



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TTY 800-366-6888 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

November 27, 2013

North Dakota Department of Health
Division of Water Quality
918 East Divide Avenue
Bismarck, ND 58501-1947

RE: October 2013 Devils Lake Outlets Monthly Discharge and Water Quality Report

Enclosed are the monthly discharge reports for the Devils Lake Outlets for the month of October 2013 and summaries of water quality sample results and flow data. The East End Outlet was at full capacity (350 cfs) throughout the reporting period with brief shutdowns to clear debris from the intake. Discharges from the West End Outlet remained limited because of an inoperable pump. The West End Outlet was shutdown for the year on October 17th because of damage to the water tank at Round Lake.

Sulfate concentrations above 750 mg/L were detected at the Pekin monitoring station on October 3rd and October 29th.

The attached tables contain average daily outlet discharges and water quality results from samples collected from the outlets and the corresponding upstream and downstream locations. Also included are average daily stream flow data and conductivity data obtained from the USGS gaging stations located upstream and downstream of the outlets.

If you have any questions, please contact me at 701-328-4948.

Sincerely,

Jonathan Kelsch P.E.
Head, Construction Section
JK:MSW:416-10

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT


LOCATION: WEST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
10/1/13	10/31/13

LOCATION: Benson Co, ND

Devils Lake West Outlet discharged 6,694 ac-ft over 17 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.62	8.72	8.68	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	530	571	558	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	534	571	554	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	106	208	199	cfs	Continuous	Recorder
SIGNATURE				10/2/13	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations attached.

Notes:

- ac-ft - Acre feet
- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505

MONTHLY DISCHARGE REPORT


LOCATION: EAST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
10/1/13	10/31/13

LOCATION: Ramsey, Benson, Nelson, ND

Devils Lake East Outlet discharged 20,783 ac-ft over 31 Days

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.56	8.74	8.62	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	900	976	948	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	938	966	950	mg/L	2 x Week	GRAB
OUTLET DISCHARGE	158	374	338	cfs	Continuous	Recorder
SIGNATURE				10/2/13	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations attached.

Notes:

- ac-ft - Acre feet
- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505


MONTHLY DISCHARGE REPORT

LOCATION: UPSTREAM OF THE WEST END OUTLET (FLORA)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
10/1/13	10/31/13

LOCATION: Benson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.35	8.58	8.48	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,460	1,590	1,537	µS/cm	Continuous	Recorder
SULFATE	261	414	340	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	254	414	337	mg/L	2 x Week	GRAB
FLOW, INSTREAM	21	99	56	cfs	Continuous	Recorder
SIGNATURE				10/2/13	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations attached.

Notes:

- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- USGS streamflow and specific conductance data courtesy of the USGS
- USGS data are provisional and subject to revision

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505


MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF THE WEST END OUTLET (BREMEN)
 UPSTREAM OF THE EAST END OUTLET

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
10/1/13	10/31/13

LOCATION: Eddy Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.35	8.66	8.56	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	1,510	1,820	1,744	µS/cm	Continuous	Recorder
SULFATE	373	537	473	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	373	532	468	mg/L	2 x Week	GRAB
FLOW, INSTREAM	78	293	183	cfs	Continuous	Recorder
SIGNATURE	 JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			10/2/13	701-328-4948	
NAME AND TITLE				DATE	TELEPHONE NUMBER	
COMMENT AND EXPLANATION OF ANY VIOLATIONS Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations attached.						

Notes:

- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- USGS streamflow and specific conductance data courtesy of the USGS
- USGS data are provisional and subject to revision

OUTLET OPERATOR NAME/ADDRESS

NAME: ND State Water Commission
 ADDRESS: 900 E Boulevard Avenue,
 Bismarck ND 58505


MONTHLY DISCHARGE REPORT

LOCATION: DOWNSTREAM OF THE EAST END OUTLET (PEKIN)

FACILITY: Devils Lake Outlet Project

MONITORING PERIOD	
START DATE	END DATE
10/1/13	10/31/13

LOCATION: Nelson Co, ND

PARAMETER	MINIMUM	MAXIMUM	AVERAGE	UNITS	SAMPLING FREQUENCY	TYPE
pH	8.48	8.62	8.55	SU	2 x Week	GRAB
SPECIFIC CONDUCTANCE	NA	NA	NA	µS/cm	Continuous	Recorder
SULFATE	670	782	722	mg/L	2 x Week	GRAB
7 DAY AVERAGE OF SULFATE	696	782	724	mg/L	2 x Week	GRAB
FLOW, INSTREAM	NA	NA	NA	cfs	Continuous	Recorder
SIGNATURE				10/2/13	701-328-4948	
NAME AND TITLE	JONATHAN KELSCH, HEAD, CONSTRUCTION SECTION			DATE	TELEPHONE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS

Summary of individual sample results and flow data for outlet, upstream & downstream monitoring locations attached.

Notes:

- SU - Standard Units
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- mg/L - Milligrams per liter or parts per million
- cfs - Cubic feet per second
- NA - Not available

Daily Outlet Discharge and Upstream and Downstream Flows Devils Lake Outlets

Date	Above West End Outlet - Sheyenne River near Flora		West End Outlet		Below West End Outlet/Above East End Outlet -Sheyenne River near Bremen		East End Outlet		Below East End Outlet - Tolna Coulee near Tolna		Below East End Outlet - Sheyenne River near Cooperstown	
	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft ³)	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Daily Outlet Discharge (cfs)	Total Daily Volume (ft ³)	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)	Average Streamflow USGS Gage (cfs)	Average Specific Conductance USGS Gage (µS/cm)
10/1/13	26	1,510	205	17,709,000	220	1,790	363	31,398,000	355	-	26	14
10/2/13	23	1,530	205	17,735,000	217	1,790	362	31,295,000	353	-	23	13
10/3/13	22	1,540	208	17,961,000	219	1,800	361	31,224,000	354	-	22	12
10/4/13	21	1,540	207	17,860,000	227	1,810	355	30,661,000	357	-	21	9
10/5/13	26	1,520	202	17,495,000	247	1,780	303	26,212,000	332	-	26	6
10/6/13	26	1,540	203	17,514,000	228	1,800	273	23,551,000	261	-	26	7
10/7/13	25	1,530	203	17,559,000	223	1,800	280	24,225,000	251	-	25	10
10/8/13	22	1,530	203	17,575,000	223	1,800	369	31,906,000	356	-	22	11
10/9/13	25	1,540	204	17,661,000	221	1,810	360	31,100,000	351	-	25	11
10/10/13	26	1,560	205	17,690,000	222	1,820	355	30,635,000	346	-	26	12
10/11/13	25	1,550	190	16,435,000	221	1,800	370	31,987,000	359	-	25	13
10/12/13	28	1,550	207	17,897,000	220	1,800	158	13,618,000	263	-	28	11
10/13/13	36	1,570	207	17,891,000	228	1,810	213	18,419,000	109	-	36	10
10/14/13	42	1,560	206	17,819,000	251	1,790	368	31,769,000	359	-	42	9
10/15/13	58	1,590	205	17,700,000	283	1,750	367	31,675,000	368	-	58	8
10/16/13	71	1,540	207	17,877,000	279	1,770	350	30,198,000	339	-	71	7
10/17/13	87	1,530	106	9,197,000	293	1,750	369	31,893,000	358	-	87	8
10/18/13	94	1,500	-	-	205	1,740	361	31,171,000	348	-	94	7
10/19/13	96	1,490	-	-	126	1,600	365	31,493,000	353	-	96	6
10/20/13	99	1,460	-	-	121	1,520	343	29,676,000	345	-	99	6
10/21/13	98	1,490	-	-	115	1,520	320	27,685,000	303	-	98	5
10/22/13	93	1,520	-	-	110	1,510	371	32,090,000	355	2,840	93	4
10/23/13	88	1,530	-	-	104	-	370	31,938,000	353	2,850	88	4
10/24/13	85	1,530	-	-	95	-	365	31,530,000	349	2,850	85	4
10/25/13	80	1,540	-	-	90	-	348	30,071,000	337	2,850	80	4
10/26/13	76	1,540	-	-	85	-	228	19,726,000	215	2,850	76	4
10/27/13	74	1,550	-	-	86	-	361	31,222,000	342	2,840	74	4
10/28/13	72	1,570	-	-	83	-	349	30,136,000	333	2,840	72	2
10/29/13	67	1,570	-	-	78	-	374	32,299,000	355	2,830	67	1
10/30/13	61	1,570	-	-	-	-	374	32,289,000	354	2,810	61	2
10/31/13	60	1,570	-	-	-	-	373	32,228,000	353	2,800	60	3
Minimum	21	1460	106	9,197,000	78	1510	158	13,618,000	109	2800	21	1
Maximum	99	1590	208	17,961,000	293	1820	374	32,299,000	368	2850	99	14
Average	56	1537	199	17,152,647	183	1744	338	29,203,871	328	2836	56	7

Total (ft³)	291,595,000
Total (Mgal)	2,181
Total (Ac-ft)	6,694

Total (ft³)	905,320,000
Total (Mgal)	6,772
Total (Ac-ft)	20,783

Notes:

- cfs - cubic feet per second
- µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
- ft³ - cubic feet
- Mgal - Millions of Gallons
- Ac ft - Acre Feet
- USGS streamflow and specific conductance data are preliminary and courtesy of the USGS
- NC - Not calculated

Sheyenne River Upstream of West End Outlet near Flora
Monthly Water Quality Summary
Devils Lake Outlet Discharge Report

Date	Time	Specific Conductance USGS Gage (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
10/1/13	8:00	1,490	8.57	261	254	35	7
10/2/13	-	-	-	-	-	-	-
10/3/13	8:40	1,520	8.48	284	273	NA	7
10/4/13	-	-	-	-	-	-	-
10/5/13	-	-	-	-	-	-	-
10/6/13	-	-	-	-	-	-	-
10/7/13	-	-	-	-	-	-	-
10/8/13	8:05	1,510	8.58	288	286	NA	7
10/9/13	-	-	-	-	-	-	-
10/10/13	-	-	-	-	-	-	-
10/11/13	-	-	-	-	-	-	-
10/12/13	-	-	-	-	-	-	-
10/13/13	-	-	-	-	-	-	-
10/14/13	-	-	-	-	-	-	-
10/15/13	8:15	1,560	8.43	400	400	31	7
10/16/13	-	-	-	-	-	-	-
10/17/13	-	-	-	-	-	-	-
10/18/13	-	-	-	-	-	-	-
10/19/13	-	-	-	-	-	-	-
10/20/13	-	-	-	-	-	-	-
10/21/13	-	-	-	-	-	-	-
10/22/13	8:00	1,480	8.35	394	394	NA	7
10/23/13	-	-	-	-	-	-	-
10/24/13	-	-	-	-	-	-	-
10/25/13	-	-	-	-	-	-	-
10/26/13	-	-	-	-	-	-	-
10/27/13	-	-	-	-	-	-	-
10/28/13	-	-	-	-	-	-	-
10/29/13	8:10	1,580	8.49	414	414	24	7
10/30/13	-	-	-	-	-	-	-
10/31/13	-	-	-	-	-	-	-
Minimum		1,480	8.35	261	254	24	
Maximum		1,580	8.58	414	414	35	
Average		1,523	8.48	340	337	30	

Notes:

µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
mg/L - Milligrams per liter or parts per million
NA - Not Analyzed
USGS specific conductance data courtesy of the USGS
USGS data are provisional and subject to revision
Italic font denotes preliminary result



**West End Outlet
Monthly Water Quality Summary
Devils Lake Outlet Discharge Report**

Date	Time	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
10/1/13	8:15	8.71	530	534	23	7
10/2/13	-	-	-	-	-	-
10/3/13	8:35	8.72	571	551	NA	7
10/4/13	-	-	-	-	-	-
10/5/13	-	-	-	-	-	-
10/6/13	-	-	-	-	-	-
10/7/13	-	-	-	-	-	-
10/8/13	8:20	8.67	571	571	NA	7
10/9/13	-	-	-	-	-	-
10/10/13	-	-	-	-	-	-
10/11/13	-	-	-	-	-	-
10/12/13	-	-	-	-	-	-
10/13/13	-	-	-	-	-	-
10/14/13	-	-	-	-	-	-
10/15/13	8:25	8.62	561	561	17	7
10/16/13	-	-	-	-	-	-
10/17/13	-	-	-	-	-	-
10/18/13	-	-	-	-	-	-
10/19/13	-	-	-	-	-	-
10/20/13	-	-	-	-	-	-
10/21/13	-	-	-	-	-	-
10/22/13	-	-	-	-	-	-
10/23/13	-	-	-	-	-	-
10/24/13	-	-	-	-	-	-
10/25/13	-	-	-	-	-	-
10/26/13	-	-	-	-	-	-
10/27/13	-	-	-	-	-	-
10/28/13	-	-	-	-	-	-
10/29/13	-	-	-	-	-	-
10/30/13	-	-	-	-	-	-
10/31/13	-	-	-	-	-	-
Minimum		8.62	530	534	17	
Maximum		8.72	571	571	23	
Average		8.68	558	554	20	

Notes:

mg/L - Milligrams per liter or parts per million

NA - Not Analyzed

Italic font denotes preliminary result



**Sheyenne River Downstream of West End Outlet/Upstream of East End Outlet near Bremen
Monthly Water Quality Summary
Devils Lake Outlet Discharge Report**

Date	Time	Specific Conductance USGS Gage (µS/cm)	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
10/1/13	7:35	1,780	8.66	484	480	69	7
10/2/13	-	-	-	-	-	-	-
10/3/13	9:00	1,800	8.66	526	505	NA	7
10/4/13	-	-	-	-	-	-	-
10/5/13	-	-	-	-	-	-	-
10/6/13	-	-	-	-	-	-	-
10/7/13	-	-	-	-	-	-	-
10/8/13	7:45	1,800	8.64	537	532	NA	7
10/9/13	-	-	-	-	-	-	-
10/10/13	-	-	-	-	-	-	-
10/11/13	-	-	-	-	-	-	-
10/12/13	-	-	-	-	-	-	-
10/13/13	-	-	-	-	-	-	-
10/14/13	-	-	-	-	-	-	-
10/15/13	7:45	1,750	8.52	500	500	43	7
10/16/13	-	-	-	-	-	-	-
10/17/13	-	-	-	-	-	-	-
10/18/13	-	-	-	-	-	-	-
10/19/13	-	-	-	-	-	-	-
10/20/13	-	-	-	-	-	-	-
10/21/13	-	-	-	-	-	-	-
10/22/13	7:40	1,510	8.35	373	373	NA	7
10/23/13	-	-	-	-	-	-	-
10/24/13	-	-	-	-	-	-	-
10/25/13	-	-	-	-	-	-	-
10/26/13	-	-	-	-	-	-	-
10/27/13	-	-	-	-	-	-	-
10/28/13	-	-	-	-	-	-	-
10/29/13	7:42	0	8.50	417	417	49	7
10/30/13	-	-	-	-	-	-	-
10/31/13	-	-	-	-	-	-	-
Minimum		0	8.35	373	373	43	
Maximum		1,800	8.66	537	532	69	
Average		1,440	8.56	473	468	54	

Notes:

µS/cm - Microsiemens per Centimeter at 25 degrees Celsius
mg/L - Milligrams per liter or parts per million
NA - Not Analyzed
USGS specific conductance data courtesy of the USGS
USGS data are provisional and subject to revision
Italic font denotes preliminary result



