

TABLE: 47
 CYPRUS YAMPA VALLEY COAL CORPORATION: FOIDEL CREEK MINE
 1996 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

SITE: 69

DATUM = 6586.44'

Field Parameters	JUN	JUL	AUG	SEP
	6/4/1996	7/2/1996	8/5/1996	9/10/1996
Elevation (ft above msl)	6587.63	6587.15	6586.46	6587.14
Water Level	-1.19	-0.71	-0.02	-0.70
Flow (cfs)	75.5	26.1	3.8	13.5
Conductivity (umhos/cm)	460	520	660	620
pH	8.77	6.900	9.010	8.78
Temperature (C°)	15.8	18.2	22.8	22.0
Lab Parameters				
Cadmium, total recoverable (mg/l)	-0.0005	-0.0010	-0.0005	-0.0005
Calcium, dissolved (mg/l)	45.0	56.2	67.0	63.4
Iron, total recoverable (mg/l)	1.04	0.78	0.22	0.24
Magnesium, dissolved (mg/l)	26.0	32.9	40.8	38.0
Manganese, total recoverable (mg/l)	0.072	0.085	0.022	0.036
Mercury, total recoverable (mg/l)	0.0002	-0.0002	-0.0002	-0.0002
Molybdenum, total recoverable (mg/l)	-0.01	-0.01	-0.01	-0.01
Selenium, total recoverable (mg/l)	-0.001	-0.001	-0.001	-0.001
Silver, total recoverable (mg/l)	-0.0005	-0.0005	-0.0005	-0.0005
Sodium, dissolved (mg/l)	8.0	10.7	12.0	12.0
Zinc, total recoverable (mg/l)	0.02	0.02	0.02	-0.01
Bicarbonate as HCO3 (mg/l)	108	136	136	117
Carbonate as CO3 (mg/l)	3	-2	21	11
Hydroxide as OH (mg/l)	-2	-2	-2	-2
Total Alkalinity as CaCO3 (mg/l)	94	112	147	114
Ammonia as N, un-ionized (mg/l)	-0.05	-0.05	-0.05	-0.05
Conductivity @ 25 C° (umhos/cm)	434	522	639	608
Hardness as CaCO3 (mg/l)	219	276	335	315
Nitrate as N, dissolved (mg/l)	-0.02	0.03	0.02	0.03
Nitrate/Nitrite as N (mg/l)	-0.02	0.03	0.02	0.03
Nitrite as N, dissolved (mg/l)	-0.010	-0.010	-0.010	-0.014
Nitrogen, ammonia (mg/l)	0.05	-0.05	0.05	-0.05
Phosphorus, ortho diss (mg/l)	-0.005	0.023	0.006	0.007
Solids, total dissolved (mg/l)	290	340	470	440
Solids, total suspended (mg/l)	12	8	-5	6
SAR in Water	0.23	0.28	0.28	0.29
Sulfate (mg/l)	130	160	220	350

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 1997 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

SITE: 69 (TROUT CREEK BELOW MIDDLE CREEK)

DATUM = 6586.44'

Field Parameters			JUN	JUL	AUG	SEP
			12-Jun-97	11-Jul-97	07-Aug-97	11-Sep-97
Water level			-2.82	-1.23	-1.21	-0.89
Flow (cfs)			132.58	60.15	58.72	31.9
Temperature	Field	degrees c	14.9	19.3	21.3	18.3
Conductivity	Field	umhos/cm	350	700	730	650
Ph	Field	ph	8.51	8.32	8.61	8.72
Lab Parameters						
Conductivity	Lab	umhos/cm	315	622	722	611
Ph	Lab	ph	8.1	8.4	8.7	8.7
Solids	Dissolved	mg/l	230	560	510	460
Solids	Suspended	mg/l	60	-5	20	8
Alkalinity	Total	mg/l	87	150	146	135
Hardness	Total	mg/l	167	361	328	316
Calcium	Dissolved	mg/l	35.4	72.9	65.1	63.4
Magnesium	Dissolved	mg/l	19	43.4	40.3	38.4
Sodium	Dissolved	mg/l	6	13.6	12.2	11.5
Sar	Not applicable	undefined	0.2	0.31	0.29	0.28
Sulfate	Not applicable	mg/l	90	220	250	200
Bicarbonate	As hco3	mg/l	106	178	153	142
Carbonate	As co3	mg/l	-2	2	13	11
Hydroxide	As oh	mg/l	-2	-2	-2	-2
Cadmium	Total recov	ug/l	-0.5	-0.5	-0.5	-0.5
Mercury	Total recov	ug/l	-0.2	-0.2	-0.2	-0.2
Selenium	Total recov	ug/l	-1	-1	-1	-1
Silver	Total recov	ug/l	-0.5	-0.5	-0.5	-0.5
Zinc	Total recov	ug/l	30	10	20	10
Iron	Total recov	ug/l	3110	490	680	350
Manganese	Total recov	ug/l	96	57	67	45
Molybdenum	Total recov	ug/l	-10	-10	-10	-10
Nitrogen	Ammium-total	mg/l	0.06	0.1	0.06	-0.05
Nitrogen	Ammia-free	mg/l	-0.01	0.01	-0.01	-0.01
Nitrogen	Nitrate	mg/l	-0.02	-0.02	-0.02	-0.02
Nitrogen	Nitrite	mg/l	-0.01	-0.01	-0.01	-0.01
Nitrogen	No3+no2	mg/l	-0.02	-0.02	-0.02	-0.02
Phosphate	Ortho-diss	mg/l	0.013	-0.005	0.006	-0.005

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 CYPRUS YAMPA VALLEY COAL CORPORATION: FOIDEL CREEK MINE
 1998 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

SITE: 69 (TROUT CREEK BELOW MIDDLE CREEK)

DATUM = 6586.44'

Field Parameters			JUN	JUL	AUG	SEP
			16-Jun-98	13-Jul-98	07-Aug-98	14-Sep-98
Water level			-1.64	-1.06	-75	-64
Flow (cfs)			85.26	47.16	16.96	3.11
Temperature	Field	degrees c	14.5	23.9	19.1	20.3
Conductivity	Field	umhos/cm	540	470	660	660
Ph	Field	ph	8.37	8.23	8.39	8.56
Lab Parameters						
Conductivity	Lab	umhos/cm	532	682	649	663
Ph	Lab	ph	8.2	8.8	8.5	8.6
Solids	Dissolved	mg/l	340	460	490	510
Solids	Suspended	mg/l	8	-5	12	16
Alkalinity	Total	mg/l	130	170	155	150
Hardness	Total	mg/l	261	348	350	330
Calcium	Dissolved	mg/l	55.1	71.5	71.8	65.3
Magnesium	Dissolved	mg/l	29.9	41.1	41.5	40.6
Sodium	Dissolved	mg/l	11.2	15.9	14.6	16.4
Sar	Not applicable	undefined	0.3	0.37	0.34	0.39
Sulfate	Not applicable	mg/l	160	190	210	190
Bicarbonate	As hco3	mg/l	159	171	171	157
Carbonate	As co3	mg/l	-2	18	9	13
Hydroxide	As oh	mg/l	-2	-2	-2	-2
Cadmium	Total recov	ug/l	-0.5	-0.5	-0.5	-0.5
Mercury	Total recov	ug/l	-0.2	-0.2	-0.2	-0.2
Selenium	Total recov	ug/l	-1	-1	-1	-1
Silver	Total recov	ug/l	-0.5	-0.5	-0.5	-0.5
Zinc	Total recov	ug/l	-10	-10	70	-10
Iron	Total recov	ug/l	660	250	680	460
Manganese	Total recov	ug/l	57	41	60	45
Molybdenum	Total recov	ug/l	-10	-10	-20	-10
Nitrogen	Ammonium-total	mg/l	-0.05	0.07	-0.05	0.06
Nitrogen	Ammonia-free	mg/l	-0.01	-0.01	-0.01	-0.01
Nitrogen	Nitrate	mg/l	0.02	0.11	-0.02	-0.02
Nitrogen	Nitrite	mg/l	-0.01	-0.01	-0.01	-0.01
Nitrogen	No3+no2	mg/l	0.02	0.11	-0.02	-0.02
Phosphate	Ortho-diss	mg/l	0.009	0.048	0.018	0.012

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 COLORADO YAMPA COAL COMPANY: FOIDEL CREEK MINE
 1999 ANNUAL HYDROLOGY REPORT
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SITE: 69 (TROUT CREEK BELOW MIDDLE CREEK)

DATUM = 6586.44'

Field Parameters			JUN	JUL	AUG	SEP
			14-Jun-99	19-Jul-99	20-Aug-99	13-Sep-99
Water level				-0.32	-0.69	-0.67
Temperature	Field	degrees c	16	18.6	22.2	17
Conductivity	Field	umhos/cm	320	600	520	490
Ph	Field	ph	8.62	8.57	8.6	8.68
Lab Parameters						
Conductivity	Lab	umhos/cm	296	550	491	486
Ph	Lab	ph	7.2	8.3	8.2	8.3
Solids	Dissolved	mg/l	170	400	400	310
Solids	Suspended	mg/l	16	-5	8	-5
Alkalinity	Total	mg/l	72	157	139	123
Hardness	Total	mg/l	127	290	247	227
Calcium	Dissolved	mg/l	27.3	61	52.3	47.2
Magnesium	Dissolved	mg/l	14.4	33.4	28.4	26.6
Sodium	Dissolved	mg/l	8.2	13.7	12.9	12.2
Sar	Not applicable	undefined	0.32	0.35	0.36	0.35
Sulfate	Not applicable	mg/l	70	160	130	120
Bicarbonate	As hco3	mg/l	88	191	169	134
Carbonate	As co3	mg/l	-2	-2	-2	8
Hydroxide	As oh	mg/l	-2	-2	-2	-2
Cadmium	Total recov	ug/l	-0.5	-0.5	-0.5	-0.6
Mercury	Total recov	ug/l	-0.2	-0.2	-0.2	-0.2
Selenium	Total recov	ug/l	-1	-1	-1	-1
Silver	Total recov	ug/l	-0.5	-0.5	-0.5	-0.5
Zinc	Total recov	ug/l	-10	-10	-10	-10
Iron	Total recov	ug/l	1040	420	540	460
Manganese	Total recov	ug/l	-61	63	40	28
Molybdenum	Total recov	ug/l	-10	-10	-10	-10
Phosphate	Not applicable	mg/l	0.04	-0.03	-0.03	-0.03
Nitrogen	Ammium-total	mg/l	-0.01	-0.01	-0.01	-0.01
Nitrogen	Ammia-free	mg/l	-0.05	-0.05	-0.05	-0.05
Nitrogen	Nitrate	mg/l	-0.02	-0.02	-0.02	-0.02
Nitrogen	Nitrite	mg/l	-0.01	-0.01	-0.01	-0.01
Nitrogen	No3+no2	mg/l	-0.02	-0.02	-0.02	-0.02
Phosphate	Ortho-diss	mg/l	0.015	-0.009	0.008	-0.005

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 TWENTYMILE COAL COMPANY
 2000 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	DEC												
				12/1/1999	12/2/1999	12/3/1999	12/6/1999	12/7/1999	12/8/1999	12/10/1999	12/13/1999	12/15/1999	12/17/1999	12/20/1999	12/22/1999	12/27/1999
Field parameters	Date															
	Water level		ft													
	Flow		cfs													
Physical properties	Temperature	Field	degrees c	0.4	0.6	0.9	0.2	0	0	0	0.2					
	Conductivity	Field	umhos/cm	990.3	949.5	717.1	1263.5	1333.97	640.38	1138.8	1016.49	1042	939	744	709	625
		Lab	umhos/cm												695	
	Ph	Field	ph	8.45		8.63	8.28	8.33	8.28	8.26	8.23	7.96	7.94	7.9	8.01	7.8
		Lab	ph												7.36	
	Solids	Suspended		mg/l												
Total-diss			mg/l													
Cations	Calcium	Dissolved	mg/l													
	Magnesium	Dissolved	mg/l													
	Sodium	Dissolved	mg/l													
	Sar	Not applicable	undefined													
Anions	Bicarbonate	As hco3	mg/l													
	Carbonate	As co3	mg/l													
	Sulfate	Not applicable	mg/l											200		
Primary	Cadmium	Total recov	ug/l													
	Mercury	Total recov	ug/l													
	Selenium	Total recov	ug/l													
Secondary	Silver	Total recov	ug/l													
	Zinc	Total recov	ug/l													
	Iron	Total recov	ug/l													
	Manganese	Total recov	ug/l													
Trace metals	Molybdenum	Total recov	ug/l													
Nutrients	Nitrogen	Amium-total	mg/l													
		Amnia-free	mg/l													
		Nitrate	mg/l													
		Nitrite	mg/l													
		No3+no2	mg/l													
	Phosphate	Ortho-diss	mg/l													

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 TWENTYMILE COAL COMPANY
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 WATER QUALITY MONITORING DATA

DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JAN													
				1/4/2000	1/7/2000	1/10/2000	1/12/2000	1/14/2000	1/17/2000	1/19/2000	1/21/2000	1/24/2000	1/25/2000	1/26/2000	1/27/2000	1/28/2000	1/31/2000
Field parameters	Date																
	Water level		ft														
	Flow		cfs														
Physical properties	Temperature	Field	degrees c												29.9		
	Conductivity	Field	umhos/cm	598	591	584	585	616	600	588	647	653	668	629	619	660	718
		Lab	umhos/cm			593			595			680					712
	Ph	Field	ph	7.77	7.8	7.97	7.8	7.77	7.77	7.82	8	7.94	8.16	7.83	7.94	7.88	8
		Lab	ph														
	Solids	Suspended		mg/l													
Total-diss			mg/l														
Cations	Calcium	Dissolved	mg/l														
	Magnesium	Dissolved	mg/l														
	Sodium	Dissolved	mg/l														
	Sar	Not applicable	undefined														
Anions	Bicarbonate	As hco3	mg/l														
	Carbonate	As co3	mg/l														
	Sulfate	Not applicable	mg/l			169				158			182			191	
Primary	Cadmium	Total recov	ug/l														
	Mercury	Total recov	ug/l														
	Selenium	Total recov	ug/l														
Secondary	Silver	Total recov	ug/l														
	Zinc	Total recov	ug/l														
	Iron	Total recov	ug/l														
	Manganese	Total recov	ug/l														
Trace metals	Molybdenum	Total recov	ug/l														
Nutrients	Nitrogen	Ammonium-total	mg/l														
		Ammonia-free	mg/l														
		Nitrate	mg/l														
		Nitrite	mg/l														
		No3+no2	mg/l														
	Phosphate	Ortho-diss	mg/l														

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	FEB										
				2/2/2000	2/4/2000	2/7/2000	2/9/2000	2/11/2000	2/14/2000	2/15/2000	2/16/2000	2/21/2000	2/23/2000	2/27/2000
Field parameters	Date													
	Water level		ft											-0.47
	Flow		cfs											6.55
Physical properties	Temperature	Field	degrees c											21.4
	Conductivity	Field	umhos/cm	667	658	673	678	662	653	616	661	748	637	736
		Lab	umhos/cm			684			659			714		
	Ph	Field	ph	7.94	7.91	8	7.9	7.94	7.94	8.2	7.85	8.16	8.14	8.57
		Lab	ph											
	Solids	Suspended		mg/l										
Total-diss			mg/l											
Cations	Calcium	Dissolved	mg/l											
	Magnesium	Dissolved	mg/l											
	Sodium	Dissolved	mg/l											
	Sar	Not applicable	undefined											
Anions	Bicarbonate	As hco3	mg/l											
	Carbonate	As co3	mg/l											
	Sulfate	Not applicable	mg/l			220			265			221		
Primary	Cadmium	Total recov	ug/l											
	Mercury	Total recov	ug/l											
	Selenium	Total recov	ug/l											
Secondary	Silver	Total recov	ug/l											
	Zinc	Total recov	ug/l											
	Iron	Total recov	ug/l											
	Manganese	Total recov	ug/l											
Trace metals	Molybdenum	Total recov	ug/l											
Nutrients	Nitrogen	Ammonium-total	mg/l											
		Ammonia-free	mg/l											
		Nitrate	mg/l											
		Nitrite	mg/l											
		No3+no2	mg/l											
	Phosphate	Ortho-diss	mg/l											

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAR							APR					
				3/1/2000	3/3/2000	3/8/2000	3/15/2000	3/22/2000	3/27/2000	3/29/2000	3/31/2000	4/6/2000	4/7/2000	4/10/2000	4/11/2000	4/13/2000
Field parameters	Date															
	Water level		ft												-1.2	
	Flow		cfs												70.94	
Physical properties	Temperature	Field	degrees c									9.6	10.2	12.7	12.2	
	Conductivity	Field	umhos/cm	603	723	605	862	757	988	942	1012	820	897	950	987	974
		Lab	umhos/cm													
	Ph	Field	ph	8.14	8.26	8.07	8.12	8.18	8.39	8.12	8.37	8.08	7.95	8.7	8.54	8.72
		Lab	ph													
Solids	Suspended		mg/l													
	Total-diss		mg/l													
Cations	Calcium	Dissolved	mg/l													
	Magnesium	Dissolved	mg/l													
	Sodium	Dissolved	mg/l													
	Sar	Not applicable	undefined													
Anions	Bicarbonate	As hco3	mg/l													
	Carbonate	As co3	mg/l													
	Sulfate	Not applicable	mg/l													
Primary	Cadmium	Total recov	ug/l													
	Mercury	Total recov	ug/l													
	Selenium	Total recov	ug/l													
Secondary	Silver	Total recov	ug/l													
	Zinc	Total recov	ug/l													
	Iron	Total recov	ug/l													
	Manganese	Total recov	ug/l													
Trace metals	Molybdenum	Total recov	ug/l													
Nutrients	Nitrogen	Ammonium-total	mg/l													
		Ammonia-free	mg/l													
		Nitrate	mg/l													
		Nitrite	mg/l													
		No3+no2	mg/l													
	Phosphate	Ortho-diss	mg/l													

