

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

80046-12

 Name Western Golf Properties City Lake Forest State CA

 Independent Consultant Soil and Water Consulting Date 10/27/2020

Sample Location	SAN RAMON GC	TEE	TEE	TEE	FAIRWAY	FAIRWAY
Sample Identification		5	11	15	5	11
Lab Number		0339-1	0340-1	0341-1	0342-1	0343-1
Total Exchange Capacity (ME/100 g)		20.98	22.55	25.12	31.56	34.67
pH (H ₂ O 1:1)		a 7.7	a 8.0	a 8.1	a 8.1	a 8.0
Organic Matter (360°C LOI) %		5.87	5.58	5.19	8.18	6.77
Estimated Nitrogen Release lb/A		104	103	101	116	109
ANIONS	SOLUBLE SULFUR* ppm	47	38	59	48	77
	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	60 13	46 10	50 11	78 17	27 6
EXCHANGEABLE CATIONS	CALCIUM* lb/A	4930	5378	5632	7284	7422
	ppm	2465	2689	2816	3642	3711
	MAGNESIUM* lb/A	1390	1490	1760	2196	2662
	ppm	695	745	880	1098	1331
	POTASSIUM* lb/A	364	228	202	524	464
	ppm	182	114	101	262	232
	SODIUM* lb/A	744	846	1204	1142	1496
	ppm	372	423	602	571	748
BASE SATURATION PERCENT						
	Calcium %	58.75	59.62	56.05	57.70	53.52
	Magnesium %	27.61	27.53	29.19	28.99	31.99
	Potassium %	2.22	1.30	1.03	2.13	1.72
	Sodium %	7.71	8.16	10.42	7.87	9.38
	Other Bases %	3.70	3.40	3.30	3.30	3.40
	Hydrogen %	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS						
	Boron** (ppm)	3.40	3.70	2.75	5.32	6.02
	Iron** (ppm)	143	87	178	81	57
	Manganese** (ppm)	26	38	57	27	66
	Copper** (ppm)	3.16	4.47	1.92	3.21	3.23
	Zinc** (ppm)	9.92	11.68	2.64	21.81	4.79
	Aluminum** (ppm)	179	157	313	214	233
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)	10.6	6.3	1.0	13.2	8.3
	NH ₄ -N (ppm)	4.8	4.8	2.9	6.1	6.2

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

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Sample Location		SAN RAMON GC	FAIRWAY	GREEN	GREEN	GREEN	
Sample Identification			15	5	11	15	
Lab Number			0344-1	0345-1	0346-1	0347-1	
Total Exchange Capacity (ME/100 g)			33.32	11.49	8.66	6.65	
pH (H ₂ O 1:1)			a 8.2	a 8.0	a 8.2	a 8.1	
Organic Matter (360°C LOI) %			6.40	2.82	1.47	1.05	
Estimated Nitrogen Release lb/A			107	76	49	41	
ANIONS	SOLUBLE SULFUR*	ppm	76	77	42	39	
	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	50 11	64 14	73 16	78 17	
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	7352 3676	3150 1575	2482 1241	1946 973	
	MAGNESIUM*	lb/A ppm	2434 1217	472 236	348 174	230 115	
	POTASSIUM*	lb/A ppm	468 234	324 162	252 126	224 112	
	SODIUM*	lb/A ppm	1440 720	388 194	184 92	148 74	
BASE SATURATION PERCENT							
	Calcium	%	55.16	68.54	71.65	73.16	
	Magnesium	%	30.44	17.12	16.74	14.41	
	Potassium	%	1.80	3.62	3.73	4.32	
	Sodium	%	9.40	7.34	4.62	4.84	
	Other Bases	%	3.20	3.40	3.20	3.30	
	Hydrogen	%	0.00	0.00	0.00	0.00	
EXTRACTABLE MINORS							
	Boron** (ppm)		6.49	1.54	0.95	0.75	
	Iron** (ppm)		47	161	124	110	
	Manganese** (ppm)		41	39	38	23	
	Copper** (ppm)		3.00	2.41	0.80	0.47	
	Zinc** (ppm)		4.65	6.82	4.00	3.00	
	Aluminum** (ppm)		201	103	66	54	
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		5.5	1.8	0.7	< 0.5	
	NH ₄ -N (ppm)		6.4	< 0.5	0.6	1.5	

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable