2025 ANNUAL SLUDGE

APPLICATION REPORT

CITY OF ALGONA, IOWA

August 24, 2026

Mr. Kevin Graves
WHKS and Co.
2905 S. Broadway
Rochester, MN 55904-5515

Ms. Sheila Bly
Environmental Specialist Senior
Iowa Department of Natural Resources
Field Office #2
2300 15th Street SW
Mason City, IA 50401

Mr. Barry Simpson
1406 170th
LuVerne, IA 50560

RE: 2025 Annual Sludge Application Report

Dear Gentlemen and Lady:

Enclosed please find the 2025 Annual Sludge Application Report for the City of Algona. If you have any questions, please feel free to call.

Sincerely,

Mark Lenz
Wastewater Superintendent
(515)-295-5404

Enclosure

SITE NO. 1 – AIRPORT PROPERTY

DATA

NO SLUDGE APPLIED 2025

SITE NO. 2 – BUSCHER PROPERTY

DATA

NO SLUDGE APPLIED 2025

SITE NO. 3 – BJUSTROM PROPERTY

DATA

NO SLUDGE APPLIED 2025

SITE NO. 4 – HENRY FARM

DATA

NO SLUDGE APPLIED 2025

SITE NO. 5 – SHEPPARD FARM

DATA

NO SLUDGE APPLIED 2025

SITE NO. 6 – ADRA FABER FARM

DATA

NO SLUDGE APPLIED 2025

SITE NO. 7-- KOFAB NORTH 1

DATA

SLUDGE APPLIED 2025

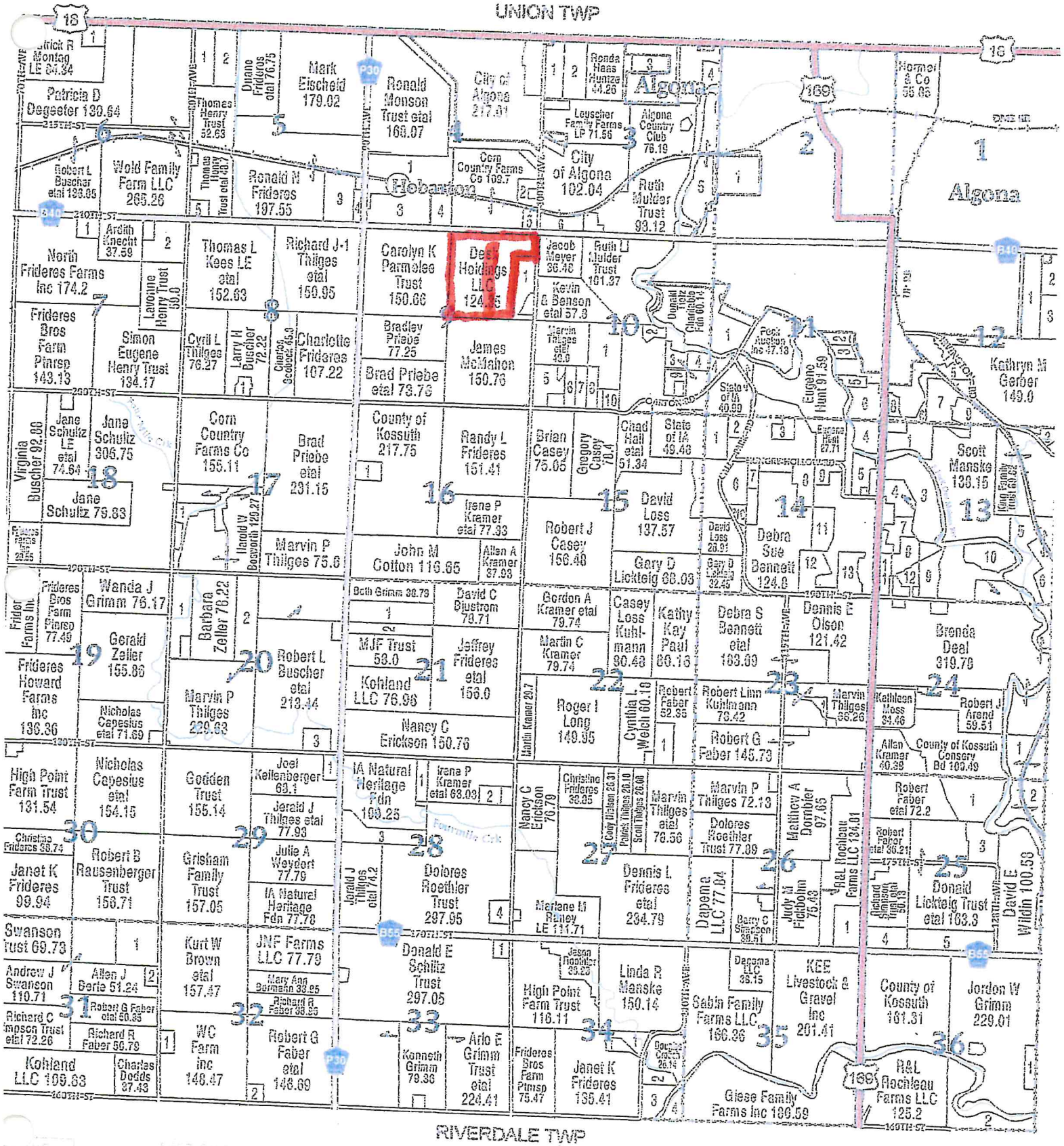
T-95-N

CRESCO PLAT

(Landowners)

UNION TWP

R-29-W



RIVERDALE TWP

1	CLOUTIER TRUST, DIANE M	24.33
2	FRIDERES FARMS LLC	25.15
3	FRIDERES, ALAN M ETAL	29.14
4	THILGES TRUST, PATRICIA L	5.53
5½	ANIMAL RESCUE FAMILY	3.69

1	STRUECKER, THADDEUS J	39.47
2	DATT, ROGER M	6.01
3	ORTON, WEBSTER T	19
4	SPECHT, PHILLIP K	3.18
5	THILGES, PATRICK	20.64
6	HANKINS, KURT R	9.55
7	GREEN, ED J	9.57

5	DETTMAN, DARRELL D	5.97
6	DIETZ, DONALD R	22

1	FEDERAL HYBRIDS INC	39.45
2	FORBURGER, RONALD J ETAL	17.14
3	KUHLMANN, MICHAEL GEORGE	19.69
4	BUNKERS, JUSTIN	10.3

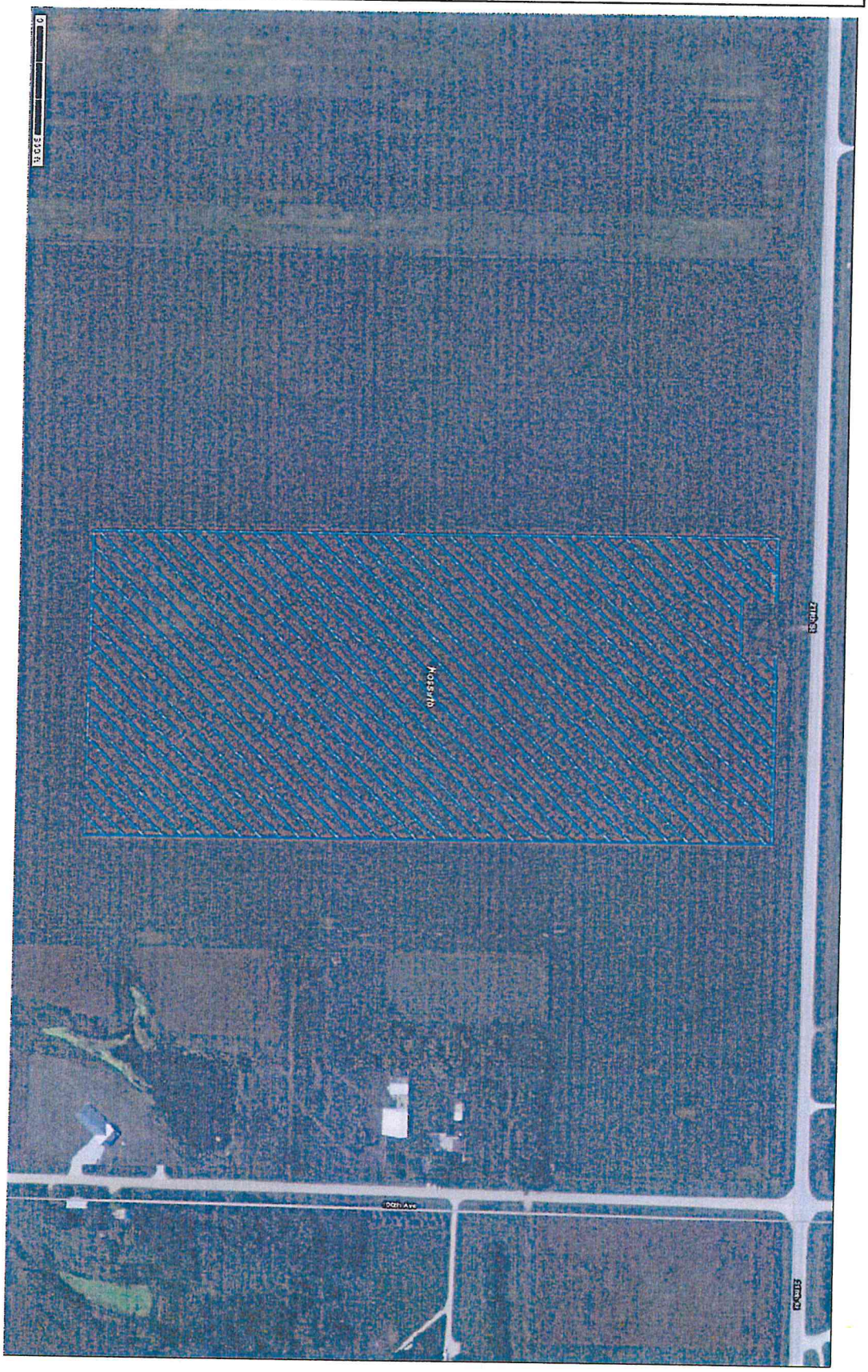
5	HUEBSCH, JIM	36.42
6	HUH FARMS INC	27.01
7	BOELTER, DOUGLAS L	18.62
8	CONDOLEON, HARRY	15.54
9	EISENBARTH, WADE	17.51
10	MEADOW RIDGE SUBDIVISION LLC	23.94
11	BRADLEY TRUST, WALTER M	10.36

10 KUHLMANN,
11 FUNK, MARK
12 OLSON, DENI
13 POWERHOUS

SEE I
ADDIT
NOT 11

SPRING 2025 BARRY SIMPSON – EAST 28.10 ACRES

43.0664409 94.2723865 Site # 7 Kofab North 1



SLUDGE APPLICATION TOTAL
WASTEWATER TREATMENT PLANT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: Site No. 7 -Kofab North 1 (Barry Simpson)

Date	Total Acres Applied	Total Sludge Applied		Application Rate		Method of Incorporation	% Crop	Yield
		Gallons	Ton	Tons/Acre	Cumulative			Bu/Acre
			0.00	#DIV/0!	#DIV/0!			
5-19,22-23	31.7	471,125	57.955	1.83	1.83	Injected	Beans	N/A
5-11-13-25	28.1	419,932	54.51	1.94	3.77	Injected	Beans	66

YEARLY SLUDGE APPLICATION TOTAL
WASTEWATER TREATMENT PLANT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: Site No. 7 Kofab North 1 (Barry Simpson)

Lbs/Acre	Nitrogen	Phosphorus	Potassium	Lead	Zinc	Copper	Nickel	Cadmium	Arsenic	Mercury	Selenium	Molybdenum
Residual	-	78	13.7	0.118	4.172	4.538	0.194	0.012	0.142	0.006	0.091	0.0827
Fertilizer	-	-	-	-	-	.	-	-	-	-	-	
Sludge Application	106.4	77.2	12.07	0.119	4.540	4.970	0.194	0.003	1.220	0.062	0.066	0.0791
Total	106.4	155.2	25.8	0.237	8.712	9.508	0.388	0.015	1.362	0.068	0.157	0.1618
Utilization Rate for Beans	257	35	178	-	-	-	-	-	-	-	-	
Available for Leaching	-	120.2	-	-	-	-	-	-	-	-	-	
Cumulative	-	74*	386*	0.237	8.712	9.508	0.388	0.015	1.362	0.068	0.157	0.1618

* Soil Analysis Data show amounts of Phosphorus and Potassium after current year sludge application

SOIL ANALYSIS DATA
WASTEWATER TREATMENT PLANT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: Site No. 7 Kofab North

PARAMETERS		Sample Date 11/17/2023	10/28/2025					
Water pH		5.6	5.4					
Buffer Index		6.3	6.2					
Organic Matter %		4.7	3.5					
Phosphorus lbs/acre		120	74					
Potassium lbs/acre		616	386					
Lime Requirement in lbs/acre Pure $CaCO_3$ to adjust pH for a 6" depth	(pH 6.9)	27410	30,710					
	(pH 6.5)	17000	19,910					
Sand %								
Silt %								
Clay %								
Specific Conductance								
Cation Exchange Capacity Meq/100 gms		25.4	21.5					

