



Jolly, Becky <becky.jolly@dnr.iowa.gov>

Fwd: Goose Lake Quarry bi-annual analyticals

1 message

Stobbe, Chad <chad.stobbe@dnr.iowa.gov>

Fri, Oct 6, 2023 at 12:28 PM

To: "Jolly, Becky" <becky.jolly@dnr.iowa.gov>, Brian Rath <brian.rath@dnr.iowa.gov>

Becky - Please add this to the prior email from Morgan for Goose Lake. Thanks



CHAD STOBBE | Environmental Specialist Sr.
Solid Waste and Contaminated Sites Section
Iowa Department of Natural Resources
P: 515-201-8272 | F: 515-725-8202
502 E. 9th Street, Des Moines, IA 50319



----- Forwarded message -----

From: **Morgan Schuler** <morgans@wendlingquarries.com>

Date: Fri, Oct 6, 2023 at 11:05 AM

Subject: Goose Lake Quarry bi-annual analyticals

To: Todd Whipple <twhipple@hlwengineering.com>

Cc: Chad.Stobbe@dnr.iowa.gov <Chad.Stobbe@dnr.iowa.gov>

Hey Todd,

Attached are the September 2023 monitoring well analytical results from Goose Lake Quarry. I'll send the pdf versions in a subsequent email.

Groundwater elevations:

MW #1:

5/10/23 – 666.72 ft asl

9/13/23 - 659.82 ft asl

MW #2:

5/10/23 - 666.73 ft asl

9/13/23 - 661.53 ft asl

MW #3:

5/10/23 – 674.4 ft asl

9/13/23 - 668.3 ft asl

MW #4:

5/10/23 – 671.5 ft asl

9/13/23 - 664.6 ft asl

Let me know if you need anything else or have any questions.

Thanks, have a good weekend!

Morgan Schuler

5 attachments

 **MW #1 9.13.23.xls**
69K

 **MW #2 9.13.23.xls**
58K

 **MW #3 9.13.23.xls**
59K

 **MW #4 9.13.23.xls**
58K

 **Sump 9.13.23.xls**
59K

Laboratory Report

Wendling Quarries Inc.
 Morgan Schuler
 2647 225th Street P.O. Box 230
 Dewitt, IA 52742

Date Received: 09/13/23 13:52
Date Reported: 10/04/23 12:16
Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00	Date Received: 09/13/23 13:52		
Lab No.: 23I1339-01			Sampled by: Morgan Schuler			
*** DEFAULT GENERAL METHOD ***						
Formaldehyde	<0.100	mg/L	09/27/23 10:43	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/18/23 11:12	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/14/23 16:05	EV	SM 5220D-1997	
Field pH	8.3	pH Units	09/13/23 8:00	Morgan S	SM 4500 H + B	
Field Temperature	54.7	°F	09/13/23 8:00	Morgan S	SM 2550 B	
Field Conductivity	475	uS	09/13/23 8:00	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00	Date Received: 09/13/23 13:52		
Lab No.: 23I1339-01			Sampled by: Morgan Schuler			
Determination of Volatile Organic Compounds						
Surrogate: Dibromofluoromethane	79-129	132 %	09/20/23 10:14	LNH	EPA 624	S-GC
Surrogate: Toluene-d8	91-113	112 %	09/20/23 10:14	LNH	EPA 624	
Field pH	8.3	pH Units	09/13/23 8:00	Morgan S	SM 4500 H + B	
Field Temperature	54.7	°F	09/13/23 8:00	Morgan S	SM 2550 B	
Field Conductivity	475	uS	09/13/23 8:00	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00	Date Received: 09/13/23 13:52		
Lab No.: 23I1339-01			Sampled by: Morgan Schuler			
Classical Chemistry Parameters						
Chloride	4.81	mg/L	09/13/23 17:35	EV	EPA 300.0	

Analysis Certified by:



Randal Wanke, Laboratory Director

Wendling Quarries Inc.
 2647 225th Street P.O. Box 230
 Dewitt IA, 52742

Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file

Client Contact: Morgan Schuler

Reported:
 10/04/23 12:16

Field pH	8.3	pH Units	09/13/23 8:00	Morgan S	SM 4500 H + B
Field Temperature	54.7	°F	09/13/23 8:00	Morgan S	SM 2550 B
Field Conductivity	475	uS	09/13/23 8:00	Morgan S	EPA 150

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00	Date Received: 09/13/23 13:52		
Lab No.: 2311339-01			Sampled by: Morgan Schuler			