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CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	APR				MAY				
				4/17/2000	4/24/2000	4/25/2000	4/28/2000	5/1/2000	5/2/2000	5/3/2000	5/4/2000	5/5/2000
Field parameters	Date											
	Water level		ft									
	Flow		cfs									
Physical properties	Temperature	Field	degrees c	6.7	6.2	7.6	14.2	5.7	8.1	9.1	14.3	15
	Conductivity	Field	umhos/cm	1168	954	976	767	750	781	656	529	478.4
		Lab	umhos/cm									
	Ph	Field	ph	8.29	8.29	8.4	8.35	8.45	8.3	8.64	8.68	8.62
		Lab	ph									
	Solids	Suspended		mg/l								
Total-diss			mg/l									
Cations	Calcium	Dissolved	mg/l									
	Magnesium	Dissolved	mg/l									
	Sodium	Dissolved	mg/l									
	Sar	Not applicable	undefined									
Anions	Bicarbonate	As hco3	mg/l									
	Carbonate	As co3	mg/l									
	Sulfate	Not applicable	mg/l									
Primary	Cadmium	Total recov	ug/l									
	Mercury	Total recov	ug/l									
	Selenium	Total recov	ug/l									
Secondary	Silver	Total recov	ug/l									
	Zinc	Total recov	ug/l									
	Iron	Total recov	ug/l									
	Manganese	Total recov	ug/l									
Trace metals	Molybdenum	Total recov	ug/l									
Nutrients	Nitrogen	Ammonium-total	mg/l									
		Ammonia-free	mg/l									
		Nitrate	mg/l									
		Nitrite	mg/l									
		No3+no2	mg/l									
	Phosphate	Ortho-diss	mg/l									

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CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY												
				5/6/2000	5/7/2000	5/8/2000	5/15/2000	5/18/2000	5/22/2000	5/23/2000	5/24/2000	5/25/2000	5/27/2000	5/28/2000	5/30/2000	5/31/2000
Field parameters	Date															
	Water level		ft			-1.66	-1.24								-2.56	
	Flow		cfs			154.33	76.87								413.25	
Physical properties	Temperature	Field	degrees c	13.6	10	7.4	10.8	9.2	9.4	14.2	9.4	8.2	7	7.8	15.7	10.7
	Conductivity	Field	umhos/cm	436.6	416.1	440	521	476.3	414.6	288.5	218.3	216	272.7	258.6	220	177.8
		Lab	umhos/cm													
	Ph	Field	ph	8.64	8.65	8.36	8.66	8.84	8.83	8.19	7.98	8.06	8.06	7.8	8.49	8.08
		Lab	ph													
	Solids	Suspended		mg/l												
Total-diss			mg/l													
Cations	Calcium	Dissolved	mg/l													
	Magnesium	Dissolved	mg/l													
	Sodium	Dissolved	mg/l													
	Sar	Not applicable	undefined													
Anions	Bicarbonate	As hco3	mg/l													
	Carbonate	As co3	mg/l													
	Sulfate	Not applicable	mg/l			101	140			54					33	
Primary	Cadmium	Total recov	ug/l													
	Mercury	Total recov	ug/l													
	Selenium	Total recov	ug/l													
Secondary	Silver	Total recov	ug/l													
	Zinc	Total recov	ug/l													
	Iron	Total recov	ug/l													
	Manganese	Total recov	ug/l													
Trace metals	Molybdenum	Total recov	ug/l													
Nutrients	Nitrogen	Ammonium-total	mg/l													
		Ammonia-free	mg/l													
		Nitrate	mg/l													
		Nitrite	mg/l													
		No3+no2	mg/l													
	Phosphate	Ortho-diss	mg/l													

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUN										
				6/1/2000	6/2/2000	6/3/2000	6/4/2000	6/6/2000	6/7/2000	6/8/2000	6/9/2000	6/10/2000	6/13/2000	6/14/2000
Field parameters	Date													
	Water level		ft					-1.46						-0.99
	Flow		cfs					114.01						43.87
Physical properties	Temperature	Field	degrees c	15.5	12.4	9.2	9.3	14.3	18	14.8	14.6	19.9	17.3	11.5
	Conductivity	Field	umhos/cm	213.8	220.1	235.1	167.7	290	279.4	282.6	297.9	304.3	440	427.2
		Lab	umhos/cm											425
	Ph	Field	ph	8.33	8.34	8.3	8.3	8.48	8.53	8.38	8.4	8.47	8.42	8.42
		Lab	ph											8.2
	Solids	Suspended		mg/l										
Total-diss			mg/l											320
Cations	Calcium	Dissolved	mg/l											41.5
	Magnesium	Dissolved	mg/l											22.8
	Sodium	Dissolved	mg/l											9.22
	Sar	Not applicable	undefined											0.286
Anions	Bicarbonate	As hco3	mg/l											119
	Carbonate	As co3	mg/l											< 1.0
	Sulfate	Not applicable	mg/l					62						91
Primary	Cadmium	Total recov	ug/l											< 5.0
	Mercury	Total recov	ug/l											< 0.2
	Selenium	Total recov	ug/l											< 2.0
Secondary	Silver	Total recov	ug/l											< 5.0
	Zinc	Total recov	ug/l											8
	Iron	Total recov	ug/l											450
	Manganese	Total recov	ug/l											36
Trace metals	Molybdenum	Total recov	ug/l											< 50.0
Nutrients	Nitrogen	Ammium-total	mg/l											< 0.05
		Ammia-free	mg/l											< 0.05
		Nitrate	mg/l											< 0.02
		Nitrite	mg/l											< 0.02
		No3+no2	mg/l											< 0.02
	Phosphate	Ortho-diss	mg/l											0.02

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUN								
				6/17/2000	6/18/2000	6/20/2000	6/21/2000	6/23/2000	6/24/2000	6/25/2000	6/27/2000	6/28/2000
Field parameters	Date											
	Water level		ft				-0.98					-0.77
	Flow		cfs				42.75					22.92
Physical properties	Temperature	Field	degrees c	17.9	16.7	19.3	18.8	19.4	19.7	15.3	12.3	21.4
	Conductivity	Field	umhos/cm	468	479.4	417.2	501	534	548	544	566	615
		Lab	umhos/cm									
	Ph	Field	ph	8.26	8.54	8.51	8.54	8.49	8.48	8.3	8.33	8.49
		Lab	ph									
	Solids	Suspended		mg/l								
Total-diss			mg/l									
Cations	Calcium	Dissolved	mg/l									
	Magnesium	Dissolved	mg/l									
	Sodium	Dissolved	mg/l									
	Sar	Not applicable	undefined									
Anions	Bicarbonate	As hco3	mg/l									
	Carbonate	As co3	mg/l									
	Sulfate	Not applicable	mg/l									
Primary	Cadmium	Total recov	ug/l									
	Mercury	Total recov	ug/l									
	Selenium	Total recov	ug/l									
Secondary	Silver	Total recov	ug/l									
	Zinc	Total recov	ug/l									
	Iron	Total recov	ug/l									
	Manganese	Total recov	ug/l									
Trace metals	Molybdenum	Total recov	ug/l									
Nutrients	Nitrogen	Ammonium-total	mg/l									
		Ammonia-free	mg/l									
		Nitrate	mg/l									
		Nitrite	mg/l									
		No3+no2	mg/l									
	Phosphate	Ortho-diss	mg/l									

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUL									
				7/1/2000	7/3/2000	7/5/2000	7/10/2000	7/12/2000	7/14/2000	7/17/2000	7/20/2000	7/25/2000	7/28/2000
Field parameters	Date												
	Water level		ft			-0.54			-0.57			-0.51	
	Flow		cfs			9.11			10.44			7.92	
Physical properties	Temperature	Field	degrees c	20.5	25.3	21.7	24.6	22	20.5	17.8	26.1	24.7	26.2
	Conductivity	Field	umhos/cm	711	723	781	708	671	700	672	692	718	679
		Lab	umhos/cm								590		
	Ph	Field	ph	8.51	8.58	8.51	8.63	8.55	8	8.27	8.58	8.64	8.66
		Lab	ph								8.76		
	Solids	Suspended		mg/l								5	
Total-diss			mg/l								460		
Cations	Calcium	Dissolved	mg/l								68.9		
	Magnesium	Dissolved	mg/l								39.4		
	Sodium	Dissolved	mg/l								9.3		
	Sar	Not applicable	undefined								0.221		
Anions	Bicarbonate	As hco3	mg/l								268		
	Carbonate	As co3	mg/l								9		
	Sulfate	Not applicable	mg/l								179		
Primary	Cadmium	Total recov	ug/l								< 5.0		
	Mercury	Total recov	ug/l								< 0.2		
	Selenium	Total recov	ug/l								< 2.0		
Secondary	Silver	Total recov	ug/l								< 5.0		
	Zinc	Total recov	ug/l								< 5.0		
	Iron	Total recov	ug/l								310		
	Manganese	Total recov	ug/l								23		
Trace metals	Molybdenum	Total recov	ug/l								< 50.0		
Nutrients	Nitrogen	Ammonium-total	mg/l									< 0.05	
		Ammonia-free	mg/l									< 0.05	
		Nitrate	mg/l									< 0.02	
		Nitrite	mg/l									0.04	
		No3+no2	mg/l									0.04	
	Phosphate	Ortho-diss	mg/l									0.02	

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG										
				8/1/2000	8/3/2000	8/7/2000	8/8/2000	8/9/2000	8/24/2000	8/25/2000	8/28/2000	8/29/2000	8/30/2000	8/31/2000
Field parameters	Date													
	Water level		ft	-0.33	-0.32			-0.24			-0.63			-0.69
	Flow		cfs	3.73	3.64			3.53			13.52			17.17
Physical properties	Temperature	Field	degrees c	18.9	19.5	22.6	23.2	25	18.4	14.1	16.3	14.3	16.1	14.9
	Conductivity	Field	umhos/cm	811	920	698	708	765	626	661	553	572	545	497.7
		Lab	umhos/cm											
	Ph	Field	ph	8.42	8.3	8.6	8.64	8.65	8.34	8.36	8.45	8.28	8.3	8.3
		Lab	ph											
	Solids	Suspended		mg/l										
Total-diss			mg/l											
Cations	Calcium	Dissolved	mg/l											
	Magnesium	Dissolved	mg/l											
	Sodium	Dissolved	mg/l											
	Sar	Not applicable	undefined											
Anions	Bicarbonate	As hco3	mg/l											
	Carbonate	As co3	mg/l											
	Sulfate	Not applicable	mg/l											
Primary	Cadmium	Total recov	ug/l											
	Mercury	Total recov	ug/l											
	Selenium	Total recov	ug/l											
Secondary	Silver	Total recov	ug/l											
	Zinc	Total recov	ug/l											
	Iron	Total recov	ug/l											
	Manganese	Total recov	ug/l											
Trace metals	Molybdenum	Total recov	ug/l											
Nutrients	Nitrogen	Ammonium-total	mg/l											
		Ammonia-free	mg/l											
		Nitrate	mg/l											
		Nitrite	mg/l											
		No3+no2	mg/l											
	Phosphate	Ortho-diss	mg/l											

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	SEP								
				9/1/2000	9/2/2000	9/3/2000	9/5/2000	9/6/2000	9/7/2000	9/8/2000	9/9/2000	9/11/2000
Field parameters	Date											
	Water level		ft	-0.59	-0.61	-0.52	-0.51	-0.47	-0.51	-0.41	-0.43	-0.43
	Flow		cfs	11.4	12.43	8.3	7.92	6.55	7.92	4.96	5.43	5.43
Physical properties	Temperature	Field	degrees c	17.9	12.6	17.5	14.7	17.6	13.1	18.1	17.4	18.8
	Conductivity	Field	umhos/cm	533	543	585	548	592	587	592	649	572
		Lab	umhos/cm									
	Ph	Field	ph	8.59	8.38	8.57	8.39	8.78	8.49	8.66	8.66	8.58
		Lab	ph									
	Solids	Suspended		mg/l								
Total-diss			mg/l									
Cations	Calcium	Dissolved	mg/l									
	Magnesium	Dissolved	mg/l									
	Sodium	Dissolved	mg/l									
	Sar	Not applicable	undefined									
Anions	Bicarbonate	As hco3	mg/l									
	Carbonate	As co3	mg/l									
	Sulfate	Not applicable	mg/l	130								
Primary	Cadmium	Total recov	ug/l									
	Mercury	Total recov	ug/l									
	Selenium	Total recov	ug/l									
Secondary	Silver	Total recov	ug/l									
	Zinc	Total recov	ug/l									
	Iron	Total recov	ug/l									
	Manganese	Total recov	ug/l									
Trace metals	Molybdenum	Total recov	ug/l									
Nutrients	Nitrogen	Ammonium-total	mg/l									
		Ammonia-free	mg/l									
		Nitrate	mg/l									
		Nitrite	mg/l									
		No3+no2	mg/l									
	Phosphate	Ortho-diss	mg/l									

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	SEP							
				9/13/2000	9/14/2000	9/15/2000	9/18/2000	9/21/2000	9/25/2000	9/29/2000	9/30/2000
Field parameters	Date										
	Water level		ft	-0.44		-0.33	-0.29	-0.39	-0.64	-0.53	-0.53
	Flow		cfs	5.68		3.73	3.48	4.56	14.09	8.69	8.69
Physical properties	Temperature	Field	degrees c	18.7	17.1	17.1	22.4	10.2	6.2	15	15.4
	Conductivity	Field	umhos/cm	652	656	660	776	877	707	706	749
		Lab	umhos/cm								
	Ph	Field	ph	8.58	8.48	8.49	8.53	8.37	8.32	8.56	8.46
		Lab	ph								
	Solids	Suspended		mg/l							
Total-diss			mg/l								
Cations	Calcium	Dissolved	mg/l								
	Magnesium	Dissolved	mg/l								
	Sodium	Dissolved	mg/l								
	Sar	Not applicable	undefined								
Anions	Bicarbonate	As hco3	mg/l								
	Carbonate	As co3	mg/l								
	Sulfate	Not applicable	mg/l	210							
Primary	Cadmium	Total recov	ug/l								
	Mercury	Total recov	ug/l								
	Selenium	Total recov	ug/l								
Secondary	Silver	Total recov	ug/l								
	Zinc	Total recov	ug/l								
	Iron	Total recov	ug/l								
	Manganese	Total recov	ug/l								
Trace metals	Molybdenum	Total recov	ug/l								
Nutrients	Nitrogen	Amium-total	mg/l								
		Amnia-free	mg/l								
		Nitrate	mg/l								
		Nitrite	mg/l								
		No3+no2	mg/l								
	Phosphate	Ortho-diss	mg/l								

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT													
				10/2/2000	10/3/2000	10/4/2000	10/5/2000	10/6/2000	10/9/2000	10/10/2000	10/11/2000	10/16/2000	10/17/2000	10/19/2000	10/20/2000	10/25/2000	10/26/2000
Field parameters	Date																
	Water level		ft	0.554	0.577	0.6	0.575	0.605	0.607	0.642	0.609	0.615	0.587	0.6	0.611	0.612	0.587
	Flow		cfs	9.415	10.327	NA	10.245	NA	NA	NA	11.745	12.7	11.255	NA	12.486	12.539	11.255
Physical properties	Temperature	Field	degrees c	17.2	16.8	14.2	14	10.6	9.3	5.8	12.6	8.8	8.2	9.9	11.1	6.2	9.4
	Conductivity	Field	umhos/cm	615	584	572	564	591	565	575	570	569	939	582	568	610	618
		Lab	umhos/cm		585												
	Ph	Field	ph	8.63	8.55	8.65	8.55	8.46	8.36	8.26	8.61	8.47	8.48	8.49	8.53	8.46	8.57
		Lab	ph		8.25												
	Solids	Suspended	mg/l		<5												
Total-diss		mg/l		370													
Cations	Calcium	Dissolved	mg/l		59												
	Magnesium	Dissolved	mg/l		35.2												
	Sodium	Dissolved	mg/l		11.7												
	Sar	Not applicable	undefined		0.3												
Anions	Bicarbonate	As hco3	mg/l		150												
	Carbonate	As co3	mg/l		6												
	Sulfate	Not applicable	mg/l		170												
Primary	Cadmium	Total recov	ug/l		< 5.0												
	Mercury	Total recov	ug/l		0.5												
	Selenium	Total recov	ug/l		< 2.0												
Secondary	Silver	Total recov	ug/l		< 5.0												
	Zinc	Total recov	ug/l		7												
	Iron	Total recov	ug/l		420												
	Manganese	Total recov	ug/l		20												
Trace metals	Molybdenum	Total recov	ug/l		< 50.0												
Nutrients	Nitrogen	Ammium-total	mg/l		< 0.05												
		Ammia-free	mg/l		< 0.05												
		Nitrate	mg/l		< 0.02												
		Nitrite	mg/l		< 0.02												
		No3+no2	mg/l		< 0.02												
	Phosphate	Ortho-diss	mg/l		0.01												

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT					NOV								
				10/27/2000	10/30/2000	11/2/2000	11/3/2000	11/7/2000	11/9/2000	11/10/2000	11/13/2000	11/14/2000	11/16/2000	11/17/2000	11/24/2000	11/29/2000	11/30/2000
Field parameters	Date																
	Water level		ft	0.5571	0.66	0.687	0.72	0.676	0.769	0.76	0.65	0.597	NA	NA	1.062	NA	1.145
	Flow		cfs	NA	NA	16.978	NA	16.272	22.838	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	6.4	7.6	4.5	3.7	0.5	0.3	0.3	0.2	0.1	0.2	0.2	0	0.1	
	Conductivity	Field	umhos/cm	625	642	677	711	1066	723	566	771	792	789	587	585	582	580
		Lab	umhos/cm														
	Ph	Field	ph	8.48	8.58	8.5	8.57	8.5	8.41	8.47	8.29	8.33	8.2	8.14	8.11	8.04	8.09
		Lab	ph														
	Solids	Suspended	mg/l														
		Total-diss	mg/l														
Cations	Calcium	Dissolved	mg/l														
	Magnesium	Dissolved	mg/l														
	Sodium	Dissolved	mg/l														
	Sar	Not applicable	undefined														
Anions	Bicarbonate	As hco3	mg/l														
	Carbonate	As co3	mg/l														
	Sulfate	Not applicable	mg/l													160	
Primary	Cadmium	Total recov	ug/l														
	Mercury	Total recov	ug/l														
	Selenium	Total recov	ug/l														
Secondary	Silver	Total recov	ug/l														
	Zinc	Total recov	ug/l														
	Iron	Total recov	ug/l														
	Manganese	Total recov	ug/l														
Trace metals	Molybdenum	Total recov	ug/l														
Nutrients	Nitrogen	Ammonium-total	mg/l														
		Ammonia-free	mg/l														
		Nitrate	mg/l														
		Nitrite	mg/l														
		No3+no2	mg/l														
	Phosphate	Ortho-diss	mg/l														

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	DEC												
				12/5/2000	12/6/2000	12/7/2000	12/8/2000	12/9/2000	12/11/2000	12/12/2000	12/13/2000	12/14/2000	12/15/2000	12/16/2000	12/18/2000	12/19/2000
Field parameters	Date															
	Water level		ft	NA	NA	1.2	NA	NA	NA	NA	NA	NA	1.425	NA	NA	1.467
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	NA	NA	0.1	0.2	0.2	0.1	NA	NA	NA	0.1	0.1	0.1	0
	Conductivity	Field	umhos/cm	659	593	584	584	573	560	581	577	550	558	560	562	453
		Lab	umhos/cm													
	Ph	Field	ph	NA	NA	8.11	8.08	7.94	7.82	NA	NA	NA	8.11	7.98	8.1	7.9
		Lab	ph													
Solids	Suspended		mg/l													
	Total-diss		mg/l													
Cations	Calcium	Dissolved	mg/l													
	Magnesium	Dissolved	mg/l													
	Sodium	Dissolved	mg/l													
	Sar	Not applicable	undefined													
	Anions	Bicarbonate	As hco3	mg/l												
Carbonate		As co3	mg/l													
Sulfate		Not applicable	mg/l									160				
Primary	Cadmium	Total recov	ug/l													
	Mercury	Total recov	ug/l													
	Selenium	Total recov	ug/l													
Secondary	Silver	Total recov	ug/l													
	Zinc	Total recov	ug/l													
	Iron	Total recov	ug/l													
	Manganese	Total recov	ug/l													
Trace metals	Molybdenum	Total recov	ug/l													
Nutrients	Nitrogen	Ammium-total	mg/l													
		Ammia-free	mg/l													
		Nitrate	mg/l													
		Nitrite	mg/l													
		No3+no2	mg/l													
	Phosphate	Ortho-diss	mg/l													

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	DEC					JAN				
				12/20/2000	12/21/2000	12/26/2000	12/27/2000	12/28/2000	1/3/2001	1/4/2001	1/5/2001	1/8/2001	1/9/2001
Field parameters	Date												
	Water level		ft	NA	NA	NA	NA	1.622	NA	1.83	NA	NA	NA
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	NA	NA	NA	NA	0	NA	0	NA	NA	NA
	Conductivity	Field	umhos/cm	594	598	675	626	615	615	617	621	634	651
		Lab	umhos/cm										
	Ph	Field	ph	NA	NA	NA	NA	8.01	NA	8.05	NA	NA	NA
		Lab	ph										
Solids	Suspended		mg/l										
	Total-diss		mg/l										
Cations	Calcium	Dissolved	mg/l										
	Magnesium	Dissolved	mg/l										
	Sodium	Dissolved	mg/l										
	Sar	Not applicable	undefined										
Anions	Bicarbonate	As hco3	mg/l										
	Carbonate	As co3	mg/l										
	Sulfate	Not applicable	mg/l										
Primary	Cadmium	Total recov	ug/l										
	Mercury	Total recov	ug/l										
	Selenium	Total recov	ug/l										
Secondary	Silver	Total recov	ug/l										
	Zinc	Total recov	ug/l										
	Iron	Total recov	ug/l										
	Manganese	Total recov	ug/l										
Trace metals	Molybdenum	Total recov	ug/l										
Nutrients	Nitrogen	Ammonium-total	mg/l										
		Ammonia-free	mg/l										
		Nitrate	mg/l										
		Nitrite	mg/l										
		No3+no2	mg/l										
	Phosphate	Ortho-diss	mg/l										

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JAN											
				1/10/2001	1/11/2001	1/12/2001	1/15/2001	1/17/2001	1/18/2001	1/19/2001	1/22/2001	1/23/2001	1/24/2001	1/25/2001	
Field parameters	Date														
	Water level		ft	NA	NA	NA	NA	NA	1.79	NA	NA	NA	NA	1.51	
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Physical properties	Temperature	Field	degrees c	NA	0.1	NA	NA	NA	0.3	NA	NA	NA	NA	0.2	
	Conductivity	Field	umhos/cm	650	654	647	600	638	638	626	611	620	610	633	
		Lab	umhos/cm												
	Ph	Field	ph	NA	7.9	NA	NA	NA	8.03	NA	NA	NA	NA	8.06	
		Lab	ph												
Solids	Suspended		mg/l												
	Total-diss		mg/l												
Cations	Calcium	Dissolved	mg/l												
	Magnesium	Dissolved	mg/l												
	Sodium	Dissolved	mg/l												
	Sar	Not applicable	undefined												
Anions	Bicarbonate	As hco3	mg/l												
	Carbonate	As co3	mg/l												
	Sulfate	Not applicable	mg/l											200	
Primary	Cadmium	Total recov	ug/l												
	Mercury	Total recov	ug/l												
	Selenium	Total recov	ug/l												
Secondary	Silver	Total recov	ug/l												
	Zinc	Total recov	ug/l												
	Iron	Total recov	ug/l												
	Manganese	Total recov	ug/l												
Trace metals	Molybdenum	Total recov	ug/l												
Nutrients	Nitrogen	Ammonium-total	mg/l												
		Ammonia-free	mg/l												
		Nitrate	mg/l												
		Nitrite	mg/l												
		No3+no2	mg/l												
	Phosphate	Ortho-diss	mg/l												

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 TWENTYMILE COAL COMPANY
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 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	FEB					MAR									
				2/1/2001	2/8/2001	2/15/2001	2/20/2001	2/22/2001	3/2/2001	3/5/2001	3/6/2001	3/7/2001	3/8/2001	3/9/2001	3/12/2001	3/13/2001	3/14/2001	3/15/2001
Field parameters	Date																	
	Water level		ft	1.51	1.359	1.409	1.21	NA	1.43	NA	NA	1.68	2.05	NA	NA	NA	NA	1.962
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	99	116	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	1	0.8	1.1	2.4	0.2	2.7	0.5	0	0.1	0.3	NA	0.4	0.4	NA	0.4
	Conductivity	Field	umhos/cm	695	619	610	640	628	632	699	646	596	626	639	660	640	680	640
		Lab	umhos/cm															677
	Ph	Field	ph	8.06	8.12	8.16	8.07	7.99	8.1	NA	NA	NA	8.11	NA	7.9	7.9	NA	8.1
		Lab	ph															7.84
Solids	Suspended		mg/l															15
	Total-diss		mg/l															470
Cations	Calcium	Dissolved	mg/l															66.5
	Magnesium	Dissolved	mg/l															38.4
	Sodium	Dissolved	mg/l															16
	Sar	Not applicable	undefined															0.387
																		170
Anions	Bicarbonate	As hco3	mg/l															<1
	Carbonate	As co3	mg/l															180
	Sulfate	Not applicable	mg/l				175											< 5.0
Primary	Cadmium	Total recov	ug/l															<0.2
	Mercury	Total recov	ug/l															< 2.0
	Selenium	Total recov	ug/l															< 5.0
Secondary	Silver	Total recov	ug/l															540
	Zinc	Total recov	ug/l															20
	Iron	Total recov	ug/l															< 50.0
	Manganese	Total recov	ug/l															< 0.05
Trace metals	Molybdenum	Total recov	ug/l															< 0.05
Nutrients	Nitrogen	Ammonium-total	mg/l															0.1
		Ammonia-free	mg/l															< 0.02
		Nitrate	mg/l															0.1
		Nitrite	mg/l															
		No3+no2	mg/l															
	Phosphate	Ortho-diss	mg/l															0.03

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 TWENTYMILE COAL COMPANY
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 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAR									
				3/16/2001	3/19/2001	3/20/2001	3/21/2001	3/22/2001	3/26/2001	3/27/2001	3/28/2001	3/29/2001	3/30/2001
Field parameters	Date												
	Water level		ft	NA	NA	NA	2.469	NA	NA	1.724	NA	NA	NA
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	NA	NA	0.3	0.3	NA	5.9	2.1	NA	0	0
	Conductivity	Field	umhos/cm	700	655	596	630	661	935	927	999	1044	1051
		Lab	umhos/cm										
	Ph	Field	ph	NA	NA	8.24	8.3	NA	8.03	8.19	NA	NA	NA
		Lab	ph										
	Solids	Suspended	mg/l										
		Total-diss	mg/l										
Cations	Calcium	Dissolved	mg/l										
	Magnesium	Dissolved	mg/l										
	Sodium	Dissolved	mg/l										
	Sar	Not applicable	undefined										
Anions	Bicarbonate	As hco3	mg/l										
	Carbonate	As co3	mg/l										
	Sulfate	Not applicable	mg/l							340			
Primary	Cadmium	Total recov	ug/l										
	Mercury	Total recov	ug/l										
	Selenium	Total recov	ug/l										
Secondary	Silver	Total recov	ug/l										
	Zinc	Total recov	ug/l										
	Iron	Total recov	ug/l										
	Manganese	Total recov	ug/l										
Trace metals	Molybdenum	Total recov	ug/l										
Nutrients	Nitrogen	Ammonium-total	mg/l										
		Ammonia-free	mg/l										
		Nitrate	mg/l										
		Nitrite	mg/l										
		No3+no2	mg/l										
	Phosphate	Ortho-diss	mg/l										

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 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	APR														
				4/2/2001	4/3/2001	4/4/2001	4/5/2001	4/6/2001	4/9/2001	4/10/2001	4/11/2001	4/12/2001	4/13/2001	4/16/2001	4/17/2001	4/18/2001	4/19/2001	4/20/2001
Field parameters	Date																	
	Water level		ft	NA	1.75	1.564	1.32	1.74	1.21	1.16	NA	NA	1.12	NA	NA	NA	NA	NA
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	0	8.8	4.2	9.7	6.4	4.4	6.5	2.5	2.6	3	5.2	6.2	6.7	7.9	7.6
	Conductivity	Field	umhos/cm	963	880	909	997	980	963	1300	1324	1354	1363	1461	1281	1135	953	869
		Lab	umhos/cm															
	Ph	Field	ph	NA	8.24	8.05	8.33	8.44	8.48	8.07	NA	NA	8.52	NA	NA	NA	NA	NA
		Lab	ph															
Solids	Suspended		mg/l															
	Total-diss		mg/l															
Cations	Calcium	Dissolved	mg/l															
	Magnesium	Dissolved	mg/l															
	Sodium	Dissolved	mg/l															
	Sar	Not applicable	undefined															
Anions	Bicarbonate	As hco3	mg/l															
	Carbonate	As co3	mg/l															
	Sulfate	Not applicable	mg/l			340		390										
Primary	Cadmium	Total recov	ug/l															
	Mercury	Total recov	ug/l															
	Selenium	Total recov	ug/l															
Secondary	Silver	Total recov	ug/l															
	Zinc	Total recov	ug/l															
	Iron	Total recov	ug/l															
	Manganese	Total recov	ug/l															
Trace metals	Molybdenum	Total recov	ug/l															
Nutrients	Nitrogen	Ammonium-total	mg/l															
		Ammonia-free	mg/l															
		Nitrate	mg/l															
		Nitrite	mg/l															
		No3+no2	mg/l															
Phosphate	Ortho-diss	mg/l																

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	APR						MAY							
				4/23/2001	4/24/2001	4/25/2001	4/26/2001	4/27/2001	4/30/2001	5/1/2001	5/2/2001	5/3/2001	5/4/2001	5/7/2001	5/8/2001	5/9/2001	5/10/2001
Field parameters	Date																
	Water level		ft	NA	NA	NA	NA	NA	1.34	NA	1.46	NA	NA	1.25	1.25	1.34	1.46
	Flow		cfs	NA	NA	NA	NA	NA	92.8	NA	NA	NA	NA	78.39	69.8	75	83.1
Physical properties	Temperature	Field	degrees c	3.8	5.6	7.6	NA	8.4	9.9	8	6.4	4.2	3.2	6.6	7.1	8.7	9.3
	Conductivity	Field	umhos/cm	1029	1088	1056	956	946	720	684	599	681	775	822	771	702	583
		Lab	umhos/cm														
	Ph	Field	ph	NA	NA	NA	7.4	NA	8.38	NA	8.27	NA	NA	8.35	8.27	8.26	9.3
		Lab	ph														
	Solids	Suspended	mg/l														
		Total-diss	mg/l														
Cations	Calcium	Dissolved	mg/l														
	Magnesium	Dissolved	mg/l														
	Sodium	Dissolved	mg/l														
	Sar	Not applicable	undefined														
Anions	Bicarbonate	As hco3	mg/l														
	Carbonate	As co3	mg/l														
	Sulfate	Not applicable	mg/l								200						
Primary	Cadmium	Total recov	ug/l														
	Mercury	Total recov	ug/l														
	Selenium	Total recov	ug/l														
Secondary	Silver	Total recov	ug/l														
	Zinc	Total recov	ug/l														
	Iron	Total recov	ug/l														
	Manganese	Total recov	ug/l														
Trace metals	Molybdenum	Total recov	ug/l														
Nutrients	Nitrogen	Ammium-total	mg/l														
		Ammia-free	mg/l														
		Nitrate	mg/l														
		Nitrite	mg/l														
		No3+no2	mg/l														
	Phosphate	Ortho-diss	mg/l														

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY											
				5/11/2001	5/15/2001	5/16/2001	5/17/2001	5/18/2001	5/21/2001	5/23/2001	5/24/2001	5/25/2001	5/29/2001	5/30/2001	5/31/2001
Field parameters	Date														
	Water level		ft	1.48	1.63	NA	NA	NA	1.66	NA	NA	NA	1.79	NA	NA
	Flow		cfs	84.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	7.8	13.4	9.7	9.1	5.9	9.3	7.6	8.8	7.7	10.4	7.7	7.7
	Conductivity	Field	umhos/cm	494	410	322	294	295	360	350	305	265	256	254	243
		Lab	umhos/cm		384										
	Ph	Field	ph	8.13	8.03	NA	NA	NA	8.36	NA	NA	NA	8.28	NA	NA
		Lab	ph		7.97										
	Solids	Suspended		mg/l		260									
Total-diss			mg/l		260										
Cations	Calcium	Dissolved	mg/l		39.6										
	Magnesium	Dissolved	mg/l		23.8										
	Sodium	Dissolved	mg/l		13.8										
	Sar	Not applicable	undefined		0.428										
Anions	Bicarbonate	As hco3	mg/l		110										
	Carbonate	As co3	mg/l		<1										
	Sulfate	Not applicable	mg/l		110										
Primary	Cadmium	Total recov	ug/l		< 5.0										
	Mercury	Total recov	ug/l		<0.2										
	Selenium	Total recov	ug/l		< 2.0										
Secondary	Silver	Total recov	ug/l		< 5.0										
	Zinc	Total recov	ug/l		79										
	Iron	Total recov	ug/l		5050										
	Manganese	Total recov	ug/l		184										
Trace metals	Molybdenum	Total recov	ug/l		< 50.0										
Nutrients	Nitrogen	Ammonium-total	mg/l		< 0.05										
		Ammonia-free	mg/l		< 0.05										
		Nitrate	mg/l		0.06										
		Nitrite	mg/l		< 0.02										
		No3+no2	mg/l		0.06										
	Phosphate	Ortho-diss	mg/l		0.01										

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUN												
				6/1/2001	6/2/2001	6/5/2001	6/8/2001	6/11/2001	6/14/2001	6/15/2001	6/18/2001	6/22/2001	6/25/2001	6/27/2001	6/28/2001	6/29/2001
Field parameters	Date															
	Water level		ft	NA		1.32	1.29	1.2	NA	NA	0.89	0.75	0.73	0.65	NA	NA
	Flow		cfs	NA		NA	72.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	8.4		13.9	13	17.1	10.3	10.1	14.8	16.7	22	22.6	15	16.4
	Conductivity	Field	umhos/cm	238	244	350	331	400	445	445	540	599	650	720	557	634
		Lab	umhos/cm						450							
	Ph	Field	ph	NA		8.58	8.26	8.54	8.57	8.35	8.51	8.43	8.54	8.58	8.28	8.29
Lab		ph														
Solids	Suspended		mg/l													
	Total-diss		mg/l													
Cations	Calcium	Dissolved	mg/l													
	Magnesium	Dissolved	mg/l													
	Sodium	Dissolved	mg/l													
	Sar	Not applicable	undefined													
Anions	Bicarbonate	As hco3	mg/l													
	Carbonate	As co3	mg/l													
	Sulfate	Not applicable	mg/l		52	75			110							
Primary	Cadmium	Total recov	ug/l													
	Mercury	Total recov	ug/l													
	Selenium	Total recov	ug/l													
Secondary	Silver	Total recov	ug/l													
	Zinc	Total recov	ug/l													
	Iron	Total recov	ug/l													
	Manganese	Total recov	ug/l													
Trace metals	Molybdenum	Total recov	ug/l													
Nutrients	Nitrogen	Ammium-total	mg/l													
		Ammia-free	mg/l													
		Nitrate	mg/l													
		Nitrite	mg/l													
		No3+no2	mg/l													
	Phosphate	Ortho-diss	mg/l													

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUL											
				7/2/2001	7/3/2001	7/6/2001	7/10/2001	7/11/2001	7/12/2001	7/13/2001	7/17/2001	7/25/2001	7/27/2001	7/30/2001	7/31/2001
Field parameters	Date														
	Water level		ft	NA	0.65	NA	NA	NA	NA	NA	0.519	NA	NA	NA	0.552
	Flow		cfs	NA	NA	NA	NA	7.8	NA	NA	7.8	NA	NA	NA	8.4
Physical properties	Temperature	Field	degrees c	19.3	22.6	25.8	17.3	17.6	19.1	16.2	16	24.3	24.9	14.7	23.9
	Conductivity	Field	umhos/cm	704	720	811	802	833	861	911	837	875	567	575	553
		Lab	umhos/cm												
	Ph	Field	ph		8.54	8.58	8.69	8.01	8.2	8.4	8.37	8.39	8.44	8.65	8.1
Lab		ph													
Solids	Suspended		mg/l												
	Total-diss		mg/l												
Cations	Calcium	Dissolved	mg/l												
	Magnesium	Dissolved	mg/l												
	Sodium	Dissolved	mg/l												
	Sar	Not applicable	undefined												
Anions	Bicarbonate	As hco3	mg/l												
	Carbonate	As co3	mg/l												
	Sulfate	Not applicable	mg/l		190										
Primary	Cadmium	Total recov	ug/l												
	Mercury	Total recov	ug/l												
	Selenium	Total recov	ug/l												
Secondary	Silver	Total recov	ug/l												
	Zinc	Total recov	ug/l												
	Iron	Total recov	ug/l												
	Manganese	Total recov	ug/l												
Trace metals	Molybdenum	Total recov	ug/l												
Nutrients	Nitrogen	Ammonium-total	mg/l												
		Ammonia-free	mg/l												
		Nitrate	mg/l												
		Nitrite	mg/l												
		No3+no2	mg/l												
	Phosphate	Ortho-diss	mg/l												

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG														
				8/1/2001	8/2/2001	8/3/2001	8/6/2001	8/7/2001	8/8/2001	8/9/2001	8/14/2001	8/15/2001	8/16/2001	8/22/2001	8/24/2001	8/27/2001	8/28/2001	8/29/2001
Field parameters	Date																	
	Water level		ft	0.562	0.591	NA	NA	0.48	NA	0.574	0.656	0.66	0.607	NA	NA	NA	0.482	0.424
	Flow		cfs	8.6	9.7	NA	6.9	7.4	NA	9.1	13.1	NA	10.4	NA	NA	NA	7	5.5
Physical properties	Temperature	Field	degrees c	15.8	16	20.3	19.1	19.1	18	17.4	16.9	20.4	15.2	14.9	13.7	13.3	15.4	14.5
	Conductivity	Field	umhos/cm	556	550	549	530	530	559	549	540	510	499	531	520	546	555	541
		Lab	umhos/cm		540	555						479					549	
	Ph	Field	ph	8.25	8.2	8.34	8.49	8.45	8.34	8.3	8.27	8.19	8.29	8.33	8.38	8.43	8.5	8.49
		Lab	ph									8.64						
Solids	Suspended		mg/l									11						
	Total-diss		mg/l									330						
	Dissolved		mg/l									51.2						
Cations	Calcium	Dissolved	mg/l									29.8						
	Magnesium	Dissolved	mg/l									4.3						
	Sodium	Dissolved	mg/l									0.118						
	Sar	Not applicable	undefined															
Anions	Bicarbonate	As hco3	mg/l									150						
	Carbonate	As co3	mg/l									7						
	Sulfate	Not applicable	mg/l		130	140						100				150		
Primary	Cadmium	Total recov	ug/l									< 5.0						
	Mercury	Total recov	ug/l									< 0.2						
	Selenium	Total recov	ug/l									< 2.0						
Secondary	Silver	Total recov	ug/l									< 5.0						
	Zinc	Total recov	ug/l									566						
	Iron	Total recov	ug/l									660						
	Manganese	Total recov	ug/l									41						
Trace metals	Molybdenum	Total recov	ug/l								< 50.0							
Nutrients	Nitrogen	Ammium-total	mg/l									< 0.05						
		Ammia-free	mg/l									< 0.05						
		Nitrate	mg/l									< 0.02						
		Nitrite	mg/l									< 0.02						
		No3+no2	mg/l									< 0.02						
	Phosphate	Ortho-diss	mg/l									0.02						

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG		SEP											
				8/30/2001	8/31/2001	9/1/2001	9/2/2001	9/3/2001	9/4/2001	9/5/2001	9/6/2001	9/7/2001	9/10/2001	9/11/2001	9/12/2001	9/13/2001	9/17/2001
Field parameters	Date																
	Water level		ft	NA	NA	NA	NA	NA	0.279	0.33	NA	NA	NA	NA	NA	NA	NA
	Flow		cfs	NA	NA	NA	NA	NA	3.1	NA	2.8	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	13.8	13.3	16.4	15.1	15	22.9	19.8	13.6	11.1	12.5	9.2	11	12.2	11.2
	Conductivity	Field	umhos/cm	529	531	542	599	653	675	740	750	833	634	678	711	711	595
		Lab	umhos/cm									823					
	Ph	Field	ph	8.45	8.48	8.5	8.49	8.5	8.55	8.26	8.49	8.52	8.53	8.45	8.32	8.37	8.43
		Lab	ph														
Solids	Suspended		mg/l														
	Total-diss		mg/l														
Cations	Calcium	Dissolved	mg/l														
	Magnesium	Dissolved	mg/l														
	Sodium	Dissolved	mg/l														
	Sar	Not applicable	undefined														
Anions	Bicarbonate	As hco3	mg/l														
	Carbonate	As co3	mg/l														
	Sulfate	Not applicable	mg/l							260		323					
Primary	Cadmium	Total recov	ug/l														
	Mercury	Total recov	ug/l														
	Selenium	Total recov	ug/l														
Secondary	Silver	Total recov	ug/l														
	Zinc	Total recov	ug/l														
	Iron	Total recov	ug/l														
	Manganese	Total recov	ug/l														
Trace metals	Molybdenum	Total recov	ug/l														
Nutrients	Nitrogen	Ammonium-total	mg/l														
		Ammonia-free	mg/l														
		Nitrate	mg/l														
		Nitrite	mg/l														
		No3+no2	mg/l														
Phosphate	Ortho-diss	mg/l															

TABLE: 52
 TWENTYMILE COAL COMPANY
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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	SEP										
				9/18/2001	9/19/2001	9/20/2001	9/21/2001	9/24/2001	9/25/2001	9/26/2001	9/27/2001	9/28/2001	9/29/2001	9/30/2001
Field parameters	Date													
	Water level		ft	NA	NA	NA	NA	0.67	NA	NA	NA	NA	NA	NA
	Flow		cfs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Physical properties	Temperature	Field	degrees c	11.9	9.8	10.8	9.6	16	9.7	9.9	9.2	9.3	12	15.5
	Conductivity	Field	umhos/cm	649	547	530	488	490	501	495	492	488	501	503
		Lab	umhos/cm		528									
	Ph	Field	ph	8.44	8.43	8.51	8.42	8.63	8.59	8.53	8.46	8.33	8.36	8.43
		Lab	ph											
Solids	Suspended		mg/l											
	Total-diss		mg/l											
Cations	Calcium	Dissolved	mg/l											
	Magnesium	Dissolved	mg/l											
	Sodium	Dissolved	mg/l											
	Sar	Not applicable	undefined											
Anions	Bicarbonate	As hco3	mg/l											
	Carbonate	As co3	mg/l											
	Sulfate	Not applicable	mg/l		139									
Primary	Cadmium	Total recov	ug/l											
	Mercury	Total recov	ug/l											
	Selenium	Total recov	ug/l											
Secondary	Silver	Total recov	ug/l											
	Zinc	Total recov	ug/l											
	Iron	Total recov	ug/l											
	Manganese	Total recov	ug/l											
Trace metals	Molybdenum	Total recov	ug/l											
Nutrients	Nitrogen	Ammonium-total	mg/l											
		Ammonia-free	mg/l											
		Nitrate	mg/l											
		Nitrite	mg/l											
		No3+no2	mg/l											
	Phosphate	Ortho-diss	mg/l											

TABLE: 52
 TWENTYMILE COAL COMPANY
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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT													
				10/1/01	10/4/01	10/6/01	10/10/01	10/11/01	10/13/01	10/15/01	10/18/01	10/19/01	10/23/01	10/26/01	10/27/01	10/30/01	
Field parameters	Date																
	Water level		ft		-0.75		-0.79					-0.88	-0.89		-0.88	-0.92	-0.97
	Flow		cfs		20		30					46.4	50		46.4	51.5	55
Physical properties	Temperature	Field	degrees c	9.9	12.8	9.5	4.8	7.5	4.1	4.2	9.9	6.8	4.7	3.7	6.4	8.6	
	Conductivity	Field	umhos/cm	480	442	480	460	493	527	471	490	474	470	482	625	450	
		Lab	umhos/cm					506	540			476					
	Ph	Field	ph	8.64	8.71	8.64	8.6	8.68	8.7	8.68	8.53	8.68	8.73	8.69	8.48	8.49	
		Lab	ph								8.47						
	Solids	Suspended	mg/l									8					
Total-diss		mg/l									320						
Cations	Calcium	Dissolved	mg/l								40.9						
	Magnesium	Dissolved	mg/l								24.3						
	Sodium	Dissolved	mg/l								5.63						
	Sar	Not applicable	undefined								0.172						
Anions	Bicarbonate	As hco3	mg/l								140						
	Carbonate	As co3	mg/l								4						
	Sulfate	Not applicable	mg/l					130	130		160						
Primary	Cadmium	Total recov	ug/l								< 5						
	Mercury	Total recov	ug/l								< .2						
	Selenium	Total recov	ug/l								< 2						
Secondary	Silver	Total recov	ug/l								< 5						
	Zinc	Total recov	ug/l								23						
	Iron	Total recov	ug/l								620						
	Manganese	Total recov	ug/l								24						
Trace metals	Molybdenum	Total recov	ug/l							< 50							
Nutrients	Nitrogen	Amnia-free	mg/l								0.05						
		Nitrate	mg/l								0.04						
		Nitrite	mg/l								< .02						
		No3+no2	mg/l								0.04						
	Phosphate	Ortho-diss	mg/l								0.01						

TABLE: 52
 TWENTYMILE COAL COMPANY
 2002 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	NOV									
				11/2/01	11/6/01	11/7/01	11/10/01	11/12/01	11/15/01	11/16/01	11/20/01	11/24/01	11/27/01
Field parameters	Date												
	Water level		ft	-0.95		-0.72	-0.72		-0.69				-0.73
	Flow		cfs	53.2		18	18		15.6				18.2
Physical properties	Temperature	Field	degrees c	9.2	11.1	10	7.4	3	2.5	1.4	3.4	3.7	4.5
	Conductivity	Field	umhos/cm	462	460	480	467	494	474	497	486	487	480
		Lab	umhos/cm					495					
	Ph	Field	ph	8.39	8.59	8.42	8.67	8.67	8.66	8.6	8.58	8.61	8.64
		Lab	ph										
	Solids	Suspended	mg/l										
	Total-diss	mg/l											
Cations	Calcium	Dissolved	mg/l										
	Magnesium	Dissolved	mg/l										
	Sodium	Dissolved	mg/l										
	Sar	Not applicable	undefined										
Anions	Bicarbonate	As hco3	mg/l										
	Carbonate	As co3	mg/l										
	Sulfate	Not applicable	mg/l					140					
Primary	Cadmium	Total recov	ug/l										
	Mercury	Total recov	ug/l										
	Selenium	Total recov	ug/l										
Secondary	Silver	Total recov	ug/l										
	Zinc	Total recov	ug/l										
	Iron	Total recov	ug/l										
	Manganese	Total recov	ug/l										
Trace metals	Molybdenum	Total recov	ug/l										
Nutrients	Nitrogen	Amnia-free	mg/l										
		Nitrate	mg/l										
		Nitrite	mg/l										
		No3+no2	mg/l										
	Phosphate	Ortho-diss	mg/l										

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	DEC										
				12/1/01	12/4/01	12/5/01	12/6/01	12/10/01	12/13/01	12/17/01	12/21/01	12/24/01	12/28/01	
Field parameters	Date													
	Water level		ft		-0.68	-0.77	-0.77	-0.75	-0.89	-0.906	-1.18	-1.18	1.3	
	Flow		cfs		14.9	24.2	20.9	23.9	42.9	49.7	63.5	65.2	72.7	
Physical properties	Temperature	Field	degrees c	11	6.9	5.6	5.6	5.6	5.6	9.7	0.2	6.6	8.8	
	Conductivity	Field	umhos/cm	589	521	540	522	500	494	540	501	479	482	
		Lab	umhos/cm		625	544								
	Ph	Field	ph		8.24	8.38	8.31	8.31	8.23	8.29	8.31	8.37	8.32	8.35
		Lab	ph											
	Solids	Suspended	mg/l											
	Total-diss	mg/l												
Cations	Calcium	Dissolved	mg/l											
	Magnesium	Dissolved	mg/l											
	Sodium	Dissolved	mg/l											
	Sar	Not applicable	undefined											
Anions	Bicarbonate	As hco3	mg/l											
	Carbonate	As co3	mg/l											
	Sulfate	Not applicable	mg/l	170		160								
Primary	Cadmium	Total recov	ug/l											
	Mercury	Total recov	ug/l											
	Selenium	Total recov	ug/l											
Secondary	Silver	Total recov	ug/l											
	Zinc	Total recov	ug/l											
	Iron	Total recov	ug/l											
	Manganese	Total recov	ug/l											
Trace metals	Molybdenum	Total recov	ug/l											
Nutrients	Nitrogen	Amnia-free	mg/l											
		Nitrate	mg/l											
		Nitrite	mg/l											
		No3+no2	mg/l											
	Phosphate	Ortho-diss	mg/l											

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JAN									
				1/3/02	1/4/02	1/9/02	1/10/02	1/15/02	1/20/02	1/23/02	1/24/02	1/30/02	
Field parameters	Date												
	Water level		ft	-1.35	-1.44	-1.38	-1.2	-0.46	-0.59	-0.66	-0.7	-0.757	
	Flow		cfs	75.8	82.1	76.4	66.9	12.2	13.5	17.5	19	21.9	
Physical properties	Temperature	Field	degrees c	8.7	10	9.7		2.5	7.7	8	4.6	8	
	Conductivity	Field	umhos/cm	430	448	523		777	760	801	821	866	
		Lab	umhos/cm					760					
	Ph	Field	ph	8.23	8.28	8.29		8.26	8.32	8.26	8.25	8.21	
		Lab	ph										
	Solids	Suspended	mg/l										
	Total-diss	mg/l											
Cations	Calcium	Dissolved	mg/l										
	Magnesium	Dissolved	mg/l										
	Sodium	Dissolved	mg/l										
	Sar	Not applicable	undefined										
Anions	Bicarbonate	As hco3	mg/l										
	Carbonate	As co3	mg/l										
	Sulfate	Not applicable	mg/l					280					
Primary	Cadmium	Total recov	ug/l										
	Mercury	Total recov	ug/l										
	Selenium	Total recov	ug/l										
Secondary	Silver	Total recov	ug/l										
	Zinc	Total recov	ug/l										
	Iron	Total recov	ug/l										
	Manganese	Total recov	ug/l										
Trace metals	Molybdenum	Total recov	ug/l										
Nutrients	Nitrogen	Amnia-free	mg/l										
		Nitrate	mg/l										
		Nitrite	mg/l										
		No3+no2	mg/l										
	Phosphate	Ortho-diss	mg/l										

TABLE: 52
 TWENTYMILE COAL COMPANY
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 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	FEB		MAR						APR													
				2/7/02	2/28/02	3/15/02	3/24/02	3/26/02	3/27/02	3/30/02	4/1/02	4/2/02	4/3/02	4/4/02	4/6/02	4/7/02	4/8/02	4/9/02	4/10/02	4/11/02	4/12/02	4/15/02	4/16/02	4/17/02	
Field parameters	Date																								
	Water level		ft	-0.47	-0.85	-0.95	-1.96	-1.96	-1.98	-2															
	Flow		cfs	12.6	37.3	59.3	126.1	126	129.7	135.2				62.3	63.2	54.5	24	49	45.5	60.4	24	53.5	58.1	55.2	
Physical properties	Temperature	Field	degrees c	23.6	6.5	5.5		1.3	2.7	7.7	11	3.2	3.6	2.9	10.2	9.8	13.4	9.2	7.7	5.1	6.2	6.2	6.3	6.3	
	Conductivity	Field	umhos/cm	931	840	842		780	742	781	785	902	845	832	698	740	750	725	738	734	743	866	845	847	
		Lab	umhos/cm		860				750					840		760									
	Ph	Field	ph		8.28	8.04	8.09		8.25	8.13	8.1	8.13	8.15	8.02	8	8.23	8.25	8.56	8.17	8.22	8.24	8.29	8.3	8.35	8.37
		Lab	ph			7.89				7.94															
	Solids	Suspended		mg/l		270				43															
Total-diss			mg/l		610				550																
Cations	Calcium	Dissolved	mg/l		100				73																
	Magnesium	Dissolved	mg/l		21				23																
	Sodium	Dissolved	mg/l		52				89																
	Sar	Not applicable	undefined		1.2				2.3																
Anions	Bicarbonate	As hco3	mg/l		220				190																
	Carbonate	As co3	mg/l		< 1				< 1																
	Sulfate	Not applicable	mg/l		360				330					330		290									
Primary	Cadmium	Total recov	ug/l		< 2				< 2																
	Mercury	Total recov	ug/l		< .2				< .2																
	Selenium	Total recov	ug/l		< 2				< 2																
Secondary	Silver	Total recov	ug/l		< .4				< .4																
	Zinc	Total recov	ug/l		6				10																
	Iron	Total recov	ug/l		300				420																
	Manganese	Total recov	ug/l		31				94																
Trace metals	Molybdenum	Total recov	ug/l		< 50			< 50																	
Nutrients	Nitrogen	Amnia-free	mg/l		0.11				0.22																
		Nitrate	mg/l		0.18				0.31																
		Nitrite	mg/l		< .02				< .02																
		No3+no2	mg/l		0.18				0.31																
	Phosphate	Ortho-diss	mg/l		0.02				0.01																

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	APR										
				4/18/02	4/19/02	4/21/02	4/22/02	4/23/02	4/24/02	4/25/02	4/26/02	4/29/02	4/30/02	
Field parameters	Date													
	Water level		ft	-0.89	-0.92	-0.91	-0.84					-0.9		
	Flow		cfs	42	46.5	44	35.3					43.5		
Physical properties	Temperature	Field	degrees c	5.7	7.8	6	10.1			9.1	8.1	7.1	7.3	
	Conductivity	Field	umhos/cm	888	891	876	930	1015	1020	880	860	824	835	
		Lab	umhos/cm						1100		870			
	Ph	Field	ph	8.2	8.19	8.19	8.34			8.15	8.15	7.45	8.02	8.12
		Lab	ph											
	Solids	Suspended	mg/l											
	Total-diss	mg/l												
Cations	Calcium	Dissolved	mg/l											
	Magnesium	Dissolved	mg/l											
	Sodium	Dissolved	mg/l											
	Sar	Not applicable	undefined											
Anions	Bicarbonate	As hco3	mg/l											
	Carbonate	As co3	mg/l											
	Sulfate	Not applicable	mg/l						510		350			
Primary	Cadmium	Total recov	ug/l											
	Mercury	Total recov	ug/l											
	Selenium	Total recov	ug/l											
Secondary	Silver	Total recov	ug/l											
	Zinc	Total recov	ug/l											
	Iron	Total recov	ug/l											
	Manganese	Total recov	ug/l											
Trace metals	Molybdenum	Total recov	ug/l											
Nutrients	Nitrogen	Amnia-free	mg/l											
		Nitrate	mg/l											
		Nitrite	mg/l											
		No3+no2	mg/l											
	Phosphate	Ortho-diss	mg/l											

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY												
				5/1/02	5/2/02	5/3/02	5/5/02	5/6/02	5/7/02	5/8/02	5/9/02	5/10/02	5/11/02	5/13/02	5/14/02	5/15/02
Field parameters	Date															
	Water level		ft						-0.81	-1.01			-0.83	-0.83	-0.81	-0.76
	Flow		cfs						31.2	57.2			34	34	32.4	27
Physical properties	Temperature	Field	degrees c	8	12.2	13.3	14.3	7.9	9.1	7.1	5	6.7	12.8	9.3	9.3	17.2
	Conductivity	Field	umhos/cm	693	687	681	690	662	617	551	535	525	625	650	655	710
		Lab	umhos/cm							570	540					
	Ph	Field	ph	8	8.35	8.34	8.32	8.11	8.3	8.11	8.12	8.21	8.25	8.34	8.1	8.61
		Lab	ph													
	Solids	Suspended	mg/l													
Total-diss		mg/l														
Cations	Calcium	Dissolved	mg/l													
	Magnesium	Dissolved	mg/l													
	Sodium	Dissolved	mg/l													
	Sar	Not applicable	undefined													
Anions	Bicarbonate	As hco3	mg/l													
	Carbonate	As co3	mg/l													
	Sulfate	Not applicable	mg/l							220	200					
Primary	Cadmium	Total recov	ug/l													
	Mercury	Total recov	ug/l													
	Selenium	Total recov	ug/l													
Secondary	Silver	Total recov	ug/l													
	Zinc	Total recov	ug/l													
	Iron	Total recov	ug/l													
	Manganese	Total recov	ug/l													
Trace metals	Molybdenum	Total recov	ug/l													
Nutrients	Nitrogen	Amnia-free	mg/l													
		Nitrate	mg/l													
		Nitrite	mg/l													
		No3+no2	mg/l													
	Phosphate	Ortho-diss	mg/l													

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY										
				5/16/02	5/17/02	5/20/02	5/21/02	5/22/02	5/23/02	5/24/02	5/28/02	5/29/02	5/30/02	5/31/02
Field parameters	Date													
	Water level		ft	-0.78	-0.81	-1.15	-1.25	-1.09	-0.96	-0.84	-0.79	-0.79	-0.74	-1
	Flow		cfs	28.2	32.4	62.3	69.4	61.1	51.8	34.5	23	22.2	21.3	56.3
Physical properties	Temperature	Field	degrees c	9.5	10	14.5	11.2	7.3	6.4	6.9	9.5	11	12.2	13.3
	Conductivity	Field	umhos/cm	616	596	349	393.6	357.3	438.7	494.7	622	645	599	474
		Lab	umhos/cm									7.99		
	Ph	Field	ph	8.07	8.06	8.1	7.74	8.14	8.02	7.92	8.04		8	8.24
		Lab	ph											
	Solids	Suspended		mg/l										
Total-diss			mg/l											
Cations	Calcium	Dissolved	mg/l											
	Magnesium	Dissolved	mg/l											
	Sodium	Dissolved	mg/l											
	Sar	Not applicable	undefined											
Anions	Bicarbonate	As hco3	mg/l											
	Carbonate	As co3	mg/l											
	Sulfate	Not applicable	mg/l											
Primary	Cadmium	Total recov	ug/l											
	Mercury	Total recov	ug/l											
	Selenium	Total recov	ug/l											
Secondary	Silver	Total recov	ug/l											
	Zinc	Total recov	ug/l											
	Iron	Total recov	ug/l											
	Manganese	Total recov	ug/l											
Trace metals	Molybdenum	Total recov	ug/l											
Nutrients	Nitrogen	Amnia-free	mg/l											
		Nitrate	mg/l											
		Nitrite	mg/l											
		No3+no2	mg/l											
	Phosphate	Ortho-diss	mg/l											

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUN											
				6/3/02	6/4/02	6/5/02	6/6/02	6/7/02	6/9/02	6/10/02	6/11/02	6/12/02	6/13/02	6/14/02	6/15/02
Field parameters	Date														
	Water level		ft		-1.06			-0.88		-0.69		-0.637	-0.67	-0.52	-0.44
	Flow		cfs		59.2			41.2		14.3		12	10.9	7.6	5.9
Physical properties	Temperature	Field	degrees c	16.3	10.5	8.7	11.5	12	19	10.4	14.4	9.9	11.5	12.8	23.7
	Conductivity	Field	umhos/cm	462	559	551	566	488	499	521	621	591	571	608	606
		Lab	umhos/cm									630	660		
	Ph	Field	ph	7.95	8.3	8.35	8.43	8.45	8.56	8.56	8.48	8.22	8.37	8.3	8.97
		Lab	ph												
	Solids	Suspended		mg/l											
Total-diss			mg/l												
Cations	Calcium	Dissolved	mg/l												
	Magnesium	Dissolved	mg/l												
	Sodium	Dissolved	mg/l												
	Sar	Not applicable	undefined												
Anions	Bicarbonate	As hco3	mg/l												
	Carbonate	As co3	mg/l												
	Sulfate	Not applicable	mg/l								170	210			
Primary	Cadmium	Total recov	ug/l												
	Mercury	Total recov	ug/l												
	Selenium	Total recov	ug/l												
Secondary	Silver	Total recov	ug/l												
	Zinc	Total recov	ug/l												
	Iron	Total recov	ug/l												
	Manganese	Total recov	ug/l												
Trace metals	Molybdenum	Total recov	ug/l												
Nutrients	Nitrogen	Amnia-free	mg/l												
		Nitrate	mg/l												
		Nitrite	mg/l												
		No3+no2	mg/l												
	Phosphate	Ortho-diss	mg/l												

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUN									
				6/17/02	6/18/02	6/19/02	6/20/02	6/21/02	6/24/02	6/25/02	6/26/02	6/27/02	6/28/02
Field parameters	Date												
	Water level		ft			-0.42	-0.37		-0.34		-0.32		
	Flow		cfs			5.4	4.5		3.5		3.7		
Physical properties	Temperature	Field	degrees c	19	13.8	16.4		14.2	13.4	15.7	14.6	14.9	16.8
	Conductivity	Field	umhos/cm	681	686	710	690	712	665	623	636	648	732
		Lab	umhos/cm										
	Ph	Field	ph	8.64	8.46	8.54			8.3	8.54	8.3	8.36	8.48
		Lab	ph										
	Solids	Suspended	mg/l										
	Total-diss	mg/l											
Cations	Calcium	Dissolved	mg/l										
	Magnesium	Dissolved	mg/l										
	Sodium	Dissolved	mg/l										
	Sar	Not applicable	undefined										
Anions	Bicarbonate	As hco3	mg/l										
	Carbonate	As co3	mg/l										
	Sulfate	Not applicable	mg/l										
Primary	Cadmium	Total recov	ug/l										
	Mercury	Total recov	ug/l										
	Selenium	Total recov	ug/l										
Secondary	Silver	Total recov	ug/l										
	Zinc	Total recov	ug/l										
	Iron	Total recov	ug/l										
	Manganese	Total recov	ug/l										
Trace metals	Molybdenum	Total recov	ug/l										
Nutrients	Nitrogen	Amnia-free	mg/l										
		Nitrate	mg/l										
		Nitrite	mg/l										
		No3+no2	mg/l										
	Phosphate	Ortho-diss	mg/l										

TABLE: 52
 TWENTYMILE COAL COMPANY
 2002 ANNUAL HYDROLOGY REPORT
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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUL																
				7/1/02	7/2/02	7/3/02	7/5/02	7/7/02	7/8/02	7/9/02	7/14/02	7/15/02	7/17/02	7/19/02	7/22/02	7/23/02	7/24/02	7/25/02	7/31/02	
Field parameters	Date																			
	Water level		ft		-0.26			-0.17	-0.3					-0.12	-0.11	-0.45	-0.39	-0.4	-0.39	
	Flow		cfs		2.9			2	3.4					1.6	1	6.1	5	4.9	5	
Physical properties	Temperature	Field	degrees c	17.4	14.2	20	15.4	28.2	14.2	19.7			25.3	15.8	22.9		26.8	22.8	20.6	
	Conductivity	Field	umhos/cm	680	777	755	799	848	892	855		899	940	907	921	679	683	618	599	597
		Lab	umhos/cm									960	1000				680	700		
	Ph	Field	ph	8.5	8.32	8.4	8.36	8.69	8.41	8.41			8.47	8.43	8.44	8.44	8.37	8.46	8.51	8.36
		Lab	ph										8.61							
	Solids	Suspended		mg/l																
Total-diss			mg/l																	
Cations	Calcium	Dissolved	mg/l																	
	Magnesium	Dissolved	mg/l																	
	Sodium	Dissolved	mg/l																	
	Sar	Not applicable	undefined																	
Anions	Bicarbonate	As hco3	mg/l																	
	Carbonate	As co3	mg/l																	
	Sulfate	Not applicable	mg/l			190						430	390			220	340			
Primary	Cadmium	Total recov	ug/l																	
	Mercury	Total recov	ug/l																	
	Selenium	Total recov	ug/l																	
Secondary	Silver	Total recov	ug/l																	
	Zinc	Total recov	ug/l																	
	Iron	Total recov	ug/l																	
	Manganese	Total recov	ug/l																	
Trace metals	Molybdenum	Total recov	ug/l																	
Nutrients	Nitrogen	Amnia-free	mg/l																	
		Nitrate	mg/l																	
		Nitrite	mg/l																	
		No3+no2	mg/l																	
	Phosphate	Ortho-diss	mg/l																	

TABLE: 52
 TWENTYMILE COAL COMPANY
 2002 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG								SEP				
				8/2/02	8/5/02	8/13/02	8/15/02	8/22/02	8/25/02	8/27/02	9/3/02	9/10/02	9/12/02	9/13/02	9/16/02	9/26/02
Field parameters	Date															
	Water level		ft	-0.29			-0.404	-0.38		-0.417	-0.4	-0.5	-0.53	-0.55		-0.407
	Flow		cfs				5.1	4.9		7.7	7.1	7.5	8	9		6.6
Physical properties	Temperature	Field	degrees c	19.6	21.3	13.6	14	18.4		17.2		14.3	14	11.5	17	17.8
	Conductivity	Field	umhos/cm	663	715	650	723	788	897	897	743	580	535	529	535	551
		Lab	umhos/cm		820	720	800	780	820	748		580	570	540		
	Ph	Field	ph	8.44	8.46	8.01	8.2	8.2	8.28	8.35	8.39	8.48	8.43	8.39	8.34	8.33
		Lab	ph			8.06						8.28				
	Solids	Suspended	mg/l			< 5						8				
		Total-diss	mg/l			500						400				
Cations	Calcium	Dissolved	mg/l			150					63					
	Magnesium	Dissolved	mg/l			62					30					
	Sodium	Dissolved	mg/l			16					16					
	Sar	Not applicable	undefined			0.28					0.4					
Anions	Bicarbonate	As hco3	mg/l			170					180					
	Carbonate	As co3	mg/l			2					< 1					
	Sulfate	Not applicable	mg/l	260	260	230	310	270	300		160	160	150			
Primary	Cadmium	Total recov	ug/l			< 2					< 2					
	Mercury	Total recov	ug/l			< .2					< .2					
	Selenium	Total recov	ug/l			2					< 2					
Secondary	Silver	Total recov	ug/l			< .4					< .4					
	Zinc	Total recov	ug/l			6					< 5					
	Iron	Total recov	ug/l			170					280					
	Manganese	Total recov	ug/l			30					41					
Trace metals	Molybdenum	Total recov	ug/l		< 50					< 50						
Nutrients	Nitrogen	Amnia-free	mg/l			< .05					< .05					
		Nitrate	mg/l			< .02					< .02					
		Nitrite	mg/l			< .02					< .02					
		No3+no2	mg/l			< .02					< .02					
	Phosphate	Ortho-diss	mg/l			< .01					< .01					

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT					NOV											
				10/4/02	10/8/02	10/15/02	10/25/02	10/28/02	11/7/02	11/8/02	11/11/02	11/12/02	11/13/02	11/14/02	11/15/02	11/18/02	11/19/02	11/22/02	11/25/02	11/26/02
Field parameters	Date																			
	Water level		ft	0.52	0.555	0.522	0.612	0.625		0.415		0.32	0.575	0.565	0.472		0.675	0.554		
	Flow		cfs	7.2	8	7.5	10.2			8.4	7.9	6.1	9.8	8.8	6.7		13.2	8.5		
Physical properties	Temperature	Field	degrees c	8.9	10.1	5.8	3.9	3.4	2.7	3.7	12.2	8	10	15	0.9					
	Conductivity	Field	umhos/cm	601	590	560	502	559	525	530	513	522	579	613	615		624	683	696	677
		Lab	umhos/cm						580								520			
	Ph	Field	ph	8.4	8.41	8.38	8.3	8.25	8.15	8.15	8.3	8.39	8.22	8.2	8.18		8.23		8.42	8.36
		Lab	ph																	
	Solids	Suspended		mg/l																
Total-diss			mg/l																	
Cations	Calcium	Dissolved	mg/l																	
	Magnesium	Dissolved	mg/l																	
	Sodium	Dissolved	mg/l																	
	Sar	Not applicable	undefined																	
Anions	Bicarbonate	As hco3	mg/l																	
	Carbonate	As co3	mg/l																	
	Sulfate	Not applicable	mg/l						210							200				
Primary	Cadmium	Total recov	ug/l																	
	Mercury	Total recov	ug/l																	
	Selenium	Total recov	ug/l																	
Secondary	Silver	Total recov	ug/l																	
	Zinc	Total recov	ug/l																	
	Iron	Total recov	ug/l																	
	Manganese	Total recov	ug/l																	
Trace metals	Molybdenum	Total recov	ug/l																	
Nutrients	Nitrogen	Amnia-free	mg/l																	
		Nitrate	mg/l																	
		Nitrite	mg/l																	
		No3+no2	mg/l																	
	Phosphate	Ortho-diss	mg/l																	

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	DEC																			
				12/3/02	12/4/02	12/5/02	12/6/02	12/7/02	12/9/02	12/10/02	12/11/02	12/12/02	12/13/02	12/15/02	12/16/02	12/17/02	12/18/02	12/19/02	12/20/02	12/23/02	12/24/02	12/30/02	12/31/02
Field parameters	Date																						
	Water level		ft	0.815	0.627	0.622					0.619	0.772		0.814	0.864	0.74	0.767	0.947	0.949				
	Flow		cfs		12.8	14.4	19.1			7.5	13.2	24.4		31.2	38.8	19.8	23.6	46.7	49.8				
Physical properties	Temperature	Field	degrees c		7	6								5					6				
	Conductivity	Field	umhos/cm	595	588	632	620	652	677	669	683	676	685	530	542	509	538	545	552	572		626	621
		Lab	umhos/cm		560					690					550							610	610
	Ph	Field	ph	8.46	8.43	8.42	8.4	8.38	8.48	8.51	8.68	8.49	8.3	8.39	8.37	8.34	8.51	8.42	8.39	8.39		8.26	8.25
		Lab	ph																				
	Solids	Suspended		mg/l																			
Total-diss			mg/l																				
Cations	Calcium	Dissolved	mg/l																				
	Magnesium	Dissolved	mg/l																				
	Sodium	Dissolved	mg/l																				
	Sar	Not applicable	undefined																				
Anions	Bicarbonate	As hco3	mg/l																				
	Carbonate	As co3	mg/l																				
	Sulfate	Not applicable	mg/l		140					240					310						240	200	
Primary	Cadmium	Total recov	ug/l																				
	Mercury	Total recov	ug/l																				
	Selenium	Total recov	ug/l																				
Secondary	Silver	Total recov	ug/l																				
	Zinc	Total recov	ug/l																				
	Iron	Total recov	ug/l																				
	Manganese	Total recov	ug/l																				
Trace metals	Molybdenum	Total recov	ug/l																				
Nutrients	Nitrogen	Amnia-free	mg/l																				
		Nitrate	mg/l																				
		Nitrite	mg/l																				
		No3+no2	mg/l																				
	Phosphate	Ortho-diss	mg/l																				

TABLE: 52
TWENTYMILE COAL COMPANY
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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JAN																				
				1/2/03	1/3/03	1/6/03	1/7/03	1/8/03	1/9/03	1/10/03	1/14/03	1/15/03	1/16/03	1/17/03	1/20/03	1/21/03	1/22/03	1/23/02	1/24/02	1/27/03	1/28/03	1/29/03	1/30/02	1/31/03
Field parameters	Date																							
	Water level		ft												0.997									
	Flow		cfs																					
Physical properties	Temperature	Field	degrees c																					
	Conductivity	Field	umhos/cm	599	583	589	622	626	606	611	597	622	627	622	623	623	600	593	584	593	597	619	624	621
		Lab	umhos/cm						610			630												
	Ph	Field	ph	8.25	8.2	8.17	8.24	8.19	8.17		8.07	8.05	8.02	8		8.02	8.04	7.98	8	8.08	8.08	8.07	8.05	8.1
		Lab	ph																					
	Solids	Suspended		mg/l																				
Total-diss			mg/l																					
Cations	Calcium	Dissolved	mg/l																					
	Magnesium	Dissolved	mg/l																					
	Sodium	Dissolved	mg/l																					
	Sar	Not applicable	undefined																					
Anions	Bicarbonate	As hco3	mg/l																					
	Carbonate	As co3	mg/l																					
	Sulfate	Not applicable	mg/l							180			170											
Primary	Cadmium	Total recov	ug/l																					
	Mercury	Total recov	ug/l																					
	Selenium	Total recov	ug/l																					
Secondary	Silver	Total recov	ug/l																					
	Zinc	Total recov	ug/l																					
	Iron	Total recov	ug/l																					
	Manganese	Total recov	ug/l																					
Trace metals	Molybdenum	Total recov	ug/l																					
Nutrients	Nitrogen	Ammonia-free	mg/l																					
		Nitrate	mg/l																					
		Nitrite	mg/l																					
		No3+no2	mg/l																					
	Phosphate	Ortho-diss	mg/l																					

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	FEB														
				2/3/03	2/4/03	2/5/03	2/6/03	2/8/03	2/11/03	2/13/03	2/14/03	2/17/03	2/18/03	2/19/03	2/20/03	2/21/03	2/26/03	2/27/03
Field parameters	Date																	
	Water level		ft															
	Flow		cfs															
Physical properties	Temperature	Field	degrees c															
	Conductivity	Field	umhos/cm	651	684	698	722	755	771	613	657	640	636	652	675	688	611	602
		Lab	umhos/cm					780			690					680		620
	Ph	Field	ph	8.37	8.29	8.25	7.92		8.19	8.19	7.95	8.05	7.91		7.85	8.17	8.45	8.48
		Lab	ph															
	Solids	Suspended		mg/l														
Total-diss			mg/l															
Cations	Calcium	Dissolved	mg/l															
	Magnesium	Dissolved	mg/l															
	Sodium	Dissolved	mg/l															
	Sar	Not applicable	undefined															
Anions	Bicarbonate	As hco3	mg/l															
	Carbonate	As co3	mg/l															
	Sulfate	Not applicable	mg/l					260			210				210		180	
Primary	Cadmium	Total recov	ug/l															
	Mercury	Total recov	ug/l															
	Selenium	Total recov	ug/l															
Secondary	Silver	Total recov	ug/l															
	Zinc	Total recov	ug/l															
	Iron	Total recov	ug/l															
	Manganese	Total recov	ug/l															
Trace metals	Molybdenum	Total recov	ug/l															
Nutrients	Nitrogen	Amnia-free	mg/l															
		Nitrate	mg/l															
		Nitrite	mg/l															
		No3+no2	mg/l															
	Phosphate	Ortho-diss	mg/l															

TABLE: 52
 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAR																	
				3/3/03	3/4/03	3/5/03	3/6/03	3/11/03	3/12/03	3/13/03	3/14/03	3/17/03	3/18/03	3/19/03	3/20/03	3/21/03	3/25/03	3/26/03	3/27/03	3/28/03	3/31/03
Field parameters	Date																				
	Water level		ft																		
	Flow		cfs																		
Physical properties	Temperature	Field	degrees c																	2.5	
	Conductivity	Field	umhos/cm	669	671	662	664	626	645	651	662	711	730	902	1110	930	1042	1012	1026	1009	1069
		Lab	umhos/cm																		1200
	Ph	Field	ph	8.44	8.12	7.98	7.7	8.3	8.15	8.09	8.1	8.26	8.35	8.39	7.75		8.33	8.31	8.42	8.45	8.45
		Lab	ph																		8.06
	Solids	Suspended		mg/l																	230
Total-diss			mg/l																	910	
Cations	Calcium	Dissolved	mg/l																	1100	
	Magnesium	Dissolved	mg/l																	71	
	Sodium	Dissolved	mg/l																	69	
	Sar	Not applicable	undefined																	1.3	
Anions	Bicarbonate	As hco3	mg/l																	200	
	Carbonate	As co3	mg/l																	< 1	
	Sulfate	Not applicable	mg/l																	470	
Primary	Cadmium	Total recov	ug/l																	< 2	
	Mercury	Total recov	ug/l																	< .2	
	Selenium	Total recov	ug/l																	5	
Secondary	Silver	Total recov	ug/l																	< .4	
	Zinc	Total recov	ug/l																	20	
	Iron	Total recov	ug/l																	6900	
	Manganese	Total recov	ug/l																	460	
Trace metals	Molybdenum	Total recov	ug/l																	< 50	
Nutrients	Nitrogen	Amnia-free	mg/l																		< .05
		Nitrate	mg/l																		0.4
		Nitrite	mg/l																		< .02
		No3+no2	mg/l																		0.4
	Phosphate	Ortho-diss	mg/l																		< .02

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 TWENTYMILE COAL COMPANY
 2003 ANNUAL HYDROLOGY REPORT
 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	APR														
				4/1/03	4/7/03	4/8/03	4/11/03	4/14/03	4/15/03	4/16/03	4/17/03	4/21/03	4/22/03	4/23/03	4/24/03	4/28/03	4/29/03	4/30/03
Field parameters	Date																	
	Water level		ft		0.917	1.055	1.4	1.64	1.64				1.43		1.8		1.82	1.87
	Flow		cfs		46.7	59.1	79	95.7	95.5	92			81		110		112	116.8
Physical properties	Temperature	Field	degrees c				6	4.9	5.3	3.2			11	5.5		12.5		8
	Conductivity	Field	umhos/cm	1031	1250	1319	1010	838	915	869	892	955	1015	975	1001	831	825	789
		Lab	umhos/cm						910				1100					
	Ph	Field	ph	8.48	8.21	8.25	8.09	8.03	8.13	8.13	8.19	8.29	8.45	8.17	8.17	8.35	8.36	8.26
		Lab	ph															
	Solids	Suspended		mg/l														
Total-diss			mg/l															
Cations	Calcium	Dissolved	mg/l															
	Magnesium	Dissolved	mg/l															
	Sodium	Dissolved	mg/l															
	Sar	Not applicable	undefined															
Anions	Bicarbonate	As hco3	mg/l															
	Carbonate	As co3	mg/l															
	Sulfate	Not applicable	mg/l						320				420					
Primary	Cadmium	Total recov	ug/l															
	Mercury	Total recov	ug/l															
	Selenium	Total recov	ug/l															
Secondary	Silver	Total recov	ug/l															
	Zinc	Total recov	ug/l															
	Iron	Total recov	ug/l															
	Manganese	Total recov	ug/l															
Trace metals	Molybdenum	Total recov	ug/l															
Nutrients	Nitrogen	Amnia-free	mg/l															
		Nitrate	mg/l															
		Nitrite	mg/l															
		No3+no2	mg/l															
	Phosphate	Ortho-diss	mg/l															

TABLE: 52
 TWENTYMILE COAL COMPANY
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 WATER QUALITY MONITORING DATA

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY												JUN											
				5/1/03	5/8/03	5/12/03	5/14/03	5/15/03	5/20/03	5/21/03	5/22/03	5/23/03	5/27/03	5/28/03	5/29/02	6/3/03	6/4/03	6/5/03	6/6/03	6/9/03	6/10/03	6/11/03	6/12/03	6/17/03	6/19/03		
Field parameters	Date																										
	Water level		ft	1.78	1.53	1.5	1.56	1.7	1.77	1.84	1.88	1.99	2.03	2.09	2.62	2.58	2.2	2.04	2.1	1.91	1.929		1.93	1.412	1.35		
	Flow		cfs	105.5	88.3	86.2	90.4	103.2	109.2	113.6	118.2	129.5	135	143.9	> 200	> 200	158.8	136.3	145.2	121.1	122.1		123.2	79.8	76.2		
Physical properties	Temperature	Field	degrees c	8.2	6.5		9.8	9	8.4		8.3	9.5	17	15	9.5	17	18	8	6.8	9			8.5	11	11.8		
	Conductivity	Field	umhos/cm	856	947	857	820	696	503	489	473	453	466	289	292	351	275	255	265	269	287	242	238	386	310		
		Lab	umhos/cm					760														270		400			
	Ph	Field	ph	8.18	8.25	8.48	8.21	8.21	8.11	8.25	8.31	8.36	8.24	8.2	8.16	8.17	8.33	8.38	8.3	8.28	8.3			8.35	8.4		
		Lab	ph																			8.28	8.28	8.48			
	Solids	Suspended		mg/l																					21		
		Total-diss		mg/l																					270		
Cations	Calcium	Dissolved	mg/l																					38			
	Magnesium	Dissolved	mg/l																					21			
	Sodium	Dissolved	mg/l																					7.6			
	Sar	Not applicable	undefined																					0.24			
Anions	Bicarbonate	As hco3	mg/l																					110			
	Carbonate	As co3	mg/l																					< 1			
	Sulfate	Not applicable	mg/l					260														64		110			
Primary	Cadmium	Total recov	ug/l																					< 2			
	Mercury	Total recov	ug/l																					< .2			
	Selenium	Total recov	ug/l																					5			
Secondary	Silver	Total recov	ug/l																					< .4			
	Zinc	Total recov	ug/l																					< 5			
	Iron	Total recov	ug/l																					940			
	Manganese	Total recov	ug/l																					67			
Trace metals	Molybdenum	Total recov	ug/l																				< 50				
Nutrients	Nitrogen	Amnia-free	mg/l																					< .05			
		Nitrate	mg/l																					0.07			
		Nitrite	mg/l																					< .02			
		No3+no2	mg/l																					0.07			
	Phosphate	Ortho-diss	mg/l																					< .02			

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUN					
				6/20/03	6/23/03	6/24/03	6/25/03	6/26/03	6/30/03
Field parameters	Date								
	Water level		ft	1.506	1.237	1.2	1.15		
	Flow		cfs	86.3	68.7	66.9	64.6		17.5
Physical properties	Temperature	Field	degrees c	10.6	10.5	10.1	9.8	9.7	12.8
	Conductivity	Field	umhos/cm	317	365	369	375	372	306
		Lab	umhos/cm						
	Ph	Field	ph	8.41	8.43	8.46	8.47	8.51	8.41
		Lab	ph						
	Solids	Suspended		mg/l					
Total-diss			mg/l						
Cations	Calcium	Dissolved	mg/l						
	Magnesium	Dissolved	mg/l						
	Sodium	Dissolved	mg/l						
	Sar	Not applicable	undefined						
Anions	Bicarbonate	As hco3	mg/l						
	Carbonate	As co3	mg/l						
	Sulfate	Not applicable	mg/l						
Primary	Cadmium	Total recov	ug/l						
	Mercury	Total recov	ug/l						
	Selenium	Total recov	ug/l						
Secondary	Silver	Total recov	ug/l						
	Zinc	Total recov	ug/l						
	Iron	Total recov	ug/l						
	Manganese	Total recov	ug/l						
Trace metals	Molybdenum	Total recov	ug/l						
Nutrients	Nitrogen	Amnia-free	mg/l						
		Nitrate	mg/l						
		Nitrite	mg/l						
		No3+no2	mg/l						
	Phosphate	Ortho-diss	mg/l						

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUL					AUG						
				7/3/03	7/14/03	7/30/03	8/1/03	8/4/03	8/7/03	8/11/03	8/18/03	8/21/03	8/25/03	8/27/03	8/28/03
Field parameters	Date			7/3/03	7/14/03	7/30/03	8/1/03	8/4/03	8/7/03	8/11/03	8/18/03	8/21/03	8/25/03	8/27/03	8/28/03
	Water level		ft	0.792	0.549	0.577	0.55	0.532	0.418	0.404	0.506		0.534		0.347
	Flow		cfs	27.7	8.4	9.5	8.8	8	5.7	5.1	7.6		8		5
Physical properties	Temperature	Field	degrees c	13.4	14.9	16.3	17	19.2	15.8	23.8	20.7	15.1	20.8	17	22
	Conductivity	Field	umhos/cm	424	653	662	656	705	572	593	625	601	615	621	616
		Lab	umhos/cm		750			730							
	Ph	Field	ph	8.36	8.46	8.07	8.22	8.35	8.35	8.6	8.31	8.37	8.55	8.51	8.36
		Lab	ph		8.52			8.37							
	Solids	Suspended	mg/l		< 5			< 5							
Total-diss		mg/l		550			550								
Cations	Calcium	Dissolved	mg/l		80			72							
	Magnesium	Dissolved	mg/l		45			42							
	Sodium	Dissolved	mg/l		19			15							
	Sar	Not applicable	undefined		0.42			0.34							
Anions	Bicarbonate	As hco3	mg/l		210			200							
	Carbonate	As co3	mg/l		6			5							
	Sulfate	Not applicable	mg/l		250										
Primary	Cadmium	Total recov	ug/l		< 2			< 2							
	Mercury	Total recov	ug/l		< .2			< .2							
	Selenium	Total recov	ug/l		< 2			5							
Secondary	Silver	Total recov	ug/l		< .4			0.9							
	Zinc	Total recov	ug/l		< 5			< 5							
	Iron	Total recov	ug/l		190			220							
	Manganese	Total recov	ug/l		27			22							
Trace metals	Molybdenum	Total recov	ug/l		< 50		< 50								
Nutrients	Nitrogen	Amnia-free	mg/l		< .05			< .05							
		Nitrate	mg/l		0.03			0.02							
		Nitrite	mg/l		< .02			< .02							
		No3+no2	mg/l		0.03			0.02							
	Phosphate	Ortho-diss	mg/l		< .01			< .02							

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	SEP											
				9/2/03	9/9/03	9/15/03	9/18/03	9/19/03	9/22/03	9/23/03	9/24/03	9/25/03	9/26/03	9/29/03	9/30/03
Field parameters	Date			9/2/03	9/9/03	9/15/03	9/18/03	9/19/03	9/22/03	9/23/03	9/24/03	9/25/03	9/26/03	9/29/03	9/30/03
	Water level		ft	0.395	0.519	0.559	0.6	0.439	0.469		0.459			0.514	0.504
	Flow		cfs	5	7.8	8.6	9.4	5.9	6.4		6.3			7.7	7
Physical properties	Temperature	Field	degrees c	22.6	17.7	7	6.3	9	6.6	6.7	7	6.3	6.8	7.5	7.3
	Conductivity	Field	umhos/cm	647	561	422	577	643	670	612	606	622	609	602	522
		Lab	umhos/cm	660											
	Ph	Field	ph	8.86	8.53	8.38	8.36	8.33	8.32	8.39	8.45	8.43	8.48	8.53	8.56
		Lab	ph	8.86											
	Solids	Suspended		mg/l	< 5										
Total-diss			mg/l	510											
Cations	Calcium	Dissolved	mg/l	68											
	Magnesium	Dissolved	mg/l	48											
	Sodium	Dissolved	mg/l	20											
	Sar	Not applicable	undefined	0.45											
Anions	Bicarbonate	As hco3	mg/l	160											
	Carbonate	As co3	mg/l	10											
	Sulfate	Not applicable	mg/l	210											
Primary	Cadmium	Total recov	ug/l	< 2											
	Mercury	Total recov	ug/l	< .2											
	Selenium	Total recov	ug/l	< 2											
Secondary	Silver	Total recov	ug/l	< 0.4											
	Zinc	Total recov	ug/l	< 5											
	Iron	Total recov	ug/l	150											
	Manganese	Total recov	ug/l	15											
Trace metals	Molybdenum	Total recov	ug/l	< 50											
Nutrients	Nitrogen	Amnia-free	mg/l	< .05											
		Nitrate	mg/l	< .02											
		Nitrite	mg/l	< .02											
		No3+no2	mg/l	< .02											
	Phosphate	Ortho-diss	mg/l	< .01											

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT					NOV					DEC			
				10/1/03	10/6/03	10/13/03	10/20/03	10/27/03	11/4/03	11/8/03	11/15/03	11/19/03	11/24/03	12/2/03	12/9/03	12/17/03	12/30/03
Field parameters	Date			10/1/03	10/6/03	10/13/03	10/20/03	10/27/03	11/4/03	11/8/03	11/15/03	11/19/03	11/24/03	12/2/03	12/9/03	12/17/03	12/30/03
	Water level		ft	0.525	0.554	0.614	0.547	0.522	0.544	0.504	0.545	0.55	ice	ice	ice	ice	ice
	Flow		cfs	7.9	8.5	10.7	8.3	7.8	8.2	7.9	9.8	9.7					
Physical properties	Temperature	Field	degrees c	9	7.7	7	4.7	4.4									
	Conductivity	Field	umhos/cm	539	581	554	528	598	548	553	531	615	725	572	588	621	679
		Lab	umhos/cm					600		520	610	610	740				
	Ph	Field	ph	8.38	8.05	8.23	8.2	8.13	8.15	8.3	8.2	8.19	8.25	8.39	8.22	8.49	8.51
		Lab	ph														
Solids	Suspended	mg/l															
	Total-diss	mg/l															
Cations	Calcium	Dissolved	mg/l														
	Magnesium	Dissolved	mg/l														
	Sodium	Dissolved	mg/l														
	Sar	Not applicable	undefined														
Anions	Bicarbonate	As hco3	mg/l														
	Carbonate	As co3	mg/l														
	Sulfate	Not applicable	mg/l					190		150	200	190	260				
Primary	Cadmium	Total recov	ug/l														
	Mercury	Total recov	ug/l														
	Selenium	Total recov	ug/l														
Secondary	Silver	Total recov	ug/l														
	Zinc	Total recov	ug/l														
	Iron	Total recov	ug/l														
	Manganese	Total recov	ug/l														
Trace metals	Molybdenum	Total recov	ug/l														
Nutrients	Nitrogen	Amnia-free	mg/l														
		Nitrate	mg/l														
		Nitrite	mg/l														
		No3+no2	mg/l														
	Phosphate	Ortho-diss	mg/l														

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JAN				FEB		MAR				APR			
				1/6/04	1/20/04	1/21/04	1/27/04	2/5/04	2/9/04	3/9/04	3/17/04	3/29/04	3/31/04	4/7/04	4/12/04	4/19/04	4/27/04
Field parameters	Date			1/6/04	1/20/04	1/21/04	1/27/04	2/5/04	2/9/04	3/9/04	3/17/04	3/29/04	3/31/04	4/7/04	4/12/04	4/19/04	4/27/04
	Water level		ft	ice	ice	ice	ice	ice	ice	ice	ice	1.179	1.169	1.157	1.125	1.164	0.974
	Flow		cfs									65.2	64.9	64.3	62.6	64.4	53.5
Physical properties	Temperature	Field	degrees c									5.5	7.2	11.4	9.2	6.6	12
	Conductivity	Field	umhos/cm	689	639	665	579	650	750	765	1080	1156	1143	1038	979	575	844
		Lab	umhos/cm			650	580	640	760	770							870
	Ph	Field	ph	8.46	8.43	8.5	8.45	7.72	7.97	8	8.2	7.85	7.88	7.83	8.1	7.55	8.08
		Lab	ph						8.02	7.93							
	Solids	Suspended	mg/l							99							
		Total-diss	mg/l							550							
Cations	Calcium	Dissolved	mg/l							75							
	Magnesium	Dissolved	mg/l							41							
	Sodium	Dissolved	mg/l							41							
	Sar	Not applicable	undefined							1							
Anions	Bicarbonate	As hco3	mg/l							180							
	Carbonate	As co3	mg/l							< 1							
	Sulfate	Not applicable	mg/l			200	190	190	190	250						310	
Primary	Cadmium	Total recov	ug/l							< 2							
	Mercury	Total recov	ug/l							< .2							
	Selenium	Total recov	ug/l							< 2							
Secondary	Silver	Total recov	ug/l							0.9							
	Zinc	Total recov	ug/l							9							
	Iron	Total recov	ug/l							650							
	Manganese	Total recov	ug/l							120							
Trace metals	Molybdenum	Total recov	ug/l							< 50							
Nutrients	Nitrogen	Amnia-free	mg/l							< .05							
		Nitrate	mg/l							0.16							
		Nitrite	mg/l								< .02						
		No3+no2	mg/l								0.16						
	Phosphate	Ortho-diss	mg/l								< .02						

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY				JUN				JUL							
				5/4/04	5/11/04	5/17/04	5/24/04	6/1/04	6/3/04	6/8/04	6/15/04	6/23/04	6/29/04	7/2/04	7/6/04	7/12/04	7/19/04	7/22/04	7/27/04
Field parameters	Date			5/4/04	5/11/04	5/17/04	5/24/04	6/1/04	6/3/04	6/8/04	6/15/04	6/23/04	6/29/04	7/2/04	7/6/04	7/12/04	7/19/04	7/22/04	7/27/04
	Water level		ft	1.162	1.5	1.217	1.355	1.059	1.015	1.289	0.985	0.881	0.78	0.99	0.749	0.62	0.707	0.62	0.634
	Flow		cfs	64.5	83.5	67.6	76	57	57.3	72.8	50.8	41.2	26.4	47.6	19.2	11.1	16.8	11.1	11.8
Physical properties	Temperature	Field	degrees c	8.7	11.2	13.2	9	7.2	10.2	12.9	11.5	16	11.7	19	11	14.9	17	15.9	15
	Conductivity	Field	umhos/cm	761	277	240	279	422	470	361	335	454	478	492	498	621	507	501	514
		Lab	umhos/cm		280						370					520		690	520
	Ph	Field	ph	8.08	8.17	8.3	8.36	8.33	8.24	8.26	8.3	8.3	8.38	8.32	8.17	8.34	8.35	8.27	8.15
		Lab	ph								8.25							8.52	
Solids	Suspended		mg/l							27							< 5		
	Total-diss		mg/l							250							550		
Cations	Calcium	Dissolved	mg/l							42							80		
	Magnesium	Dissolved	mg/l							18							45		
	Sodium	Dissolved	mg/l							9.5							19		
	Sar	Not applicable	undefined							0.31							0.42		
Anions	Bicarbonate	As hco3	mg/l							130							210		
	Carbonate	As co3	mg/l							< 1							6		
	Sulfate	Not applicable	mg/l		64					100				110		210	250		
Primary	Cadmium	Total recov	ug/l							< 2							< 2		
	Mercury	Total recov	ug/l							< .2							< .2		
	Selenium	Total recov	ug/l							< 2							< 2		
Secondary	Silver	Total recov	ug/l							< .4							< .4		
	Zinc	Total recov	ug/l							< 5							< 5		
	Iron	Total recov	ug/l							1200							190		
	Manganese	Total recov	ug/l							78							27		
Trace metals	Molybdenum	Total recov	ug/l						< 50							< 50			
Nutrients	Nitrogen	Amnia-free	mg/l							< .05							< .05		
		Nitrate	mg/l							0.03							0.03		
		Nitrite	mg/l							< .02							< .02		
		No3+no2	mg/l							0.03							0.03		
	Phosphate	Ortho-diss	mg/l							< .01							< .01		

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CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG						SEP			
				8/1/04	8/6/04	8/10/04	8/16/04	8/24/04	8/31/04	9/8/04	9/14/04	9/20/04	9/28/04
Field parameters	Date			8/1/04	8/6/04	8/10/04	8/16/04	8/24/04	8/31/04	9/8/04	9/14/04	9/20/04	9/28/04
	Water level		ft	0.48	0.48	0.469	0.425	0.452	0.36	0.49	0.414	0.55	0.52
	Flow		cfs	6.9	6.9	6.6	5.2	6.2	4.3	7.5	5.3	8.4	7.8
Physical properties	Temperature	Field	degrees c			19		16.3	18.4	14	19	10.2	13.1
	Conductivity	Field	umhos/cm	600	505	497	642	555	677	698	647	733	495
		Lab	umhos/cm	590		530				710			
	Ph	Field	ph	8.38	8.38	8.51	8.51	8.5	8.47	8.17	8.35	8.45	8.39
		Lab	ph			8.56				8.14			
	Solids	Suspended		mg/l			10				< 5		
Total-diss			mg/l			380				490			
Cations	Calcium	Dissolved	mg/l			56				73			
	Magnesium	Dissolved	mg/l			32				37			
	Sodium	Dissolved	mg/l			12				18			
	Sar	Not applicable	undefined			0.31				0.43			
Anions	Bicarbonate	As hco3	mg/l			160				210			
	Carbonate	As co3	mg/l			14				< 1			
	Sulfate	Not applicable	mg/l			150				230			
Primary	Cadmium	Total recov	ug/l			< 2				< 2			
	Mercury	Total recov	ug/l			< .2				< .2			
	Selenium	Total recov	ug/l			2				2			
Secondary	Silver	Total recov	ug/l			< 0.4				< 0.4			
	Zinc	Total recov	ug/l			30				< 5			
	Iron	Total recov	ug/l			280				290			
	Manganese	Total recov	ug/l			31				31			
Trace metals	Molybdenum	Total recov	ug/l			< 50				< 50			
Nutrients	Nitrogen	Amnia-free	mg/l			< .05				< .05			
		Nitrate	mg/l			0.02				0.04			
		Nitrite	mg/l			< .02				< .02			
		No3+no2	mg/l			0.02				0.04			
	Phosphate	Ortho-diss	mg/l			< .01				< .01			

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT					NOV			DEC	JAN
				10/6/04	10/8/04	10/11/04	10/20/04	10/26/04	11/2/04	11/9/04	11/23/04	12/14/04	1/19/05
Field parameters	Date			10/6/04	10/8/04	10/11/04	10/20/04	10/26/04	11/2/04	11/9/04	11/23/04	12/14/04	1/19/05
	Water level		ft	0.657	0.66	0.6	0.685		0.7	0.67	0.42	ice	ice
	Flow		cfs	13.1	13.3	13	15.1	16	15	13	9	8	
Physical properties	Temperature	Field	degrees c	8.6	9.3	7	5.7	6.5					
	Conductivity	Field	umhos/cm	490	496	520	543	500	520	442	421	400	417
		Lab	umhos/cm										
	Ph	Field	ph	8.6	8.39	8.45	8.26	8.25	8.24	8.21	8.18	8.1	8.4
		Lab	ph										
Solids	Suspended		mg/l										
	Total-diss		mg/l										
Cations	Calcium	Dissolved	mg/l										
	Magnesium	Dissolved	mg/l										
	Sodium	Dissolved	mg/l										
	Sar	Not applicable	undefined										
Anions	Bicarbonate	As hco3	mg/l										
	Carbonate	As co3	mg/l										
	Sulfate	Not applicable	mg/l										
Primary	Cadmium	Total recov	ug/l										
	Mercury	Total recov	ug/l										
	Selenium	Total recov	ug/l										
Secondary	Silver	Total recov	ug/l										
	Zinc	Total recov	ug/l										
	Iron	Total recov	ug/l										
	Manganese	Total recov	ug/l										
Trace metals	Molybdenum	Total recov	ug/l										
Nutrients	Nitrogen	Amnia-free	mg/l										
		Nitrate	mg/l										
		Nitrite	mg/l										
		No3+no2	mg/l										
	Phosphate	Ortho-diss	mg/l										

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	FEB							MAR			APR				
				2/3/05	2/5/05	2/6/05	2/8/05	2/11/05	2/15/05	2/18/05	3/9/05	3/29/05	3/31/05	4/1/05	4/6/05	4/15/05	4/20/05	4/29/05
Field parameters	Date			2/3/05	2/5/05	2/6/05	2/8/05	2/11/05	2/15/05	2/18/05	3/9/05	3/29/05	3/31/05	4/1/05	4/6/05	4/15/05	4/20/05	4/29/05
	Water level		ft	ice	ice	0.5	0.52	0.52	0.95		ice	1.1	1.1	1.157	1.09	0.967	1.08	1.25
	Flow		cfs			8	8.5	8.5	45			60	60	64.3	55	52.7	60.5	69.5
Physical properties	Temperature	Field	degrees c									10.3	11.1	11.4	13.1	11.9	6.6	11
	Conductivity	Field	umhos/cm	600	550	560	533	545	800		785	805	1025	970	939	935	643	401
		Lab	umhos/cm	590	550		540			600	810			970				
	Ph	Field	ph	7.92	7.74	7.8	7.7	7.72	7.87		8	7.92	7.84	8.1	8.08	7.94	8.23	8.23
		Lab	ph	8	7.75		7.75		7.9	7.87	7.88			8.13				
	Solids	Suspended	mg/l								29							
	Total-diss	mg/l								580								
Cations	Calcium	Dissolved	mg/l								66							
	Magnesium	Dissolved	mg/l								38							
	Sodium	Dissolved	mg/l								34							
	Sar	Not applicable	undefined								0.84							
Anions	Bicarbonate	As hco3	mg/l								190							
	Carbonate	As co3	mg/l								< 1							
	Sulfate	Not applicable	mg/l	180	170					180	280				320			
Primary	Cadmium	Total recov	ug/l								< 2							
	Mercury	Total recov	ug/l								< .2							
	Selenium	Total recov	ug/l								< 2							
Secondary	Silver	Total recov	ug/l								<.4							
	Zinc	Total recov	ug/l								<5							
	Iron	Total recov	ug/l								920							
	Manganese	Total recov	ug/l								130							
Trace metals	Molybdenum	Total recov	ug/l							< 50								
Nutrients	Nitrogen	Amnia-free	mg/l								< .05							
		Nitrate	mg/l								0.07							
		Nitrite	mg/l								< .02							
		No3+no2	mg/l								0.07							
	Phosphate	Ortho-diss	mg/l								0.01							

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 TWENTYMILE COAL COMPANY
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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY			JUN									
				5/10/05	5/18/05	5/24/05	6/3/05	6/7/05	6/14/05	6/21/05	6/23/05	6/29/04	7/12/05	7/19/04	7/22/04	7/27/04
Field parameters	Date			5/10/05	5/18/05	5/24/05	6/3/05	6/7/05	6/14/05	6/21/05	6/23/05	6/29/04	7/12/05	7/19/04	7/22/04	7/27/04
	Water level		ft	1.3	1.22	1.667	2.075	1.5	1.225	1.5	1.5	0.78	0.62	0.707	0.62	0.634
	Flow		cfs	74	67.9	97.8	140.6	86.1	68	86	86	26.4	11.1	16.8	11.1	11.8
Physical properties	Temperature	Field	degrees c	8.5	11.2	10	9.9	11	10.5	12	11	11.7	19	17	15.9	15
	Conductivity	Field	umhos/cm	412	429	216	268	285	390	216	216	478	600	507	501	514
		Lab	umhos/cm									250			520	
	Ph	Field	ph	8.49	8.46	8.48	8.55	8.56	8.55	8.3	8.3	8.38	8.3	8.35	8.27	8.15
		Lab	ph									8.19			8.52	
Solids	Suspended		mg/l								41			< 5		
	Total-diss		mg/l								170			550		
Cations	Calcium	Dissolved	mg/l								32			80		
	Magnesium	Dissolved	mg/l								13			45		
	Sodium	Dissolved	mg/l								7.8			19		
	Sar	Not applicable	undefined								0.3			0.42		
Anions	Bicarbonate	As hco3	mg/l								100			210		
	Carbonate	As co3	mg/l								< 1			6		
	Sulfate	Not applicable	mg/l								52			250		
Primary	Cadmium	Total recov	ug/l								< 2			< 2		
	Mercury	Total recov	ug/l								< .2			< .2		
	Selenium	Total recov	ug/l								< 2			< 2		
Secondary	Silver	Total recov	ug/l								< .4			< .4		
	Zinc	Total recov	ug/l								< 5			< 5		
	Iron	Total recov	ug/l								1700			190		
	Manganese	Total recov	ug/l								71			27		
Trace metals	Molybdenum	Total recov	ug/l							< 50			< 50			
Nutrients	Nitrogen	Amnia-free	mg/l								< .05			< .05		
		Nitrate	mg/l								< .02			0.03		
		Nitrite	mg/l									< .02			< .02	
		No3+no2	mg/l								< .02			0.03		
	Phosphate	Ortho-diss	mg/l								0.03			< .01		

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG					SEP		
				8/2/05	8/12/05	8/17/05	8/25/05	8/30/05	9/6/05	9/14/05	9/30/05
Field parameters	Date			8/2/05	8/12/05	8/17/05	8/25/05	8/30/05	9/6/05	9/14/05	9/30/05
	Water level		ft		0.68	0.63	0.72	0.48	0.5	0.48	0.55
	Flow		cfs	21.9	13	11.8	15	7	7.7	6	8.4
Physical properties	Temperature	Field	degrees c	16.5	23	22	12	17.7	18.9	19.7	10.2
	Conductivity	Field	umhos/cm	384	366	448	481	455	484	469	500
		Lab	umhos/cm			439					496
	Ph	Field	ph	8.27	8.51	8.49	8.45	8.52	8.55	8.5	8.55
		Lab	ph			8.8					8.6
	Solids	Suspended	mg/l			14					22
	Total-diss	mg/l			290					330	
Cations	Calcium	Dissolved	mg/l			42.8					50.6
	Magnesium	Dissolved	mg/l			23					27.3
	Sodium	Dissolved	mg/l			8.6					10.4
	Sar	Not applicable	undefined			0.26					0.29
Anions	Bicarbonate	As hco3	mg/l			132					147
	Carbonate	As co3	mg/l			11					7
	Sulfate	Not applicable	mg/l			120					140
Primary	Cadmium	Total recov	ug/l			< 2					< 2
	Mercury	Total recov	ug/l			< .2					< .2
	Selenium	Total recov	ug/l			<1					<1
Secondary	Silver	Total recov	ug/l			< 0.4					< 0.4
	Zinc	Total recov	ug/l			<1					< 5
	Iron	Total recov	ug/l			420					470
	Manganese	Total recov	ug/l			32					32
Trace metals	Molybdenum	Total recov	ug/l			< 50					< 50
Nutrients	Nitrogen	Amnia-free	mg/l			< .05					< .05
		Nitrate	mg/l			< .02					< .02
		Nitrite	mg/l			< .02					< .02
		No3+no2	mg/l			< .02					< .02
	Phosphate	Ortho-diss	mg/l			< .01					< .01

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT	NOV	MAR	APR	MAY	JUN	JUL
Field parameters	Date			10/4/05	11/17/06	3/31/06	4/12/06	5/8/06	6/12/06	7/7/06
	Water level		ft	0.4	ICE	ICE	*	1.5	1.25	0.92
	Flow		cfs	4.753			est. 60	84.3	76.6	18.8
Physical properties	Temperature	Field	degrees c			9	10	10.1	23.5	24.2
	Conductivity	Field	umhos/cm	512	468.6	621	819	700	271	618
		Lab	umhos/cm			1380	827		301	
	Ph	Field	ph	8.42	8.7	8.41	7.69	8.72	8.5	8.91
		Lab	ph			8.2	8.2		8.4	
	Solids	Suspended	mg/l			162	224		24	
Total-diss		mg/l			1060	570		200		
Cations	Calcium	Dissolved	mg/l			116	80.1		32.1	
	Magnesium	Dissolved	mg/l			77	49.5		16.8	
	Sodium	Dissolved	mg/l			97.9	25.4		6.8	
	Sar	Not applicable	undefined			1.75	0.55		0.24	
Anions	Bicarbonate	As hco3	mg/l			239	173		98	
	Carbonate	As co3	mg/l			< 1	< 1		< 1	
	Sulfate	Not applicable	mg/l			530	320		80	
Primary	Cadmium	Total recov	ug/l			<2	0.1		<2	
	Mercury	Total recov	ug/l			<0.2	<0.2		<0.2	
	Selenium	Total recov	ug/l			1.5	<2		<2	
Secondary	Silver	Total recov	ug/l			<0.4	<0.4		<0.4	
	Zinc	Total recov	ug/l			0.01	30		<5	
	Iron	Total recov	ug/l			4610	5490		890	
	Manganese	Total recov	ug/l			418	267		50	
Trace metals	Molybdenum	Total recov	ug/l			<50	<50		<50	
Nutrients	Nitrogen	Amnia-free	mg/l			< 0.05	< 0.05		< 0.05	
		Nitrate	mg/l			0.28	0.3		<0.02	
		Nitrite	mg/l			<0.02	<0.02		<0.02	
		No3+no2	mg/l			0.28	0.3		<0.02	
	Phosphate	Ortho-diss	mg/l			0.06	0.07		0.02	

* Gage washed out. Replaced.