* 6 inch soil depth

SITE NO. 8 PARMELEE FARM

DATA

SLUDGE APPLIED 2025

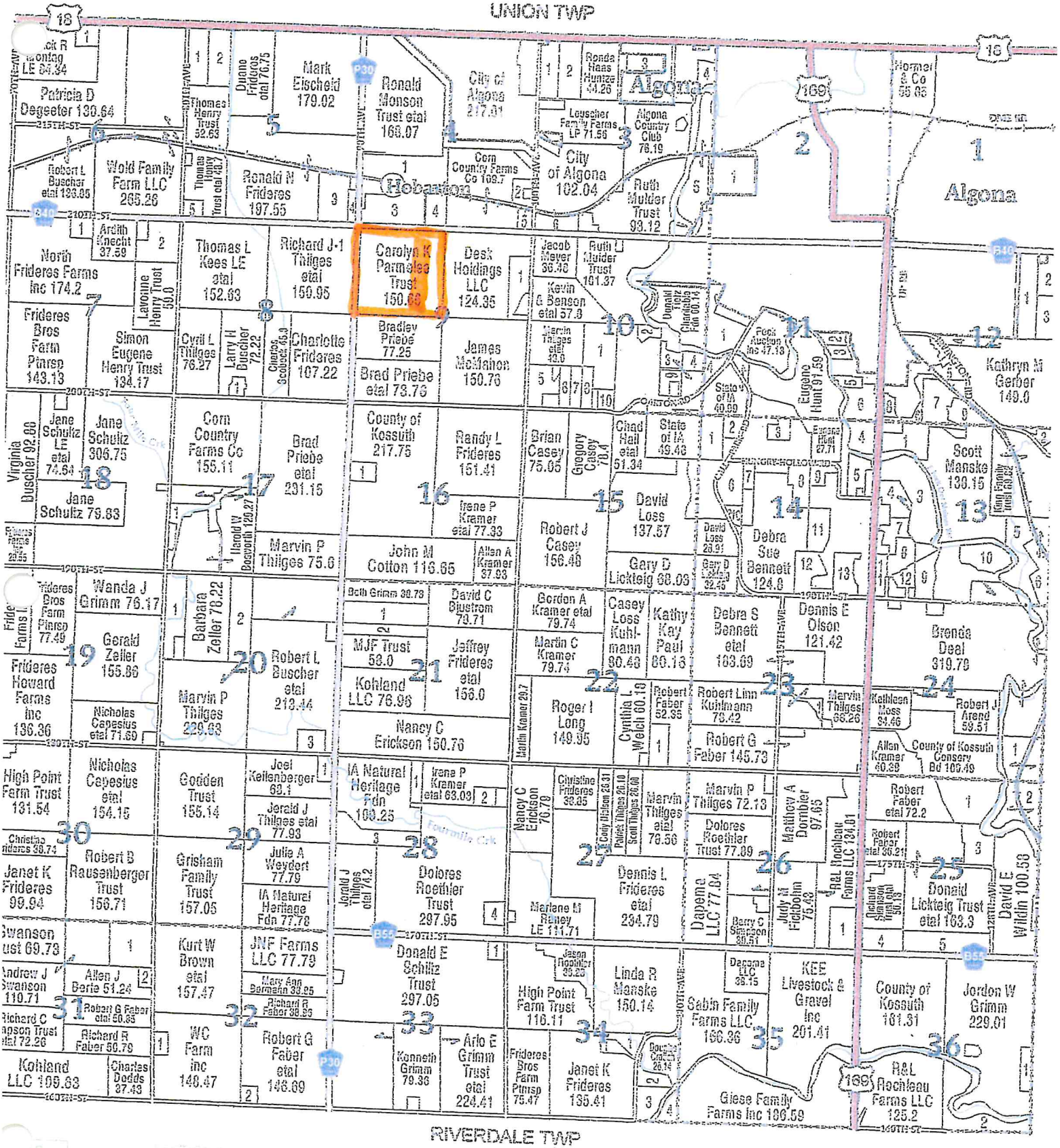
T-95-N

CRESCO PLAT

(Landowners)

UNION TWP

R-29-W


Algona
Hobarton
Algona
Kohland LLC 106.68
Charles Dodds 37.43
WC Farm Inc 146.47
Robert G Faber etal 146.69
Kenneth Grimm 79.36
Arlo E Grimm Trust etal 224.41
Frideres Bros Farm Ptnrsp 75.47
Janet K Frideres 135.41
Giese Family Farms Inc 186.59
R&L Rochleau Farms LLC 125.2
Sabin Family Farms LLC 186.36
KEE Livestock & Gravel Inc 201.41
County of Kossuth 161.31
Jordon W Grimm 229.01
Donald E Schiltz Trust 297.05
High Point Farm Trust 116.11
Linda R Manske 150.14
Dapema LLC 38.15
Dapema LLC 77.84
Dennis L Frideres etal 234.79
Marlene M Raney LE 111.71
Dolores Roethler Trust 297.95
Grisham Family Trust 157.05
Robert B Rausenberger Trust 156.71
Janet K Frideres 99.94
Swanson Trust 69.73
Andrew J Swanson 110.71
Richard C Swanson Trust etal 72.26
Allen J Berie 51.24
Robert G Faber etal 50.85
Richard R Faber 50.79
Kurt W Brown etal 157.47
JNF Farms LLC 77.79
Mary Ann Bormann 38.95
Richard R Faber 38.95
Julie A Weydert 77.79
IA Natural Heritage Fdn 77.78
Jerald J Thilges etal 77.93
Joel Keilsenberger 68.1
Godden Trust 155.14
Nicholas Capesius etal 154.15
High Point Farm Trust 131.54
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Marvin P Thilges 229.63
Robert L Buscher etal 213.44
Gerald Zeller 155.86
Frideres Howard Farms Inc 136.36
Barbara Zeller 78.22
Wanda J Grimm 76.17
Frideres Bros Farm Ptnrsp 77.49
Jane Schultz 79.83
Jane Schultz LE etal 74.64
Jane Schultz 306.75
Virginia Buscher 92.66
Marvin P Thilges 75.6
Harold W Bosworth 126.27
Brad Priebe etal 231.15
Corn Country Farms Co 155.11
Irene P Kramer etal 77.33
John M Cotton 116.65
Allen A Kramer 37.93
Randy L Frideres 151.41
County of Kossuth 217.75
Jeffrey Frideres etal 156.0
MJF Trust 58.0
Kohland LLC 76.96
Nancy C Erickson 150.76
David C Blustrom 79.71
Beth Grimm 39.79
IA Natural Heritage Fdn 100.25
Irene P Kramer etal 63.09
Jerald J Thilges etal 74.2
Roger I Long 149.95
Martin C Kramer 79.74
Gordon A Kramer etal 79.74
Robert J Casey 156.46
Brian Casey 75.05
Gregory Casey 70.4
Gary D Lickteig 68.09
David Loss 137.57
Cynthia L Welch 60.19
Robert Faber 52.95
Casey Loss Kuhlmann 80.48
Kathy Kay Paul 80.16
Robert Linn Kuhlmann 79.42
Robert G Faber 145.79
Debra S Bennett etal 183.69
Debra Sue Bennett 124.8
Dennis E Olson 121.42
Brenda Deal 319.79
Scott Manske 139.15
Kathryn M Gerber 149.0
Eugene Hunt 91.59
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Chad Hall etal 51.34
State of IA 49.46
State of IA 40.99
Donald Tietz Charitable Fdn 60.19
Ruth Mulder Trust 101.37
Jacob Meyer 36.46
Kevin A Benson etal 57.8
Desk Holdings LLC 124.35
James McMahon 150.76
Bradley Priebe 77.25
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Carolyn K Parmelee Trust 150.66
Richard J-1 Thilges etal 159.95
Thomas L Kees LE etal 152.63
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Duane Friduress etal 76.75
Mark Eischeid 179.02
Ronald Monson Trust etal 168.07
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City of Algona 217.01
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Louscher Family Farms LP 71.56
Algona Country Club 76.19
Ronda Haas Hunziker 44.26
Patricia D Degeeter 130.64
Ck R Montag LE 84.34
Hormel & Co 95.83
Fock Auction Inc 47.13
Kong Family Trust 80.22
Scott Manske 80.0
Robert J Arend 59.51
Kathleen Moss 84.46
Allen Kramer 40.39
County of Kossuth Consery Bd 160.49
Robert Faber etal 72.2
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Richard Shannon Trust 50.13
Donald Lickteig Trust etal 163.3
David E Wildin 100.58
Matthew A Dornbier 97.65
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Paula Thilges 26.08
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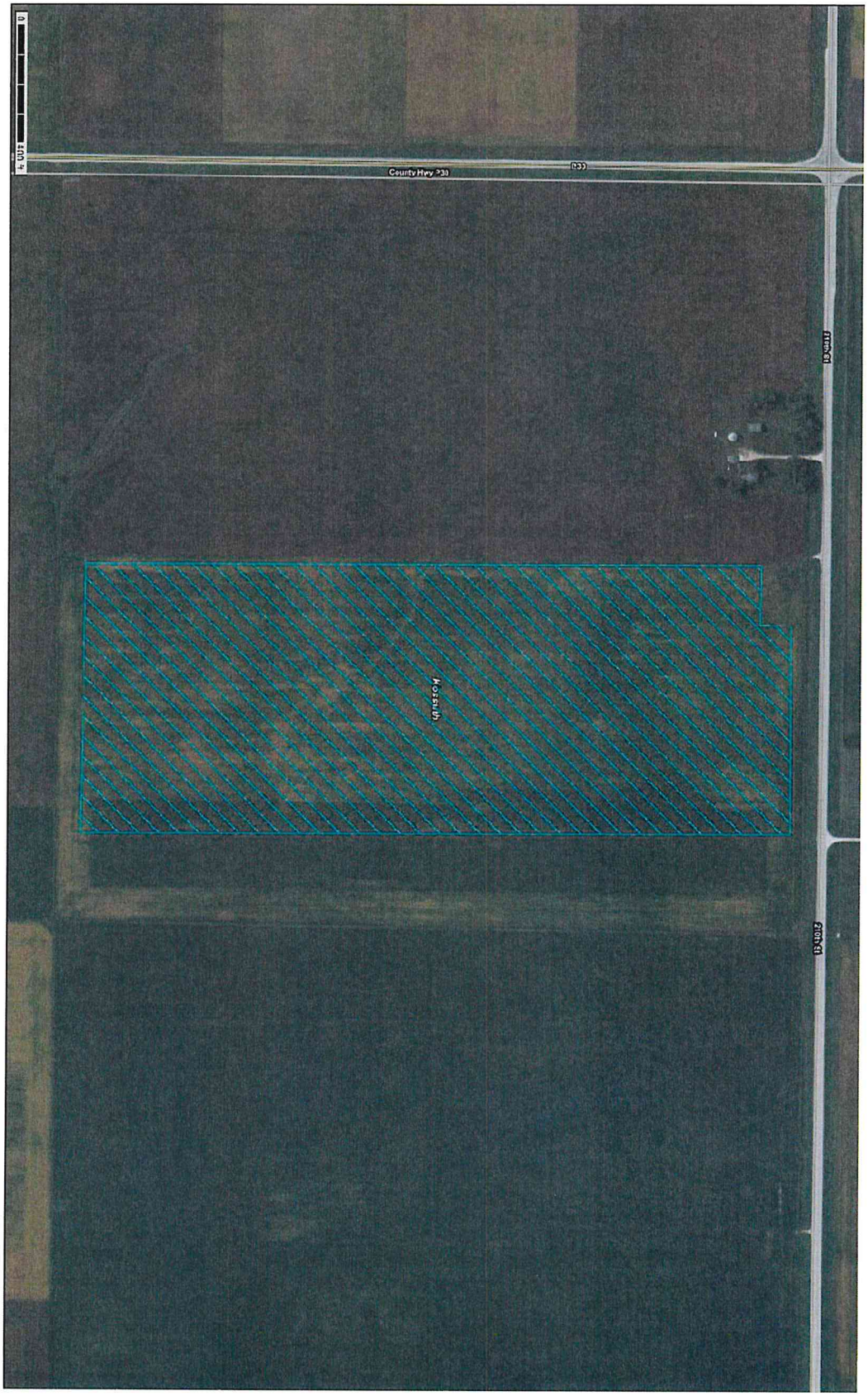
FALL 2025 BARRY SIMPSON – EAST ½ OF WEST 27.10 ACRES

43.0663135 94.2802765 Site #8 Parmelee Farm



SLUDGE APPLICATION TOTAL
WASTEWATER TREATMENT PLANT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: Site # 8 Parmelee Farm

Date	Total Acres Applied	Total Sludge Applied		Application Rate		Method of Incorporation	% Crop	Yield
		Gallons	Ton	Tons/Acre	Cumulative			Bu/Acre
			0.00	#DIV/0!	#DIV/0!			
10-26-28-24	19.5	290,532	24.59	1.26	1.26	Injected	Beans	58
10-21-24-25	28.1	443,540	57.706	2.05	3.31	Injected	Beans	63

YEARLY SLUDGE APPLICATION TOTAL
WASTEWATER TREATMENT PLANT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: Site No. 8 Carolyn Parmelee Farm (Barry Simpson)

Lbs/Acre	Nitrogen	Phosphorus	Potassium	Lead	Zinc	Copper	Nickel	Cadmium	Arsenic	Mercury	Selenium	Molybdenum
Residual	-	44.1	10.21	0.081	2.57	2.85	0.127	0.011	1.119	0.063	0.829	0.486
Fertilizer	-	-	-	-	-	.	-	-	-	-	-	
Sludge Application	112.4	81.6	12.75	0.126	4.797	5.248	0.205	0.004	0.129	0.007	0.070	0.084
Total	112.4	125.7	22.96	0.207	7.367	8.098	0.332	0.015	1.248	0.070	0.998	0.57
Utilization Rate for Beans	257	43	72	-	-	-	-	-	-	-	-	
Available for Leaching	-	82.7	-	-	-	-	-	-	-	-	-	
Cumulative	-	198*	560*	0.207	7.367	8.098	0.332	0.015	1.248	0.070	0.998	0.57

* Soil Analysis Data show amounts of Phosphorus and Potassium after current year sludge application

SOIL ANALYSIS DATA
WASTEWATER TREATMENT PLANT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: Site No. 8 Carolyn Parmelee Farm

PARAMETERS		Sample Date 11/19/2024	10/28/2025								
Water pH		5.8	6.0								
Buffer Index		6.7	6.6								
Organic Matter %		5.0	4.9								
Phosphorus lbs/acre		264	198								
Potassium lbs/acre		976	560								
Lime Requirement in lbs/acre Pure $CaCO_3$ to adjust pH for a 6" depth	(pH 6.9)	14190	17,500								
	6.5)	5389	8,293								
Sand %											
Silt %											
Clay %											
Specific Conductance											
Cation Exchange Capacity Meq/100 gms		23.5	26.2								

* 6 inch soil depth

APPENDIX

COMPLIANCE WITH 40 CFR PART 503 SLUDGE REGULATIONS

I. General

The City of Algona Wastewater Treatment Plant is a publicly owned facility with an average design influent flow rate of 1.4 million gallons per day. The treatment works serves a population of 5,741 along with numerous industries. In 2025, the City of Algona produced 112.22 tons of sewage sludge.

The City of Algona conducts weekly tests for volatile acids and alkalinity. Sludge and soil samples collected by wastewater treatment plant employees are analyzed by Keystone Laboratories, Inc. of Newton, Iowa and Minnesota Valley Testing Laboratories, Inc. of Nevada, Iowa respectively.

II. Pathogen Reduction

The Algona Wastewater Treatment Plant significantly reduces pathogens by means of a 280,000 gallon anaerobic digester. The digester contents are maintained at a temperature of 95°F to 98°F and the average solids retention time is 94 days.

In addition, the digested sludge can be stored in a 475,000 gallon cold storage tank for a period of up to 224 days before land application.

III. Vector Attraction Reduction

All sludge application sites and application methods conform to the management practices listed in Section 67.8(2) of the Standards for the Land Application of Sewage Sludge.

The City of Algona supplied sludge to two sites. The City currently has five sites available for application. All sludge is injected approximately 8" to 12" deep in the soil at the time it is applied to reduce vector attraction.

IV. I certify, under penalty of law, that the Class II Sewage Sludge Requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment.

Mark Lenz
Wastewater Superintendent

sludcomp

YEARLY SLUDGE ANALYSIS
WASTEWATER TREATMENT
SLUDGE DISPOSAL
ALGONA, IOWA

SITE DESCRIPTION: SLUDGE

PARAMETERS	10/31/2018	5/6/2019	4/25/2020	4/27/2021	5/13/2022	5/20/2023	10/26/2024	5/11/2025
pH	7.48	7.57	7.56	7.55	7.42	7.37	7.9	7.41
Total Solids %	2.6	0.79	1.32	1.95	1.99	2.95	2.03	3.12
Total Volatile Solids (% of Total Solids)	54.8	54	55.3	56.8	58.4	53.4	54.8	60.2
NH_3 - Nitrogen (Ammonia) % (Dry Basis)	2.79	10.7	6.59	4.22	4.08	3.14	3.81	1.67
NO_3 - Nitrogen (Nitrate) mg/Kg (Dry Basis)	<39.2	<127	<75.8	14.1	96	19.9	3.17	160
Kjeldahl - Nitrogen % (Dry Basis)	6.13	13.4	10.9	8.15	8.28	7.85	5	6.95
Total Phosphorus %	1.87	1.59	1.84	1.7	1.82	2.13	1.75	1.99
Total Potassium %	0.318	1	0.701	0.48	0.485	0.375	0.405	0.311
Total Arsenic mg/Kg	64	55.6	47.6	49.1	37.7	38.8	44.4	31.4
Total Zinc mg/Kg	1480	715	875	1060	820	1140	1020	1170
Total Copper mg/Kg	1420	898	1070	1250	1180	1240	1130	1280
Total Nickel mg/Kg	118	48.1	48.2	58.1	51.2	53	50.5	49.9
Total Lead mg/Kg	60.7	<39.4	36.4	36	25.4	32.1	32.3	30.7
Total Cadmium mg/Kg	<2.9	<7.9	<4.0	<5.1	<1.7	<3.4	<4.3	<0.9
Total Chromium mg/Kg	236	93.4	138	182	186	233	254	306
Total Mercury mg/Kg	2.5	<2.0	1.89	<2.6	<2.51	<1.70	<2.5	<1.6
Total Molybdenum mg/Kg	24.2	12.4	13.3	18.4	17.2	22.6	19.3	20.4
Total Selenium mg/Kg	<14.7	<23.6	<12.0	<15.4	21.7	24.8	32.9	17

