

#/1000

BROOKSIDE LABORATORIES, INC.

84786-4

SOIL AUDIT AND INVENTORY REPORT

Name Brown Dog Farm City Palmer State AK

Independent Consultant Home Office Date 06/29/2023

Sample Location		ONE	-				
Sample Identification							
Lab Number			1110-1				
Total Exchange Capacity (ME/100 g)			10.62				
pH	Buffer (SMP/Sikora)		7.0				
	H ₂ O (1:1)		6.1				
Organic Matter (360°C LOI) %			10.68				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	10			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	5			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	48			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	65			
			ppm	1422			
	MAGNESIUM*		#/1000	6			
			ppm	130			
	POTASSIUM*		#/1000	6			
		ppm	134				
SODIUM*		#/1000	1				
		ppm	22				
BASE SATURATION PERCENT							
	Calcium	%		66.95			
	Magnesium	%		10.20			
	Potassium	%		3.24			
	Sodium	%		0.90			
	Other Bases	%		5.20			
	Hydrogen	%		13.50			
EXTRACTABLE MINORS							
	Boron* (ppm)			0.43			
	Iron* (ppm)			509			
	Manganese* (ppm)			13			
	Copper* (ppm)			1.26			
	Zinc* (ppm)			3.81			
	Aluminum* (ppm)			1181			
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			2.9			

* Mehlich III Extractable

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Name Brown Dog Farm City Palmer State AK

Independent Consultant Home Office Date 06/29/2023

Sample Location	TWO	-			
Sample Identification					
Lab Number		1111-1			
Total Exchange Capacity (ME/100 g)		8.63			
pH	Buffer (SMP/Sikora)	7.0			
	H ₂ O (1:1)	6.1			
Organic Matter (360°C LOI) %		10.48			
Estimated Nitrogen Release	#/1000	3			
ANIONS	SOLUBLE SULFUR*		11		
	PHOSPHORUS	MEHLICH III #/1000 P as P ₂ O ₅ ppm of P	5		
		BRAY II #/1000 P as P ₂ O ₅ ppm of P	46		
		OLSEN #/1000 P as P ₂ O ₅ ppm of P			
EXCHANGABLE CATIONS	CALCIUM*	52			
		1124			
	MAGNESIUM*	6			
		123			
	POTASSIUM*	5			
	112				
SODIUM*	1				
	19				
BASE SATURATION PERCENT					
	Calcium %	65.12			
	Magnesium %	11.88			
	Potassium %	3.33			
	Sodium %	0.96			
	Other Bases %	5.20			
	Hydrogen %	13.50			
EXTRACTABLE MINORS					
	Boron* (ppm)	0.45			
	Iron* (ppm)	493			
	Manganese* (ppm)	13			
	Copper* (ppm)	1.53			
	Zinc* (ppm)	3.67			
	Aluminum* (ppm)	1185			
OTHER TESTS	Soluble Salts (mmhos/cm)				
	Chlorides (ppm)				
	NO ₃ -N (ppm)	1.9			
	NH ₄ -N (ppm)	0.8			

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Sample Location		THREE	-				
Sample Identification							
Lab Number			1112-1				
Total Exchange Capacity (ME/100 g)			9.95				
pH	Buffer (SMP/Sikora)		7.2				
	H ₂ O (1:1)		6.6				
Organic Matter (360°C LOI) %			11.53				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	11			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	7			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	65			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	65			
			ppm	1420			
	MAGNESIUM*		#/1000	7			
			ppm	156			
	POTASSIUM*		#/1000	7			
		ppm	150				
SODIUM*		#/1000	1				
		ppm	20				
BASE SATURATION PERCENT							
Calcium		%	71.36				
Magnesium		%	13.07				
Potassium		%	3.87				
Sodium		%	0.87				
Other Bases		%	4.80				
Hydrogen		%	6.00				
EXTRACTABLE MINORS							
Boron* (ppm)			0.74				
Iron* (ppm)			461				
Manganese* (ppm)			23				
Copper* (ppm)			1.98				
Zinc* (ppm)			10.52				
Aluminum* (ppm)			1137				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			1.4			

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Sample Location		FOUR	-				
Sample Identification							
Lab Number			1113-1				
Total Exchange Capacity (ME/100 g)			10.72				
pH	Buffer (SMP/Sikora)		7.0				
	H ₂ O (1:1)		6.0				
Organic Matter (360°C LOI) %			9.54				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	13			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	5			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	44			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	64			
			ppm	1391			
	MAGNESIUM*		#/1000	6			
			ppm	123			
	POTASSIUM*		#/1000	8			
		ppm	180				
SODIUM*		#/1000	1				
		ppm	21				
BASE SATURATION PERCENT							
Calcium		%	64.88				
Magnesium		%	9.56				
Potassium		%	4.31				
Sodium		%	0.85				
Other Bases		%	5.40				
Hydrogen		%	15.00				
EXTRACTABLE MINORS							
Boron* (ppm)			0.50				
Iron* (ppm)			447				
Manganese* (ppm)			13				
Copper* (ppm)			2.27				
Zinc* (ppm)			4.46				
Aluminum* (ppm)			1575				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			1.9			

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Sample Location		FIVE	-				
Sample Identification							
Lab Number			1114-1				
Total Exchange Capacity (ME/100 g)			11.18				
pH	Buffer (SMP/Sikora)		7.0				
	H ₂ O (1:1)		6.1				
Organic Matter (360°C LOI) %			8.25				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	14			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	4			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	42			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	68			
			ppm	1470			
	MAGNESIUM*		#/1000	6			
			ppm	130			
	POTASSIUM*		#/1000	10			
		ppm	219				
SODIUM*		#/1000	1				
		ppm	21				
BASE SATURATION PERCENT							
	Calcium	%		65.74			
	Magnesium	%		9.69			
	Potassium	%		5.02			
	Sodium	%		0.82			
	Other Bases	%		5.20			
	Hydrogen	%		13.50			
EXTRACTABLE MINORS							
	Boron* (ppm)			0.36			
	Iron* (ppm)			405			
	Manganese* (ppm)			14			
	Copper* (ppm)			2.53			
	Zinc* (ppm)			4.23			
	Aluminum* (ppm)			1720			
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			1.7			

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Sample Location		SIX	-				
Sample Identification							
Lab Number			1115-1				
Total Exchange Capacity (ME/100 g)			8.37				
pH	Buffer (SMP/Sikora)		6.8				
	H ₂ O (1:1)		5.7				
Organic Matter (360°C LOI) %			10.54				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	10			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	5			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	49			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	40			
			ppm	874			
	MAGNESIUM*		#/1000	6			
			ppm	132			
	POTASSIUM*		#/1000	6			
		ppm	120				
SODIUM*		#/1000	1				
		ppm	18				
BASE SATURATION PERCENT							
Calcium		%	52.21				
Magnesium		%	13.14				
Potassium		%	3.68				
Sodium		%	0.94				
Other Bases		%	6.00				
Hydrogen		%	24.00				
EXTRACTABLE MINORS							
Boron* (ppm)			0.36				
Iron* (ppm)			492				
Manganese* (ppm)			15				
Copper* (ppm)			1.51				
Zinc* (ppm)			3.77				
Aluminum* (ppm)			1312				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			2.0			

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Sample Location		SEVEN	-				
Sample Identification							
Lab Number			1116-1				
Total Exchange Capacity (ME/100 g)			8.40				
pH	Buffer (SMP/Sikora)		7.0				
	H ₂ O (1:1)		5.7				
Organic Matter (360°C LOI) %			9.36				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	11			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	6			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	55			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	42			
			ppm	920			
	MAGNESIUM*		#/1000	5			
			ppm	114			
	POTASSIUM*		#/1000	4			
		ppm	97				
SODIUM*		#/1000	1				
		ppm	19				
BASE SATURATION PERCENT							
Calcium		%	54.76				
Magnesium		%	11.31				
Potassium		%	2.96				
Sodium		%	0.98				
Other Bases		%	6.00				
Hydrogen		%	24.00				
EXTRACTABLE MINORS							
Boron* (ppm)			0.33				
Iron* (ppm)			529				
Manganese* (ppm)			10				
Copper* (ppm)			1.53				
Zinc* (ppm)			2.79				
Aluminum* (ppm)			1435				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			3.1			

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SOIL AUDIT AND INVENTORY REPORT

