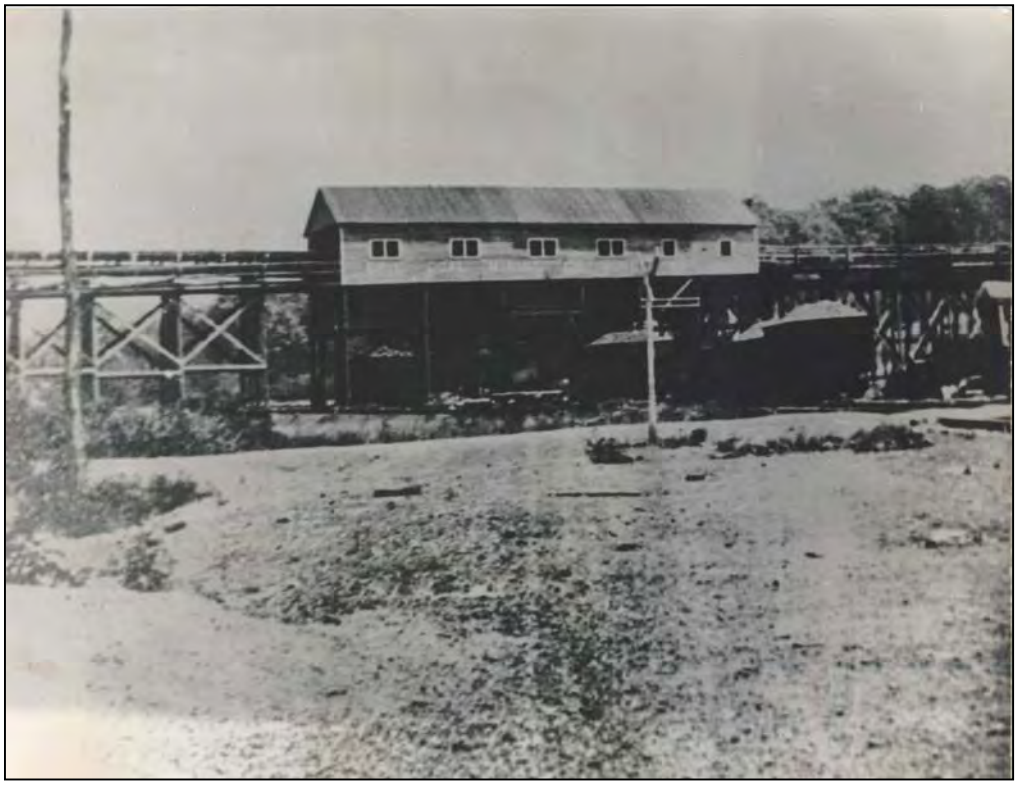
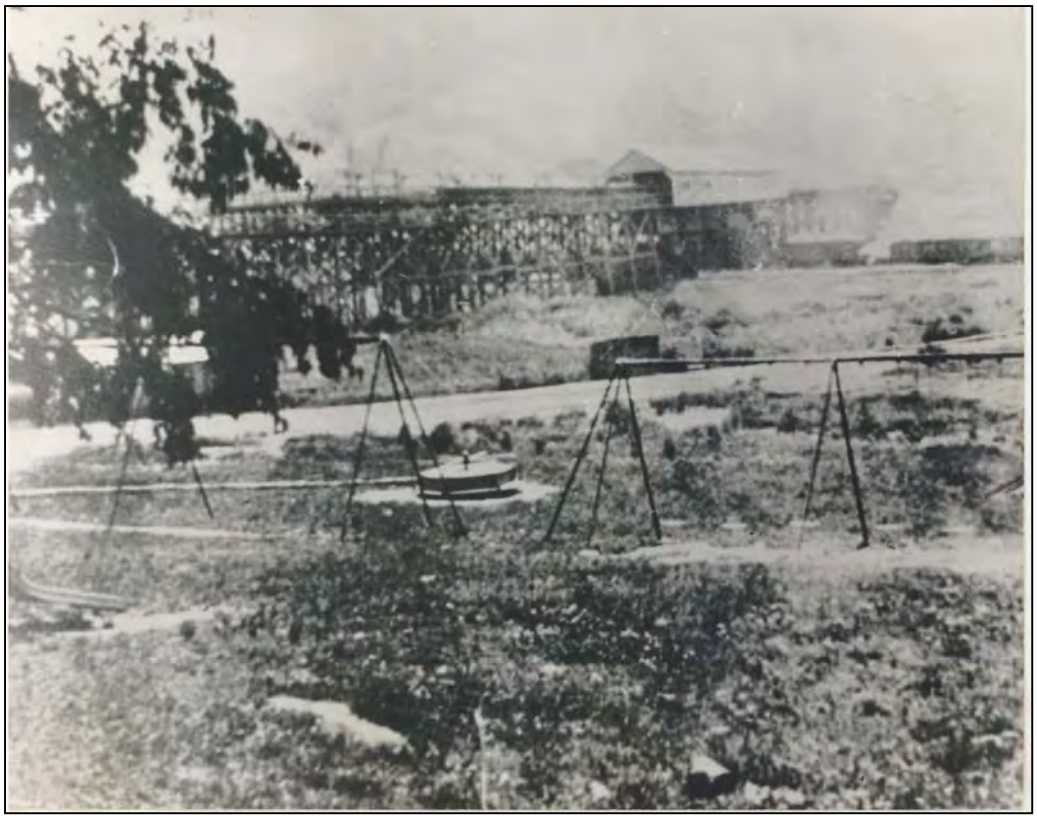
PHOTOGRAPHS



Historical photos provided by the Dorenkamp family of the mining town of Erico. (Name probably derived from Erie Coal.) Visible (upon photo enlargement) on the tipple **(Above)** was the sign “Erie Coal Mining Co.”

Historical photos of Erico provided by Dorenkamp family. A playground (swings, slide, and merry-go-round) can be seen in the photo below with tipple in background.



Above: A train station along the B&LE line in the nearby town of Branchton. The spur to Goff and Hilliards began here. (photos obtained from www.familyoldphotos.com)
Below: July 9, 1907 train wreck at Branchton. This train could have been carrying coal from Erico to the Lake Erie port of Conneaut,OH for distribution along Great Lakes.

The Flick Gob Pile (Above) defined the northern bank of Seaton Creek in February 2001 while the “L-shaped” Gob Pile (Below) defined the southern bank of Seaton Creek and an adjacent wetland. Bob Beran stands on top of the gob.

Views of the L-Shaped gob pile in Seaton Creek. Note the erosion gullies in the above photo. These gob piles contributed metals, acidity, and sediment to the stream. Also note the red color of the oxidized iron.

Above: View of the L-shaped gob pile extending along Seaton Creek
Below: The Flick and L-shaped gob piles significantly "narrow" the stream channel of Seaton Creek.

Above: ST63E discharge, largest of the five abandoned mine discharges at the site, averages over 300 gpm with maximum flows over 700 gpm. ST63E issues from Erie Coal Mining Co. Keystone #3 underground mine. **Below:** Flows were measured with a V-Notch weir installed by the PA DEP Knox District Mining Office.

Views of the extensive iron deposition and “kill zone” located below the ST63E abandoned mine discharge.

ST63A and ST63A1 discharges emanate within a road ditch along Erico Road a short distance before entering Seaton Creek near the bridge.

ST63C discharged from a pipe **(Above)** into a channel **(Below)** where Cliff Denholm (BioMost) conducted monitoring.

Top Left: Laura Spencer (Aquascape) during Environmental Assessment of Erico Bridge Restoration Area. (8/01/01)

Top Right: AMD discharge, photographed during Environmental Assessment. (8/01/01)

Below: Iron precipitation in AMD drainageway, photographed during Environmental Assessment. (8/01/01)

Iron accumulation and impacted wetlands below AMD discharges were documented during the Environmental Assessment as part of the permitting process to justify the reclamation effort and obtain approval to build the passive treatment system (8/01/01).

10/03/01 Groundbreaking Ceremony **(Above from left to right)** – John Wells (Venango Twp. Supervisor), Todd Lawton (Scrubgrass Generating), David Hess (PA DEP), Margaret Dunn (SRI), Jim Shaffer (Venango Twp. Supervisor), Glenn Anderson (Butler Co. Commissioner), Robin Lutz (Senator Mary Jo White's office), Joe Aloe (Quality Aggregates), Joan Chew (Butler Co. Commissioner), Jane Rath (Rep. Dick Stevenson's office). Former PA DEP Secretary Dave Hess presenting two checks **(Below)** to Margaret Dunn of Stream Restoration Incorporated (non-profit).

Above: Construction of access road for gob removal by Quality Aggregates.
Below: Removal of Flick gob pile along Seaton Creek. Coal refuse was transported to an abandoned surface mining pit, mixed with alkaline, circulating, fluidized-bed coal ash and placed in the backfill, effectively reclaiming two sites at once. (1/25/02)

Above: Footprint of the Flick pile following gob removal.
Below: Removal of portion of L-shaped gob pile containing “red dog”.

Mike and Jim from McKay & Gould Drilling Company worked with Margaret Dunn and Tim Danehy of BioMost, Inc. to install piezometers as part of the hydrogeologic investigation of the site for Passive Treatment System Design.

Top: Footprint of removed portion of the L-shaped gob pile (3/1/02)

Right: Close-up of a small section of the footprint of the L-shaped gob pile where the chemical reactions within the pile resulted in colorful mineralogy.

John Stoops, Mike Colosimo, and Kevin Stiner of Quality Aggregates installing Z-piling in order to maintain pre-project stream elevation from existing beaver dam across Seaton Creek at the "narrows" between the Flick and L-shaped gob piles. (3/28/02)

Above: Lorenzo de la Puente traveled from Peru (!!) to tour the watershed. Seen here at Erico are (left to right) Lorenzo (Estudio Grau Env. Gp.), Kevin Stiner (QAI), Laura Spencer (AQ), John Stoops (QAI), Mike Colosimo (QAI), Margaret Dunn (SRI).
Below: Foreground - footprint of Flick gob pile; background - footprint of L-shaped gob pile with access road through T-bone gob pile. (4/9/02)

Participants of the Slippery Rock Watershed Coalition 7th Annual Symposium field tour stop at Erico Bridge to view construction of wetlands being created where the gob piles once stood. Rosa Ocana, Antamina Mining, came all the way from Peru (!!) just to visit the SRWC.

Alkaline, pond fines from the Quality Aggregate Boyers limestone quarry were mixed with soil and on-site material to create the substrate in the wetlands. Once the substrate was placed, woody debris such as logs and stumps were included to increase diversity and discourage preferential flow paths. Geotextile and then limestone was placed on top of the Z-piling.

Aquascape employees, Laura Spencer, Jeff Reidenbaugh, and Cody Salmon, **(Above)** with harvested vegetation for wetland planting with Americorps (Slippery Rock University chapter) **(Below)** in the footprint of the Flick gob pile.

In the above photo, award-winning, mine reclamation experts Jack Foreman (right) and John Foreman (left) volunteered their time to meet with Tim Danehy (center) at the Erico Bridge site to review past work and the current passive treatment system design. Both Jack and John were involved at this site over 30 years ago during Pennsylvania's Operation Scarlift program when the mine seals were installed. Below, passive treatment expert Dr. Bob Nairn, formerly of US Bureau of Mines and current University of Oklahoma professor brought students on a tour of SRWC reclamation projects.

Before installation of the passive treatment system, the site was cleared and grubbed **(Above)** with erosion and sedimentation controls installed, such as this upslope straw mat-lined diversion ditch **(Below)**.

Additional piezometers, were installed by Mckay and Gould **(Above),** for further site characterization before construction of the passive treatment system. **(Below)** Stream Restoration Inc. interns Steve Short and Chris Treter conducting chemical field tests and measuring mine pool water elevations.

Quality Aggregates constructed the passive treatment system. Settling Pond 1 can be seen below.

Field construction meetings like the one above with Tim Danehy (BioMost), Roger Bowman (PA DEP Knox DMO), and John Stoops (Quality Aggregates) were held periodically throughout the project. Prior to major construction, a downslope berm was built to intercept some site drainage. This berm was incorporated into several components. [Note red color of Seaton Creek substrate. At site of former Flick gob pile is a created wetland (left center) across Seaton Creek.]

Excavation for Horizontal Flow Limestone Bed required substantial “dirt moving”.

Homeschool students accompanied by parents/teachers participated in a tour of the Erico and Goff Station Reclamation Areas with SRI and Aquascape personnel. During the tour, participants had the opportunity to see construction of the Erico Bridge passive treatment system including the placing of aggregate in the Horizontal Flow Limestone Bed below.

Anoxic Limestone Drain 1 (ALD1) included 8,300 tons of aggregate. The customized, effluent manifold piping system can be seen above and below.

Approximately 5 feet of AASHTO #1, 90% $CaCO_3$, Vanport limestone from Quality Aggregates' Boyers Quarry was placed on top of geotextile. A portion of the effluent collection manifold piping system can be seen below.

Views of the partially-excavated Wetland 2. Horizontal Flow Limestone Bed and ALD1 can be seen in the background of the photo below.

John Frith, Fran Toohill, and Penny Kaercher of The Dominion Foundation braved the cold, blustery, weather to visit the Erico Bridge Restoration Project with John Stoops and Kevin Steiner of Quality Aggregates and Margaret Dunn and Shaun Busler of Stream Restoration.

Those who participated in the Slippery Rock Watershed Coalition 8th Annual Symposium had the opportunity to see the Erico Bridge Reclamation Project while under construction.

Partially-constructed Settling Pond 2 (SP2) can be seen in the above photo as well as the completed Horizontal Flow Limestone Bed (HFLB). In the photo below, the spillway of SP2 to Wetland 1 (WL1) had not yet been built.

Construction of ALD2: Limestone aggregate has been placed. Non-reactive sandstone is being placed around ALD influent pipe and in several seeps to collect the discharge. Netting was placed around the pipe to prevent smaller-sized aggregates from entering perforations.

May 2003. **(Above)** PA DEP Watershed Academy participants visit. **(Below)** part of an educational workshop for teachers designed and conducted by PA DCNR Jennings Environmental Education for PA Environment and Ecology standards.

Maggie Allio of Aquascape **(Above)** harvesting wetland plants on 7/23/03 from the Hart Family's pond to prepare for large volunteer wetland planting event. Aquascape employees **(Below)** staged wetland plants on 7/25/03 for a large planting event.

As part of the youth conference of the Pittsburgh North Stake of the Church of Jesus Christ of Latterday Saints, 125-teenage volunteers arrived on 7/26/03 to plant the wetlands of the passive treatment system and to construct bluebird boxes.

"Wash-out" **(Above)** on spillway from SP3 to WL2 resulted from severe storms. Following temporary repairs by Aquascape Intern Greg Holloway, Quality Aggregates, as part of in-kind contributions, repaired the spillway. Work and play **(Below)** on 7/29/03 during one of the many plantings with Butler County Juvenile Court Services: Working Opportunities to Repay the Community Program.

An SRWC volunteer **(Above**) assisted Aquascape personnel in harvesting and planting on 8/15/03. WL1 **(Below)** is shown receiving flows from SP2. A black locust, part of the upland plantings, is visible in the foreground. WL2 and Seaton Creek wetland complex are visible in the background.

Grove City Cub Scout Pack 76 constructed wood duck boxes in November 2003 and then installed the boxes at the site with Beran Environmental on 3/13/04.

Participants of the 9th Annual Slippery Rock Watershed Coalition Symposium and the 21st Annual Meeting of the American Society of Mining and Reclamation toured the nearly completed Erico Bridge Restoration Area. People interested in passive systems came from all over the world including Korea, Brazil, and Venezuela!!!

Above: Excavation for Anoxic Limestone Drain 3 (ALD3).
Below: A portion of the effluent collection system has been installed.

Above: 90% $CaCO_3$, AASHTO#1, Vanport limestone placed within ALD3.
Below: Effluent pipe capped until water turned into the system. Portion of Settling Pond 5 (SP5) completed.

During excavation for the ALD3 collection system **(Above)**, AMD began to "bubble up" **(Bottom Left)**. Upon further excavation, a pipe **(Bottom Right)** was discovered that conveyed ST 63A from the mine to Seaton Creek. ST 63A and ST63A1 were in different locations because the pipe had broken at some point in the past.

John Stoops and Wayne Fuchs **(Above)** of Quality Aggregates are cutting a section of pipe to be used in the ALD3 collection system. Piping was attached using a Fernco **(Below)** to the existing pipe that conveyed ST63A.

Above: A portion of the collection and distribution piping system for ALD3.
Below: Once ALD3 was completed, geotextile fabric was placed on top of the stone and then covered with on-site material.

Anoxic Limestone Drain 1 (ALD1) discharges **(Above)** into Settling Pond 1 (SP1) **(Below).** Three baffle curtains were installed to increase retention time within the pond in order to oxidize and hydrolyze as much dissolved iron as possible.

Settling Pond 1 (SP1) discharges into Settling Pond 2 (SP2) **(Below)** via the Z-piling and riprap spillway **(Above)**.

In order to increase retention within Wetland 1 (WL1), a line of plants with snow fence for support was planted across the wetland near the inlet. Note the difference in color **(Below)** before the plant barrier on the left and after on the right indicating an increase in iron solids retention on the left.

Settling Pond 3 **(Above)** receives influent from Wetland 1. A baffle curtain was installed to decrease short-circuiting and to increase retention time before discharging into Wetland 2 via a rock-lined spillway **(Below)**.

Anoxic Limestone Drain 2 (ALD2) discharges into Settling Pond 4 (SP4) **(Above)** which in turn discharges into Wetland 2 (WL2) via a rock-lined level spreader **(Below)**.

A seep zone **(Above)** located in the vicinity of pre-existing seeps flows into Wetland 2 near its outlet into the HFLB. A channel and berm **(Below)** were constructed to direct the water to the western end of WL2.

At Wetland 2 **(Above)** looking east towards the HFLB near SP4 effluent. Note osprey platform constructed by adjudicated youth of George Junior Republic, Grove City, PA. At Wetland 2 (**Below)** looking east from near middle.

Habitat features within WL2 **(Top Left**) include constructed snags, osprey nesting structures, wood duck boxes, large woody debris, and the interspersion of open water and emergent vegetation.

Rolled hay bales **(Top Right)** were placed in the central area of WL2 to increase water elevation levels, reduce short-circuiting and improve water retention. A second snag and osprey platform are located in the background.

Silt fence and another line of haybales **(Bottom)** were placed near WL2 effluent end to help keep iron from entering the Horizontal Flow Limestone Bed.

The Horizontal Flow Limestone Bed (HFLB) receives flow from Wetland 2 via a plunge pool **(Above)**. HFLB effluent **(Bottom Left and Right)** is one of two final discharge points for the passive treatment complex, which has exceeded over 700 gpm. A Kestrel box can be seen secured to a tree in the background **(Left)**.

Anoxic Limestone Drain 3 (ALD3) discharges into Settling Pond 5 (SP5) **(Above)** which flows through the existing wetland before discharging into Seaton Creek **(Below)**.

Views of the wetland constructed in the footprint of the L-shaped gob pile.

Above: A close-up of flowering plants in constructed L-shaped wetland
Below: Berm from WL2 sloping to east end of L-shaped wetland.

Above: Edge of Flick Wetland constructed in footprint of removed gob pile.
Below: Reclaimed upland adjacent to the Flick Wetland.

A goal of the project was to provide wildlife habitat. A Midland Painted Turtle **(Above)** was observed between WL2 and SP3 while reptile eggs **(Below)** were found between the HFLB and Seaton Creek.

During a wetland assessment in June 2004, fish spawning beds **(Above)** (indicating fish are reproducing) were found in Seaton Creek along the edges of the wetlands that were constructed within the footprints of the removed gob piles. Fish have been observed **(Below**) numerous times at Erico Road Bridge on Seaton Creek since completion of the project, possibly for the first time in 100 years.

PASSIVE TREATMENT SYSTEM O&M INSPECTION REPORT

Inspection Date:		Project Name:	Erico Bridge Restoration Area
Inspected by:		Municipality:	Venango Township
Organization:		County:	Butler State: PA
Time Start:	End:	Project Coordinates:	41° 07' 31'' Lat 79° 51' 38'' Long
Receiving Stream:	Seaton Creek	Subwatershed:	Seaton Creek Watershed: Slippery Rock Creek

Weather (circle one): Snow Heavy Rain Rain Light Rain Overcast Fair/Sunny Temp(°F): ≤32 33-40 41-50 51-60 60+

Is maintenance required? Yes/No If yes, provide explanation:

INSPECTION SUMMARY

A. Revegetated Spoil Areas (Uplands and Associated Slopes)

Overall condition of vegetation on site: 0 1 2 3 4 5 (0=poor, 5=excellent, circle one) (See instructions.)

Is any reseeding required? Yes/No If yes, describe area size and identify location on Site Schematic:

B. Ditches, Channels, Spillways

Channel Identification	Erosion Rills (Y/N)	Debris Present (Y/N)	Maintenance Performed (Y/N)	Maintenance Performed and Remaining (Indicate ditch by number i.e. 2b = SP2)
1. Diversion Ditch				
2. Rock-Lined Spillways				
a. SP1				
b. SP2				
c. WL1				
d. SP3				
e. SP4				
3. Emergency Spillways				
a. HFLB				
4. Other Channels				
a. HFLB to Seaton Creek				
b. SP5 to Seaton Creek				

C. Passive Treatment System Components

Component	Erosion Rills (Y/N)	Berms Stable (Y/N)	Vegetation Successful (Y/N)	Siltation Significant (Y/N)	Water Level Change (Y/N)	Valves Operable (Y/N)	Maintenance Performed and Remaining (Indicate which component i.e. SP1)
SP1							
SP2							
WL1							
SP3							
SP4							
WL2							
HFLB							
SP5							

D. Access Roads

Are the access roads passable for operation and monitoring? Yes/No?

Do the access roads need maintenance? Yes/No?

Describe maintenance performed and remaining (Identify location on Site Schematic.):

E. Wildlife Utilization

Animal sighted or tracks observed _____

Invasive plants observed _____

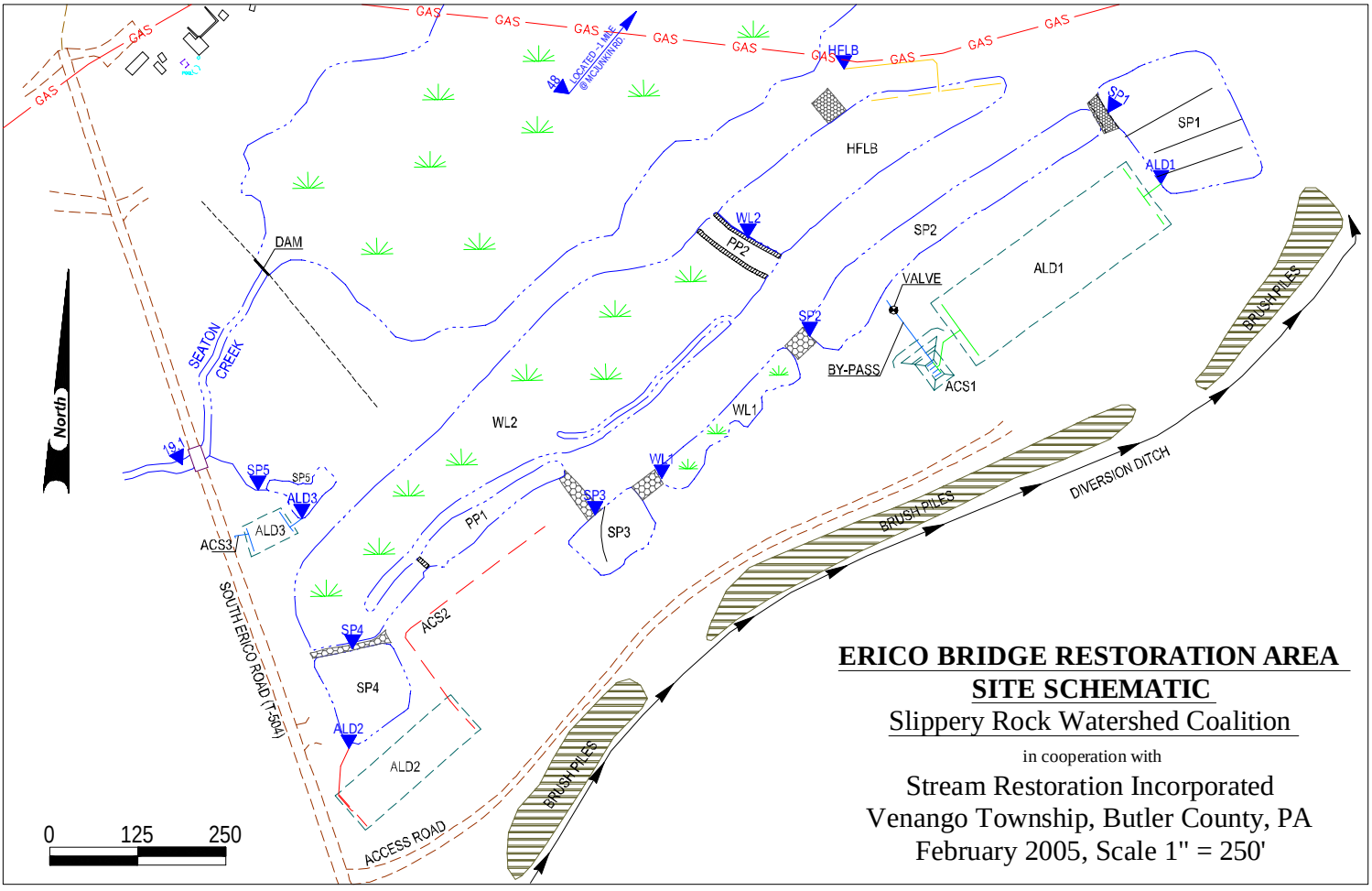
Describe any damage caused to treatment system by wildlife (especially muskrats) and required maintenance:

F. Field Water Monitoring and Sample Collection - Raw water sample locations as marked on plan. For passive components sample effluent.

☐ - Not monitored

Sampling Point	Flow		pH	Temp (°C)	Alkalinity (mg/L)	DO (mg/L)	Iron (mg/L)	Comments	Bottle #	Bottle # (total metals)	Bottle # (diss. metals)
	gals	sec.									
ALD1											
SP1											
SP2											
WL1											
SP3											
ALD2											
SP4											
WL2											
HFLB											
ALD3											
SP5											
48 (Seaton Creek @ McJunkin Road											
19.1 (Seaton Creek @ Erico Rd. Bridge)											

G. Site Schematic



ANNUAL WETLAND PLANT DIVERSITY REPORT

Inspection Date:	____________	Project Name:	Erico Bridge Restoration Area
Inspected by:	____________	Municipality:	Venango Township
Organization:	____________	County:	Butler State: PA
Time Start: ______	End: ______	Project Coordinates:	41° 07’ 31’’ Lat 79° 51’ 38’’ Long
Receiving Stream:	Seaton Creek	Subwatershed:	Seaton Creek Watershed: Slippery Rock Creek

Weather (circle one): Snow Heavy Rain Rain Light Rain Overcast Fair/Sunny Temp(°F): ≤32 33-40 41-50 51-60 60+

Wetland: ____

Common Name	Scientific Name	Plot #	Plot Location	Number

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63	1/6/1969	Measured	284		3.8				0	246	21.0						576	
ST 63	2/5/1969	Measured	284		3.8				0	138	17.6						480	
ST 63	3/10/1969	Measured	284		3.8				0	168	21.3						528	
ST 63	4/7/1969	Measured	236		3.9				0	146	23.1						461	
ST 63	5/5/1969	Measured	284		3.5				0	172	24.4						470	
ST 63	6/2/1969	Measured	193		3.7				0	122	34.6						394	
ST 63	7/8/1969	Measured	310		3.7				0	204	19.1						432	
ST 63	8/4/1969	Measured	236		2.7				0	334	24.6						461	
ST 63	9/8/1969	Measured	174		4.5				8	208	24.8						586	
ST 63	10/6/1969	Measured	156		4.7				0	212	15.6						691	
ST 63	11/3/1969	Measured	193		3.9				0	186	24.0						576	
ST 63	12/8/1969	Measured	284		4.1				0	224	19.0						605	
Min			156		2.7				0	122	15.6						394	
Max			310		4.7				8	334	34.6						691	
Avg			243		3.8				1	197	22.4						522	
Range			154		2.0				8	212	19.0						297	

Description: Operation Scarlift background monitoring point prior to mine seal installation

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63A	10/12/1994				4.7				8	116	43.0		21.0		0.5		689	18
ST 63A	6/7/1995		5		3.7				0	56	5.4		6.6		0.7		326	6
ST 63A	9/12/1995		20		5.9				70	224	102.0		25.2		0.5		1109	54
ST 63A	10/11/1995				5.8				66	172	82.2		23.5		0.5		971	136
ST 63A	11/14/1995		10		6.0				80	180	87.8		23.4		0.5		1204	32
ST 63A	12/27/1995		50		5.9				82	302	109.0		27.7		0.5		1273	3
ST 63A	2/21/1996				5.9				82	200	98.7		24.9		0.5		1221	14
ST 63A	4/30/1996				5.0				8	15	1.1		6.3		1.4		226	4
ST 63A	5/9/1996				6.0				86	274	99.8		25.1		0.5		1068	39
ST 63A	6/18/1996				5.9				82	214	86.6		21.2		0.5		1161	3
ST 63A	7/9/1996				5.9				84	196	90.9		22.4		0.3		1076	10
ST 63A	8/15/1996				5.9				80	178	91.9		24.0		0.3		970	43
ST 63A	9/10/1996				5.9				82	252	96.5		24.6		0.3		1380	16
ST 63A	10/15/1996		10		6.0				86	228	93.8		24.2		0.5		1062	44
ST 63A	11/19/1996				5.9				86	240	96.4		24.9		0.5		1095	48
ST 63A	1/23/1997				6.0				82	170	87.8		22.2		0.3		1110	52
ST 63A	2/27/1997		10		5.7				84	174	84.8		21.3		0.3		984	20
ST 63A	3/19/1997		6		6.0				86	186	89.6		22.0		0.3		1095	14
ST 63A	5/20/1997		5		5.9				84	236	87.4		20.1		0.3		1041	40
ST 63A	8/6/1997				5.9				86	212	91.2		23.2		0.3		1059	2
ST 63A	10/9/1997				5.9				86	242	89.0		23.8		0.3		1144	12
ST 63A	1/7/1998				5.8				88	216	102.0		26.6		0.3		1210	8
ST 63A	5/14/1998				6.0				86	154	85.9		21.4		0.3		1034	56
ST 63A	12/7/1999				6.0				86	174	90.5		24.8		0.3		1495	6
ST 63A	1/18/2001				6.0				96	158	103.0		27.5		0.3		1407	
ST 63A	2/5/2001	Bucket	3	5.7	5.9	826	5	20	10	57	19.2	18.8	11.1	10.7	0.2	0.2	548	9
ST 63A	3/7/2002	Bucket	3	4.5	4.0	731			0	37	18.0	14.7	8.8	8.5	0.2	0.2	429	5
ST 63A	9/16/2003	Estimated	15		6.0				86	175	95.2		22.4		0.3		1085	8

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Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63A	10/30/2003				5.9				87	172	89.0		21.7		0.3		848	
ST 63A	3/23/2004				6.0				83	133	79.3		19.6		0.3		830	18
Min			3	4.5	3.7	731	5	20	0	15	1.1	14.7	6.3	8.5	0.2	0.2	226	2
Max			50	5.7	6.0	826	5	20	96	302	109.0	18.8	27.7	10.7	1.4	0.2	1495	136
Avg			12	5.1	5.7	779	5	20	70	178	79.9	16.7	21.4	9.6	0.4	0.2	1005	26
Range			47	1.2	2.3	95	0	0	96	287	107.9	4.1	21.4	2.2	1.2	0.0	1269	135

Description: Abandoned mine discharge; Was previously located along Erico Road across from the Three Rivers Sportsmens Club; Currently being collected and treated in ALD3

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63A-1	2/2/2001	Cross-section	44	5.8	6.2	1730	8	84	67	167	80.0	74.8	24.1	23.8	0.1	0.0	1076	7
Min			44	5.8	6.2	1730	8	84	67	167	80.0	74.8	24.1	23.8	0.1	0.0	1076	7
Max			44	5.8	6.2	1730	8	84	67	167	80.0	74.8	24.1	23.8	0.1	0.0	1076	7
Avg			44	5.8	6.2	1730	8	84	67	167	80.0	74.8	24.1	23.8	0.1	0.0	1076	7
Range			0	0.0	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0

Description: Abandoned mine discharge; Previously located on east side of Erico Road approximately 200 feet from Seaton Creek; Currently being collected and treated in ALD3

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63B	6/7/1995				5.9				74	110	59.5		20.1		0.5		688	18
ST 63B	8/16/1995				5.8				70	110	73.5		25.1		0.5		819	22
ST 63B	9/12/1995		20		5.9				76	184	74.0		26.5		0.5		852	6
ST 63B	10/11/1995				5.9				74	158	78.4		28.5		0.5		878	30
ST 63B	11/15/1995		40		5.8				80	202	92.6		3.3		0.5		1014	3
ST 63B	2/22/1996				6.0				68	94	49.9		20.6		0.5		727	12
ST 63B	3/13/1996				5.9				68	146	53.7		21.1		0.5		777	8
ST 63B	4/30/1996				6.1				78	160	87.2		22.3		0.5		1001	9
ST 63B	5/9/1996				6.0				68	166	52.7		19.5		0.5		755	32
ST 63B	6/18/1996				5.9				70	114	50.8		18.1		0.5		794	4
ST 63B	7/9/1996				5.9				70	128	57.2		20.6		0.5		738	2
ST 63B	8/15/1996				6.0				72	134	63.5		24.7		0.3		709	28
ST 63B	9/10/1996				5.9				74	190	67.7		25.9		0.3		836	4
ST 63B	10/15/1996				6.0				78	194	67.5		26.0		0.3		826	20
ST 63B	11/19/1996				5.9				76	152	62.3		23.0		0.3		811	28
ST 63B	1/23/1997				5.9				74	130	48.6		17.6		0.3		720	36
ST 63B	2/27/1997				5.7				70	104	49.1		17.8		0.3		684	10
ST 63B	3/19/1997				6.0				68	96	44.1		15.5		0.3		635	2
ST 63B	5/20/1997				5.9				70	154	56.4		18.6		0.3		947	12
ST 63B	8/6/1997				5.9				76	160	65.0		23.8		0.3		833	8
ST 63B	10/9/1997				6.0				80	232	77.4		28.8		0.3		985	8
ST 63B	1/7/1998				5.9				82	19	66.5		26.0		0.3		910	22
ST 63B	5/14/1998				6.0				72	58	41.8		15.0		0.3		558	40
ST 63B	1/18/2001				6.1				98	128	80.7		29.8		0.3		911	2
ST 63B	10/8/2002				6.0				82	217	98.1		22.8		0.3		846	8

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
Min			20		5.7				68	19	41.8		3.3		0.3		558	2
Max			40		6.1				98	232	98.1		29.8		0.5		1014	40
Avg			30		5.9				75	142	64.7		21.6		0.4		810	15
Range			20		0.4				30	213	56.3		26.5		0.3		456	39

Description: Abandoned mine discharge; Previously emenated from a 12" smooth steel pipe located about 225 feet upstream of bridge; Currently is collected in anoxic collection system 2 and conveyed into ALD2

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63C	10/12/1994				6.0				96	150	104.0		41.5		0.5		1196	20
ST 63C	6/7/1995				6.0				92	160	79.0		30.2		0.5		987	10
ST 63C	6/28/1995		66		6.0				86	120	74.2		28.2		0.5		946	8
ST 63C	8/16/1995		66		5.9				86	196	91.4		36.2		0.5		1076	26
ST 63C	9/12/1995		78		6.0				94	218	93.2		38.1		0.5		1251	10
ST 63C	10/11/1995		72		5.9				92	186	90.9		37.5		0.5		982	18
ST 63C	11/15/1995		55		5.9				84	218	117.0		40.7		0.5		1209	24
ST 63C	12/27/1995		45		6.1				104	282	101.0		40.4		0.5		1216	32
ST 63C	2/22/1996		71		6.0				82	184	89.9		33.5		0.6		1044	46
ST 63C	3/13/1996		66		6.0				80	178	86.1		34.8		0.5		1119	16
ST 63C	4/30/1996		66		6.2				68	118	48.3		18.0		0.5		580	3
ST 63C	5/9/1996		55		6.1				88	234	79.6		32.6		0.5		1087	19
ST 63C	6/18/1996		66		5.9				86	178	76.9		30.4		0.5		1146	12
ST 63C	7/9/1996		55		6.0				90	166	78.2		31.4		0.3		1217	2
ST 63C	8/15/1996		36		6.0				86	180	80.3		33.3		0.3		911	26
ST 63C	9/10/1996		60		6.0				88	218	85.3		35.6		0.3		1068	16
ST 63C	10/15/1996		55		6.1				86	236	83.9		34.1		0.3		1086	34
ST 63C	11/19/1996		66		6.0				90	218	82.6		33.7		0.3		1070	54
ST 63C	1/23/1997		65		5.9				86	212	75.2		30.1		0.3		1064	14
ST 63C	2/27/1997		78		5.8				86	144	70.5		28.7		0.3		947	16
ST 63C	3/19/1997		66		6.1				86	152	63.7		25.7		0.3		970	6
ST 63C	5/20/1997		66		6.0				86	206	77.5		29.8		0.3		1419	20
ST 63C	8/6/1997		66		5.9				80	188	166.0		33.5		0.3		1090	92
ST 63C	10/9/1997				6.1				100	246	91.1		37.0		0.3		1207	2
ST 63C	1/7/1998				5.9				98	170	87.3		35.1		0.3		1089	24
ST 63C	5/14/1998				6.0				88	116	67.2		27.5		0.3		895	50
ST 63C	12/7/1999				6.1				110	174	91.0		37.0		0.3		1022	2
ST 63C	1/15/2001	Cross-section	37	5.9	6.1	1835	10	96	99	151	77.3	75.8	36.7	36.1	0.1	0.1	1350	5

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Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63C	1/18/2001				6.1				112	152	89.4		35.6		0.3		1138	2
ST 63C	2/2/2001	Cross-section	53	5.9	6.3	1720	9	92	70	175	65.3	62.8	31.1	31.1	0.2	0.1	1129	9
ST 63C	3/7/2002	Cross-section	40		6.3	1891			68	129	95.9	90.5	35.5	35.3	0.1	0.1	1415	7
ST 63C	5/7/2002	Bucket	50	6.1	6.0	2022	11		67	252	121.1	110.3	36.2	35.1	0.2	0.1	1132	21
ST 63C	10/8/2002				5.9				84	244	101.0		27.5		0.3		1054	12
Min			36	5.9	5.8	1720	9	92	67	116	48.3	62.8	18.0	31.1	0.1	0.1	580	2
Max			78	6.1	6.3	2022	11	96	112	282	166.0	110.3	41.5	36.1	0.6	0.1	1419	92
Avg			60	6.0	6.0	1867	10	94	88	186	87.3	84.8	33.3	34.4	0.3	0.1	1094	20
Range			42	0.2	0.5	302	2	4	45	166	117.7	47.5	23.5	5.1	0.5	0.1	839	90

Description: Abandoned Mine Discharge; Emanates from a 12" Smooth Steel pipe on west side of "T-Bone" Gob pile; Currently collected in Anoxic Collection System 2 and conveyed into ALD2

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63D	9/12/1995		12		5.8				15	34	4.8		12.1		0.5		726	3
ST 63D	10/11/1995				5.8				11	24	7.3		10.2		0.5		690	6
ST 63D	11/15/1995		15		4.9				8	14	1.5		8.6		0.5		536	3
ST 63D	12/27/1995		6		4.4				7	38	1.0		11.0		0.5		598	3
ST 63D	2/22/1996		15		4.1				4	14	4.7		9.4		0.5		413	7
ST 63D	3/13/1996		12		4.4				6	46	0.7		7.6		0.5		458	3
ST 63D	4/30/1996		30		6.2				76	156	81.8		30.4		0.5		1008	19
ST 63D	5/9/1996		6		4.6				8	24	0.5		6.5		0.5		415	3
ST 63D	6/18/1996		15		4.4				6	38	0.9		9.7		0.5		597	3
ST 63D	7/9/1996		6		5.1				10	24	1.8		9.8		0.3		588	2
ST 63D	8/15/1996		4		5.8				13	28	2.8		10.3		0.3		649	2
ST 63D	9/10/1996		6		5.5				11	36	2.6		10.0		0.3		587	4
ST 63D	10/15/1996		5		5.5				11	26	2.0		8.5		0.3		592	10
ST 63D	11/19/1996		8		4.7				7	26	1.4		7.2		0.3		424	20
ST 63D	1/23/1997		6		4.8				7	28	1.0		6.5		0.3		494	50
ST 63D	2/27/1997		20		4.3				6	11	6.0		5.6		0.3		329	4
ST 63D	3/19/1997		20		3.9				0	44	1.9		11.9		0.5		669	2
ST 63D	5/20/1997		9		4.5				7	26	0.5		6.1		0.3		510	2
ST 63D	8/6/1997		2		5.5				12	36	2.8		12.0		0.3		730	2
ST 63D	10/9/1997		4		5.6				13	40	9.9		9.4		0.3		713	12
ST 63D	1/7/1998	Measured	7		4.6				8	10	0.4		6.7		0.3		491	
ST 63D	5/14/1998	Measured	6								2.8		5.4		0.3		445	2
ST 63D	1/15/2001	Measured	8	5.4			0											
ST 63D	1/18/2001	Measured	5		5.7				15	9	3.6		11.2		0.3		695	2
ST 63D	2/2/2001	Bucket	6															

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
Min			2	5.4	3.9		0		0	9	0.4		5.4		0.3		329	2
Max			30	5.4	6.2		0		76	156	81.8		30.4		0.5		1008	50
Avg			10	5.4	5.0		0		12	33	6.2		9.8		0.4		581	7
Range			28	0.0	2.3		0		76	147	81.4		25.1		0.3		679	49

Description: Abandoned mine discharge; Sampled at breech in old Rail Road Grade located about 225 feet south of gas line crossing Seaton Creek

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63D-1	1/15/2001	Estimated	5	4.9	5.3	1053	7	1	7	21	6.3	0.9	10.9	10.6	0.3	0.3	690	3
ST 63D-1	2/2/2001			4.9	5.3	1011	6		5	46	8.5	1.3	9.7	9.6	0.5	0.3	766	7
ST 63D-1	3/7/2002	Estimated	3	4.8	5.5	828	8		6	2	0.9	0.9	6.7	6.6	0.2	0.2	471	2
Min			3	4.8	5.3	828	6	1	5	2	0.9	0.9	6.7	6.6	0.2	0.2	471	2
Max			5	4.9	5.5	1053	8	1	7	46	8.5	1.3	10.9	10.6	0.5	0.3	766	7
Avg			4	4.9	5.4	964	7	1	6	23	5.2	1.0	9.1	8.9	0.3	0.2	642	4
Range			2	0.1	0.3	225	2	0	2	44	7.5	0.5	4.2	4.1	0.3	0.1	295	5

Description: Abandoned mine discharge; Sampled at source approximately 150 feet east of "T-Bone" gob pile

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63D-3	1/15/2001			5.0	5.4	1158	6		11	23	0.9	0.8	11.3	11.3	0.1	0.1	783	3
ST 63D-3	2/2/2001			5.5	5.7	272	2	1	4	12	0.3	0.2	1.8	1.7	0.3	0.3	139	4
ST 63D-3	3/7/2002			5.5	5.7	988			8	6	8.7	4.4	16.3	14.1	0.1	0.1	596	3
Min				5.0	5.4	272	2	1	4	6	0.3	0.2	1.8	1.7	0.1	0.1	139	3
Max				5.5	5.7	1158	6	1	11	23	8.7	4.4	16.3	14.1	0.3	0.3	783	4
Avg				5.3	5.6	806	4	1	7	13	3.3	1.8	9.8	9.0	0.2	0.1	506	3
Range				0.5	0.3	886	4	0	8	16	8.4	4.1	14.4	12.4	0.2	0.2	644	1

Description: Abandoned mine discharge; Sampled at source approximately 45 feet east of southern terminus of "T-Bone" gob pile

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63D-4	1/15/2001			6.0	6.2	1523	7		71	113	66.5	62.0	32.7	29.9	0.1	0.1	1035	10
ST 63D-4	2/2/2001			5.5	5.8	850	4	24	13	51	13.4	9.6	11.7	11.7	0.2	0.1	518	6
Min				5.5	5.8	850	4	24	13	51	13.4	9.6	11.7	11.7	0.1	0.1	518	6
Max				6.0	6.2	1523	7	24	71	113	66.5	62.0	32.7	29.9	0.2	0.1	1035	10
Avg				5.8	6.0	1187	6	24	42	82	39.9	35.8	22.2	20.8	0.1	0.1	776	8
Range				0.5	0.4	673	3	0	57	62	53.2	52.5	21.0	18.3	0.1	0.1	518	4

Description: Abandoned mine discharge; Sampled along eatern toe of "T-Bone" gob pile

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63E	10/12/1994				6.1				124	132	101.0		42.6		0.3		853	3
ST 63E	6/7/1995				5.9				84	154	78.1		30.7		0.3		939	18
ST 63E	6/28/1995		413		6.0				32	134	62.9		33.1		0.3		985	48
ST 63E	8/16/1995		108		5.7				22	194	62.9		41.0		0.3		1094	64
ST 63E	9/12/1995		40		6.0				26	152	51.1		40.7		0.3		1177	26
ST 63E	10/11/1995		40		3.4				0	128	8.2		34.3		0.9		901	8
ST 63E	11/15/1995		5		4.0				2	62	6.6		24.2		1.0		698	3
ST 63E	12/27/1995		78		6.1				30	142	30.0		36.8		0.3		1071	3
ST 63E	2/22/1996		331		5.8				24	148	70.2		41.4		0.3		1056	23
ST 63E	3/13/1996		524		5.8				26	188	65.6		35.3		0.3		1152	48
ST 63E	4/30/1996		466		4.3				5	17	5.9		5.6		0.3		319	11
ST 63E	5/9/1996		485		6.1				32	152	65.1		34.6		0.3		1156	31
ST 63E	6/18/1996		379		5.8				26	176	65.4		35.5		0.3		1171	46
ST 63E	7/9/1996		302		5.9				24	158	62.5		36.1		0.3		1168	36
ST 63E	8/15/1996		139		5.8				20	190	59.3		38.9		0.3		986	25
ST 63E	9/10/1996		106		5.7				22	192	57.6		41.1		0.3		1117	30
ST 63E	10/15/1996		158		5.9				22	172	58.7		39.6		0.3		1073	42
ST 63E	11/19/1996		395		5.8				26	184	63.2		37.2		0.3		999	62
ST 63E	1/23/1997		63		5.9				34	176	62.9		34.1		0.3		1043	8
ST 63E	2/27/1997		95		5.6				32	140	59.9		32.2		0.3		986	56
ST 63E	3/19/1997		51		6.1				30	110	48.6		23.9		0.3		849	16
ST 63E	5/20/1997		302		6.0				30	166	62.6		33.3		0.3		1014	44
ST 63E	8/6/1997		122		5.9				26	168	62.4		38.0		0.3		1033	24
ST 63E	10/9/1997		106		6.0				24	156	38.5		37.6		0.3		1022	6
ST 63E	1/7/1998		248		5.7				26	124	61.1		39.3		0.3		1013	26
ST 63E	5/14/1998	Measured	544		6.0				32	136	56.5		30.6		0.3		875	50
ST 63E	12/7/1999				3.8				0	74	2.1		23.6		0.3		848	2
ST 63E	3/30/2000	Measured	178		6.0				118	96	80.5		32.3		0.3		1017	20

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge (610102)

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63E	1/15/2001	Weir	83	6.3			5	64										
ST 63E	1/18/2001	Measured	66		6.4				44	114	40.3		36.5		0.3		922	4
ST 63E	2/2/2001	Weir	76															
ST 63E	5/8/2001	Measured	300		6.1				108	80	77.3		30.4		0.3		931	6
ST 63E	3/7/2002	Weir	106	6.3	6.0	1753	12		9	121	44.2	40.2	37.6	36.5	0.2	0.1	1124	17
ST 63E	10/8/2002				5.9				90	272	116.0		33.3		0.3		1339	6
Min			5	6.3	3.4	1753	5	64	0	17	2.1	40.2	5.6	36.5	0.2	0.1	319	2
Max			544	6.3	6.4	1753	12	64	124	272	116.0	40.2	42.6	36.5	1.0	0.1	1339	64
Avg			210	6.3	5.7	1753	9	64	36	144	55.8	40.2	34.1	36.5	0.3	0.1	998	25
Range			539	0.0	3.0	0	7	0	124	255	113.9	0.0	37.0	0.0	0.8	0.0	1020	63

Description: Abandoned mine discharge; Largest of the discharges; Flows were measured at 90 degree V-Notch weir at the abandoned railroad grade; Currently collected in anoxic collection system 1 and conveyed into ALD1

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63E-1	1/15/2001	Weir	83	6.0	6.2	1801	10	148	120	122	81.8	76.3	36.3	35.9	0.1	0.1	1185	6
ST 63E-1	2/2/2001	Weir	76	5.8	6.4	1723	10	104	100	166	77.3	74.3	34.2	33.5	0.2	0.1	1054	8
ST 63E-1	3/7/2002			6.0	6.3	1853	10		70	122	99.3	99.1	37.3	36.3	0.1	0.1	1325	7
ST 63E-1	5/7/2002				5.9	2049			50	361	169.9	166.4	34.1	34.0	0.9	0.7	1274	20
Min			76	5.8	5.9	1723	10	104	50	122	77.3	74.3	34.1	33.5	0.1	0.1	1054	6
Max			83	6.0	6.4	2049	10	148	120	361	169.9	166.4	37.3	36.3	0.9	0.7	1325	20
Avg			80	5.9	6.2	1857	10	126	85	193	107.1	104.0	35.5	34.9	0.3	0.3	1210	10
Range			7	0.2	0.5	326	0	44	70	239	92.7	92.2	3.2	2.8	0.8	0.7	272	14

Description: Abandoned mine discharge ST63E at source; Largest of the discharges; Flows were measured at 90 degree V-Notch weir at the abandoned railroad grade; Currently collected in anoxic collection system 1 and conveyed into ALD1

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63E-2	1/15/2001	Estimated	2	6.2			10											
ST 63E-2	2/2/2001			4.9	5.8	1112	10		17	79	18.3		16.8		0.1		718	1
ST 63E-2	3/7/2002			4.5	3.8	1081	10		0	64	5.1	2.7	18.4	18.0	0.1	0.1	661	3
Min			2	4.5	3.8	1081	10		0	64	5.1	2.7	16.8	18.0	0.1	0.1	661	1
Max			2	6.2	5.8	1112	10		17	79	18.3	2.7	18.4	18.0	0.1	0.1	718	3
Avg			2	5.2	4.8	1097	10		8	71	11.7	2.7	17.6	18.0	0.1	0.1	690	2
Range			0	1.7	2.0	31	0		17	15	13.2	0.0	1.7	0.0	0.1	0.0	56	2

Description: Abandoned mine discharge at source; Located ~125 feet East of 63-1 and contributed flow measured at the ST63E weir; Currently collected and conveyed into ALD1 via Anoxic Collection System 1

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63F	1/15/2001	pool		6.0			4											
ST 63F	2/2/2001			6.2	6.5	1656	4	121	111	0	58.0	49.0	3.3	3.0	0.2	0.1	888	8
Min				6.0	6.5	1656	4	121	111	0	58.0	49.0	3.3	3.0	0.2	0.1	888	8
Max				6.2	6.5	1656	4	121	111	0	58.0	49.0	3.3	3.0	0.2	0.1	888	8
Avg				6.1	6.5	1656	4	121	111	0	58.0	49.0	3.3	3.0	0.2	0.1	888	8
Range				0.2	0.0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0	0

Description: Abandoned mine discharge; Located just above old foundations ~120 feet East of Erico Road; Pooled with no measureable flow

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ST 63G	1/15/2001	Estimated	1	4.6	4.6	595	2		1	29	0.1	0.0	3.3	3.2	3.1	3.1	333	2
ST 63G	2/2/2001	Estimated	5	4.4	4.1	530			0	36	0.2	0.1	3.6	3.5	3.0	3.0	244	4
Min			1	4.4	4.1	530	2		0	29	0.1	0.0	3.3	3.2	3.0	3.0	244	2
Max			5	4.6	4.6	595	2		1	36	0.2	0.1	3.6	3.5	3.1	3.1	333	4
Avg			3	4.5	4.4	563	2		0	33	0.1	0.1	3.4	3.4	3.0	3.0	289	3
Range			4	0.2	0.5	65	0		1	6	0.1	0.1	0.3	0.2	0.2	0.1	89	2

Description: Abandoned mine discharge in swale with little flow

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
OH-3	2/2/2001			7.1	7.0	347	0	43	45	0	9.3	6.9	2.8	2.7	0.1	0.0	129	20
OH-3	3/7/2002			7.2	7.6	392	9		70	0	3.0	0.9	1.1	1.0	0.2	0.1	131	1
OH-3	5/7/2002			6.9	6.3	631	12		31	0	36.2	10.1	4.7	4.5	0.2	0.2	289	46
Min				6.9	6.3	347	0	43	31	0	3.0	0.9	1.1	1.0	0.1	0.0	129	1
Max				7.2	7.6	631	12	43	70	0	36.2	10.1	4.7	4.5	0.2	0.2	289	46
Avg				7.1	7.0	457	7	43	48	0	16.1	6.0	2.9	2.7	0.2	0.1	183	22
Range				0.3	1.2	284	12	0	39	0	33.2	9.2	3.6	3.5	0.1	0.1	160	45

Description: Monitoring Well; Approximate 4 foot tall metal casing; Well installed during Operation Scarlift

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
MW C-8	2/2/2001			5.9	6.5	174		4	9	0	0.3	0.2	0.1	0.0	0.1	0.1	105	3
MW C-8	3/7/2002			6.0	6.6	164	10		8	4	0.4	0.2	0.1	0.0	0.2	0.0	75	4
Min				5.9	6.5	164	10	4	8	0	0.3	0.2	0.1	0.0	0.1	0.0	75	3
Max				6.0	6.6	174	10	4	9	4	0.4	0.2	0.1	0.0	0.2	0.1	105	4
Avg				6.0	6.5	169	10	4	9	2	0.3	0.2	0.1	0.0	0.2	0.1	90	4
Range				0.1	0.1	10	0	0	1	4	0.1	0.0	0.0	0.0	0.1	0.0	30	1

Description: Monitoring Well; Approximately 3.6 foot tall casing; Possible Operation Scarlift well; Located near Sportsmens Club

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
61-1P	3/7/2002			6.4	7.0	1395	7		100	0	7.1	0.1	19.8	18.4	0.4	0.1	923	11
61-1P	5/7/2002			5.9	6.0				45	194	110.2	97.8	35.0	34.1	1.7	0.2	1086	49
Min				5.9	6.0	1395	7		45	0	7.1	0.1	19.8	18.4	0.4	0.1	923	11
Max				6.4	7.0	1395	7		100	194	110.2	97.8	35.0	34.1	1.7	0.2	1086	49
Avg				6.2	6.5	1395	7		72	97	58.7	49.0	27.4	26.3	1.1	0.1	1004	30
Range				0.5	1.0	0	0		56	194	103.1	97.7	15.2	15.7	1.3	0.1	163	38

Description: Piezometer; Installed on 2/11/02 by Mckay and Gould

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
61-2P	3/7/2002			6.8	7.2	960	7		99	0	7.7	0.2	16.9	8.8	0.8	0.0	488	56
61-2P	5/7/2002			5.9	6.0	1845	11		52	200	99.5	95.5	32.9	32.2	1.4	0.2	1122	62
Min				5.9	6.0	960	7		52	0	7.7	0.2	16.9	8.8	0.8	0.0	488	56
Max				6.8	7.2	1845	11		99	200	99.5	95.5	32.9	32.2	1.4	0.2	1122	62
Avg				6.4	6.6	1403	9		76	100	53.6	47.9	24.9	20.5	1.1	0.1	805	59
Range				0.9	1.3	885	4		47	200	91.7	95.3	16.0	23.4	0.6	0.2	634	6

Description: Piezometer; Installed on 2/11/02 by Mckay and Gould

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
61-3P	3/7/2002			5.7	6.1	1970	7		35	93	80.0	61.7	36.0	33.5	0.9	0.1	1392	116
61-3P	5/7/2002			5.9	5.8	2061	10		37	286	129.5	122.9	36.2	35.0	0.7	0.2	1132	52
Min				5.7	5.8	1970	7		35	93	80.0	61.7	36.0	33.5	0.7	0.1	1132	52
Max				5.9	6.1	2061	10		37	286	129.5	122.9	36.2	35.0	0.9	0.2	1392	116
Avg				5.8	6.0	2016	9		36	190	104.7	92.3	36.1	34.3	0.8	0.2	1262	84
Range				0.2	0.3	91	3		2	193	49.6	61.3	0.2	1.4	0.2	0.1	261	64

Description: Piezometer; Installed on 2/11/02 by Mckay and Gould

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
61-4P	3/7/2002			6.0	6.3	1598			62	53	77.7	64.3	30.1	28.6	2.3	0.2	1117	390
61-4P	5/7/2002			6.0	5.8	1875	12		37	245	127.1	118.8	30.7	29.9	1.8	0.1	1101	43
Min				6.0	5.8	1598	12		37	53	77.7	64.3	30.1	28.6	1.8	0.1	1101	43
Max				6.0	6.3	1875	12		62	245	127.1	118.8	30.7	29.9	2.3	0.2	1117	390
Avg				6.0	6.1	1737	12		49	149	102.4	91.6	30.4	29.3	2.1	0.1	1109	217
Range				0.0	0.5	277	0		25	191	49.5	54.5	0.6	1.4	0.5	0.1	16	347

Description: Piezometer; Installed on 2/11/02 by Mckay and Gould

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
61-5P	3/7/2002			7.0	7.2	714	7		139	0	32.6	5.6	9.1	3.7	1.2	0.1	316	178
61-5P	5/7/2002			5.9	6.1	1393	11		59	87	52.6	51.0	22.2	21.1	0.6	0.1	630	24
Min				5.9	6.1	714	7		59	0	32.6	5.6	9.1	3.7	0.6	0.1	316	24
Max				7.0	7.2	1393	11		139	87	52.6	51.0	22.2	21.1	1.2	0.1	630	178
Avg				6.5	6.7	1054	9		99	44	42.6	28.3	15.6	12.4	0.9	0.1	473	101
Range				1.1	1.1	679	4		79	87	20.0	45.4	13.1	17.4	0.6	0.1	314	154

Description: Piezometer; Installed on 2/11/02 by Mckay and Gould

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
61-6P	3/7/2002			5.8	6.5	205	6		16	0	2.2	0.1	0.4	0.3	1.8	0.0	83	24
61-6P	5/7/2002			5.9	5.9	1973	10		36	195	97.2	94.5	32.3	31.3	0.7	0.2	1129	28
Min				5.8	5.9	205	6		16	0	2.2	0.1	0.4	0.3	0.7	0.0	83	24
Max				5.9	6.5	1973	10		36	195	97.2	94.5	32.3	31.3	1.8	0.2	1129	28
Avg				5.9	6.2	1089	8		26	98	49.7	47.3	16.4	15.8	1.2	0.1	606	26
Range				0.1	0.6	1768	4		20	195	94.9	94.4	31.9	31.1	1.2	0.1	1046	4

Description: Piezometer; Installed on 2/11/02 by Mckay and Gould

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ALD1	7/23/2003	Measured	210	6.5	6.4	1735	11	224	146	-34	77.9	77.7	30.2	29.7	0.1	0.1	1060	20
ALD1	7/30/2003				6.5				253	0	78.2		27.5		0.3		801	22
ALD1	9/16/2003				6.5				241	0	67.2		24.9		0.3		893	12
ALD1	10/30/2003				6.5				247	0	73.9		29.1		0.3		790	10
ALD1	10/30/2003	Measured	300	6.5	6.4	1691	10	258	167	-7	71.5	70.8	33.4	32.0	0.2	0.0	1379	11
ALD1	3/23/2004				6.6			221	222	-79	60.9		26.7		0.3		764	76
ALD1	3/25/2004	Measured	540	6.6	6.4	1660		221	163	-38	77.3	75.5	26.1	23.2	0.2	0.0	744	2
ALD1	6/8/2004	Measured	470	6.5	6.3	1580		260	115	-43	63.4	57.0	20.7	20.2	0.1	0.0	983	20
ALD1	6/16/2004				6.5				223	-41	60.6		25.7		0.3		806	12
ALD1	7/20/2004	Measured	310	6.5	6.1	1700	10	201	136	-19	72.9	73.9	26.5	26.2	0.0	0.0	1088	35
ALD1	8/20/2004				6.4				208	49	73.0		31.4		0.3		833	40
ALD1	9/1/2004	Measured	350	6.5	6.3	1707	10	239	128	10	75.7	73.3	29.0	28.7	0.1	0.1	956	53
ALD1	11/5/2004				6.4				216	42	61.6		25.3		0.3		769	34
Min			210	6.5	6.1	1580	10	201	115	-79	60.6	57.0	20.7	20.2	0.0	0.0	744	2
Max			540	6.6	6.6	1735	11	260	253	49	78.2	77.7	33.4	32.0	0.3	0.1	1379	76
Avg			363	6.5	6.4	1679	10	232	190	-12	70.3	71.4	27.4	26.6	0.2	0.0	913	27
Range			330	0.1	0.5	155	1	59	138	128	17.6	20.8	12.7	11.8	0.2	0.1	635	74

Description: Anoxic Limestone Drain 1; Sampled at effluent pipe; Receives discharge ST 63E from the anoxic collection system 1

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
SP1	7/23/2003	Assumed	210	6.7	6.4	1543	15	134	101	-47	35.3	29.1	27.8	27.2	0.1	0.0	1225	27
SP1	10/30/2003	Assumed	300	6.8	6.5	1640	10	192	119	-34	46.9	39.5	33.4	21.3	0.2	0.0	1154	22
SP1	3/25/2004	Assumed	540	6.7	6.6	1573		200	119	-31	66.9	65.0	23.0	22.9	0.1	0.1	721	18
SP1	6/8/2004	Assumed	470	6.7	6.3	1564		195	110	-56	54.3	48.6	20.8	19.9	0.1	0.0	1032	10
SP1	7/20/2004	Assumed	310	6.5	6.1	1663	14	215	106	-33	63.9	50.3	25.7	22.1	0.0	0.0	1130	38
SP1	9/1/2004	Assumed	350	6.6	6.4	1622	19	184	110	-15	50.6	44.8	28.1	27.8	0.0	0.0	998	31
Min			210	6.5	6.1	1543	10	134	101	-56	35.3	29.1	20.8	19.9	0.0	0.0	721	10
Max			540	6.8	6.6	1663	19	215	119	-15	66.9	65.0	33.4	27.8	0.2	0.1	1225	38
Avg			363	6.7	6.4	1601	15	187	111	-36	53.0	46.2	26.4	23.5	0.1	0.0	1044	24
Range			330	0.3	0.4	120	9	81	18	41	31.6	35.9	12.6	8.0	0.2	0.0	504	28

Description: Settling Pond 1; Sampled at spillway; Receives flow from ALD1 and discharges into Settling Pond 2 (SP2)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
SP2	7/23/2003	Assumed	210	6.6	6.7	1527	19	82	91	-42	10.6	3.3	25.2	24.4	0.1	0.1	1201	12
SP2	10/30/2003	Assumed	300	7.0	6.6	1651	11	151	106	-40	36.5	19.1	32.2	21.4	0.1	0.0	1246	53
SP2	3/25/2004	Assumed	540	7.1	6.6	1561		150	108	-58	55.4	36.9	22.6	22.2	0.1	0.0	767	11
SP2	6/8/2004	Assumed	470	6.8	6.5	1581	14	180	110	-63	45.4	34.3	20.5	19.5	0.1	0.1	959	30
SP2	7/20/2004	Assumed	310	6.7	6.3	1640	18	165	100	-39	42.9	27.8	22.2	21.2	0.1	0.0	970	20
SP2	9/1/2004	Assumed	350	6.7	6.6	1593	20	153	107	-28	38.1	24.1	27.0	27.0	0.0	0.0	1630	31
Min			210	6.6	6.3	1527	11	82	91	-63	10.6	3.3	20.5	19.5	0.0	0.0	767	11
Max			540	7.1	6.7	1651	20	180	110	-28	55.4	36.9	32.2	27.0	0.1	0.1	1630	53
Avg			363	6.8	6.6	1592	16	147	104	-45	38.1	24.3	25.0	22.6	0.1	0.0	1129	26
Range			330	0.5	0.4	124	9	98	20	36	44.8	33.7	11.7	7.4	0.1	0.0	863	42

