

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

80046-30

Name Western Golf Properties City Lake Forest State CAIndependent Consultant Soil and Water Consulting Date 9/22/2023

Sample Location	THE LEGACY GC	TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification		1	9	18	1	9
Lab Number		0304-1	0305-1	0307-1	0308-1	0309-1
Total Exchange Capacity (ME/100 g)		7.21	17.57	16.77	23.62	24.23
pH (H ₂ O 1:1)		a 8.2	a 8.1	a 8.0	a 8.0	a 8.0
Organic Matter (360°C LOI) %		4.62	4.66	4.88	5.45	4.91
Estimated Nitrogen Release lb/A		96	97	99	102	99
ANIONS	SOLUBLE SULFUR* ppm	18	85	55	55	82
	PHOSPHORUS 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	270 59	224 49	220 48	279 61	211 46
EXCHANGEABLE CATIONS	CALCIUM* lb/A	2014	4170	4256	4306	4926
	ppm	1007	2085	2128	2153	2463
	MAGNESIUM* lb/A	260	686	688	712	800
	ppm	130	343	344	356	400
	POTASSIUM* lb/A	168	580	510	2802	2308
	ppm	84	290	255	1401	1154
	SODIUM* lb/A	298	1362	936	2526	2206
	ppm	149	681	468	1263	1103
BASE SATURATION PERCENT						
	Calcium %	69.83	59.33	63.45	45.58	50.83
	Magnesium %	15.03	16.27	17.09	12.56	13.76
	Potassium %	2.99	4.23	3.90	15.21	12.21
	Sodium %	8.99	16.85	12.13	23.25	19.79
	Other Bases %	3.20	3.30	3.40	3.40	3.40
	Hydrogen %	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS						
	Boron** (ppm)	2.81	3.25	2.69	3.30	2.53
	Iron** (ppm)	174	174	107	102	92
	Manganese** (ppm)	15	16	13	29	23
	Copper** (ppm)	2.81	2.87	2.62	1.59	1.20
	Zinc** (ppm)	42.96	44.62	40.35	36.05	32.16
	Aluminum** (ppm)	27	45	65	57	58
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO3-N (ppm)	24.3	35.8	18.0	28.5	26.3
	NH4-N (ppm)	0.5	1.1	1.2	1.6	2.4

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location THE LEGACY GC			FAIRWAY	GREEN	GREEN	GREEN	
Sample Identification			18	1	9	18	
Lab Number			0310-1	0311-1	0312-1	0313-1	
Total Exchange Capacity (ME/100 g)			21.06	9.24	10.56	8.97	
pH (H ₂ O 1:1)			a 7.9	a 8.0	a 8.4	a 7.8	
Organic Matter (360°C LOI) %			4.75	2.36	2.42	2.71	
Estimated Nitrogen Release lb/A			98	67	68	74	
ANIONS	SOLUBLE SULFUR* ppm		64	37	42	37	
	PHOSPHORUS	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	211 46	105 23	124 27	124 27	
EXCHANGEABLE CATIONS	CALCIUM* lb/A ppm		4866 2433	2310 1155	2630 1315	2284 1142	
	MAGNESIUM* lb/A ppm		782 391	296 148	346 173	312 156	
	POTASSIUM* lb/A ppm		1430 715	420 210	496 248	356 178	
	SODIUM* lb/A ppm		1412 706	634 317	730 365	544 272	
	BASE SATURATION PERCENT						
	Calcium	%	57.76	62.50	62.26	63.66	
	Magnesium	%	15.47	13.35	13.65	14.49	
	Potassium	%	8.71	5.83	6.02	5.09	
	Sodium	%	14.58	14.92	15.03	13.18	
	Other Bases	%	3.50	3.40	3.00	3.60	
	Hydrogen	%	0.00	0.00	0.00	0.00	
	EXTRACTABLE MINORS						
	Boron** (ppm)		2.11	1.17	2.07	1.31	
	Iron** (ppm)		77	143	142	172	
	Manganese** (ppm)		18	48	69	56	
	Copper** (ppm)		1.08	2.12	2.72	2.65	
	Zinc** (ppm)		26.64	28.64	40.54	36.54	
	Aluminum** (ppm)		63	61	63	69	
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		23.2	8.8	9.5	8.3	
	NH ₄ -N (ppm)		1.6	1.2	0.7	1.1	

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Sample Location		THE LEGACY GC	FAIRWAY				
Sample Identification			PG				
Lab Number			0314-1				
Total Exchange Capacity (ME/100 g)			8.73				
pH	Buffer (SMP/Sikora)	a	NA				
	H ₂ O (1:1)		7.6				
Organic Matter (360°C LOI) %			2.33				
Estimated Nitrogen Release lb/A			67				
ANIONS	SOLUBLE SULFUR*	ppm	30				
	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	110 24				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	2340 1170				
	MAGNESIUM*	lb/A ppm	308 154				
	POTASSIUM*	lb/A ppm	332 166				
	SODIUM*	lb/A ppm	386 193				
BASE SATURATION PERCENT							
	Calcium	%	67.01				
	Magnesium	%	14.70				
	Potassium	%	4.88				
	Sodium	%	9.61				
	Other Bases	%	3.80				
	Hydrogen	%	0.00				
EXTRACTABLE MINORS							
	Boron** (ppm)		1.11				
	Iron** (ppm)		186				
	Manganese** (ppm)		50				
	Copper** (ppm)		2.30				
	Zinc** (ppm)		34.86				
	Aluminum** (ppm)		57				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		14.7				
	NH ₄ -N (ppm)		1.2				

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