**East End Outlet
Monthly Water Quality Summary
Devils Lake Outlet Discharge Report**

Date	Time	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
10/1/13	9:25	8.61	900	939	9	7
10/2/13	-	-	-	-	-	-
10/3/13	9:55	8.56	976	938	NA	7
10/4/13	-	-	-	-	-	-
10/5/13	-	-	-	-	-	-
10/6/13	-	-	-	-	-	-
10/7/13	-	-	-	-	-	-
10/8/13	9:30	8.61	955	966	NA	7
10/9/13	-	-	-	-	-	-
10/10/13	-	-	-	-	-	-
10/11/13	-	-	-	-	-	-
10/12/13	-	-	-	-	-	-
10/13/13	-	-	-	-	-	-
10/14/13	-	-	-	-	-	-
10/15/13	9:40	8.60	959	959	12	7
10/16/13	-	-	-	-	-	-
10/17/13	-	-	-	-	-	-
10/18/13	-	-	-	-	-	-
10/19/13	-	-	-	-	-	-
10/20/13	-	-	-	-	-	-
10/21/13	-	-	-	-	-	-
10/22/13	-	-	-	-	-	-
10/23/13	-	-	-	-	-	-
10/24/13	-	-	-	-	-	-
10/25/13	-	-	-	-	-	-
10/26/13	-	-	-	-	-	-
10/27/13	-	-	-	-	-	-
10/28/13	-	-	-	-	-	-
10/29/13	9:17	8.74	949	949	6	7
10/30/13	-	-	-	-	-	-
10/31/13	-	-	-	-	-	-
Minimum		8.56	900	938	6	
Maximum		8.74	976	966	12	
Average		8.62	948	950	9	

Notes:

mg/L - Milligrams per liter or parts per million
 NA - Not Analyzed due to operation constraints
 Italic font denotes preliminary result



**Sheyenne River Downstream of East End Outlet near Pekin
Monthly Water Quality Summary
Devils Lake Outlet Discharge Report**

Date	Time	pH	Sulfate (mg/L)	7 Day Rolling Average of Sulfate (mg/L)	Total Suspended Solids (mg/L)	No. of days included in the 7 day Rolling Average
10/1/13	10:00	8.56	695	696	44	7
10/2/13	-	-	-	-	-	-
10/3/13	9:40	8.58	753	724	NA	7
10/4/13	-	-	-	-	-	-
10/5/13	-	-	-	-	-	-
10/6/13	-	-	-	-	-	-
10/7/13	-	-	-	-	-	-
10/8/13	9:55	8.53	670	712	NA	7
10/9/13	-	-	-	-	-	-
10/10/13	-	-	-	-	-	-
10/11/13	-	-	-	-	-	-
10/12/13	-	-	-	-	-	-
10/13/13	-	-	-	-	-	-
10/14/13	-	-	-	-	-	-
10/15/13	10:12	8.50	714	714	53	7
10/16/13	-	-	-	-	-	-
10/17/13	-	-	-	-	-	-
10/18/13	-	-	-	-	-	-
10/19/13	-	-	-	-	-	-
10/20/13	-	-	-	-	-	-
10/21/13	-	-	-	-	-	-
10/22/13	9:50	8.48	719	719	NA	7
10/23/13	-	-	-	-	-	-
10/24/13	-	-	-	-	-	-
10/25/13	-	-	-	-	-	-
10/26/13	-	-	-	-	-	-
10/27/13	-	-	-	-	-	-
10/28/13	-	-	-	-	-	-
10/29/13	9:55	8.62	782	782	25	7
10/30/13	-	-	-	-	-	-
10/31/13	-	-	-	-	-	-
Minimum		8.48	670	696	25	
Maximum		8.62	782	782	53	
Average		8.55	722	724	41	

Notes:

mg/L - Milligrams per liter or parts per million

NA - Not Analyzed

Italic font denotes preliminary result

Bold font denotes sample sulfate concentration exceeds 750 mg/L