Description: Settling Pond 2; Sampled at spillway; Receives flow from Settling Pond 1 (SP1) and discharges into Wetland 1 (WL1)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
WL1	7/23/2003	Assumed	210	6.8	7.0	1501	22	76	89	-38	5.6	0.2	24.3	23.4	0.2	0.1	919	9
WL1	10/30/2003	Assumed	300	7.2	6.7	1680	12	132	101	-43	28.1	15.7	32.2	31.7	0.1	0.0	1188	53
WL1	3/25/2004	Assumed	540	7.0	6.7	1571		125	105	-51	50.4	32.0	22.0	21.7	0.1	0.0	759	23
WL1	6/8/2004	Assumed	470	7.0			18	176			39.8	27.6	19.6	19.3	0.0	0.0		
WL1	7/20/2004	Assumed	310	6.8	6.6	1635	23	157	103	-48	29.0	16.8	21.6	20.8	0.0	0.0	1079	31
WL1	8/20/2004				6.6				89	56	10.6		23.6		0.3		670	14
WL1	9/1/2004	Assumed	350	6.8	6.9	1614	22	118	98	-21	15.3	7.8	26.0	25.8	0.0	0.0	1661	3
WL1	11/5/2004				6.5				106	28	23.0		23.4		0.3		729	40
Min			210	6.8	6.5	1501	12	76	89	-51	5.6	0.2	19.6	19.3	0.0	0.0	670	3
Max			540	7.2	7.0	1680	23	176	106	56	50.4	32.0	32.2	31.7	0.3	0.1	1661	53
Avg			363	6.9	6.7	1600	19	131	99	-17	25.2	16.7	24.1	23.8	0.1	0.0	1001	25
Range			330	0.4	0.5	179	11	100	17	107	44.8	31.8	12.6	12.4	0.2	0.1	991	50

Description: Wetland 1; Sampled at effluent spillway; Receives flow from Settling Pond 2 (SP2) and discharges to Settling Pond 3 (SP3)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
SP3	7/23/2003	Assumed	210	7.0	7.0	1475	21	72	86	-37	4.6	0.1	23.9	23.5	0.2	0.1	1275	6
SP3	10/30/2003	Assumed	300	7.2	6.7	1622	12	122	102	-33	20.1	10.9	33.4	32.0	0.1	0.0	1138	42
SP3	3/25/2004	Assumed	540	7.0	6.8	1528		125	93	-60	39.1	23.3	21.3	21.1	0.2	0.0	660	31
SP3	6/8/2004	Assumed	470	7.0	6.7	1550	20	131	107	-46	27.5	15.3	20.0	18.8	0.1	0.0	1057	19
SP3	7/20/2004	Assumed	310	6.9	6.6	1647	23	140	98	-43	23.6	10.5	21.3	20.3	0.0	0.0	1079	25
SP3	9/1/2004	Assumed	350	6.8	6.9	1664	23	116	104	-3	11.9	4.2	25.5	25.2	0.1	0.0	1485	3
Min			210	6.8	6.6	1475	12	72	86	-60	4.6	0.1	20.0	18.8	0.0	0.0	660	3
Max			540	7.2	7.0	1664	23	140	107	-3	39.1	23.3	33.4	32.0	0.2	0.1	1485	42
Avg			363	7.0	6.8	1581	20	118	98	-37	21.1	10.7	24.2	23.5	0.1	0.0	1115	21
Range			330	0.4	0.5	189	11	68	21	58	34.5	23.2	13.4	13.2	0.2	0.0	825	39

Description: Settling Pond 3; Sampled in effluent spillway; Receives flow from Wetland 1 (WL1) and discharges into Wetland 2 (WL2)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ALD2	7/23/2003	Measured	70	6.8	6.5	1710	11	241	197	-68	70.3	67.6	19.8	19.7	0.1	0.1	1134	15
ALD2	7/30/2003				6.6				266	0	65.1		16.9		0.3		742	22
ALD2	9/16/2003				6.5				260	0	66.0		17.4		0.3		932	16
ALD2	10/30/2003				6.6				261	0	69.5		19.7		0.3		757	20
ALD2	10/30/2003	Measured	80	6.7	6.5	1745	10	274	203	-36	70.8	69.1	23.4	23.1	0.1	0.1	1204	8
ALD2	3/23/2004				6.6				244	-84	60.8		18.9		0.3		747	24
ALD2	3/25/2004	Measured	50	6.5	6.6	1608		255	195	-62	80.2	79.2	17.0	16.9	0.1	0.0	622	15
ALD2	6/8/2004	Measured	60	6.5	6.4	1555	10	251	142	-80	64.5	60.9	15.6	15.2	0.1	0.0	975	26
ALD2	6/16/2004				6.5				254	-92	59.0		18.4		0.3		735	22
ALD2	7/20/2004	Measured	60	6.5	6.3	1619	11	262	160	-53	69.1	66.6	16.7	16.2	0.0	0.0	1037	16
ALD2	8/20/2004				6.5				220	2	64.2		21.4		0.3		795	46
ALD2	9/1/2004	Measured	58	6.7	6.5	1685	11	252	146	-22	73.5	65.3	18.5	18.5	0.1	0.0	1224	20
ALD2	11/5/2004				6.4				227	-35	55.4		18.1		0.3		726	46
Min			50	6.5	6.3	1555	10	241	142	-92	55.4	60.9	15.6	15.2	0.0	0.0	622	8
Max			80	6.8	6.6	1745	11	274	266	2	80.2	79.2	23.4	23.1	0.3	0.1	1224	46
Avg			63	6.6	6.5	1654	11	256	213	-41	66.8	68.1	18.6	18.3	0.2	0.0	895	23
Range			30	0.3	0.3	190	1	33	124	94	24.8	18.2	7.8	7.9	0.2	0.1	602	38

Description: Anoxic Limestone Drain 2; Sampled at effluent pipe; Receives discharges ST63B, ST63C, and a portion of 63C? And discharges into Settling Pond 4 (SP4)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
SP4	7/23/2003	Assumed	70	6.7	6.5	1564	18	148	114	-66	33.5	31.5	16.8	16.6	0.2	0.1	1085	12
SP4	10/30/2003	Assumed	80	6.8	6.5	1647	12	176	111	-61	49.5	37.2	21.8	21.7	0.0	0.0	1229	72
SP4	3/25/2004	Assumed	50	6.7	6.6	1474		173	123	-90	51.6	44.2	16.0	15.9	0.2	0.0	660	15
SP4	6/8/2004	Assumed	60	6.7	6.6	1554	23	166	120	-70	29.8	24.7	15.0	14.5	0.0	0.0	1048	31
SP4	7/20/2004	Assumed	60	6.6	6.3	1580	22	167	113	-52	34.9	27.3	16.0	15.4	0.0	0.0	995	15
SP4	9/1/2004	Assumed	58	6.9	6.8	1615	23	143	104	-46	28.4	18.9	17.2	16.8	0.0	0.0	1301	35
Min			50	6.6	6.3	1474	12	143	104	-90	28.4	18.9	15.0	14.5	0.0	0.0	660	12
Max			80	6.9	6.8	1647	23	176	123	-46	51.6	44.2	21.8	21.7	0.2	0.1	1301	72
Avg			63	6.7	6.6	1572	20	162	114	-64	38.0	30.6	17.1	16.8	0.1	0.0	1053	30
Range			30	0.3	0.5	173	11	33	18	44	23.2	25.3	6.8	7.2	0.2	0.0	641	60

Description: Settling Pond 4; Sampled at effluent spillway; Receives flow from Anoxic Limestone Drain 2 (ALD2) and discharges into Wetland 2 (WL2)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
SEEP	7/23/2003	Estimated	25	5.7	6.1	1502	10	72	59	49	46.2	44.0	17.6	17.3	0.0	0.0	1143	10
SEEP	10/30/2003	Estimated	25	6.0	6.0	1547	11	84	58	75	50.9	50.5	20.2	20.2	0.0	0.0	1229	3
SEEP	3/25/2004	Estimated	25	5.8	5.8	1561		77	61	50	64.0	61.8	17.0	16.5	0.2	0.1	820	7
SEEP	6/8/2004	Estimated	25	5.8	6.0	1510	9	77	45	49	52.3	49.6	14.9	14.3	0.1	0.0	1073	6
SEEP	7/20/2004	Estimated	25	5.7	5.9	1574	10	86	59	67	59.1	57.8	15.6	15.3	0.1	0.0	1139	13
SEEP	9/1/2004	Estimated	25	5.7	6.1	1603	10	88	65	104	56.8	54.5	17.2	16.9	0.0	0.0	767	11
Min			25	5.7	5.8	1502	9	72	45	49	46.2	44.0	14.9	14.3	0.0	0.0	767	3
Max			25	6.0	6.1	1603	11	88	65	104	64.0	61.8	20.2	20.2	0.2	0.1	1229	13
Avg			25	5.8	6.0	1550	10	81	58	66	54.9	53.0	17.1	16.7	0.1	0.0	1028	8
Range			0	0.3	0.3	101	2	16	20	55	17.8	17.8	5.3	5.8	0.2	0.1	462	10

Description: AMD Seep Area; Enters Wetland 2

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
WL2@PP2	7/23/2003	Assumed	270	6.8	6.7	1400	19	46	52	-22	7.1	3.5	20.2	19.7	0.1	0.0	1002	5
WL2@PP2	7/30/2003				6.6				61	0	9.2		17.6		0.3		645	18
WL2@PP2	9/16/2003				6.8				98	0	12.5		22.8		0.3		930	18
WL2@PP2	10/30/2003				6.9				100	0	18.5		24.8		0.3		743	34
WL2@PP2	10/30/2003	Assumed	400	7.1	6.6	1605	12	101	76	-23	16.8	11.8	27.5	27.2	0.2	0.0	1004	24
WL2@PP2	3/23/2004				6.8				102	-27	27.2		24.2		0.3		797	76
WL2@PP2	3/25/2004	Assumed	600	7.2	6.7	1487		100	76	-44	23.3	15.9	19.3	19.2	0.2	0.1	721	23
WL2@PP2	6/8/2004	Assumed	550	6.8	6.7	1553		89	86	-47	3.3	1.6	16.9	16.7	0.1	0.0	1114	3
WL2@PP2	6/16/2004				6.7				86	-12	3.3		21.7		0.3		780	20
WL2@PP2	7/20/2004	Assumed	400	6.8	6.6	1603	20	80	74	-31	2.7	0.3	15.7	14.9	0.0	0.0	1189	7
WL2@PP2	8/20/2004				6.6				64	-4	0.2		16.2		0.3		619	2
WL2@PP2	9/1/2004	Assumed	430	6.8	6.7	1430	22	40	44	-6	1.2	0.2	9.3	8.8	0.1	0.0	869	1
WL2@PP2	11/5/2004				6.3				53	-26	0.7		7.8		0.3		775	4
Min			270	6.8	6.3	1400	12	40	44	-47	0.2	0.2	7.8	8.8	0.0	0.0	619	1
Max			600	7.2	6.9	1605	22	101	102	0	27.2	15.9	27.5	27.2	0.3	0.1	1189	76
Avg			442	6.9	6.7	1513	18	76	75	-19	9.7	5.5	18.8	17.7	0.2	0.0	860	18
Range			330	0.4	0.6	205	10	61	59	47	27.1	15.7	19.7	18.4	0.2	0.1	571	75

Description: Wetland 2; Sampled at Plunge Pond 2; Receives influent from Settling Pond 3 (SP3), Settling Pond 4 (SP4) and several seeps (SEEP) and discharges to the Horizontal Flow Limestone Bed (HFLB)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
HFLB	7/23/2003	Measured	270	7.4	7.4	1456	21	100	114	-106	0.1	0.1	0.1	0.1	0.1	0.0	969	2
HFLB	7/30/2003				7.3				115	0	0.2		0.1		0.3		595	2
HFLB	9/16/2003				7.1				149	0	0.2		0.2		0.3		919	4
HFLB	10/30/2003	Measured	400	7.2	7.0	1610	10	140	140	-111	0.1	0.1	0.9	0.8	0.0	0.0	1113	1
HFLB	10/30/2003				7.1				149	0	0.2		0.8		0.3		775	8
HFLB	3/23/2004				7.0				109	-55	9.3		16.2		0.3		855	26
HFLB	3/25/2004	Measured	600	7.2	7.0	1497		109	94	-73	8.1	5.5	13.1	13.1	0.2	0.0	721	8
HFLB	6/8/2004	Measured	550	7.2	7.0	1570	19	125	110	-92	0.2	0.1	4.7	3.8	0.1	0.0	910	4
HFLB	6/16/2004				6.9				114	-90	0.2		4.2		0.3		746	14
HFLB	7/20/2004	Measured	400	7.2	6.9	1580	20	109	107	-81	0.1	0.0	0.7	0.7	0.1	0.0	1054	1
HFLB	8/20/2004				7.1				93	-64	0.2		2.0		0.3		709	2
HFLB	9/1/2004	Measured	430	7.3	7.2	1433	20	83	75	-49	0.1	0.1	0.5	0.5	0.0	0.0	660	4
HFLB	9/8/2004	Measured	700	7.2														
HFLB	11/5/2004				6.6				81	-54	0.2		5.4		0.3		711	2
Min			270	7.2	6.6	1433	10	83	75	-111	0.1	0.0	0.1	0.1	0.0	0.0	595	1
Max			700	7.4	7.4	1610	21	140	149	0	9.3	5.5	16.2	13.1	0.3	0.0	1113	26
Avg			479	7.2	7.0	1524	18	111	112	-60	1.4	1.0	3.8	3.2	0.2	0.0	826	6
Range			430	0.2	0.8	177	11	57	74	111	9.3	5.5	16.1	13.0	0.2	0.0	517	25

Description: Horizontal Flow Limestone Bed; Sampled at effluent pipe; Receives flow from Wetland 2 via Plunge Pond 2; Discharges to Seaton Creek; One of two final effluent discharge points of the passive treatment complex

