



SOIL AND WATER CONSULTING

Data Collection Report

Fall 2021

Date of Collection: 9/30/21

Client: Seven Oaks Country Club



Testing Results

<u>9/30/21</u>	
Humidity/Air Temperature	35%/88°
Greens Temperature	(avg)60.25°
Fairway Temperature	(avg)64.05°

WATER	<u>Acceptable Range For Water Sample</u>	<u>Irrigation Pond 9/20/15</u>	<u>Irrigation Pond 9/30/21</u>
pH	6.3-6.5	7.82	7.72
EC	<2.25 mmhos/cm	0.20	0.20
Sodium		22.90	24.55
Calcium	20 - 60 ppm	17.74	19.95
Magnesium	10 - 25 ppm	0.43	0.53
Potassium	5 - 20 ppm	1.95	1.94
Sulfur	30 - 90 ppm	13.59	14.21
Bicarbonate	<120 ppm	87.85	102.95
Boron	<0.67 ppm	0.12	0.11
Chloride	<177 ppm	<2	2.72

TEES	Acceptable Range For Alkaline Soils Sample	Oaks 4 9/20/15	Oaks 4 9/30/21	Lakes 4 9/20/15	Lakes 4 9/30/21	Islands 4 9/20/15	Islands 4 9/30/21
Organic Matter (Humus)	2 - 3%	n/r	3.45	n/r	3.20	n/r	2.55
Sulfur	12 - 16 ppm	n/r	29.00	n/r	30.00	n/r	28.00
Olsen - Phosphorus	13 - 20 ppm	n/r	6.00	n/r	11.00	n/r	5.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	n/r	2,758.00	n/r	3,200.00	n/r	1,758.00
	>7% base saturation or at least 200 lbs/acre	n/r	8.57%/176	n/r	8.04%/190	n/r	8.58%/116
Magnesium	100 ppm	n/r	96.00	n/r	144.00	n/r	88.00
Potassium - TEC of 0 - 35	>50 ppm	n/r	19.00	n/r	19.00	n/r	16.00
Manganese							

FAIRWAYS	Acceptable Range For Standard Soil Sample	Oaks 4 9/20/15	Oaks 4 9/30/21	Lakes 4 9/20/15	Lakes 4 9/30/21	Islands 4 9/20/15	Islands 4 9/30/21
Organic Matter (Humus)	2 - 3%	1.64	3.37	3.32	3.07	0.94	1.89
Sulfur	50 - 100 ppm	28.00	28.00	23.00	27.00	10.00	12.00
Mehlich III - Phosphorus	350 lbs/acre	206.00	224.00	385.00	271.00	92.00	160.00
Calcium	68%	77.43	69.35	69.37	66.09	75.63	69.02
Magnesium	15%	7.27	16.74	8.17	14.16	10.22	10.36
Potassium	5%	3.80	3.12	5.22	8.07	4.68	5.12
Sodium	<2%	7.41	7.19	4.79	5.64	5.20	4.75
Boron	1 - 1.5 ppm	0.98	1.17	0.71	0.68	0.34	0.62
Iron	120 ppm	365.00	235.00	388.00	302.00	104.00	120.00
Manganese	50 ppm	40.00	38.00	17.00	26.00	15.00	18.00

GREENS	Acceptable Range For Alkaline Soils Sample	Oaks 4 9/20/15	Oaks 4 9/30/21	Lakes 4 9/20/15	Lakes 4 9/30/21	Islands 4 9/20/15	Islands 4 9/30/21
Organic Matter (Humus)	2 - 3%	1.11	1.03	0.92	0.98	0.51	0.63
Sulfur	12 - 16 ppm	25.00	84.00	42.00	61.00	28.00	67.00
Olsen - Phosphorus	13 - 20 ppm	25.00	29.00	22.00	5.00	24.00	14.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,846.00	1,946.00	2,014.00	2,448.00	918.00	968.00
	>7% base saturation or at least 200 lbs/acre	9.23%/132	6.81%/104	8.15%/126	5.94%/110	11.42%/88	8.28%/64
Magnesium	150 ppm	94.00	189.00	131.00	126.00	85.00	88.00
Potassium	>50 ppm	n/r	93.00	n/r	46.00	n/r	102.00
Manganese							

TEES	Acceptable Range For Saturated Paste Sample	Lakes 4 9/30/21	Island 4 9/30/21
Nitrate - Ryegrass	5 - 10 ppm	16.70	<0.5
Phosphorus	2 - 10 ppm	2.38	0.48
Potassium	40 - 100 ppm	20.49	14.11
Calcium	60 - 200 ppm	36.90	21.23
Magnesium	20 - 70 ppm	7.06	4.32
Sodium	0 - 30 ppm	30.64	30.16
Soluble Salts	<1,920 ppm	268.00	228.00
Bicarbonate	<60 ppm	98.90	84.54
Chloride	<1,000 ppm	23.00	19.00
SAR	<4%	1.21	1.56

FAIRWAYS	Acceptable Range For Saturated Paste Sample	Lakes 4 9/30/21	Island 4 9/30/21
Nitrate - Ryegrass	10-15 ppm	6.40	10.90
Phosphorus	2 - 10 ppm	1.47	3.21
Potassium	40 - 100 ppm	26.69	28.56
Calcium	60 - 200 ppm	21.03	25.05
Magnesium	20 - 70 ppm	5.17	4.50
Sodium	0 - 30 ppm	46.33	42.59
Soluble Salts	<1,920 ppm	246.00	306.00
Bicarbonate	<60 ppm	56.20	62.52
Chloride	<1,000 ppm	28.00	34.00
SAR	<4%	2.35	2.06

GREENS	Acceptable Range For Saturated Paste Sample	Oaks 4 9/30/21	Lakes 4 9/30/21	Island 4 9/30/21	Chipping 9/30/21
Nitrate - Dominator Bentgrass	1-3 ppm	3.20	<0.5	9.40	0.80
Phosphorus	2 - 7 ppm	2.93	2.17	3.24	1.21
Potassium	25-40 ppm	57.44	18.96	32.10	7.89
Calcium	50- 75 ppm	67.93	48.53	41.96	11.30
Magnesium	15-30 ppm	11.14	8.52	7.36	2.06
Sodium	0 - 30 ppm	73.10	58.47	35.19	19.26
Soluble Salts	<1,000 ppm	614.00	410.00	357.00	205.00
Bicarbonate	<60 ppm	51.98	52.28	47.48	54.82
Chloride	<200 ppm	55.00	24.00	18.00	15.00
SAR	<4%	2.17	2.03	1.32	1.38