



SOIL AND WATER CONSULTING

Data Collection Report

Spring 2019

Date of Collection: 3/9/19

Client: Coyote Springs Golf Club



Testing Results

	<u>3/25/17</u>	<u>3/7/18</u>	<u>3/9/19</u>
Humidity/Air Temperature	54%/83°	15%/63°	30%/58°
Greens Temperature	58°	42°	(avg)45.2°
Fairway Temperature	58°	47.3°	(avg)47.2°

	<u>Acceptable Range For Water Sample</u>	<u>Hole #1 3/25/17</u>	<u>Hole #9 3/7/18</u>	<u>Hole #18 3/9/19</u>
EC	<2.25 mmhos/cm	0.81	0.79	0.79
Sodium		86.14	84.09	84.94
Calcium	20 - 60 ppm	50.97	50.08	47.06
Magnesium	10 - 25 ppm	22.44	21.85	19.59
Potassium	5 - 20 ppm	18.46	12.39	14.79
Sulfur	30 - 90 ppm	110.94	104.13	95.52
Bicarbonate	<120 ppm	285.09	312.19	321.40
Boron	<0.67 ppm	0.36	0.40	0.32
Chloride	<177 ppm	29.45	34.04	28.77

<i>TEE</i>	<u>Acceptable Range For Tissue Sample</u>	<u>5 3/9/19</u>
Nitrogen	3.34%-5.10%	2.62
Phosphorus	0.35% - 0.55%	0.40
Potassium	2.0% - 3.42%	1.78
Calcium	0.25%-0.5%	0.63
Magnesium	0.16%-0.32%	0.24
Sodium	229-1107 ppm	932.00

<i>FAIRWAY</i>	<u>Acceptable Range For Tissue Sample</u>	<u>5 3/9/19</u>
Nitrogen	3.34%-5.10%	2.61
Phosphorus	0.35% - 0.55%	0.43
Potassium	2.0% - 3.42%	2.01
Calcium	0.25%-0.5%	0.49
Magnesium	0.16%-0.32%	0.22
Sodium	229-1107 ppm	981.00

<i>GREENS</i>	<u>Acceptable Range For Tissue Sample</u>	<u>5,14(avg) 3/9/19</u>
Nitrogen	3.0%-6.5%	3.06
Phosphorus	0.2%-0.55%	0.50
Potassium	0.86%-2.55%	2.03
Calcium	0.21%-0.50%	0.59
Magnesium	0.09%-0.22%	0.21
Sodium	506- 2264 ppm	901.50

TEES	Acceptable Range For Alkaline Soils Sample	1 3/25/17	9,18(avg) 3/7/18	5,14(avg) 3/9/19
Organic Matter (Humus)	2 - 3%	1.02	0.80	1.72
Sulfur	12 - 16 ppm	28.00	19.00	11.50
Olsen - Phosphorus	13 - 20 ppm	15.00	12.00	10.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	4,488.00	4,085.00	4,167.00
Magnesium	>7% base saturation or at least 200 lbs/acre	15.96%/588	15.87%/524	16.97%/593
Potassium - TEC of 0 - 35	100 ppm	286.00	243.00	303.00
Manganese	>50 ppm	<1	12.00	16.50

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	1 3/25/17	9,18(avg) 3/7/18	5,14(avg) 3/9/19
Organic Matter (Humus)	2 - 3%	0.93	0.89	1.54
Sulfur	12 - 16 ppm	29.00	18.00	14.00
Olsen - Phosphorus	13 - 20 ppm	25.00	21.00	21.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	4,152.00	4,059.00	4,337.00
Magnesium	>7% base saturation or at least 200 lbs/acre	17.71%/624	17.05%/578	17.21%/630
Potassium - TEC of 0 - 35	100 ppm	329.00	298.50	340.50
Manganese	>50 ppm	<1	10.50	14.00

GREENS	Acceptable Range For Alkaline Soils Sample	1 3/25/17	9,18(avg) 3/7/18	5,14(avg) 3/9/19
Organic Matter (Humus)	2 - 3%	0.59	0.95	1.04
Sulfur	12 - 16 ppm	22.00	19.00	13.50
Olsen - Phosphorus	13 - 20 ppm	10.00	14.00	29.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,044.00	3,316.00	3,441.00
Magnesium	>7% base saturation or at least 200 lbs/acre	12.58%/294	12.09%/300	14.45%/392
Potassium - TEC of 0 - 35	150 ppm	131.00	109.50	159.50
Manganese	>50 ppm	2.00	22.00	61.50

TEE	Acceptable Range For Saturated Paste Sample	9 3/7/18	5 3/9/19
Nitrate - Ryegrass	5 - 10 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	2.00	1.73
Potassium	40 - 100 ppm	24.20	15.96
Calcium	60 - 200 ppm	48.42	35.91
Magnesium	20 - 70 ppm	20.75	15.73
Sodium	0 - 30 ppm	69.03	58.74
Soluble Salts	<1,920 ppm	342.00	343.00
Bicarbonate	<60 ppm	165.95	185.47
Chloride	<1,000 ppm	14.00	12.00
SAR	<4%	2.09	2.06

FAIRWAY	Acceptable Range For Saturated Paste Sample	9 3/7/18	5 3/9/19
Nitrate - Ryegrass	5 - 10 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	2.98	2.90
Potassium	40 - 100 ppm	16.67	20.53
Calcium	60 - 200 ppm	53.46	32.81
Magnesium	20 - 70 ppm	24.05	14.89
Sodium	0 - 30 ppm	75.32	64.79
Soluble Salts	<1,920 ppm	385.00	358.00
Bicarbonate	<60 ppm	200.11	187.91
Chloride	<1,000 ppm	17.00	10.00
SAR	<4%	2.15	2.36

GREEN	Acceptable Range For Saturated Paste Sample	9 3/7/18	5,14(avg) 3/9/19
Nitrate - Bentgrass	1-3 ppm	<0.5	<0.5
Phosphorus	2 - 7 ppm	2.76	3.44
Potassium	25-40 ppm	13.32	13.04
Calcium	50- 75 ppm	44.65	33.72
Magnesium	15-30 ppm	15.42	13.73
Sodium	0 - 30 ppm	46.15	39.55
Soluble Salts	<1,000 ppm	307.00	272.00
Bicarbonate	<60 ppm	187.91	152.53
Chloride	<200 ppm	11.00	9.00
SAR	<4%	1.52	1.47