MICROBAC

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IE1030

City of Algona

Mark Lenz
112 West Call Street
Algona, IA 50511-2403

Project Name: 503 Sludge Sampling

Project / PO Number: N/A
Received: 05/13/2025
Reported: 05/27/2025

Analytical Testing Parameters

Client Sample ID: Sludge Holding Tank
Sample Matrix: Sludge
Lab Sample ID: 1IE1030-01

Collected By: Lenz, Mark
Collection Date: 05/11/2025 13:50

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
TKN + NOX								
Nitrogen, Total	**69600**	1660	mg/kg dry	1		05/21/25 1148	05/23/25 1505	KKJ

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 351.2, Rv. 2 (1993)								
Nitrogen, Kjeldahl, total	**69500**	1630	mg/kg dry	1		05/21/25 0736	05/23/25 1505	SGB
EPA 353.2, Rv. 2 (1993)								
Nitrogen, Nitrate+Nitrite	**162**	32.1	mg/kg dry	1	**M2**	05/21/25 1148	05/22/25 1009	KKJ
SM 2540 G-2011								
% Solids	**3.12**	0.10	%	1		05/14/25 0724	05/14/25 0940	LAW
TIMBERLINE - Distilled								
Nitrogen, Ammonia	**16700**	641	mg/kg dry	10		05/22/25 1111	05/22/25 1111	SDF
USGS I-3753-85								
Total Volatile Solids (TVS)	**60.2**	0.0321	% dry	1		05/14/25 0724	05/14/25 0940	LAW

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3050B/EPA 6010B								
Arsenic, total	**31.4**	4.5	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Cadmium, total	<0.9	0.9	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Chromium, total	**306**	2.7	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Copper, total	**1280**	27.0	mg/kg dry	10		05/15/25 1512	05/19/25 0954	JAR
Lead, total	**30.7**	4.5	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Molybdenum, total	**20.4**	0.9	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Nickel, total	**49.9**	4.5	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Phosphorus, total	**19900**	90.1	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Potassium, total	**3110**	90	mg/kg dry	1		05/15/25 1512	05/17/25 0500	JAR
Selenium, total	**17.0**	2.7	mg/kg dry	1		05/15/25 1512	05/19/25 1200	JAR
Zinc, total	**1170**	27.0	mg/kg dry	10		05/15/25 1512	05/19/25 0954	JAR
EPA 7471A								
Mercury, total	<1.6	1.6	mg/kg dry	1		05/16/25 1647	05/20/25 1600	RVV

CHAIN OF CUSTODY RECORD

MICROBAC®

800 East 17th Street South
Newton, IA 50208
641-792-8451

1 I E 1 0 3 0

City of Algona
PM: Heather Murphy

Page 1 of
ed. 4/23/2025 8:42:33A
www.keystonelabs.com

SITE INFORMATION

Sampler: Mark Lenz

Project: 503 Sludge Sampling

REPORT TO

Mark Lenz
City of Algona
112 West Call Street
Algona, IA 50511-2403

INVOICE TO

City Clerk
City of Algona
112 West Call Street
Algona, IA 50511-2403

SPECIAL INSTRUCTIONS

None

Turn Around Time
☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order: 1IE1030
Temperature: 0.9
Turn-Cooler: No

☐ Custody Seal
☒ Containers Intact
☒ COC/Labels Agree
☐ Preservation Confirmed
☒ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
	Sludge Holding Tank City of Algona Temp 74.4 PH 7.41	Solid	GRAB	5 11 25	1:50 PM	1	[illegible]	01

Mark Lenz 5-11-25 1:50 PM
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Tony Hodgstetter 5/13/25 10:25
Received for Lab By Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:

Definitions

DF:	Dilution Factor representing the amount the sample was diluted during analysis and may not represent preparation factors.
M2:	Matrix spike recovery is below acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference

Report Comments

Reviewed and Approved By:

Heather A. Murphy

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
05/27/25 13:51

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. ***The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

MINNESOTA VALLEY TESTING LABORATORIES, INC.
1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800 362 0855 ~ Fax 515-382-3885
www.mvtl.com

