

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

80046-24

Name Western Golf Properties City Lake Forest State CAIndependent Consultant Soil and Water Consulting Date 9/29/2022

Sample Location <u>ASHWOOD GC</u>			TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification			B2	S2	M2	B2	S2
Lab Number			0423-1	0424-1	0425-1	0426-1	0427-1
Total Exchange Capacity (ME/100 g)			7.43	9.34	8.91	6.84	8.97
pH (H ₂ O 1:1)			a 7.4	a 7.6	a 7.5	a 7.7	a 7.5
Organic Matter (360°C LOI) %			4.02	3.63	4.90	2.89	3.08
Estimated Nitrogen Release lb/A			90	86	99	78	81
ANIONS	SOLUBLE SULFUR* ppm		14	13	11	12	16
	MEHLICH III	lb/A P as P ₂ O ₅ ppm of P					
	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	55 12	37 8	5 1	60 13	27 6
EXCHANGEABLE CATIONS	CALCIUM*		2298 1149	2958 1479	2818 1409	2066 1033	2796 1398
	MAGNESIUM*		256 128	290 145	292 146	254 127	298 149
	POTASSIUM*		134 67	182 91	100 50	158 79	134 67
	SODIUM*		70 35	68 34	78 39	72 36	98 49
	BASE SATURATION PERCENT						
	Calcium	%	77.32	79.18	79.07	75.51	77.93
	Magnesium	%	14.36	12.94	13.66	15.47	13.84
	Potassium	%	2.31	2.50	1.44	2.96	1.92
	Sodium	%	2.05	1.58	1.90	2.29	2.38
	Other Bases	%	4.00	3.80	3.90	3.70	3.90
	Hydrogen	%	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS							
Boron** (ppm)			0.79	0.80	1.00	0.96	1.07
Iron** (ppm)			147	274	163	171	257
Manganese** (ppm)			15	24	20	19	19
Copper** (ppm)			0.85	1.04	1.09	1.10	0.89
Zinc** (ppm)			3.10	8.36	9.15	5.49	5.00
Aluminum** (ppm)			126	144	105	127	155
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		1.8	6.7	4.4	1.1	5.0
	NH ₄ -N (ppm)		1.6	5.1	4.7	3.7	2.7

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

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Sample Location		ASHWOOD GC	FAIRWAY	GREEN	GREEN	GREEN	GREEN
Sample Identification			M2	B2	S2	M2	PG
Lab Number			0428-1	0429-1	0430-1	0431-1	0432-1
Total Exchange Capacity (ME/100 g)			9.27	5.02	5.26	4.97	4.58
pH (H ₂ O 1:1)			a 7.7	7.3	7.3	a 7.4	a 7.5
Organic Matter (360°C LOI) %			3.80	1.62	2.17	2.05	1.37
Estimated Nitrogen Release lb/A			88	52	63	61	47
ANIONS	SOLUBLE SULFUR*	ppm	20	20	19	13	9
	MEHLICH III	lb/A P as P ₂ O ₅ ppm of P					
	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	9 2	9 2	27 6	23 5	23 5
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	2922	1562	1656	1600	1470
		ppm	1461	781	828	800	735
	MAGNESIUM*	lb/A	306	152	154	138	126
		ppm	153	76	77	69	63
	POTASSIUM*	lb/A	108	124	90	74	78
		ppm	54	62	45	37	39
	SODIUM*	lb/A	98	54	66	48	48
		ppm	49	27	33	24	24
BASE SATURATION PERCENT							
Calcium		%	78.80	77.79	78.71	80.48	80.24
Magnesium		%	13.75	12.62	12.20	11.57	11.46
Potassium		%	1.49	3.17	2.19	1.91	2.18
Sodium		%	2.30	2.34	2.73	2.10	2.28
Other Bases		%	3.70	4.10	4.10	4.00	3.90
Hydrogen		%	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS							
Boron** (ppm)			1.34	1.03	0.72	0.69	0.68
Iron** (ppm)			111	150	166	146	107
Manganese** (ppm)			26	23	30	37	25
Copper** (ppm)			0.60	1.21	1.71	1.27	0.89
Zinc** (ppm)			7.01	3.62	4.63	4.77	2.75
Aluminum** (ppm)			105	49	64	73	58
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		6.1	0.6	1.8	1.5	1.1
	NH ₄ -N (ppm)		5.1	1.7	2.4	3.6	1.9

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable