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DAVE POWE SOCRRA 3910 W WEBSTER ROYAL OAK MI 48073	Lab # 70254863	Repor	t of Analys	is	Report Numb	per: 23-080-4150
Nutrients	Account:	DAVE POWE				
ROYAL OAK MI 48073	29186	SOCRRA			1/4	0_
Date Sampled: 2023-03-07   Compost		3910 W WEBSTI	ER		1000	700
Date Sampled: 2023-03-07   Compost		ROYAL OAK MI	48073		Robe	ert Ferris
Date Sampled: 2023-03-07   Compost					Accour	nt Manager
Date Received: Sample ID:   COMPOST SOCRRA   Compost   Compost	Date Sampled:	2023-03-07			1	-
Nutrients	-					
Nutrients   Nitrogen   Nitrogen			RRA		Jan.   Jan.	
NUTRIENTS						Total content,
Nitrogen   Total Nitrogen   %   0.91   1.98   18.2				Analysis	Analysis	lbs per ton
Nitrogen				(as rec'd)	(dry weight)	(as rec'd)
Total Nitrogen         %         0.91         1.98         18.2           Organic Nitrogen         %         0.89         1.92         17.7           Ammonium Nitrogen         %         0.025         0.054         0.5           Nitrate Nitrogen         %         < 0.01	NUTRIENTS					
Organic Nitrogen         %         0.89         1.92         17.7           Ammonium Nitrogen         %         0.025         0.054         0.5           Nitrate Nitrogen         %         < 0.01	Nitrogen					
Ammonium Nitrogen         %         0.025         0.054         0.5           Nitrate Nitrogen         %         < 0.01	Total Nitro	gen		0.91	1.98	18.2
Major and Secondary Nutrients         %         < 0.01             Phosphorus         %         0.11         0.24         2.2           Phosphorus as P2O5         %         0.25         0.54         5.0           Potassium         %         0.40         0.87         8.0           Potassium as K2O         %         0.48         1.04         9.6           Sulfur         %         0.11         0.24         2.2           Calcium         %         0.46         1.00         9.2           Sodium         %         0.46         1.00         9.2           Sodium         %         0.050         0.109         1.0           Micronutrients         Iron         ppm         5290         11495         10.6           Manganese         ppm         414         900         0.8           Boron         ppm         110         239         0.2           OTHER PROPERTIES           Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0	Organic N	itrogen	%	0.89	1.92	17.7
Major and Secondary Nutrients   Phosphorus   %   0.11   0.24   2.2     Phosphorus as P2O5   %   0.25   0.54   5.0     Potassium   %   0.40   0.87   8.0     Potassium as K2O   %   0.48   1.04   9.6     Sulfur   %   0.11   0.24   2.2     Calcium   %   2.34   5.08   46.8     Magnesium   %   0.46   1.00   9.2     Sodium   %   0.050   0.109   1.0      Micronutrients	Ammoniu	m Nitrogen	%	0.025	0.054	0.5
Phosphorus         %         0.11         0.24         2.2           Phosphorus as P2O5         %         0.25         0.54         5.0           Potassium         %         0.40         0.87         8.0           Potassium as K2O         %         0.48         1.04         9.6           Sulfur         %         0.11         0.24         2.2           Calcium         %         2.34         5.08         46.8           Magnesium         %         0.46         1.00         9.2           Sodium         %         0.050         0.109         1.0           Micronutrients           Iron         ppm         5290         11495         10.6           Manganese         ppm         414         900         0.8           Boron         ppm         110         239         0.2           OTHER PROPERTIES           Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0           Ash         %         22.70         49.33         454.0	Nitrate Nit	rogen	%	< 0.01		
Phosphorus         %         0.11         0.24         2.2           Phosphorus as P2O5         %         0.25         0.54         5.0           Potassium         %         0.40         0.87         8.0           Potassium as K2O         %         0.48         1.04         9.6           Sulfur         %         0.11         0.24         2.2           Calcium         %         2.34         5.08         46.8           Magnesium         %         0.46         1.00         9.2           Sodium         %         0.050         0.109         1.0           Micronutrients           Iron         ppm         5290         11495         10.6           Manganese         ppm         414         900         0.8           Boron         ppm         110         239         0.2           OTHER PROPERTIES           Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0           Ash         %         22.70         49.33         454.0	Maior and Se	condary Nutrients				
Phosphorus as P2O5 % 0.25 0.54 5.0 Potassium % 0.40 0.87 8.0 Potassium as K2O % 0.48 1.04 9.6 Sulfur % 0.11 0.24 2.2 Calcium % 2.34 5.08 46.8 Magnesium % 0.46 1.00 9.2 Sodium % 0.050 0.109 1.0  Micronutrients Iron ppm 5290 11495 10.6 Manganese ppm 414 900 0.8 Boron ppm 110 239 0.2  OTHER PROPERTIES  Moisture % 53.98 Total Solids % 46.02 920.4 Organic Matter % 23.00 49.98 460.0 Ash % 22.70 49.33 454.0 Total Carbon % 12.91 28.05 Chloride % 0.04 0.09 pH 7.9		·	%	0.11	0.24	2.2
Potassium         %         0.40         0.87         8.0           Potassium as K2O         %         0.48         1.04         9.6           Sulfur         %         0.11         0.24         2.2           Calcium         %         2.34         5.08         46.8           Magnesium         %         0.46         1.00         9.2           Sodium         %         0.050         0.109         1.0           Micronutrients           Iron         ppm         5290         11495         10.6           Manganese         ppm         414         900         0.8           Boron         ppm         110         239         0.2           OTHER PROPERTIES           Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0           Ash         %         22.70         49.33         454.0           Total Carbon         %         12.91         28.05           Chloride         %         0.04         0.09           pH         7.9	-					
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Sulfur       %       0.11       0.24       2.2         Calcium       %       2.34       5.08       46.8         Magnesium       %       0.46       1.00       9.2         Sodium       %       0.050       0.109       1.0         Micronutrients         Iron       ppm       5290       11495       10.6         Manganese       ppm       414       900       0.8         Boron       ppm       110       239       0.2         OTHER PROPERTIES         Moisture       %       53.98         Total Solids       %       46.02       920.4         Organic Matter       %       23.00       49.98       460.0         Ash       %       22.70       49.33       454.0         Total Carbon       %       12.91       28.05         Chloride       %       0.04       0.09         pH       7.9						
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Boron         ppm         110         239         0.2           OTHER PROPERTIES           Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0           Ash         %         22.70         49.33         454.0           Total Carbon         %         12.91         28.05           Chloride         %         0.04         0.09           pH         7.9	-	20				
OTHER PROPERTIES           Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0           Ash         %         22.70         49.33         454.0           Total Carbon         %         12.91         28.05           Chloride         %         0.04         0.09           pH         7.9						
Moisture         %         53.98           Total Solids         %         46.02         920.4           Organic Matter         %         23.00         49.98         460.0           Ash         %         22.70         49.33         454.0           Total Carbon         %         12.91         28.05           Chloride         %         0.04         0.09           pH         7.9	Bolon		ррпп	110	200	0.2
Total Solids       %       46.02       920.4         Organic Matter       %       23.00       49.98       460.0         Ash       %       22.70       49.33       454.0         Total Carbon       %       12.91       28.05         Chloride       %       0.04       0.09         pH       7.9	OTHER PROPERTIE	:S				
Organic Matter       %       23.00       49.98       460.0         Ash       %       22.70       49.33       454.0         Total Carbon       %       12.91       28.05         Chloride       %       0.04       0.09         pH       7.9	Moisture		%	53.98		
Organic Matter       %       23.00       49.98       460.0         Ash       %       22.70       49.33       454.0         Total Carbon       %       12.91       28.05         Chloride       %       0.04       0.09         pH       7.9	Total Solid	ds	%			920.4
Ash % 22.70 49.33 454.0  Total Carbon % 12.91 28.05  Chloride % 0.04 0.09  pH 7.9					49.98	
Chloride         %         0.04         0.09           pH         7.9			%	22.70	49.33	454.0
Chloride         %         0.04         0.09           pH         7.9	Total Cark	oon	%	12.91	28.05	
pH 7.9	Chloride		%	0.04		
	рН			7.9		
Conductivity 1:5 (Soluble Saits) m5/cm 2.21	•	ity 1:5 (Soluble Salts)	mS/cm	2.21		

