	MAGNESIUM* lb/A	56	46			
BASE SATURATION PERCENT	ppm	28	23			
	POTASSIUM* lb/A	56	46			
	ppm	28	23			
	SODIUM* lb/A	44	44			
	ppm	22	22			
BASE SATURATION PERCENT						
	Calcium %	59.55	59.09			
	Magnesium %	11.73	9.68			
	Potassium %	3.61	2.98			
	Sodium %	4.81	4.83			
	Other Bases %	5.40	5.60			
	Hydrogen %	15.00	18.00			
EXTRACTABLE MINORS						
	Boron* (ppm)	< 0.20	< 0.20			
	Iron* (ppm)	201	202			
	Manganese* (ppm)	26	41			
	Copper* (ppm)	1.07	0.95			
	Zinc* (ppm)	2.76	2.26			
	Aluminum* (ppm)	232	245			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	0.5	0.5			
	NH ₄ -N (ppm)	2.0	4.8			

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