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
ALD3	6/8/2004	Bucket	15	6.5	6.3	1719	10	222	96	-50	85.1	83.0	15.7	15.4	0.0	0.0	1114	
ALD3	6/16/2004				6.5				197	37	77.7		19.2		0.3		866	28
ALD3	7/20/2004	Bucket	15	6.5	6.1	1760	12	224	110	16	86.3	80.5	15.9	15.4	0.2	0.0	1139	32
ALD3	8/20/2004				6.4				176	-5	69.1		18.2		0.3		808	48
ALD3	9/4/2004	Bucket	14	6.5	6.3	1790	12	215	107	13	89.3	80.6	16.9	16.8	0.1	0.1	1477	54
ALD3	11/5/2004				6.5				199	4	56.9		15.3		0.3		704	38
Min			14	6.5	6.1	1719	10	215	96	-50	56.9	80.5	15.3	15.4	0.0	0.0	704	28
Max			15	6.5	6.5	1790	12	224	199	37	89.3	83.0	19.2	16.8	0.3	0.1	1477	54
Avg			15	6.5	6.4	1756	11	220	148	3	77.4	81.3	16.9	15.8	0.2	0.0	1018	40
Range			1	0.0	0.4	71	2	9	103	88	32.4	2.5	3.9	1.4	0.2	0.0	772	26

Description: Anoxic Limestone Drain 3; Sampled at effluent pipe; Receives discharge ST 63A and discharges to Settling Pond 5 (SP5)

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
SP5	6/8/2004	Assumed	15	6.5	6.4	1726	25	136	77	-26	40.1	28.3	15.5	14.8	0.1	0.1	1187	37
SP5	6/16/2004				6.2				79	6	52.7		17.9		0.3		906	10
SP5	7/20/2004	Assumed	15	6.5	6.3	1692	24	98	53	-16	33.6	16.5	15.5	14.0	0.1	0.0	1290	48
SP5	8/20/2004				6.1				67	17	48.9		18.4		0.3		811	90
SP5	9/1/2004	Assumed	14	6.5	6.3	1715	20	121	54	-3	45.6	32.8	16.4	15.5	0.0	0.0	1262	41
SP5	11/5/2004				6.3				86	-10	35.8		15.2		0.3		777	80
Min			14	6.5	6.1	1692	20	98	53	-26	33.6	16.5	15.2	14.0	0.0	0.0	777	10
Max			15	6.5	6.4	1726	25	136	86	17	52.7	32.8	18.4	15.5	0.3	0.1	1290	90
Avg			15	6.5	6.3	1711	23	118	69	-5	42.8	25.9	16.5	14.7	0.2	0.0	1039	51
Range			1	0.0	0.3	34	5	38	32	44	19.1	16.2	3.2	1.5	0.2	0.1	513	80

Description: Settling Pond 5; Sampled in spillway; Receives from Anoxic Limestone Drain 3 and discharges to Seaton Creek; One of two final effluent points of the passive treatment complex

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
48	9/8/1994				4.6				10	124	1.3		26.6		8.2		571	3
48	3/22/1995				4.8				10	36	0.4		12.8		3.5		422	3
48	6/29/1995				4.7				10	46	0.5		14.6		4.3		385	6
48	8/22/1995				4.4				7	110	0.7		29.8		8.1		852	16
48	9/12/1995				4.6				11	118	1.0		33.2		8.4		888	8
48	10/12/1995				4.6				10	102	2.4		33.8		9.6		832	8
48	11/15/1995				6.0				22	0	0.6		2.7		0.5		93	6
48	2/22/1996				4.7				7	14	0.9		8.3		3.3		158	3
48	3/13/1996				4.6				8	76	1.4		13.0		4.7		332	12
48	4/30/1996				4.6				7	24	3.0		7.3		1.8		205	3
48	5/9/1996				4.8				10	48	0.6		12.2		3.9		359	3
48	6/18/1996				4.5				9	122	1.0		22.8		7.7		941	3
48	7/9/1996				4.6				9	76	0.7		21.6		7.1		627	6
48	8/15/1996				4.6				9	102	0.5		20.0		5.8		733	2
48	9/10/1996				5.8				15	24	0.7		8.0		0.9		110	4
48	11/20/1996				5.6				7	14	0.2		4.6		1.3		132	2
48	1/23/1997				4.6				9	58	0.9		11.0		3.6		300	20
48	2/27/1997				4.6				8	22	0.6		7.9		2.2		207	4
48	3/19/1997				4.6				10	54	0.6		11.7		4.3		402	2
48	5/20/1997				4.6				9	70	0.3		14.5		4.1		417	2
48	8/6/1997				4.4				7	94	4.7		26.6		8.0		703	12
48	10/9/1997				4.7				10	72	0.5		18.3		4.1		576	2
48	1/7/1998				4.7				10	24	0.2		12.0		3.6		331	2
48	5/14/1998				4.7				9	48	0.2		11.7		3.7		332	2
48	3/30/2000	Measured	1270		5.0				9	5	0.2		8.9		0.9		296	2
48	5/10/2000	Measured	1050		4.9				10	15	0.6		14.5		1.7		366	2
48	11/20/2000			6.5	6.5	1173	2		27	0	1.8		13.2		0.3		644	13
48	2/22/2001				6.3				20	0	0.4		6.4		0.3		251	2

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Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
48	3/29/2001				6.0				18	0	0.2		6.4		0.3		261	2
48	4/5/2001	Measured	1000		6.4				22	0	0.2		6.2		0.3		288	2
48	4/20/2001			6.3	6.3	462	8		10	0	0.1	0.1	4.4	4.2	0.1	0.0	234	5
48	5/8/2001				6.3				22	0	0.3		7.8		0.3		309	2
48	6/22/2001				6.4				28	41	0.9		11.2		0.3		404	2
48	7/11/2001				6.5				32	0	1.0		13.3		0.3		528	6
48	8/6/2001				6.6	1068			50	0	0.9		11.5		0.0		739	6
48	8/30/2001				6.5				58	0	1.1		10.7		0.3		642	8
48	10/18/2001				6.5				42	0	1.7		11.8		0.3		669	8
48	11/8/2001			6.8	6.6	1177	10		24	0	1.1	0.7	11.8	11.7	0.5	0.2	770	9
48	3/7/2002			6.8	6.6	622			12	0	0.3	0.2	4.9	4.9	0.1	0.0	296	1
48	3/13/2002				6.2				24	23	0.4		5.2		0.3		278	2
48	4/30/2002				5.9				13	45	0.2		6.6		0.3		298	2
48	7/25/2002				6.7				34	0	0.8		16.9		0.3		696	10
48	10/8/2002				6.8				42	0	1.5		12.2		0.3		804	10
48	10/14/2002			7.0	6.7	1335	10	30	28	1	1.1	0.7	12.8	12.5	0.1	0.1	933	9
48	3/14/2003				6.3				11	32	0.2		4.4		0.3		167	2
48	4/24/2003			6.5	6.4	827	10		11	-4	0.3	0.2	6.5	6.5	0.1	0.1	436	3
48	6/17/2003				6.0				18	16	0.2		4.0		0.3		267	2
48	6/30/2003			6.7	6.6	857	22	22	15	-8	0.4	0.1	6.3	6.2	0.1	0.0	528	1
48	7/23/2003			6.7	6.4	853	24	13	15	-5	0.4	0.1	10.3	10.2	0.1	0.1	475	4
48	8/28/2003			6.8	6.9	840	25	19	18	-8	0.4	0.1	11.4	11.2	0.1	0.1	555	6
48	9/11/2003				6.7				19	0	0.3		8.7		0.3		426	4
48	10/29/2003			6.8	6.2	1294	8	8	7	2	0.3	0.2	9.6	9.4	0.2	0.1	369	2
48	10/30/2003				6.5				15	0	0.2		9.0		0.3		297	16
48	3/23/2004				5.4				8	45	0.3		6.5		1.1		254	10
48	3/25/2004			5.7	5.5	550		5	3	8	0.4	0.3	6.5	6.4	1.1	0.7	225	5
48	6/4/2004				6.8				20	40	0.3		7.8		0.3		490	2

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48	6/8/2004			6.7	6.4	857		13	12	-1	0.2	0.1	6.1	5.9	0.1	0.1	492	2
48	7/20/2004			7.0	6.4	910	23	19	16	-5	0.4	0.4	6.3	6.1	0.1	0.0	533	4
48	8/20/2004				6.4				17	25	0.3		5.2		0.3		233	2
48	9/1/2004			6.7	6.5	516	19	16	10	1	0.3	0.1	3.0	3.0	0.0	0.0	283	1
48	11/4/2004				6.9				23	-73	0.5		9.6		0.3		431	2
Min			1000	5.7	4.4	462	2	5	3	-73	0.1	0.1	2.7	3.0	0.0	0.0	93	1
Max			1270	7.0	6.9	1335	25	30	58	124	4.7	0.7	33.8	12.5	9.6	0.7	941	20
Avg			1107	6.6	5.7	889	15	16	16	27	0.7	0.3	11.5	7.6	2.0	0.1	444	5
Range			270	1.3	2.5	873	23	25	55	197	4.6	0.6	31.1	9.5	9.6	0.7	848	19

Description: Seaton Creek at McJunkin Road sampled at bridge; ~ 1/2 mile Downstream of the De Sale Restoration Area; Upstream of the Erico Briridge Restoration Area.

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Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
19.1	2/21/1996				5.0				8	22	3.1		7.4		1.0		207	3
19.1	3/13/1996				5.0				8	68	7.1		12.8		1.4		356	3
19.1	4/16/1996				4.8				8	38	3.9		13.3		2.2		419	3
19.1	5/8/1996				5.0				8	74	5.2		10.5		1.0		406	3
19.1	6/18/1996				4.1				4	122	11.1		22.7		1.1		720	12
19.1	7/9/1996				4.2				6	82	11.9		23.9		0.8		641	2
19.1	8/15/1996				3.7				0	84	4.2		25.2		0.8		692	2
19.1	9/10/1996				4.2				5	44	0.8		12.5		0.7		364	12
19.1	10/15/1996				4.4				6	56	4.3		17.0		0.6		561	2
19.1	11/19/1996				5.1				8	40	4.2		11.4		0.9		339	20
19.1	1/23/1997				4.8				8	56	4.4		11.2		1.4		352	48
19.1	2/27/1997				4.8				9	34	2.8		9.0		1.3		270	12
19.1	3/19/1997				5.0				10	42	6.0		10.5		1.5		368	2
19.1	8/5/1997				3.5				0	116	4.0		29.7		1.3		756	2
19.1	10/9/1997				4.2				5	46	1.5		13.7		0.8		453	2
19.1	1/7/1998				4.7				8	22	2.1		10.7		1.0		364	2
19.1	5/14/1998				4.7				8	42	4.4		11.5		0.9		396	3
19.1	12/7/1999				6.0				14	22	1.1		9.6		0.3		399	4
19.1	2/10/2000				5.7				17	52	3.2		16.9		0.3		577	6
19.1	9/14/2000				5.9				17	13	1.6		12.7		0.3		488	3
19.1	11/17/2000				6.4				24	0	1.3		5.3		0.3		560	3
19.1	2/22/2001				6.4				19	0	1.0		4.0		0.3		261	2
19.1	3/29/2001				5.9				17	3	2.8		5.8		0.3		283	2
19.1	5/8/2001				6.0				17	22	4.1		8.4		0.3		395	2
19.1	7/11/2001				6.2				18	42	3.6		12.3		0.3		485	6
19.1	8/6/2001				6.1	1132			14	18	3.3		14.7		0.1		790	4
19.1	10/18/2001				6.6				34	0	1.8		4.1		0.3		627	6
19.1	11/8/2001			6.0	5.2	1610	14		4	96	15.7	15.3	17.5	16.0	0.8	0.5	1093	7

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Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
19.1	3/7/2002			6.2	6.3	715			10	2	5.4	4.9	5.8	5.8	0.2	0.0	378	3
19.1	3/13/2002				6.5				22	0	5.6		6.3		0.3		298	6
19.1	4/30/2002				5.7				14	90	27.2		8.6		0.3		478	28
19.1	7/25/2002				6.0				28	65	32.0		17.9		0.3		1159	12
19.1	10/8/2002				6.1				20	105	14.0		13.4		0.3		725	4
19.1	10/14/2002			4.7	4.3	1568	11		0	94	34.1	26.5	25.7	22.0	0.8	0.4	955	7
19.1	3/18/2003				6.1				13	29	4.7		3.6		0.3		222	4
19.1	6/17/2003				6.1				21	31	3.6		3.7		0.3		273	4
19.1	7/23/2003			7.1	6.5	870	25	35	29	-19	1.9	1.3	3.2	3.2	0.1	0.1	523	6
19.1	7/30/2003				6.8				31	0	0.9		3.7		0.3		216	2
19.1	9/16/2003				6.8				56	0	0.7		3.8		0.3		477	2
19.1	10/30/2003				6.8				46	0	4.4		4.7		0.3		293	4
19.1	10/30/2003			7.1	6.6	902	12	43	39	-24	1.6	1.3	4.3	4.2	0.1	0.1	528	6
19.1	3/23/2004				6.7				21	22	1.3		5.0		0.3		259	10
19.1	3/25/2004			6.6	4.9	593		19	7	31	1.3	1.3	3.9	3.8	0.1	0.0	251	5
19.1	6/8/2004			6.4	6.6	1070	23	32	36	-21	1.7	1.7	2.9	2.7	0.2	0.0	605	4
19.1	6/16/2004				7.1				42	3	0.7		3.8		0.3		358	6
19.1	7/20/2004			7.0	6.8	1072	23	39	43	-29	3.0	1.1	2.9	2.4	0.2	0.1	681	4
19.1	8/20/2004				6.4				21	28	0.8		1.7		0.3		189	2
19.1	9/1/2004			7.2	6.8	600	23	23	18	-5	1.0	0.6	1.7	1.5	0.1	0.1	344	1
19.1	11/5/2004				6.3				35	8	0.5		5.1		0.3		383	2
Min				4.7	3.5	593	11	19	0	-29	0.5	0.6	1.7	1.5	0.1	0.0	189	1
Max				7.2	7.1	1610	25	43	56	122	34.1	26.5	29.7	22.0	2.2	0.5	1159	48
Avg				6.5	5.6	1013	19	32	17	34	5.4	6.0	10.1	6.8	0.5	0.1	474	6
Range				2.5	3.6	1017	14	24	56	151	33.5	25.9	28.1	20.4	2.1	0.5	970	47

Description: Seaton Creek; Downstream of sampling point 48 and below the Erico Bridge Restoration Area; Sampled at North Erico (T-504) bridge.