Determination of Volatile Organic Compounds

Surrogate: 1,2-Dichloroethane-d4	66-134	123 %	09/20/23 10:14	LNH	EPA 624
Surrogate: 4-Bromofluorobenzene	83-112	109 %	09/20/23 10:14	LNH	EPA 624
Field pH	8.3	pH Units	09/13/23 8:00	Morgan S	SM 4500 H + B
Field Temperature	54.7	°F	09/13/23 8:00	Morgan S	SM 2550 B
Field Conductivity	475	uS	09/13/23 8:00	Morgan S	EPA 150

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00	Date Received: 09/13/23 13:52		
Lab No.: 2311339-01			Sampled by: Morgan Schuler			

Classical Chemistry Parameters

Fluoride	0.101	mg/L	09/13/23 17:35	EV	EPA 300.0
Sulfate as SO4	10.9	mg/L	09/13/23 17:35	EV	EPA 300.0
Phenolics	<0.008	mg/L	09/21/23 16:17	kc	EPA 420.1 rev1978
Total Suspended Solids	9	mg/L	09/19/23 11:39	kt	USGS I-3765-85

Metals by EPA 200 Series Methods

Silver	<0.000500	mg/L	09/14/23 13:21	kc	EPA 200.7
Aluminum	<0.100	mg/L	09/14/23 13:21	kc	EPA 200.7
Arsenic	<0.0100	mg/L	09/14/23 13:21	kc	EPA 200.7
Boron	<0.0200	mg/L	09/14/23 13:21	kc	EPA 200.7
Barium	0.0441	mg/L	09/14/23 13:21	kc	EPA 200.7
Beryllium	<0.00100	mg/L	09/14/23 13:21	kc	EPA 200.7
Cadmium	<0.000400	mg/L	09/14/23 13:21	kc	EPA 200.7
Cobalt	<0.00200	mg/L	09/14/23 13:21	kc	EPA 200.7
Chromium	0.00712	mg/L	09/14/23 13:21	kc	EPA 200.7
Copper	<0.00300	mg/L	09/14/23 13:21	kc	EPA 200.7
Iron	0.0794	mg/L	09/14/23 13:21	kc	EPA 200.7
Magnesium	50.3	mg/L	09/14/23 13:21	kc	EPA 200.7
Manganese	<0.0200	mg/L	09/14/23 13:21	kc	EPA 200.7
Molybdenum	<0.0100	mg/L	09/14/23 13:21	kc	EPA 200.7
Nickel	<0.00100	mg/L	09/14/23 13:21	kc	EPA 200.7

Wendling Quarries Inc.
 2647 225th Street P.O. Box 230
 Dewitt IA, 52742

Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file
 Client Contact: Morgan Schuler

Reported:
 10/04/23 12:16

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00	Date Received: 09/13/23 13:52		
Lab No.: 23I1339-01			Sampled by: Morgan Schuler			
Lead	<0.00200	mg/L	09/14/23 13:21	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/14/23 13:21	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/14/23 13:21	kc	EPA 200.7	
Thallium	<0.00300	mg/L	09/14/23 13:21	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/14/23 13:21	kc	EPA 200.7	
Zinc	0.0135	mg/L	09/14/23 13:21	kc	EPA 200.7	
Mercury	<0.00200	mg/L	09/15/23 17:49	kc	EPA 245.1 rev 3-1994	
Field pH	8.3	pH Units	09/13/23 8:00	Morgan S	SM 4500 H + B	
Field Temperature	54.7	°F	09/13/23 8:00	Morgan S	SM 2550 B	
Field Conductivity	475	uS	09/13/23 8:00	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #1 Grab			Date Sampled: 09/13/23 8:00		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-01			Sampled by: Morgan Schuler			
Determination of Conventional Chemistry Parameters						
Total Organic Halogens (TOX)	0.012	mg/L	09/26/23 8:30	LNH	EPA 9020	
Determination of Volatile Organic Compounds						
2-Butanone (MEK)	<10.0	ug/L	09/20/23 10:14	LNH	EPA 624	
Field pH	8.3	pH Units	09/13/23 8:00	Morgan S	SM 4500 H + B	
Field Temperature	54.7	°F	09/13/23 8:00	Morgan S	SM 2550 B	
Field Conductivity	475	uS	09/13/23 8:00	Morgan S	EPA 150	

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Laboratory Report

Wendling Quarries Inc.
Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742

Date Received: 09/13/23 13:52
Date Reported: 10/04/23 12:17
Project: Monitoring wells-Goose Lake BiAnnual
include Excel data file