MEMBER ACIL

SUBMITTED BY: 001206	DATE RECEIVED: Dec 1 2025	SUBMITTED FOR:
	DATE REPORTED: Dec 3 2025	
ALGONA CITY OF	WORK ORDER NO: 202591-00989	BARRY SIMPSON
112 W CALL ST		KOFAB NORTH SITE 7
ALGONA IA 50511		

		SAMPLE ID 1 / PREV CROP / LAB NUMBER 25-M175937	V-LOW	LOW	OPT	HIGH	V-HIGH
ORGANIC MATTER	3.5						
NITROGEN							
NO3-N lbs/A							
PHOSPHORUS							
P Meh 3 ppm	37						
POTASSIUM (K) Meh 3 ppm	193.						
ZINC (ppm)							
SULFUR ppm SO4-S							
ACIDITY pH	5.4	B ppm	Fe ppm	Mn ppm	Cu ppm	Na ppm	
BUFFER INDEX	6.2						
CCE %		SALTS mmhos/cm		Cl lbs/A			
		CEC	% BASE SATURATION				
CALCIUM ppm	2070		Ca	Mg	K	Na	H
MAGNESIUM ppm	322	21.5	48.2	12.3	2.3		37.2
		SAND %	SILT %	CLAY %			
		TEXTURE					

N / W / E / S

Additional Notes:

ALL GUIDELINES ARE ON A BROADCAST BASIS

CROP FERTILIZER GUIDELINES

CROP AND YIELD GOAL	CORN/BEANS 220/70 BU		
NITROGEN (lbs/A)	220		
P2O5 (lbs/A) ISU	0		
K2O (lbs/A) ISU	132		
ZINC (lbs/A)			
SULFUR (lbs/A)			
LIME NEEDS AS	to pH 6.5 19910 lbs of lime for 24" plow depth.		
100% ENP (lbs/A)	to pH 6.9 30710 lbs of lime for 24" plow depth.		

MVTL is a certified laboratory through North American Proficiency and Ag LabCertification Programs following approved NCR-13 Standards. Phosphorus results are determined colorimetrically except where noted.
Soil-test value ranges for phosphorous and potassium are based onCrop Nutrient and Limestone Recommendations in Iowa (PM 1688)
To determine Maximum Return to Nitrogen Rate considering (N price/ lb.)/(corn price): http://cnrc.agron.iastate.edu/

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including variations by MVTL. As a natural protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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MEMBER ACIL

SUBMITTED BY: 001206	DATE RECEIVED: Dec 1 2025	SUBMITTED FOR:
	DATE REPORTED: Dec 3 2025	
ALGONA CITY OF	WORK ORDER NO: 202591-00989	BARRY SIMPSON
112 W CALL ST		PARMELEE FARM SITE 8
ALGONA IA 50511		

	SAMPLE ID	1
	PREV CROP	
	LAB NUMBER	25-M175938

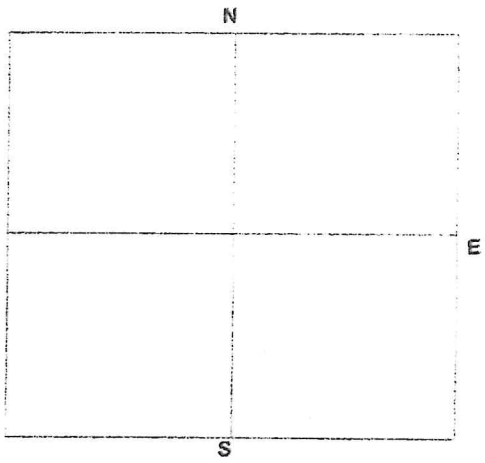
		V-LOW	LOW	OPT	HIGH	V-HIGH
ORGANIC MATTER	4.9					
NITROGEN NO3-N lbs/A						
PHOSPHORUS P Meh 3 ppm	99					
POTASSIUM (K) Meh 3 ppm	280.					
ZINC (ppm)						
SULFUR ppm SO4-S						

		B ppm	Fe ppm	Mn ppm	Cu ppm	Na ppm
ACIDITY pH	6.0					
BUFFER INDEX	6.6					

		SALTS mmhos/cm	Cl lbs/A
CCE %			

		CEC	% BASE SATURATION				
			Ca	Mg	K	Na	H
CALCIUM ppm	3501						
MAGNESIUM ppm	488	26.2	66.6	15.3	2.7		15.3

	SAND %	SILT %	CLAY %
TEXTURE			



Additional Notes:

ALL GUIDELINES ARE ON A BROADCAST BASIS

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P2O5 (lbs/A) ISU	0		
K2O (lbs/A) ISU	0		
ZINC (lbs/A)			
SULFUR (lbs/A)			
LIME NEEDS AS	to pH 6.5 8293 lbs of lime for 24" plow depth.		
100% ENP (lbs/A)	to pH 6.9 17500 lbs of lime for 24" plow depth.		

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SITE #7 KOFAB NORTH 1

5-11-25	12:00 PM TO 9:10 PM
5-12-25	9:30 AM TO 9:00 PM
5-13-25	9:45 AM TO 3:15 PM

SITE #8 PARMELEE FARM

10-21-25	2:50 PM TO 8:55 PM
10-22-25	10:10 AM TO 9:00 PM
10-23-25	11:25 AM TO 5:30 PM
10-24-25	1:20 PM to 3:15 PM