



SOIL AND WATER CONSULTING

Data Collection Report

Spring 2022

Date of Collection: 3/17/22

Client: The Summit Club



Testing Results

	<u>3/4/20</u>	<u>3/24/21</u>	<u>3/17/22</u>
Humidity/Air Temperature	19%/70°	20%/63°	10%/68°
Greens Temperature	(avg)59°	(avg)49.8°	(avg)52.1°
Fairway Temperature	(avg)56.5°	(avg)52.7°	(avg)53°

WATER	Acceptable Range For Water Sample	Hole #1 3/27/20	Hole #9 3/24/21	Pond 3/17/22
EC	<2.25 mmhos/cm	0.84	0.83	0.90
Sodium		84.95	84.47	89.67
Calcium	20 - 60 ppm	77.90	59.31	75.21
Magnesium	10 - 25 ppm	23.66	26.46	25.52
Potassium	5 - 20 ppm	7.21	4.69	5.63
Sulfur	30 - 90 ppm	235.17	201.33	223.26
Bicarbonate	<120 ppm	177.15	124.92	197.26
Boron	<0.67 ppm	0.14	0.11	0.12
Chloride	<177 ppm	79.83	83.57	95.15

TEE	Acceptable Range For Tissue Sample	14 3/17/22
Nitrogen	3.34%-5.10%	7.00
Phosphorus	0.35% - 0.55%	0.63
Potassium	2.0% - 3.42%	2.76
Calcium	0.25%-0.5%	0.56
Magnesium	0.16%-0.32%	0.27
Sodium	229-1107 ppm	1,870.00

FAIRWAY	Acceptable Range For Tissue Sample	14 3/17/22
Nitrogen	3.34%-5.10%	6.42
Phosphorus	0.35% - 0.55%	0.60
Potassium	2.0% - 3.42%	2.74
Calcium	0.25%-0.5%	0.47
Magnesium	0.16%-0.32%	0.28
Sodium	229-1107 ppm	1,650.00

GREENS	Acceptable Range For Tissue Sample	5,14(avg) 3/17/22
Nitrogen	3.0%-6.5%	4.43
Phosphorus	0.2%-0.55%	0.41
Potassium	0.86%-2.55%	2.08
Calcium	0.21%-0.50%	0.60
Magnesium	0.09%-0.22%	0.24
Sodium	506- 2264 ppm	2,185.00

TEES	Acceptable Range For Alkaline Soils Sample	5,14(avg) 3/11/19	1,10(avg) 3/4/20	9,18(avg) 3/24/21	5,14(avg) 3/17/22
Organic Matter (Humus)	2 - 3%	0.75	0.46	0.86	0.69
Sulfur	12 - 16 ppm	16.67	78.50	50.25	36.00
Olsen - Phosphorus	13 - 20 ppm	17.33	32.00	21.50	18.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,665.33	2,228.00	2,331.50	1,970.00
Magnesium	>7% base saturation or at least 200 lbs/acre	13.71%/260	11.98%/206	13.11%/235	14.15%/220
Potassium - TEC of 0 - 35	100 ppm	47.67	70.50	73.75	55.50
Manganese	>50 ppm	11.33	16.00	17.25	13.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	5,14(avg) 3/11/19	1 3/4/20	9,18(avg) 3/24/21	5,14(avg) 3/17/22
Organic Matter (Humus)	2 - 3%	0.97	2.39	0.52	0.61
Sulfur	12 - 16 ppm	24.00	367.00	164.00	77.00
Olsen - Phosphorus	13 - 20 ppm	22.50	59.00	22.75	15.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,950.00	3,882.00	2,586.00	2,197.00
Magnesium	>7% base saturation or at least 200 lbs/acre	14.18%/214	12.71%/380	11.06%/219	13.75%/236
Potassium - TEC of 0 - 35	100 ppm	66.50	110.00	92.50	53.00
Manganese	>50 ppm	16.00	12.00	14.25	9.00

GREENS	Acceptable Range For Alkaline Soils Sample	5,14(avg) 3/11/19	1,10(avg) 3/4/20	9,18(avg) 3/24/21	5,14(avg) 3/17/22
Organic Matter (Humus)	2 - 3%	0.85	0.65	0.67	0.87
Sulfur	12 - 16 ppm	5.00	44.00	46.50	93.50
Olsen - Phosphorus	13 - 20 ppm	8.00	13.50	6.25	13.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,499.00	1,909.00	1,607.50	1,949.00
Magnesium	>7% base saturation or at least 200 lbs/acre	14.18%/166	12.48%/184	14.48%/182	14.21%/225
Potassium - TEC of 0 - 35	150 ppm	61.00	59.00	48.75	58.50
Manganese	>50 ppm	16.50	18.00	14.75	13.00

TEE	Acceptable Range For Saturated Paste Sample	9 3/24/21	14 3/17/22
Nitrate - Ryegrass	10 -15 ppm	10.30	<0.5
Phosphorus	2 - 10 ppm	3.80	4.99
Potassium	40 - 100 ppm	48.76	39.35
Calcium	60 - 200 ppm	92.64	87.66
Magnesium	20 - 70 ppm	29.83	32.71
Sodium	0 - 30 ppm	89.00	99.13
Soluble Salts	<1,920 ppm	639.00	700.00
Bicarbonate	<60 ppm	169.83	263.01
Chloride	<1,000 ppm	95.00	103.00
SAR	<4%	2.06	2.29

FAIRWAY	Acceptable Range For Saturated Paste Sample	9 3/24/21	14 3/17/22
Nitrate - Ryegrass	10 -15 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	2.58	1.59
Potassium	40 - 100 ppm	74.73	29.57
Calcium	60 - 200 ppm	169.88	139.90
Magnesium	20 - 70 ppm	55.20	39.98
Sodium	0 - 30 ppm	129.24	170.23
Soluble Salts	<1,920 ppm	1,011.00	988.00
Bicarbonate	<60 ppm	212.62	161.43
Chloride	<1,000 ppm	125.00	162.00
SAR	<4%	2.20	3.27

GREENS	Acceptable Range For Saturated Paste Sample	9,18(avg) 3/24/21	5,14(avg) 3/17/22
Nitrate - Dominator Bentgrass	1-3 ppm	<0.5	<0.5
Phosphorus	2 - 7 ppm	2.66	2.58
Potassium	25-40 ppm	23.60	35.53
Calcium	50- 75 ppm	72.23	108.79
Magnesium	15-30 ppm	22.23	33.33
Sodium	0 - 30 ppm	92.28	117.48
Soluble Salts	<1,000 ppm	573.50	784.00
Bicarbonate	<60 ppm	100.79	179.87
Chloride	<200 ppm	62.50	119.50
SAR	<4%	2.43	2.48