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			Date Sampled: 09/13/23 9:20		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-02			Sampled by: Morgan Schuler			
*** DEFAULT GENERAL METHOD ***						
Formaldehyde	<0.100	mg/L	09/27/23 10:43	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/18/23 11:15	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/14/23 16:05	EV	SM 5220D-1997	
Chloride	2.75	mg/L	09/13/23 17:35	EV	EPA 300.0	
Fluoride	0.114	mg/L	09/13/23 17:35	EV	EPA 300.0	
Sulfate as SO4	20.7	mg/L	09/13/23 17:35	EV	EPA 300.0	
Phenolics	<0.008	mg/L	09/21/23 16:17	kc	EPA 420.1 rev1978	
Total Suspended Solids	8	mg/L	09/19/23 11:39	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.000500	mg/L	09/14/23 13:01	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/14/23 13:01	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/14/23 13:01	kc	EPA 200.7	
Boron	<0.0200	mg/L	09/14/23 13:01	kc	EPA 200.7	
Barium	0.0600	mg/L	09/14/23 13:01	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/14/23 13:01	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/14/23 13:01	kc	EPA 200.7	
Cobalt	<0.00200	mg/L	09/14/23 13:01	kc	EPA 200.7	
Chromium	0.00348	mg/L	09/14/23 13:01	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/14/23 13:01	kc	EPA 200.7	
Iron	0.0154	mg/L	09/14/23 13:01	kc	EPA 200.7	
Magnesium	49.9	mg/L	09/14/23 13:01	kc	EPA 200.7	
Manganese	0.0235	mg/L	09/14/23 13:01	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/14/23 13:01	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/14/23 13:01	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/14/23 13:01	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/14/23 13:01	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/14/23 13:01	kc	EPA 200.7	
Thallium	<0.00300	mg/L	09/14/23 13:01	kc	EPA 200.7	

Analysis Certified by:



Randal Wanke, Laboratory Director

Wendling Quarries Inc.
 2647 225th Street P.O. Box 230
 Dewitt IA, 52742

Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file
 Client Contact: Morgan Schuler

Reported:
 10/04/23 12:17

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			Date Sampled: 09/13/23 9:20	Date Received: 09/13/23 13:52		
Lab No.: 2311339-02			Sampled by: Morgan Schuler			
Vanadium	<0.00100	mg/L	09/14/23 13:01	kc	EPA 200.7	
Zinc	0.00513	mg/L	09/14/23 13:01	kc	EPA 200.7	
Mercury	<0.00200	mg/L	09/15/23 17:49	kc	EPA 245.1 rev 3-1994	
Field pH	8.1	pH Units	09/13/23 9:20	Morgan S	SM 4500 H + B	
Field Temperature	54	°F	09/13/23 9:20	Morgan S	SM 2550 B	
Field Conductivity	556	uS	09/13/23 9:20	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #2 Grab			Date Sampled: 09/13/23 9:20	Date Received: 09/13/23 13:52		
Lab No.: 2311339-02			Sampled by: Morgan Schuler			

Determination of Conventional Chemistry Parameters

Total Organic Halogens (TOX)	0.012	mg/L	09/26/23 8:30	LNH	EPA 9020	
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Determination of Volatile Organic Compounds

2-Butanone (MEK)	<10.0	ug/L	09/20/23 10:41	LNH	EPA 624	
Surrogate: Dibromofluoromethane	79-129	129 %	09/20/23 10:41	LNH	EPA 624	
Surrogate: 1,2-Dichloroethane-d4	66-134	121 %	09/20/23 10:41	LNH	EPA 624	
Surrogate: Toluene-d8	91-113	108 %	09/20/23 10:41	LNH	EPA 624	
Surrogate: 4-Bromofluorobenzene	83-112	109 %	09/20/23 10:41	LNH	EPA 624	
Field pH	8.1	pH Units	09/13/23 9:20	Morgan S	SM 4500 H + B	
Field Temperature	54	°F	09/13/23 9:20	Morgan S	SM 2550 B	
Field Conductivity	556	uS	09/13/23 9:20	Morgan S	EPA 150	

Laboratory Report

Wendling Quarries Inc.

Morgan Schuler
2647 225th Street P.O. Box 230
Dewitt, IA 52742

Date Received: 09/13/23 13:52

Date Reported: 10/04/23 12:18

Project: Monitoring wells-Goose Lake BiAnnual
include Excel data file

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			Date Sampled: 09/13/23 10:20		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-03			Sampled by: Morgan Schuler			
*** DEFAULT GENERAL METHOD ***						
Formaldehyde	<0.100	mg/L	09/27/23 10:43	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/18/23 11:17	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/14/23 16:05	EV	SM 5220D-1997	
Chloride	0.633	mg/L	09/13/23 17:35	EV	EPA 300.0	
Fluoride	<0.100	mg/L	09/13/23 17:35	EV	EPA 300.0	
Sulfate as SO ₄	5.57	mg/L	09/13/23 17:35	EV	EPA 300.0	
Phenolics	<0.008	mg/L	09/21/23 16:17	kc	EPA 420.1 rev1978	
Total Suspended Solids	29	mg/L	09/19/23 11:39	kt	USGS I-3765-85	
Metals by EPA 200 Series Methods						
Silver	<0.000500	mg/L	09/14/23 13:04	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/14/23 13:04	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/14/23 13:04	kc	EPA 200.7	
Boron	<0.0200	mg/L	09/14/23 13:04	kc	EPA 200.7	
Barium	0.0276	mg/L	09/14/23 13:04	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/14/23 13:04	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/14/23 13:04	kc	EPA 200.7	
Cobalt	<0.00200	mg/L	09/14/23 13:04	kc	EPA 200.7	
Chromium	0.00461	mg/L	09/14/23 13:04	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/14/23 13:04	kc	EPA 200.7	
Iron	0.0351	mg/L	09/14/23 13:04	kc	EPA 200.7	
Magnesium	24.0	mg/L	09/14/23 13:04	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/14/23 13:04	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/14/23 13:04	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/14/23 13:04	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/14/23 13:04	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/14/23 13:04	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/14/23 13:04	kc	EPA 200.7	
Thallium	<0.00300	mg/L	09/14/23 13:04	kc	EPA 200.7	

Analysis Certified by:



Randal Wanke, Laboratory Director

Wendling Quarries Inc.
 2647 225th Street P.O. Box 230
 Dewitt IA, 52742

Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file
 Client Contact: Morgan Schuler

Reported:
 10/04/23 12:18

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			Date Sampled: 09/13/23 10:20	Date Received: 09/13/23 13:52		
Lab No.: 2311339-03			Sampled by: Morgan Schuler			
Vanadium	<0.00100	mg/L	09/14/23 13:04	kc	EPA 200.7	
Zinc	<0.00500	mg/L	09/14/23 13:04	kc	EPA 200.7	
Mercury	<0.00200	mg/L	09/15/23 17:49	kc	EPA 245.1 rev 3-1994	
Field pH	8.2	pH Units	09/13/23 10:20	Morgan S	SM 4500 H + B	
Field Temperature	52.9	°F	09/13/23 10:20	Morgan S	SM 2550 B	
Field Conductivity	320	uS	09/13/23 10:20	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #3 Grab			Date Sampled: 09/13/23 10:20	Date Received: 09/13/23 13:52		
Lab No.: 2311339-03			Sampled by: Morgan Schuler			

Determination of Conventional Chemistry Parameters

Total Organic Halogens (TOX)	<0.010	mg/L	09/26/23 8:30	LNH	EPA 9020	
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Determination of Volatile Organic Compounds

2-Butanone (MEK)	<10.0	ug/L	09/20/23 11:08	LNH	EPA 624	
Surrogate: Dibromofluoromethane	79-129	132 %	09/20/23 11:08	LNH	EPA 624	S-GC
Surrogate: 1,2-Dichloroethane-d4	66-134	123 %	09/20/23 11:08	LNH	EPA 624	
Surrogate: Toluene-d8	91-113	110 %	09/20/23 11:08	LNH	EPA 624	
Surrogate: 4-Bromofluorobenzene	83-112	111 %	09/20/23 11:08	LNH	EPA 624	
Field pH	8.2	pH Units	09/13/23 10:20	Morgan S	SM 4500 H + B	
Field Temperature	52.9	°F	09/13/23 10:20	Morgan S	SM 2550 B	
Field Conductivity	320	uS	09/13/23 10:20	Morgan S	EPA 150	

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Laboratory Report

Wendling Quarries Inc.
 Morgan Schuler
 2647 225th Street P.O. Box 230
 Dewitt, IA 52742

Date Received: 09/13/23 13:52
Date Reported: 10/04/23 12:19
Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			Date Sampled: 09/13/23 11:15		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-04			Sampled by: Morgan Schuler			

Determination of Conventional Chemistry Parameters

Total Organic Halogens (TOX)	0.010	mg/L	09/26/23 8:30	LNH	EPA 9020	
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Determination of Volatile Organic Compounds

2-Butanone (MEK)	<10.0	ug/L	09/20/23 11:35	LNH	EPA 624	
Surrogate: Dibromofluoromethane	79-129	129 %	09/20/23 11:35	LNH	EPA 624	
Surrogate: 1,2-Dichloroethane-d4	66-134	124 %	09/20/23 11:35	LNH	EPA 624	
Surrogate: Toluene-d8	91-113	110 %	09/20/23 11:35	LNH	EPA 624	
Surrogate: 4-Bromofluorobenzene	83-112	109 %	09/20/23 11:35	LNH	EPA 624	
Field pH	7.9	pH Units	09/13/23 11:15	Morgan S	SM 4500 H + B	
Field Temperature	52.5	°F	09/13/23 11:15	Morgan S	SM 2550 B	
Field Conductivity	486	uS	09/13/23 11:15	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			Date Sampled: 09/13/23 11:15		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-04			Sampled by: Morgan Schuler			

*** DEFAULT GENERAL METHOD ***

Formaldehyde	<0.100	mg/L	09/27/23 10:43	kc	GC-MS	
Classical Chemistry Parameters						
Ammonia as N	<0.10	mg/L	09/18/23 11:20	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/14/23 16:05	EV	SM 5220D-1997	
Chloride	2.74	mg/L	09/13/23 17:35	EV	EPA 300.0	
Fluoride	0.124	mg/L	09/13/23 17:35	EV	EPA 300.0	
Sulfate as SO4	8.93	mg/L	09/13/23 17:35	EV	EPA 300.0	
Phenolics	<0.008	mg/L	09/21/23 16:17	kc	EPA 420.1 rev1978	
Total Suspended Solids	8	mg/L	09/19/23 11:39	kt	USGS I-3765-85	

Analysis Certified by:



Randal Wanke, Laboratory Director

Wendling Quarries Inc.
 2647 225th Street P.O. Box 230
 Dewitt IA, 52742

Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file
 Client Contact: Morgan Schuler

Reported:
 10/04/23 12:19

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Well #4 Grab			Date Sampled: 09/13/23 11:15		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-04			Sampled by: Morgan Schuler			
Metals by EPA 200 Series Methods						
Silver	<0.000500	mg/L	09/14/23 13:07	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/14/23 13:07	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/14/23 13:07	kc	EPA 200.7	
Boron	<0.0200	mg/L	09/14/23 13:07	kc	EPA 200.7	
Barium	0.0414	mg/L	09/14/23 13:07	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/14/23 13:07	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/14/23 13:07	kc	EPA 200.7	
Cobalt	<0.00200	mg/L	09/14/23 13:07	kc	EPA 200.7	
Chromium	0.0121	mg/L	09/14/23 13:07	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/14/23 13:07	kc	EPA 200.7	
Iron	0.0554	mg/L	09/14/23 13:07	kc	EPA 200.7	
Magnesium	46.7	mg/L	09/14/23 13:07	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/14/23 13:07	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/14/23 13:07	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/14/23 13:07	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/14/23 13:07	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/14/23 13:07	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/14/23 13:07	kc	EPA 200.7	
Thallium	<0.00300	mg/L	09/14/23 13:07	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/14/23 13:07	kc	EPA 200.7	
Zinc	0.00781	mg/L	09/14/23 13:07	kc	EPA 200.7	
Mercury	<0.00200	mg/L	09/15/23 17:49	kc	EPA 245.1 rev 3-1994	
Field pH	7.9	pH Units	09/13/23 11:15	Morgan S	SM 4500 H + B	
Field Temperature	52.5	°F	09/13/23 11:15	Morgan S	SM 2550 B	
Field Conductivity	486	uS	09/13/23 11:15	Morgan S	EPA 150	

Laboratory Report

Wendling Quarries Inc.
 Morgan Schuler
 2647 225th Street P.O. Box 230
 Dewitt, IA 52742

