



SOIL AND WATER CONSULTING

Data Collection Report

Spring 2018

Date of Collection: 3/1/18

Client: The Las Vegas Country Club



Testing Results

	<u>3/21/16</u>	<u>3/24/17</u>	<u>3/3/18</u>
Humidity/Air Temperature	9%/84°	37%/64°	35%/65°
Greens Temperature	55.6°	70°	53.2°
Fairway Temperature	57.5°	72°	52.8°

	<u>Acceptable Range For Water Sample</u>	<u>Hole #5 3/21/16</u>	<u>Hole #1 3/24/17</u>	<u>Hole #9 3/1/18</u>
EC	<2.25 mmhos/cm	0.79	0.82	0.79
Sodium		21.07	21.37	21.06
Calcium	20 - 60 ppm	75.53	80.62	76.44
Magnesium	10 - 25 ppm	38.77	43.78	38.28
Potassium	5 - 20 ppm	3.63	10.61	4.37
Sulfur	30 - 90 ppm	195.45	211.56	184.62
Bicarbonate	<120 ppm	224.61	254.13	225.07
Boron	<0.67 ppm	0.10	0.12	0.12
Chloride	<177 ppm	24.51	24.34	23.83

TEE	<u>Acceptable Range For Tissue Sample</u>	9 3/1/18
Nitrogen	3.34%-5.10%	4.37
Phosphorus	0.35% - 0.55%	0.44
Potassium	2.0% - 3.42%	2.39
Calcium	0.25%-0.5%	1.16
Magnesium	0.16%-0.32%	0.39
Sodium	229-1107 ppm	964.00

FAIRWAY	<u>Acceptable Range For Tissue Sample</u>	9 3/1/18
Nitrogen	3.34%-5.10%	4.67
Phosphorus	0.35% - 0.55%	0.45
Potassium	2.0% - 3.42%	2.71
Calcium	0.25%-0.5%	0.59
Magnesium	0.16%-0.32%	0.29
Sodium	229-1107 ppm	656.00

GREENS	<u>Acceptable Range For Tissue Sample</u>	Greens 9,18 (avg) 3/1/18
Nitrogen	3.0%-6.5%	4.22
Phosphorus	0.2%-0.55%	0.45
Potassium	0.86%-2.55%	2.16
Calcium	0.21%-0.50%	0.83
Magnesium	0.09%-0.22%	0.66
Sodium	506- 2264 ppm	592.50

TEES	Acceptable Range For Alkaline Soils Sample	5 3/21/16	1 3/24/17	9,18(avg) 3/1/18
Organic Matter (Humus)	2 - 3%	2.93	1.41	2.15
Sulfur	12 - 16 ppm	913.00	80.00	130.00
Olsen - Phosphorus	13 - 20 ppm	26.00	12.00	27.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	6,134.00	4,188.00	4,797.00
Magnesium	>7% base saturation or at least 200 lbs/acre	16.16%/780	17.73%/648	20.17%/862
Potassium - TEC of 0 - 35	100 ppm	200.00	440.00	483.00
Manganese	>50 ppm	n/a	n/a	19.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	5 3/21/16	1 3/24/17	9,18(avg) 3/1/18
Organic Matter (Humus)	2 - 3%	3.70	5.06	4.71
Sulfur	12 - 16 ppm	694.00	8,376.00	10,123.00
Olsen - Phosphorus	13 - 20 ppm	21.00	34.00	27.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	6,394.00	22,882.00	29,114.00
Magnesium	>7% base saturation or at least 200 lbs/acre	19.18%/1006	6.56%/1020	6.49%/1046
Potassium - TEC of 0 - 35	100 ppm	214.00	244.00	222.50
Manganese	>50 ppm	n/a	n/a	17.00

GREENS	Acceptable Range For Alkaline Soils Sample	5 3/21/16	1 3/24/17	9,18(avg) 3/1/18
Organic Matter (Humus)	2 - 3%	0.53	1.00	0.87
Sulfur	12 - 16 ppm	60.00	126.00	63.00
Olsen - Phosphorus	13 - 20 ppm	26.00	62.00	82.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	2,936.00	3,446.00	3,158.00
Magnesium	>7% base saturation or at least 200 lbs/acre	12.34%/268	14.94%/390	14.40%/342
Potassium - TEC of 0 - 35	150 ppm	61.00	60.00	65.00
Manganese	>50 ppm	n/a	n/a	30.50

TEE	Acceptable Range For Saturated Paste Sample	1,10 (avg) 3/24/17	9 3/1/18
Nitrate - Ryegrass	5 - 10 ppm	<0.5	0.50
Phosphorus	2 - 10 ppm	2.15	2.29
Potassium	40 - 100 ppm	34.02	25.10
Calcium	60 - 200 ppm	205.42	132.97
Magnesium	20 - 70 ppm	97.13	65.08
Sodium	0 - 30 ppm	50.37	38.16
Soluble Salts	<1,920 ppm	1,029.00	692.00
Bicarbonate	<60 ppm	333.12	244.04
Chloride	<1,000 ppm	52.50	42.00
SAR	<4%	0.76	0.68

FAIRWAY	Acceptable Range For Saturated Paste Sample	1,10 (avg) 3/24/17	9 3/1/18
Nitrate - Ryegrass	5 - 10 ppm	14.05	<0.5
Phosphorus	2 - 10 ppm	1.47	2.16
Potassium	40 - 100 ppm	82.08	69.40
Calcium	60 - 200 ppm	557.34	520.39
Magnesium	20 - 70 ppm	213.18	217.36
Sodium	0 - 30 ppm	67.22	81.29
Soluble Salts	<1,920 ppm	2,195.00	2,138.00
Bicarbonate	<60 ppm	283.09	283.09
Chloride	<1,000 ppm	84.00	87.00
SAR	<4%	0.61	0.75

GREENS	Acceptable Range For Saturated Paste Sample	1,10 (avg) 3/24/17	9,18 (avg) 3/1/18
Nitrate - Bentgrass	1-3 ppm	<0.5	<0.5
Phosphorus	2 - 7 ppm	3.54	3.86
Potassium	25-40 ppm	19.34	29.66
Calcium	50- 75 ppm	65.24	66.50
Magnesium	15-30 ppm	33.24	26.36
Sodium	0 - 30 ppm	21.44	21.34
Soluble Salts	<1,000 ppm	381.50	338.00
Bicarbonate	<60 ppm	174.49	157.41
Chloride	<200 ppm	18.00	13.00
SAR	<4%	0.54	0.56