

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

80046-33

Name Western Golf Properties City Lake Forest State CAIndependent Consultant Soil and Water Consulting Date 10/25/2023

Sample Location	TRI-PALM CC	TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification		6	8	12	6	8
Lab Number		0499-1	0500-1	0501-1	0502-1	0503-1
Total Exchange Capacity (ME/100 g)		10.09	10.73	11.98	13.65	14.70
pH (H ₂ O 1:1)		a 7.4	a 7.5	a 7.7	a 7.5	a 7.7
Organic Matter (360°C LOI) %		3.49	2.65	2.89	2.87	3.62
Estimated Nitrogen Release lb/A		85	73	78	77	86
ANIONS	SOLUBLE SULFUR* ppm	8	12	16	48	15
	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	37 8	18 4	37 8	23 5	27 6
EXCHANGEABLE CATIONS	CALCIUM* lb/A	3256	3494	3866	4398	4666
	ppm	1628	1747	1933	2199	2333
	MAGNESIUM* lb/A	280	270	300	348	406
	ppm	140	135	150	174	203
	POTASSIUM* lb/A	190	212	356	348	464
	ppm	95	106	178	174	232
	SODIUM* lb/A	64	82	76	102	96
	ppm	32	41	38	51	48
BASE SATURATION PERCENT						
Calcium	%	80.67	81.41	80.68	80.55	79.35
Magnesium	%	11.56	10.48	10.43	10.62	11.51
Potassium	%	2.41	2.53	3.81	3.27	4.05
Sodium	%	1.38	1.66	1.38	1.62	1.42
Other Bases	%	4.00	3.90	3.70	3.90	3.70
Hydrogen	%	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS						
Boron** (ppm)		0.65	0.64	0.61	0.95	1.06
Iron** (ppm)		148	190	169	109	176
Manganese** (ppm)		30	36	47	46	45
Copper** (ppm)		1.82	2.20	1.90	1.94	2.68
Zinc** (ppm)		4.70	3.74	4.64	5.19	6.12
Aluminum** (ppm)		181	159	114	150	153
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO3-N (ppm)	0.6	0.9	9.2	16.7	6.3
	NH4-N (ppm)	3.4	2.8	2.3	3.1	2.3

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location		TRI-PALM CC	FAIRWAY	GREEN	GREEN	GREEN	GREEN
Sample Identification			12	6	8	12	13
Lab Number			0504-1	0505-1	0506-1	0507-1	0508-1
Total Exchange Capacity (ME/100 g)			15.34	9.79	9.67	9.33	8.88
pH (H ₂ O 1:1)			a 8.1	a 7.5	7.1	a 7.7	a 7.4
Organic Matter (360°C LOI) %			0.57	2.18	2.36	2.21	2.14
Estimated Nitrogen Release		lb/A	23	64	67	64	63
ANIONS	SOLUBLE SULFUR*	ppm	38	16	20	14	15
	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	< 5 < 1	110 24	105 23	69 15	128 28
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	5338	3022	2928	2766	2668
		ppm	2669	1511	1464	1383	1334
	MAGNESIUM*	lb/A	144	302	304	336	308
		ppm	72	151	152	168	154
	POTASSIUM*	lb/A	208	328	376	424	340
		ppm	104	164	188	212	170
	SODIUM*	lb/A	284	82	86	58	62
		ppm	142	41	43	29	31
BASE SATURATION PERCENT							
	Calcium	%	86.99	77.17	75.70	74.12	75.11
	Magnesium	%	3.91	12.85	13.10	15.01	14.45
	Potassium	%	1.74	4.30	4.99	5.83	4.91
	Sodium	%	4.02	1.82	1.93	1.35	1.52
	Other Bases	%	3.30	3.90	4.30	3.70	4.00
	Hydrogen	%	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS							
	Boron** (ppm)		0.40	0.62	0.86	0.82	0.88
	Iron** (ppm)		38	281	417	288	416
	Manganese** (ppm)		47	56	59	81	60
	Copper** (ppm)		0.68	2.16	2.74	3.11	1.99
	Zinc** (ppm)		1.25	13.93	16.05	18.23	17.31
	Aluminum** (ppm)		78	125	201	183	206
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		24.6	9.0	24.4	9.4	3.5
	NH ₄ -N (ppm)		7.7	< 0.5	1.4	1.8	1.1

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable