

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name Anthem Country Club City Phoenix State AZ

Independent Consultant Soil and Water Consulting Date 6/14/2022

Sample Location				IRONWOOD COURSE	FAIRWAY	FAIRWAY	FAIRWAY	GREEN	GREEN
Sample Identification					7	14	15	7	14
Lab Number					0175-1	0176-1	0177-1	0178-1	0179-1
Total Exchange Capacity (ME/100 g)					24.21	29.01	20.46	5.93	6.16
pH (H ₂ O 1:1)					a 7.6	a 7.6	a 7.6	a 8.5	a 8.2
Organic Matter (360°C LOI) %					3.69	4.35	4.14	0.51	0.95
Estimated Nitrogen Release lb/A					87	94	91	20	38
ANIONS	SOLUBLE SULFUR* ppm				459	724	226	13	22
	PHOSPHORUS	MEHLICH III	lb/A	P as P ₂ O ₅ ppm of P					
		BRAY II	lb/A	P as P ₂ O ₅ ppm of P					
		OLSEN	lb/A	P as P ₂ O ₅ ppm of P	82 18	73 16	69 15	9 2	23 5
EXCHANGEABLE CATIONS	CALCIUM*		lb/A		7244	8334	5936	1650	1588
			ppm		3622	4167	2968	825	794
	MAGNESIUM*		lb/A		636	864	566	198	220
			ppm		318	432	283	99	110
	POTASSIUM*		lb/A		660	746	512	346	440
			ppm		330	373	256	173	220
	SODIUM*		lb/A		776	1158	842	168	236
			ppm		388	579	421	84	118
BASE SATURATION PERCENT									
Calcium %					74.80	71.82	72.53	69.56	64.45
Magnesium %					10.95	12.41	11.53	13.91	14.88
Potassium %					3.50	3.30	3.21	7.48	9.16
Sodium %					6.97	8.68	8.95	6.16	8.33
Other Bases %					3.80	3.80	3.80	2.90	3.20
Hydrogen %					0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS									
Boron** (ppm)					1.46	1.99	1.42	0.44	0.51
Iron** (ppm)					92	91	127	65	74
Manganese** (ppm)					36	37	36	17	16
Copper** (ppm)					1.27	2.09	1.71	0.73	1.01
Zinc** (ppm)					13.10	6.78	4.51	5.76	7.66
Aluminum** (ppm)					8	31	56	55	60
OTHER TESTS	Soluble Salts (mmhos/cm)								
	Chlorides (ppm)								
	NO3-N (ppm)				7.0	3.8	1.8	< 0.5	< 0.5
	NH4-N (ppm)				1.1	< 0.5	0.6	< 0.5	< 0.5

a - alkaline soil

* Ammonium Acetate Extractable (pH of 8.1)

** Mehlich III Extractable

lb/A

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

85330-6

 Name Anthem Country Club City Phoenix State AZ

 Independent Consultant Soil and Water Consulting Date 6/14/2022

Sample Location		IRONWOOD COURSE	GREEN				
Sample Identification			15				
Lab Number			0180-1				
Total Exchange Capacity (ME/100 g)			6.20				
pH (H ₂ O 1:1)			a 8.2				
Organic Matter (360°C LOI) %			0.60				
Estimated Nitrogen Release lb/A			24				
ANIONS	SOLUBLE SULFUR*	ppm	14				
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅ ppm of P					
		BRAY II lb/A P as P ₂ O ₅ ppm of P					
		OLSEN lb/A P as P ₂ O ₅ ppm of P	27 6				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	1698 849				
	MAGNESIUM*	lb/A ppm	216 108				
	POTASSIUM*	lb/A ppm	366 183				
	SODIUM*	lb/A ppm	180 90				
	BASE SATURATION PERCENT						
	Calcium %		68.47				
	Magnesium %		14.52				
	Potassium %		7.57				
	Sodium %		6.31				
	Other Bases %		3.20				
	Hydrogen %		0.00				
EXTRACTABLE MINORS							
	Boron** (ppm)		0.43				
	Iron** (ppm)		61				
	Manganese** (ppm)		16				
	Copper** (ppm)		0.82				
	Zinc** (ppm)		4.84				
	Aluminum** (ppm)		63				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		< 0.5				
	NH ₄ -N (ppm)		< 0.5				

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Sample Location		PERSIMMON COURSE	FAIRWAY	FAIRWAY	FAIRWAY	GREEN	GREEN
Sample Identification			4	6	12	4	6
Lab Number			0181-1	0182-1	0183-1	0184-1	0185-1
Total Exchange Capacity (ME/100 g)			27.82	35.11	22.73	10.29	8.55
pH (H ₂ O 1:1)			7.3	7.2	7.3	^a 7.8	^a 7.8
Organic Matter (360°C LOI) %			4.95	5.11	5.10	1.54	1.17
Estimated Nitrogen Release lb/A			100	101	100	51	43
ANIONS	SOLUBLE SULFUR*	ppm	1335	1736	341	88	62
	MEHLICH III	lb/A P as P ₂ O ₅ ppm of P					
	BRAY II	lb/A P as P ₂ O ₅ ppm of P					
	OLSEN	lb/A P as P ₂ O ₅ ppm of P	169 37	289 63	105 23	32 7	27 6
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	8510	10660	6668	2544	2076
		ppm	4255	5330	3334	1272	1038
	MAGNESIUM*	lb/A	624	816	620	408	354
		ppm	312	408	310	204	177
	POTASSIUM*	lb/A	578	798	484	552	502
		ppm	289	399	242	276	251
	SODIUM*	lb/A	948	1178	884	532	428
		ppm	474	589	442	266	214
BASE SATURATION PERCENT							
Calcium		%	76.47	75.90	73.34	61.81	60.70
Magnesium		%	9.35	9.68	11.37	16.52	17.25
Potassium		%	2.66	2.91	2.73	6.88	7.53
Sodium		%	7.41	7.29	8.45	11.24	10.88
Other Bases		%	4.10	4.20	4.10	3.60	3.60
Hydrogen		%	0.00	0.00	0.00	0.00	0.00
EXTRACTABLE MINORS							
Boron** (ppm)			1.30	1.46	1.18	1.01	0.82
Iron** (ppm)			143	125	137	130	94
Manganese** (ppm)			30	48	18	38	35
Copper** (ppm)			1.67	1.67	1.65	2.86	1.93
Zinc** (ppm)			9.85	10.50	10.99	13.18	8.90
Aluminum** (ppm)			37	54	28	72	120
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		5.0	5.7	3.9	1.2	0.9
	NH ₄ -N (ppm)		1.0	1.2	< 0.5	< 0.5	0.6

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lb/A

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Sample Location		PERSIMMON COURSE	GREEN				
Sample Identification			12				
Lab Number			0186-1				
Total Exchange Capacity (ME/100 g)			8.79				
pH (H ₂ O 1:1)			a 7.6				
Organic Matter (360°C LOI) %			1.63				
Estimated Nitrogen Release lb/A			53				
ANIONS	SOLUBLE SULFUR*	ppm	61				
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅ ppm of P					
		BRAY II lb/A P as P ₂ O ₅ ppm of P					
		OLSEN lb/A P as P ₂ O ₅ ppm of P	14 3				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A ppm	2054 1027				
	MAGNESIUM*	lb/A ppm	378 189				
	POTASSIUM*	lb/A ppm	552 276				
	SODIUM*	lb/A ppm	476 238				
BASE SATURATION PERCENT							
Calcium %			58.42				
Magnesium %			17.92				
Potassium %			8.05				
Sodium %			11.77				
Other Bases %			3.80				
Hydrogen %			0.00				
EXTRACTABLE MINORS							
Boron** (ppm)			1.19				
Iron** (ppm)			107				
Manganese** (ppm)			44				
Copper** (ppm)			2.69				
Zinc** (ppm)			14.45				
Aluminum** (ppm)			132				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		1.2				
	NH ₄ -N (ppm)		0.6				

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Sample Location		IRONWOOD COURSE	FAIRWAY				
Sample Identification		13 BAD					
Lab Number		0187-1					
Total Exchange Capacity (ME/100 g)		27.43					
pH (H ₂ O 1:1)		a 7.8					
Organic Matter (360°C LOI) %		1.87					
Estimated Nitrogen Release lb/A		57					
ANIONS	SOLUBLE SULFUR* ppm		1529				
	PHOSPHORUS	MEHLICH III lb/A P as P ₂ O ₅ ppm of P					
		BRAY II lb/A P as P ₂ O ₅ ppm of P					
		OLSEN lb/A P as P ₂ O ₅ ppm of P	151 33				
EXCHANGEABLE CATIONS	CALCIUM*	lb/A	7166 3583				
	MAGNESIUM*	lb/A	730 365				
	POTASSIUM*	lb/A	776 388				
	SODIUM*	lb/A	2064 1032				
		ppm					
BASE SATURATION PERCENT							
	Calcium	%	65.31				
	Magnesium	%	11.09				
	Potassium	%	3.63				
	Sodium	%	16.36				
	Other Bases	%	3.60				
	Hydrogen	%	0.00				
EXTRACTABLE MINORS							
	Boron** (ppm)		1.62				
	Iron** (ppm)		124				
	Manganese** (ppm)		45				
	Copper** (ppm)		1.49				
	Zinc** (ppm)		12.57				
	Aluminum** (ppm)		21				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)		4.7				
	NH ₄ -N (ppm)		< 0.5				

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