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
19	5/3/1994				5.0				11	68	10.0		19.0		3.1		512	3
19	11/2/1994				4.1				4	34	1.0		7.9		0.7		232	14
19	3/22/1995				5.0				10	38	6.6		14.1		1.4		428	3
19	6/7/1995				5.1				9	56	6.3		11.0		0.5		358	8
19	6/29/1995				3.8				0	38	2.1		14.1		0.7		395	14
19	8/22/1995				3.4				0	96	2.7		25.9		0.6		767	6
19	9/12/1995				3.5				0	100	2.8		28.1		0.8		814	6
19	10/11/1995				3.6				0	62	1.5		22.9		0.7		715	3
19	11/14/1995				4.2				5	28	0.8		9.2		0.8		285	24
19	2/21/1996				4.4				5	20	1.8		6.6		1.0		193	3
19	3/14/1996				4.2				7	74	2.7		12.1		1.4		416	3
19	4/16/1996				4.0				2	30	0.9		12.6		1.7		393	3
19	5/8/1996				3.9				0	70	0.7		10.2		1.0		391	3
19	6/18/1996				3.5				0	114	2.2		19.1		1.0		687	3
19	7/10/1996				3.6				0	74	1.5		19.1		0.9		610	2
19	8/16/1996				3.7				0	76	1.0		17.1		0.8		541	2
19	9/11/1996				3.7				0	48	0.8		14.4		0.5		424	2
19	10/16/1996				3.9				0	60	0.9		17.0		0.8		534	2
19	11/19/1996				4.1				3	40	0.9		11.1		0.9		327	38
19	1/28/1997				4.3				7	40	1.5		8.8		1.1		310	2
19	2/12/1997				4.2				6	38	1.6		9.9		1.0		346	2
19	3/19/1997				4.2				5	32	1.4		9.5		1.2		343	2
19	5/20/1997				3.8				0	56	0.6		12.8		1.1		545	2
19	8/5/1997				3.4				0	104	3.3		23.4		0.8		672	2
19	10/10/1997				3.7				0	56	1.0		18.0		0.7		558	2
19	1/7/1998				4.0				2	24	1.1		12.0		1.1		413	2
19	5/14/1998				4.1				3	44	1.3		11.3		0.9		392	2
19	6/17/1999				3.7				0	52	1.3		19.7		0.6		614	8

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
19	6/28/2000				5.8				14	10	1.5		9.1		0.3		349	2
19	4/5/2001	Measured	1500		5.4				11	14	2.8		8.0		0.3		387	2
19	10/17/2003				6.9				36	0	1.5		3.1		0.3		287	2
19	6/8/2004			7.3	6.8	1057	23	50	42	-28	0.7	0.3	2.6	2.4	0.1	0.0	583	4
Min			1500	7.3	3.4	1057	23	50	0	-28	0.6	0.3	2.6	2.4	0.1	0.0	193	2
Max			1500	7.3	6.9	1057	23	50	42	114	10.0	0.3	28.1	2.4	3.1	0.0	814	38
Avg			1500	7.3	4.3	1057	23	50	6	49	2.1	0.3	13.7	2.4	0.9	0.0	463	5
Range			0	0.0	3.5	0	0	0	42	142	9.4	0.0	25.5	0.0	3.0	0.0	621	37

Description: Seaton Creek; Downstream of 19.1 before confluencing with Murrin Run

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
T2	1/29/1969				3.5				0	138	15.8						384	
T2	5/15/1969				3.9				0	36	2.3						202	
T2	8/20/1969				4.0				0	26	3.3						182	
T2	9/24/1969				3.6				0	44	3.0						346	
T2	10/22/1969				4.6				10	18	1.7						144	
Min					3.5				0	18	1.7						144	
Max					4.6				10	138	15.8						384	
Avg					3.9				2	52	5.2						252	
Range					1.1				10	120	14.1						240	

Description: Seaton Creek; Near mouth; Operation Scarlift monitoring point from report SL-110

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
68	9/28/1994				5.9				13	3	0.8		12.2		0.5		406	3
68	6/29/1995				5.8				12	13	1.0		10.8		0.5		432	18
68	8/22/1995				6.0				24	17	0.3		13.7		0.5		626	3
68	9/12/1995				6.3				28	15	0.3		12.8		0.5		683	4
68	10/11/1995				6.2				24	11	0.3		11.4		0.5		581	3
68	11/7/1995				6.1				19	5	0.8		8.8		0.5		436	3
68	11/15/1995				5.7				11	6	1.9		3.5		1.0		163	3
68	11/20/1995				5.9				12	11	0.6		6.4		0.7		272	4
68	12/5/1995				6.5				20	0	0.8		7.1		0.7		335	3
68	2/21/1996				4.9				7	20	1.9		6.0		1.9		204	14
68	2/22/1996				4.9				7	13	1.3		6.3		1.8		226	4
68	3/14/1996				5.3				10	60	1.8		9.3		2.1		347	14
68	3/27/1996				5.4				9	36	1.7		9.1		1.9		330	3
68	4/18/1996				5.0				8	30	1.0		9.2		1.7		389	3
68	5/8/1996				5.4				8	56	0.8		7.4		1.0		320	3
68	5/30/1996				5.5				10	24	0.8		12.6		0.7		453	3
68	6/18/1996				5.4				10	46	1.7		14.0		0.9		554	24
68	6/27/1996				5.8				11	13	0.9		8.8		0.6		312	3
68	7/10/1996				6.2				14	24	0.5		11.8		0.3		547	2
68	7/31/1996				5.9				12	36	0.5		14.1		0.3		590	2
68	10/16/1996				6.3				22	16	0.5		10.0		0.3		488	4
68	11/15/1996				6.2				13	3	0.7		0.3		0.3		71	2
68	11/26/1996				5.8				12	24	1.7		7.4		1.1		268	2
68	1/6/1997				5.2				9	2	1.1		9.1		2.0		322	6
68	3/12/1997				5.5				10	24	1.0		7.2		1.7		296	14
68	9/30/1997				6.0				18	0	1.0		0.7		0.3		180	2

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
Min					4.9				7	0	0.3		0.3		0.3		71	2
Max					6.5				28	60	1.9		14.1		2.1		683	24
Avg					5.7				14	20	1.0		8.8		0.9		378	6
Range					1.6				21	60	1.6		13.8		1.9		612	23

Description: Seaton Creek; Sampled before confluence with main branch of Slippery Rock Creek; Final downstream point of Seaton Creek; Essentially the same as sampling point 68.1

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
68.1	10/10/1997				5.9				22	13	0.4		11.7		0.3		538	4
68.1	1/8/1998				5.4				11	11	1.3		9.4		1.3		354	2
68.1	5/14/1998				5.5				10	24	1.1		9.4		1.1		387	6
68.1	10/14/1998				6.3				22	0	0.6		10.9		0.3		519	2
68.1	12/7/1999				6.3				24	8	1.1		8.7		0.3		464	2
68.1	2/10/2000				6.3				36	17	4.2		11.3		0.7		873	8
68.1	3/30/2000	Measured	3200		5.7				28	0	1.3		6.3		0.3		352	4
68.1	5/10/2000	Measured	5200		6.1				15	3	1.4		10.4		0.3		395	2
68.1	6/28/2000				6.2				20	0	1.0		7.8		0.3		362	2
68.1	9/14/2000				6.2				24	5	0.8		10.4		0.3		536	2
68.1	11/17/2000				6.6				34	0	1.8		6.6		0.3		595	4
68.1	2/22/2001				6.6				28	0	2.4		4.0		0.3		295	8
68.1	3/29/2001				6.1				22	0	2.2		5.5		0.3		328	4
68.1	4/5/2001	Measured	4100		6.4				24	0	1.8		5.8		0.3		359	3
68.1	5/8/2001	Measured	3300		6.5				26	0	1.3		7.5		0.3		408	6
68.1	7/11/2001				6.6				28	0	1.3		9.5		0.3		464	4
68.1	10/18/2001				6.7				40	0	1.1		5.9		0.3		764	16
68.1	3/13/2002				6.5				28	0	2.1		5.0		0.3		327	4
68.1	4/30/2002				5.8				13	61	7.7		7.7		0.3		401	10
68.1	7/25/2002				6.3				19	48	12.4		15.8		0.3		838	2
68.1	10/8/2002				6.6				26	0	6.2		11.2		0.3		831	12
68.1	3/18/2003				6.3				13	26	2.4		3.9		0.6		240	4
68.1	6/17/2003				6.3				27	23	2.9		4.3		0.3		288	4
68.1	9/10/2003				7.0				38	0	2.8		5.0		0.3		389	4
68.1	10/31/2003				7.0				36	0	2.8		5.9		0.3		380	10
68.1	3/23/2004				6.7				20	24	2.2		5.4		1.0		237	14
68.1	6/16/2004				6.9				34	16	4.5		6.0		0.3		352	6
68.1	8/17/2004				6.6				44	-2	2.3		4.8		0.3		505	2

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
68.1	11/3/2004				6.8				37	12	1.6		7.0		0.3		446	4
Min			3200		5.4				10	-2	0.4		3.9		0.3		237	2
Max			5200		7.0				44	61	12.4		15.8		1.3		873	16
Avg			3950		6.4				26	10	2.6		7.7		0.4		456	5
Range			2000		1.6				34	62	12.0		11.9		1.0		636	14

Description: Seaton Creek; Farthest downstream sampling point before confluence with Slippery Rock Creek; Essentially the same as sampling point 68

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered

Erico Bridge Water Quality Database

Sample Point	Date	Method of Flow Meas.	Flow (gpm)	Field pH	Lab pH	Spec. cond. (umhos/cm)	Field Temp (C)	Alk. (F) (mg/L)	Alk. (L) (mg/L)	Acid. (mg/L)	Fe (mg/L)	D. Fe (mg/L)	Mn (mg/L)	D. Mn (mg/L)	Al (mg/L)	D. Al (mg/L)	Sulfate (mg/L)	Susp. Solids (mg/L)
65	10/20/1994				5.9				12	0	0.5		1.1		0.5		177	3
65	5/4/1995				6.2				13	24	1.1		4.7		0.5		153	16
65	8/29/1995				6.2				28	7	0.4		7.2		0.5		408	3
65	9/27/1995				6.5				24	0	0.6		6.2		0.5		404	3
65	10/12/1995				6.2				28	9	0.8		6.2		0.2		347	8
65	12/12/1995				6.1				22	12	1.1		4.4		0.5		273	3
65	8/15/1996				6.0				22	4	1.0		5.3		0.3		278	2
65	10/15/1997	Measured	3200		6.5				32	0	0.8		5.9		0.3		358	4
65	12/11/1997				5.8				15	7	0.4		2.5		0.3		165	2
65	11/23/1999				6.2				17	0	0.6		0.8		0.3		168	2
65	7/5/2000				6.5				24	0	2.1		0.6		0.3		90	2
65	2/22/2001				6.3				14	0	0.3		0.5		0.3		95	4
65	4/18/2001				6.2				11	0	0.4		0.3		0.3		69	2
65	2/21/2002				6.1				14	37	0.4		0.9		0.3		101	2
65	1/7/2003				6.2				11	37	0.5		0.7		0.3		73	2
65	4/30/2003				6.6				17	0	1.2		1.2		0.3		143	2
65	7/29/2003				6.3				22	30	0.8		0.6		0.3		104	2
Min			3200		5.8				11	0	0.3		0.3		0.2		69	2
Max			3200		6.6				32	37	2.1		7.2		0.5		408	16
Avg			3200		6.2				19	10	0.8		2.9		0.3		200	3
Range			0		0.8				21	37	1.8		6.9		0.3		339	15

Description: Slippery Rock Creek; Main branch; Located behind the Boyers Sportsmen's Building; Final downstream sampling point of Slippery Rock Creek Headwaters Target Area Comprehensive Mine Reclamation Strategy

For laboratory reported values that were noted as less than the minimum detection limit for that parameter, one half of the minimum detection limit was entered