Name Brown Dog Farm City Palmer State AK

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Sample Location		EIGHT	-			
Sample Identification						
Lab Number			1117-1			
Total Exchange Capacity (ME/100 g)			8.54			
pH	Buffer (SMP/Sikora)		6.9			
	H ₂ O (1:1)		5.8			
Organic Matter (360°C LOI) %			9.95			
Estimated Nitrogen Release #/1000			3			
ANIONS	SOLUBLE SULFUR*		ppm	9		
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	6		
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	59		
		OLSEN #/1000	P as P ₂ O ₅ ppm of P			
EXCHANGABLE CATIONS	CALCIUM*		#/1000	44		
			ppm	951		
	MAGNESIUM*		#/1000	6		
			ppm	135		
	POTASSIUM*		#/1000	5		
		ppm	118			
SODIUM*		#/1000	1			
		ppm	16			
BASE SATURATION PERCENT						
	Calcium	%	55.68			
	Magnesium	%	13.17			
	Potassium	%	3.54			
	Sodium	%	0.81			
	Other Bases	%	5.80			
	Hydrogen	%	21.00			
EXTRACTABLE MINORS						
	Boron* (ppm)		0.34			
	Iron* (ppm)		513			
	Manganese* (ppm)		18			
	Copper* (ppm)		1.51			
	Zinc* (ppm)		4.10			
	Aluminum* (ppm)		1233			
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	NO ₃ -N (ppm)		< 0.5			
	NH ₄ -N (ppm)		0.9			

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SOIL AUDIT AND INVENTORY REPORT

Name Brown Dog Farm City Palmer State AK

Independent Consultant Home Office Date 06/29/2023

Sample Location		NINE	-				
Sample Identification							
Lab Number			1118-1				
Total Exchange Capacity (ME/100 g)			12.61				
pH	Buffer (SMP/Sikora)		7.0				
	H ₂ O (1:1)		5.7				
Organic Matter (360°C LOI) %			10.34				
Estimated Nitrogen Release #/1000			3				
ANIONS	SOLUBLE SULFUR*		ppm	10			
	PHOSPHORUS	MEHLICH III #/1000	P as P ₂ O ₅ ppm of P	5			
		BRAY II #/1000	P as P ₂ O ₅ ppm of P	45			
		OLSEN #/1000	P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	69			
			ppm	1508			
	MAGNESIUM*		#/1000	5			
			ppm	119			
	POTASSIUM*		#/1000	4			
		ppm	80				
SODIUM*		#/1000	1				
		ppm	21				
BASE SATURATION PERCENT							
Calcium		%	59.79				
Magnesium		%	7.86				
Potassium		%	1.63				
Sodium		%	0.72				
Other Bases		%	6.00				
Hydrogen		%	24.00				
EXTRACTABLE MINORS							
Boron* (ppm)			0.26				
Iron* (ppm)			505				
Manganese* (ppm)			8				
Copper* (ppm)			1.60				
Zinc* (ppm)			2.49				
Aluminum* (ppm)			1673				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			2.0			

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Name Brown Dog Farm City Palmer State AK

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Sample Location		TEN	-				
Sample Identification							
Lab Number			1119-1				
Total Exchange Capacity (ME/100 g)			10.49				
pH	Buffer (SMP/Sikora)		6.9				
	H ₂ O (1:1)		5.8				
Organic Matter (360°C LOI) %			12.25				
Estimated Nitrogen Release		#/1000	3				
ANIONS	SOLUBLE SULFUR*		ppm	9			
	PHOSPHORUS	MEHLICH III	#/1000 P as P ₂ O ₅ ppm of P	6			
		BRAY II	#/1000 P as P ₂ O ₅ ppm of P	56			
		OLSEN	#/1000 P as P ₂ O ₅ ppm of P				
EXCHANGABLE CATIONS	CALCIUM*		#/1000	57			
			ppm	1232			
	MAGNESIUM*		#/1000	6			
			ppm	132			
	POTASSIUM*		#/1000	6			
		ppm	134				
SODIUM*		#/1000	1				
		ppm	18				
BASE SATURATION PERCENT							
Calcium		%	58.72				
Magnesium		%	10.49				
Potassium		%	3.28				
Sodium		%	0.75				
Other Bases		%	5.80				
Hydrogen		%	21.00				
EXTRACTABLE MINORS							
Boron* (ppm)			0.34				
Iron* (ppm)			523				
Manganese* (ppm)			15				
Copper* (ppm)			1.25				
Zinc* (ppm)			5.57				
Aluminum* (ppm)			1350				
OTHER TESTS	Soluble Salts (mmhos/cm)						
	Chlorides (ppm)						
	NO ₃ -N (ppm)			< 0.5			
	NH ₄ -N (ppm)			< 0.5			

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