Livestock Groundwater Monitoring Results Review

Geologic Services Section, DWEE
Spring 2026

Facility: Blackshirt Feeders **IIS:** 118647
Legal: Parts of sections 26, 27 and 35, of T2N, R42W **County**: Dundy **NRD**: Upper Republican

Wells

Well registered: Yes **Wells surveyed:** Yes **Date Drilled:** 3/18/25-3/24/25
Site map with wells located: Yes **Map with Graphic Scale:** Yes
Well placed as in plan: Yes **Lat/Long:** Yes
Well drilling company: GSI Engineering Northern Division, LLC.

Well #	Up/ Down	Reg. No.	Well Depth	Screen Length	DTW	SWL in Screen	Lat	Long	Sand	Bentonite	Cement
MW-1	Up	G-202469B	117	20	101.9	Yes	40.11283333	-102.04040278	117-95	95-0	
MW-2	Down	G-202469C	73	20	61	Yes	40.09875833	-102.03733611	73-51	51-0	
MW-3	Down	G-202469D	71	20	62	Yes	40.09819444	-102.02895278	71-49	49-0	
MW-4	Down	G-202469E	73	20	62	Yes	40.09561667	-102.02687778	73-51	51-0	
MW-5	Down	G-202469A	72	20	64	Yes	40.09554722	-102.02128611	72-50	50-0	

Water Quality Results

Sampling company/person/license #: Settje Agri-Services, Clint Maaske, #101567
Report received date: 5/27/2026
Results received within 45 days: Yes **Purging (volume and stabilization):** Yes
Name of lab: Ward Laboratories **Blank:** Yes **Duplicate:** Yes
Lab Method: Nitrate: 353.2 Ammonia: 350.1 Chloride: 325.1
Chain of custody form: Yes **Samples to laboratory within holding time:** Yes
Flow Direction: South to southeast



6/30/2026, 11:48:33 AM

1:16,369

0 0.1 0.2 0.4 mi

G-202496A and G-202496E
Located just south of map extent

20260065959

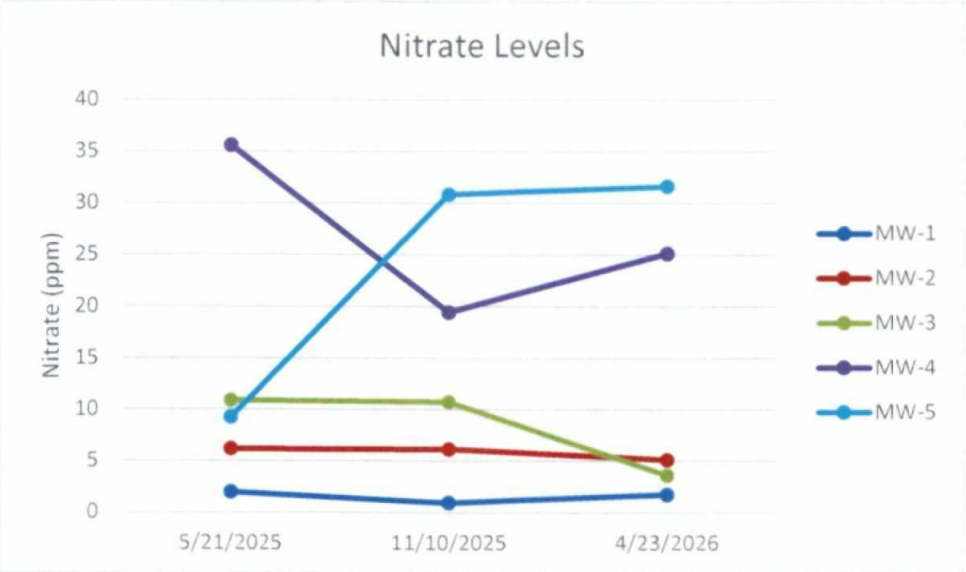
Well	Date	GW elev	Nitrate	Ammonia	Chloride	Conductivity
MW-1	5/21/2025	3441.15	2	<0.1	4	323
MW-1	11/10/2025	3440.79	0.9	0.1	6	388
MW-1	4/23/2026	3441.1	1.7	0.2	6	353

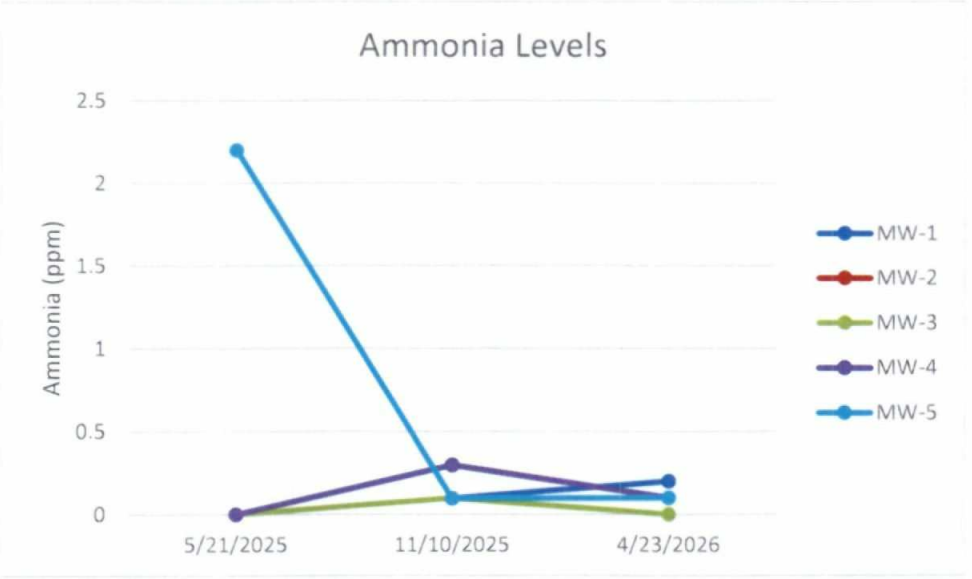
Well	Date	GW elev	Nitrate	Ammonia	Chloride	Conductivity
MW-2	5/21/2025	3429.43	6.2	<0.1	3	328
MW-2	11/10/2025	3428.63	6.1	0.1	3	376
MW-2	4/23/2026	3428.32	5.1	0.1	4	357

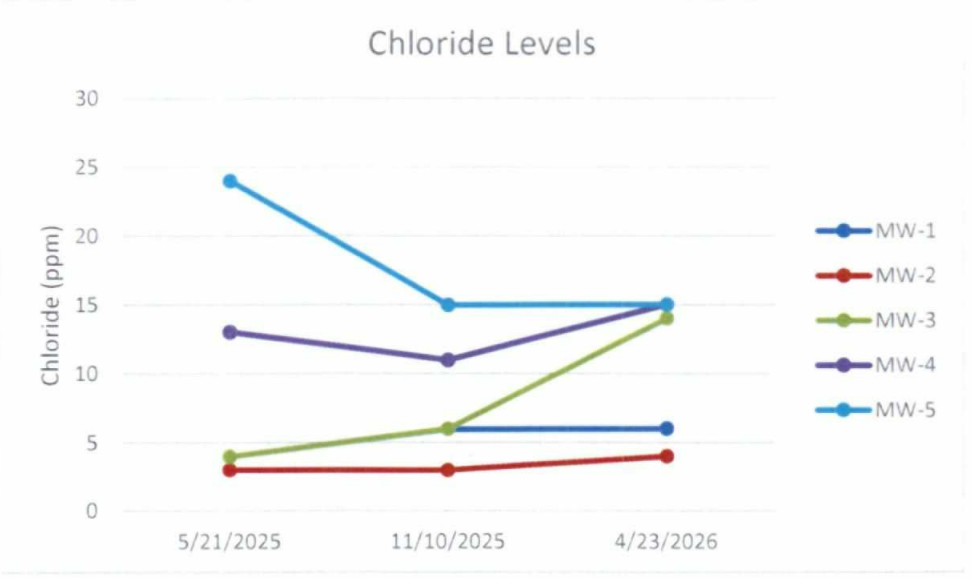
Well	Date	GW elev	Nitrate	Ammonia	Chloride	Conductivity
MW-3	5/21/2025	3429.34	10.9	<0.1	4	386
MW-3	11/10/2025	3430.06	10.7	0.1	6	477
MW-3	4/23/2026	3429.4	3.6	<0.1	14	517

Well	Date	GW elev	Nitrate	Ammonia	Chloride	Conductivity
MW-4	5/21/2025	3421.39	35.6	<0.1	13	595
MW-4	11/10/2025	3421.73	19.4	0.3	11	709
MW-4	4/23/2026	3421.21	25.1	0.1	15	752

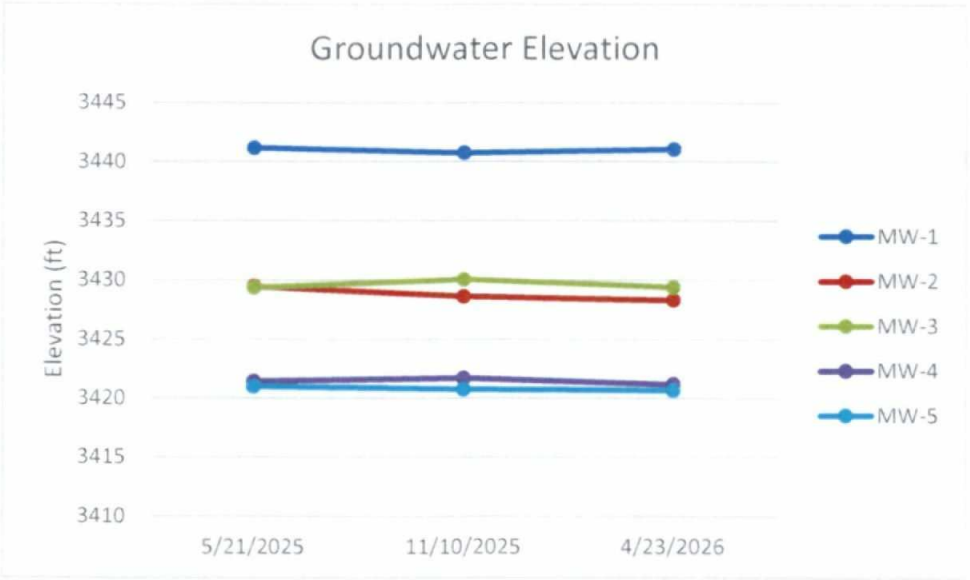
Well	Date	GW elev	Nitrate	Ammonia	Chloride	Conductivity
MW-5	5/21/2025	3420.98	9.3	2.2	24	422
MW-5	11/10/2025	3420.79	30.8	0.1	15	603
MW-5	4/23/2026	3420.7	31.6	0.1	15	672




Ammonia Levels
Ammonia (ppm)
2.5
2
1.5
1
0.5
0
5/21/2025
11/10/2025
4/23/2026
MW-1
MW-2
MW-3
MW-4
MW-5


Chloride Levels
Chloride (ppm)
30
25
20
15
10
5
0
5/21/2025
11/10/2025
4/23/2026
MW-1
MW-2
MW-3
MW-4
MW-5


Conductivity Levels
Conductivity (µmhos)
800
700
600
500
400
300
200
100
0
5/21/2025
11/10/2025
4/23/2026
MW-1
MW-2
MW-3
MW-4
MW-5



Discussion

Nitrate levels are slightly increasing in MW-5 but consistent otherwise. Ammonia levels are low and consistent in all wells. Chloride levels are consistent. Conductivity levels are consistent. Groundwater levels are consistent.

Groundwater use in the area is typical for a rural setting; there are multiple irrigation wells in the area and a few production wells as well. There is one registered domestic well located on the site property. Due to the proximity to the Colorado/Nebraska border there are potential wells located on the Colorado side that are not noted here or on the site map.

Reviewer's Signature Caelum Hubl **Date** 6/30/2026

Caelum Hubl