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Lab #	70254863	Bio	logical & Pl	hysical Pro	perties	Report Num	nber: 23-080-4150
	Account:	DAVE	POWE				
	29186	SOCR	RRA			1/11	FISS
		3910 \	W WEBSTER			1000	, –
		ROYA	L OAK MI 480	073		Rot	pert Ferris
						Client Servi	ce Representative
D	ate Sampled:	2023-0	03-07			402	-829-9871
Da	ate Received:	2023-0	03-09			Compost	
	Sample ID:	COMF	OST SOCRE	RA			
			Analysis	Analysis		•	
			(as rec'd)	(dry weight)	Units	Detection Limit	Method
Biolog	gical Properties						
	Germination		100		%	1	TMECC 05.05A
	Germination Vig	or	95.4		%	1	TMECC 05.05A
	CO <sub>2</sub> OM Evolution	on	0.33		mgCO <sub>2</sub> -C/gO	M/day 0.01	TMECC 05.08B
	CO2 Solids Evolu	ution	0.4		mgCO2-C/gT	S/day <b>0.01</b>	TMECC 05.08B
	Fecal Coliform			60	mpn/g	0.2	EPA 1681
	Salmonella			< 1.2	mpn/4g	1.2	TMECC 07.02
	Stability Rating		Stable		N/A	N/A	TMECC 05.08B
Physic	cal Properties						
	Bulk Density (Lo	ose)	843		lbs/cu yard	1	WT/VOL
	Bulk Density (Pa	icked)	1213		lbs/cu yard	1	WT/VOL
	Film Plastics		n.d.		%	0.1	TMECC 03.08
	Glass Fragments	S	n.d.		%	0.1	TMECC 03.08
	Hard Plastics		n.d.		%	0.1	TMECC 03.08
	Metal Fragment		n.d.		%	0.1	TMECC 03.08
	Sharps		absent			0.1	TMECC 03.08
	Max. Particle Le	-		2.5	inches	N/A	TMECC Sieve
	Sieve % Passing	•		100	%	0.01	TMECC Sieve
	Sieve % Passing	•		100	%	0.01	TMECC Sieve
	Sieve % Passing	•		100	%	0.01	TMECC Sieve
	Sieve % Passing	g 1"		100	%	0.01	TMECC Sieve
	Sieve % Passing	3/4"		100	%	0.01	TMECC Sieve
	Sieve % Passing	g 5/8"		100	%	0.01	TMECC Sieve
	Sieve % Passing	3/8"		98	%	0.01	TMECC Sieve
	Sieve % Passing	g 1/4"		94	%	0.01	TMECC Sieve

#### Compost Results Interpretations

Page 1

Report #:
DATE RECEIVED:

23-080-4150 2023-03-09

#### Organic Matter %

23.00 As Received 49.98 Dry Weight

Greater than 20% indicates a desirable range for compost on a dry weight basis.

Compost is a significant source of Organic Matter, which is an important supplier of carbon. Organic Matter improves soil and plant efficiency by improving soil physical properties, providing a source of energy to beneficial organisms, and enhancing the reservoir of soil nutrients.

#### C/N Ratio

14.2:1

20-30 indicates an ideal range for the initial compost process.

10-20 indicates an ideal range for a finished compost.

All organic matter is made up of substantial amounts of carbon with lesser amounts of nitrogen. The balance of these two elements is called the Carbon/Nitrogen Ratio. For the best performance, the compost pile requires the correct proportion of carbon for energy and nitrogen for protein production. If the C:N ratio is too high (excess carbon) decomposition slows down. If the C:N ratio is too low (excess Nitrogen) the compost pile could be difficult to manage.

#### Moisture %

53.98

<35% = Indicates overly dry compost

>55% = Indicates overly wet compost

Moisture Percent is the measure of water present in the compost and expressed as a percentage of total weight. Moisture present affects handling and transport. Overly dry will be light and dusty while overly wet will be heavy and clumpy. A desirable moisture content of finished compost will range between 40 to 50%.

Compost Results Interpretations

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Report #: DATE RECEIVED: 23-080-4150 2023-03-09

Conductivity or Soluble Salts measures the conductance of electrical current in a liquid compost slurry. Excessive soluble salt content in a compost can prevent or delay seed germination and proper root growth. Conductivity analysis is done on a 1:5 basis.

Conductivity 1:5	
2.2	
Conductivity Level	Interpretation
Greater than 10	Very High nutrient content. Use for Ag Applications
5 - 10	High nutrient content. Use for Ag Applications
3 - 5	Higher than desirable for salt sensitive plants, some loss of vigor
0.6 - 3	Desirable range for most plants
0.3 - 0.6	Ideal range for greenhouse growth media
0.0 - 0.3	Very Low: Indicates very low nutrient status: plants may show deficiencies.