Date Received: 09/13/23 13:52
Date Reported: 10/04/23 12:20
Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			Date Sampled: 09/13/23 12:15		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-05			Sampled by: Morgan Schuler			
Determination of Conventional Chemistry Parameters						
Total Organic Halogens (TOX)	<0.010	mg/L	09/26/23 8:30	LNH	EPA 9020	
Determination of Volatile Organic Compounds						
2-Butanone (MEK)	<10.0	ug/L	09/20/23 12:01	LNH	EPA 624	
Surrogate: Dibromofluoromethane	79-129	132 %	09/20/23 12:01	LNH	EPA 624	S-GC
Surrogate: 1,2-Dichloroethane-d4	66-134	125 %	09/20/23 12:01	LNH	EPA 624	
Surrogate: Toluene-d8	91-113	111 %	09/20/23 12:01	LNH	EPA 624	
Surrogate: 4-Bromofluorobenzene	83-112	110 %	09/20/23 12:01	LNH	EPA 624	
Field pH	8.2	pH Units	09/13/23 12:15	Morgan S	SM 4500 H + B	
Field Temperature	69.4	°F	09/13/23 12:15	Morgan S	SM 2550 B	
Field Conductivity	570	uS	09/13/23 12:15	Morgan S	EPA 150	

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			Date Sampled: 09/13/23 12:15		Date Received: 09/13/23 13:52	
Lab No.: 23I1339-05			Sampled by: Morgan Schuler			
*** <i>DEFAULT GENERAL METHOD</i> ***						
Formaldehyde	<0.100	mg/L	09/27/23 10:43	kc	GC-MS	
<i>Classical Chemistry Parameters</i>						
Ammonia as N	<0.10	mg/L	09/18/23 11:22	jc	Timberline	
Chemical Oxygen Demand	<10	mg/L	09/14/23 16:05	EV	SM 5220D-1997	
Chloride	22.9	mg/L	09/13/23 17:35	EV	EPA 300.0	
Fluoride	0.141	mg/L	09/13/23 17:35	EV	EPA 300.0	
Sulfate as SO4	20.1	mg/L	09/13/23 17:35	EV	EPA 300.0	
Phenolics	<0.008	mg/L	09/21/23 16:17	kc	EPA 420.1 rev1978	
Total Suspended Solids	1	mg/L	09/19/23 11:39	kt	USGS I-3765-85	

Analysis Certified by:



Randal Wanke, Laboratory Director

Wendling Quarries Inc.
 2647 225th Street P.O. Box 230
 Dewitt IA, 52742

Project: Monitoring wells-Goose Lake BiAnnual
 include Excel data file
 Client Contact: Morgan Schuler

Reported:
 10/04/23 12:20

Analyte	Result	Units	Analyzed	Analyst	Method	Notes
Sample ID: Goose Lake Sump Grab			Date Sampled: 09/13/23 12:15	Date Received: 09/13/23 13:52		
Lab No.: 2311339-05			Sampled by: Morgan Schuler			
Metals by EPA 200 Series Methods						
Silver	<0.000500	mg/L	09/14/23 13:10	kc	EPA 200.7	
Aluminum	<0.100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Arsenic	<0.0100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Boron	0.0811	mg/L	09/14/23 13:10	kc	EPA 200.7	
Barium	0.133	mg/L	09/14/23 13:10	kc	EPA 200.7	
Beryllium	<0.00100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Cadmium	<0.000400	mg/L	09/14/23 13:10	kc	EPA 200.7	
Cobalt	<0.00200	mg/L	09/14/23 13:10	kc	EPA 200.7	
Chromium	<0.00100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Copper	<0.00300	mg/L	09/14/23 13:10	kc	EPA 200.7	
Iron	<0.0100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Magnesium	43.0	mg/L	09/14/23 13:10	kc	EPA 200.7	
Manganese	<0.0200	mg/L	09/14/23 13:10	kc	EPA 200.7	
Molybdenum	<0.0100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Nickel	<0.00100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Lead	<0.00200	mg/L	09/14/23 13:10	kc	EPA 200.7	
Antimony	<0.00500	mg/L	09/14/23 13:10	kc	EPA 200.7	
Selenium	<0.00500	mg/L	09/14/23 13:10	kc	EPA 200.7	
Thallium	<0.00300	mg/L	09/14/23 13:10	kc	EPA 200.7	
Vanadium	<0.00100	mg/L	09/14/23 13:10	kc	EPA 200.7	
Zinc	<0.00500	mg/L	09/14/23 13:10	kc	EPA 200.7	
Mercury	<0.00200	mg/L	09/15/23 17:49	kc	EPA 245.1 rev 3-1994	
Field pH	8.2	pH Units	09/13/23 12:15	Morgan S	SM 4500 H + B	
Field Temperature	69.4	°F	09/13/23 12:15	Morgan S	SM 2550 B	
Field Conductivity	570	uS	09/13/23 12:15	Morgan S	EPA 150	

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.