

BROOKSIDE LABORATORIES, INC.

SATURATED SOIL ANALYSIS

San Ramon Golf Club
9430 Fircrest Lane
94582

File Number: 78605
Date Received: 9/15/2017
Date Reported: 9/19/2017

Submitted By: Soil and Water Consulting

Lab Number	0116			0117		
Description	TEE			TEE		
	1			18		
pH	5.5			6.7		
	(ppm)	meq/l	%	(ppm)	meq/l	%
Soluble Salts *	653			949		
Chloride	159			265		
Nitrate (NO3-N)	7.2			11.4		
Bicarbonate	165.95			168.39		
Sulfur	38.22			48.99		
Phosphorus	0.72			3.00		
Calcium	42.73	2.13	18.84	61.38	3.06	18.51
Magnesium	19.25	1.58	13.99	29.76	2.45	14.79
Potassium	11.92	0.30	2.69	11.65	0.30	1.80
Sodium	167.82	7.30	64.48	246.99	10.74	64.90
TOTAL		11.32	100		16.55	100
Boron	0.65			1.18		
Iron	3.24			3.70		
Manganese	0.15			0.10		
Copper	0.10			0.10		
Zinc	0.05			0.04		
Aluminum	2.83			6.84		
Ammonium (NH4-N)	< 0.5			1.1		
ESP (calculated)	6.22			7.65		
SAR (calculated)	5.35			6.47		

* Soluble Salts: mmhos/cm = ppm / 640

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Lab Number	0118			0119			
Description	FAIRWAY			FAIRWAY			
	1			18			
pH	7.3			7.8			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	943			1363			
Chloride	257			540			
Nitrate (NO ₃ -N)	22.7			15.7			
Bicarbonate	163.51			204.99			
Sulfur	39.22			56.64			
Phosphorus	1.85			0.71			
Calcium	70.31	3.51	20.99	47.89	2.39	10.37	
Magnesium	34.32	2.82	16.89	31.05	2.55	11.08	
Potassium	11.53	0.29	1.76	6.41	0.16	0.71	
Sodium	232.02	10.09	60.36	412.64	17.94	77.84	
TOTAL		16.71	100		23.05	100	
Boron	1.13			2.14			
Iron	1.23			0.51			
Manganese	0.03			0.03			
Copper	0.08			0.10			
Zinc	0.02			0.02			
Aluminum	1.75			0.81			
Ammonium (NH ₄ -N)	< 0.5			< 0.5			
ESP (calculated)	6.63			13.47			
SAR (calculated)	5.67			11.41			

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Lab Number	0120			0121			
Description	GREEN			GREEN			
	1			5			
pH	7.9			7.9			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	1050			772			
Chloride	246			177			
Nitrate (NO3-N)	17.9			15.6			
Bicarbonate	117.14			119.58			
Sulfur	84.35			52.24			
Phosphorus	0.69			0.54			
Calcium	74.28	3.71	20.56	57.42	2.87	21.92	
Magnesium	26.10	2.15	11.91	17.02	1.40	10.71	
Potassium	56.61	1.45	8.03	33.86	0.87	6.62	
Sodium	246.66	10.72	59.50	182.68	7.94	60.75	
TOTAL		18.03	100		13.07	100	
Boron	0.80			0.60			
Iron	1.02			0.64			
Manganese	0.04			0.03			
Copper	0.07			0.09			
Zinc	0.02			0.02			
Aluminum	1.37			0.59			
Ammonium (NH4-N)	0.8			0.6			
ESP (calculated)	7.40			6.33			
SAR (calculated)	6.27			5.44			

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Lab Number	0122			0123			
Description	GREEN			GREEN			
	12			16			
pH	8.2			8.0			
	(ppm)	meq/l	%	(ppm)	meq/l	%	
Soluble Salts *	375			843			
Chloride	66			201			
Nitrate (NO3-N)	9.4			12.2			
Bicarbonate	148.86			139.10			
Sulfur	14.78			56.90			
Phosphorus	1.16			0.54			
Calcium	28.34	1.41	22.64	60.33	3.01	21.56	
Magnesium	11.89	0.98	15.66	18.95	1.56	11.16	
Potassium	7.68	0.20	3.14	39.62	1.01	7.26	
Sodium	84.10	3.66	58.55	192.73	8.38	60.02	
TOTAL		6.25	100		13.96	100	
Boron	0.48			0.55			
Iron	2.64			0.53			
Manganese	0.09			0.02			
Copper	0.07			0.10			
Zinc	0.02			0.02			
Aluminum	2.42			0.75			
Ammonium (NH4-N)	1.0			< 0.5			
ESP (calculated)	3.54			6.47			
SAR (calculated)	3.34			5.54			

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Lab Number	0124
Description	GREEN
	18

pH	8.2
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	(ppm)	meq/l	%	(ppm)	meq/l	%
Soluble Salts *	320					
Chloride	62					
Nitrate (NO3-N)	3.5					
Bicarbonate	104.94					
Sulfur	15.34					
Phosphorus	0.83					
Calcium	20.69	1.03	19.02			
Magnesium	9.19	0.76	13.92			
Potassium	7.25	0.19	3.42			
Sodium	79.45	3.45	63.64			
TOTAL		5.43	100			
Boron	0.43					
Iron	0.83					
Manganese	0.04					
Copper	0.07					
Zinc	0.02					
Aluminum	1.04					
Ammonium (NH4-N)	0.6					
ESP (calculated)	3.96					
SAR (calculated)	3.65					

* Soluble Salts: mmhos/cm = ppm / 640