## Compost Results Interpretations

Page 3

Report #:
DATE RECEIVED:

23-080-4150 2023-03-09

pH Value

7.9

0 to 14 scale with 6 to 8 as normal pH levels for compost

A pH in the 6 to 8 pH range indicates a more mature compost

pH measures the acidity or alkalinity of the compost, and is a measurement of the hydrogen ion activity of a soil or compost on a logarithmic scale. The pH scale ranges from 0 to 14 and 7 indicates a neutral pH. Growing media with a higher pH or pH greater than 7 can benefit from a compost that has a more acidic pH or pH below 7. This type of application will possibly lower the soil pH making the soil more conducive to plants that thrive in a more acidic soil condition.

Nutrient Index (Ag Index)

>10

The Nutrient Index normally runs between 1 and 10.

The Nutrient Index is obtained by dividing the total nutrients (N,P,K) by the amount of salt (Sodium and Chloride). The higher the Nutrient Index the less chance of having a toxic buildup of Sodium (salt) in the soil.

				A	INDEX CHA	RT				
salt injury possible			t drainage cha lity and low sa		you i		ils with poor d ality, or high s		water	for all soils
1	2	3	4	5	6	7	8	9	10	> 10

Nutrients (N+P205+K20)

3.56 Average Nutrient Content Dry Weight

<2 = Low, >5 = High

1-0.5-0.5 Rating As Received

The most commonly used compost data is the amount of Nitrogen, Phosphate, and Potash (abbreviated as N,P,K) present and the information is similar to that found in common fertilizers. If a compost result has the rating 1-2-2 it means that the compost has 1% Nitrogen, 2% Phosphate and 2% Potash. Most compost tests will have a average nutrient level (N+P+K) of < 5%.

23-080-4150

Mar 21, 2023 RECEIVED DATE Mar 09, 2023 29186



**PAGE 6/7** Mar 22, 2023

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**SOCRRA DAVE POWE 3910 W WEBSTER ROYAL OAK MI 48073** 

### REPORT OF ANALYSIS

For: (29186) SOCRRA Compost

	Level Fo	und		Reporting		Analyst-	Verified-
Analysis	As Received	Dry Weight	Units	Limit	Method	Date	Date
Sample ID: COMPOST SOCRRA	Lab Number: <b>7025486</b>	3 Dat	e Sampled:	2023-03-07			
Cadmium (total)	n.d.	0.57	mg/kg	0.50	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Chromium (total)	21.1	45.8	mg/kg	1.00	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Mercury (total)	n.d.	n.d.	mg/kg	0.05	EPA 7471	mrs3-2023/03/15	trh1-2023/03/15
Lead (total)	11.6	25.2	mg/kg	5.0	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Molybdenum (total)	n.d.	1.9	mg/kg	1.0	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Nickel (total)	3.3	7.2	mg/kg	1.0	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Selenium (total)	n.d.	n.d.	mg/kg	10.0	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Zinc (total)	60.8	132.2	mg/kg	2.0	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Copper (total)	17.2	37.4	mg/kg	1	EPA 6010	erw9-2023/03/10	trh1-2023/03/15
Arsenic (total)	2.28	4.95	mg/kg	0.5	EPA 6020	nto7-2023/03/13	trh1-2023/03/13

EPA 1681 holding time of < 24 hours from sampling to laboratory set up of samples for biosolids and compost has been exceeded. Individual states enforce different holding times for compost or biosolids so please contact the regulatory body in your state for their requirements.

n.d. = not detected, ppm = parts per million, ppm = mg/kg

For questions please contact:

Cole C Parsons Account Manager

cparsons@midwestlabs.com (402)829-9850 The result(s) issued on this report only reflect the analysis of the sample(s) submitted.

SUBFORM NUMBER:

# 5021701

ACCOUNT NO: 29186 SOCRRA **DAVE POWE** 3910 W WEBSTER ROYAL OAK, MI 48073



ORDER NUMBER:

203971

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	SAMPLE DESCRIPTION	
Į	Compost	
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COPY TO:

PO NUMBER:

nquished bysignature)	Date/Time	Received by (si	ignature)		Relinquished bysignat		Date/Time		
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conjust s	SOCIVAL Y	12/1/20			• · ·		1	70254863	,
190 40-0	** ***********************************	3773	MATRIX	STA Compost	TESTS REQUES	STED	CONTAIN	COMMENTS	

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