** Gage cable missing (cows)

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	AUG					SEP				
				8/4/06	8/7/06	8/17/06	8/23/06	8/29/06	9/6/06	9/12/06	9/23/06	9/29/06	9/30/06
Field parameters	Date			8/4/06	8/7/06	8/17/06	8/23/06	8/29/06	9/6/06	9/12/06	9/23/06	9/29/06	9/30/06
	Water level		ft	0.86	0.84	0.84	0.82	0.8	0.82	**			
	Flow		cfs	8	6.5	6.5	5.5	5	5.5	est. 5			
Physical properties	Temperature	Field	degrees c	17.5	21.8	21.1	23.2	23.8	15.1	14.4			
	Conductivity	Field	umhos/cm	560	541	468	501	511	572	575			
		Lab	umhos/cm			550			580	564	467	600	496
	Ph	Field	ph	8.23	8.32	8.3	8.2	8.22	8.29				
		Lab	ph			7.94			8.4	8.5	8.4	8.5	8.6
	Solids	Suspended		mg/l			<5			<5	6	<5	<5
Total-diss			mg/l			380			370	350	330	380	330
Cations	Calcium	Dissolved	mg/l			58			57.9	49.7	50	56.4	50.6
	Magnesium	Dissolved	mg/l			30			33.4	28.5	27.6	33	27.3
	Sodium	Dissolved	mg/l			12			10.5	12.2	12.5	15.5	10.4
	Sar	Not applicable	undefined			0.31			0.27	0.34	0.35	0.35	0.29
Anions	Bicarbonate	As hco3	mg/l			200			163	160	156	166	147
	Carbonate	As co3	mg/l			<1			< 1	5	3	4	7
	Sulfate	Not applicable	mg/l			140			160	140	130	170	140
Primary	Cadmium	Total recov	ug/l			<2			<2	<2	<2	<2	<2
	Mercury	Total recov	ug/l			<0.2			<0.2	<0.2	<0.2	<0.2	<0.2
	Selenium	Total recov	ug/l			<2			0.1	<2	0.1	<2	<2
Secondary	Silver	Total recov	ug/l			<0.4			<0.4	<0.4	<0.4	<0.4	<0.4
	Zinc	Total recov	ug/l			<5			<5	0.01	<5	<5	<5
	Iron	Total recov	ug/l			220			210	260	650	400	470
	Manganese	Total recov	ug/l			43			19	22	38	22	32
Trace metals	Molybdenum	Total recov	ug/l			<50			<50	<50	<50	<50	
Nutrients	Nitrogen	Amnia-free	mg/l			0.08			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
		Nitrate	mg/l			<0.02			<0.02	0.16	<0.02	0.02	<0.02
		Nitrite	mg/l			0.05			<0.02	<0.02	<0.02	<0.02	<0.02
		No3+no2	mg/l			0.05			<0.02	0.16	<0.02	0.2	<0.02
	Phosphate	Ortho-diss	mg/l			0.02			0.03	0.02	0.02	0.03	< 0.01

* Gage washed out. Replaced.

** Gage cable missing (cows)

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 TWENTYMILE COAL COMPANY
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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT	NOV	MAR	APR	MAY	JUN	JUL	AUG					SEP				
	Date			10/4/05	11/17/06	3/31/06	4/12/06	5/8/06	6/12/06	7/7/06	8/4/06	8/7/06	8/17/06	8/23/06	8/29/06	9/6/06	9/12/06	9/23/06	9/29/06	9/30/06
Field parameters	Water level		ft	0.4	ICE	ICE	*	1.5	1.25	0.92	0.86	0.84	0.84	0.82	0.8	0.82	**			
	Flow		cfs	4.753			est. 60	84.3	76.6	18.8	8	6.5	6.5	5.5	5	5.5	est. 5			
Physical properties	Temperature	Field	degrees c			9	10	10.1	23.5	24.2	17.5	21.8	21.1	23.2	23.8	15.1	14.4			
	Conductivity	Field	umhos/cm	512	468.6	621	819	700	271	618	560	541	468	501	511	572	575			
		Lab	umhos/cm			1380	827		301				550			580	564	467	600	496
	Ph	Field	ph	8.42	8.7	8.41	7.69	8.72	8.5	8.91	8.23	8.32	8.3	8.2	8.22	8.29				
		Lab	ph			8.2	8.2		8.4				7.94			8.4	8.5	8.4	8.5	8.6
	Solids	Suspended		mg/l			162	224	24					<5		<5	6	<5	<5	22
Total-diss			mg/l			1060	570	200					380		370	350	330	380	330	
Cations	Calcium	Dissolved	mg/l			116	80.1	32.1					58		57.9	49.7	50	56.4	50.6	
	Magnesium	Dissolved	mg/l			77	49.5	16.8					30		33.4	28.5	27.6	33	27.3	
	Sodium	Dissolved	mg/l			97.9	25.4	6.8					12		10.5	12.2	12.5	15.5	10.4	
	Sar	Not applicable	undefined			1.75	0.55	0.24					0.31		0.27	0.34	0.35	0.35	0.29	
Anions	Bicarbonate	As hco3	mg/l			239	173	98					200		163	160	156	166	147	
	Carbonate	As co3	mg/l			< 1	< 1	< 1					<1		< 1	5	3	4	7	
	Sulfate	Not applicable	mg/l			530	320	80					140		160	140	130	170	140	
Primary	Cadmium	Total recov	ug/l			<2	0.1	<2					<2		<2	<2	<2	<2	<2	
	Mercury	Total recov	ug/l			<0.2	<0.2	<0.2					<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	
	Selenium	Total recov	ug/l			1.5	<2	<2					<2		0.1	<2	0.1	<2	<2	
Secondary	Silver	Total recov	ug/l			<0.4	<0.4	<0.4					<0.4		<0.4	<0.4	<0.4	<0.4	<0.4	
	Zinc	Total recov	ug/l			0.01	30	<5					<5		<5	0.01	<5	<5	<5	
	Iron	Total recov	ug/l			4610	5490	890					220		210	260	650	400	470	
	Manganese	Total recov	ug/l			418	267	50					43		19	22	38	22	32	
Trace metals	Molybdenum	Total recov	ug/l			<50	<50	<50					<50		<50	<50	<50	<50		
Nutrients	Nitrogen	Amnia-free	mg/l			< 0.05	< 0.05	< 0.05					0.08		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
		Nitrate	mg/l			0.28	0.3	<0.02					<0.02		<0.02	0.16	<0.02	0.02	<0.02	
		Nitrite	mg/l			<0.02	<0.02	<0.02						0.05		<0.02	<0.02	<0.02	<0.02	
		No3+no2	mg/l			0.28	0.3	<0.02						0.05		<0.02	0.16	<0.02	0.2	<0.02
	Phosphate	Ortho-diss	mg/l			0.06	0.07	0.02							0.03	0.02	0.02	0.03	< 0.01	

* Gage washed out. Replaced.

** Gage cable missing (cows)

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	OCT	MAR	APR	MAY	JUN	JUN	JUL	JUL	JUL	JUL	JUL	AUG	SEP	SEP
Field parameters	Date			10/12/07	3/31/08	4/11/08	5/8/08	6/19/08	6/26/08	7/1/08	7/9/08	7/10/08	7/15/08	7/30/08	8/4/08	9/8/08	9/23/08
	Water level		ft	1.34	1.51	1.4	repair	3		2.42		1.9	1.72		1.17	repair	1.5
	Flow		cfs	14.85	90	80	cable	230.24		139.48		55.15	35.89		7.71	cable	14.28
Physical properties	Temperature	Field	degrees c		8	8.8	14		19.2		20		17.5	18.5	21.1	18	
	Conductivity	Field	umhos/cm		702	1071	788		300		304		312	460	480	630	
		Lab	umhos/cm	460	728	1080	779		303		413			466	461	710	710
	Ph	Field	ph		8	8.3	8.2		8.4		8.53		8.45	8.27	8.85	8.58	
		Lab	ph	8.7	8.2	8.3	8.3		8.3		8.6			8.2	8.8	8.8	8.8
	Solids	Suspended		mg/l	< 5	98	27			29		16			5	<5	5
Total-diss			mg/l	330	500	750		200		280			310	370	400	400	
Cations	Calcium	Dissolved	mg/l	48.4	65.5	97.2		28.4		42.4			55.9	55.4	66.9	66.9	
	Magnesium	Dissolved	mg/l	27.5	39.3	62.8		14.9		20.4			29	28.7	41.5	41.5	
	Sodium	Dissolved	mg/l	12.4	30.4	59		5.3		8.6			10.8	10.9	40.6	40.6	
	Sar	Not applicable	undefined	0.35	0.74	1.16		0.2		0.27			0.29	0.3	0.97	0.97	
Anions	Bicarbonate	As hco3	mg/l	139	160	204		92		123			137	150	154	154	
	Carbonate	As co3	mg/l	9	< 2	< 2		< 2		5			17	12	11	11	
	Sulfate	Not applicable	mg/l	140	210	400	280		70		100			130	120	250	250
Primary	Cadmium	Total recov	ug/l	< 0.1	< 0.1	< 0.1			0.3		< 0.1		<0.1	<0.1	<0.1	<0.1	<0.1
	Mercury	Total recov	ug/l	< 0.2	< 0.2	< 0.2			< 0.2		< 0.2		<0.2	<0.2	<0.2	<0.2	<0.2
	Selenium	Total recov	ug/l	< 0.1	< 0.1	0.6			0.1		0.1		0.1	<0.1	<0.1	<0.1	<0.1
Secondary	Silver	Total recov	ug/l	< 0.05	< 0.05	< 0.05			< 0.05		< 0.05		<0.05	<0.05	<0.05	<0.05	<0.05
	Zinc	Total recov	ug/l	< 10	< 10	< 10			< 10		< 10		<10	<10	<10	<10	<10
	Iron	Total recov	ug/l	560	2730	1140			1430		760			380	340	210	210
	Manganese	Total recov	ug/l	26	216	199			63		56			27	23	24	24
Trace metals	Molybdenum	Total recov	ug/l	< 10	< 10	< 10			< 10		< 10		<10	<10	<10	<10	
Nutrients	Nitrogen	Ammia-free	mg/l	< 0.05	< 0.05	0.12			< 0.05		< 0.3			<0.05	<0.05	<0.05	<0.05
		Nitrate	mg/l	< 0.02	0.11	0.3			0.04		3.49			0.03	0.03	0.02	0.02
		Nitrite	mg/l	< 0.02	< 0.02	< 0.02			< 0.02		< 0.02			< 0.02	< 0.02	< 0.02	< 0.02
		No3+no2	mg/l	0.04	0.11	0.3			0.04		3.49			0.03	0.03	0.02	0.02
	Phosphate	Ortho-diss	mg/l	0.02	0.02	0.04			0.03		0.02			0.03	0.01	0.01	0.01

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAY						JUN					
				MAR	APR	5/7/2009	5/8/2009	5/21/2009	5/26/2009	6/1/2009	6/9/2009	6/11/2009	6/16/2009	6/30/2009	
Field parameters	Date			3/30/2009	4/18/2009	5/7/2009	5/8/2009	5/21/2009	5/26/2009	6/1/2009	6/9/2009	6/11/2009	6/16/2009	6/30/2009	
	Water level	Field	ft	ice	1.68				1.5						
	Flow	Field	cfs	est. > 100	158.7				121.6		113.95			66.46	
Physical properties	Temperature	Field	degrees c												
	Conductivity	Field	umhos/cm												
		Lab	umhos/cm		1180	982	757	682	335	404	326	401	443	366	414
	Ph	Field	ph												
		Lab	s.u.		8.4	8.43	8.5	8.6	8.4	8.4	8.4	8.4	8.3	8.3	8.29
	Solids	Suspended		mg/l	11						39				
Total-diss			mg/l	860						210					
Cations	Calcium	Dissolved	mg/l	102						28.4					
	Magnesium	Dissolved	mg/l	68.3						16.6					
	Sodium	Dissolved	mg/l	69.3						7.8					
	Sar	Not applicable	undefined	1.32						0.29					
Anions	Bicarbonate	As hco3	mg/l	215						91					
	Carbonate	As co3	mg/l	4						< 20					
	Sulfate	Not applicable	mg/l	470		260	230	100	140	100	120	130	120		
Primary	Cadmium	Total recov	ug/l	< 0.5						< 0.5					
	Mercury	Total recov	ug/l												
	Selenium	Total recov	ug/l	0.5						0.1					
Secondary	Silver	Total recov	ug/l	< 0.3						< 0.3					
	Zinc	Total recov	ug/l	< 50						< 50					
	Iron	Total recov	ug/l	770						1960					
	Manganese	Total recov	ug/l	171						78					
Trace metals	Molybdenum	Total recov	ug/l	< 50						< 50					
Nutrients	Nitrogen	Ammia-free	mg/l	< 0.5						< 0.5					
		Nitrate	mg/l												
		Nitrite	mg/l												
		No3+no2	mg/l	0.12							3.07				
	Phosphate	Ortho-diss	mg/l												

Note: Flow data may not be available during winter ice conditions.

* Stream gage measurement from Consultant : Rivers Unlimited.

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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUL			AUG			SEP		
				7/13/2009	7/15/2009	7/27/2009	8/7/2009	8/19/2009	8/30/2009	9/11/2009	9/29/2009	
Field parameters	Date											
	Water level	Field	ft									
	Flow	Field	cfs			18.51			10.11		10.24	
Physical properties	Temperature	Field	degrees c									
	Conductivity	Field	umhos/cm									
		Lab	umhos/cm		564	590	661	634	547	644	634	511
	Ph	Field	ph									
		Lab	s.u.		8.6	8.4	8.6	8.8	8.9	8.79	8.9	8.6
	Solids	Suspended		mg/l		< 20	8	< 20			8	
Total-diss			mg/l		410	440	430			450		
Cations	Calcium	Dissolved	mg/l		53.8	63.6	60.4			59.3		
	Magnesium	Dissolved	mg/l		30.0	33.2	33.1			34.8		
	Sodium	Dissolved	mg/l		24.4	30.4	22.0			27.5		
	Sar	Not applicable	undefined		0.66	0.77	0.57			0.70		
Anions	Bicarbonate	As hco3	mg/l		172	207	171			152		
	Carbonate	As co3	mg/l		4	10	16			16		
	Sulfate	Not applicable	mg/l	170	170	160	170	150		200		
Primary	Cadmium	Total recov	ug/l		< 0.5	< 0.5	< 0.5			< 0.5		
	Mercury	Total recov	ug/l									
	Selenium	Total recov	ug/l		0.2	< 0.5	< 0.5			0.1		
Secondary	Silver	Total recov	ug/l		< 0.3	< 0.3	< 0.3			< 0.3		
	Zinc	Total recov	ug/l		10	< 50	< 50			< 50		
	Iron	Total recov	ug/l		370	400	250			240		
	Manganese	Total recov	ug/l		41	43	35			18		
Trace metals	Molybdenum	Total recov	ug/l		10	< 50	< 50			< 50		
Nutrients	Nitrogen	Ammia-free	mg/l		< 0.5	< 0.5	< 0.5			< 0.5		
		Nitrate	mg/l									
		Nitrite	mg/l									
		No3+no2	mg/l		< 0.1	0.02	< 0.1			0.02		
	Phosphate	Ortho-diss	mg/l									

Note: Flow data may not be available during winter ice conditions.

* Stream gage measurement from Consultant : Rivers Unlimited.

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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	MAR	APR	APR	MAY	JUN	JUN	JUL	JUL	AUG	AUG	AUG	AUG	SEP	SEP	SEP
FIELD PARAMETERS	DATE			3/22/10	4/13/10	4/20/10	5/7/10	6/1/10	6/29/10	7/6/10	7/20/10	8/5/10	8/12/10	8/19/10	8/24/10	9/3/10	9/14/10	9/22/10
	WATER LEVEL		FT	Frozen	damaged													
	FLOW		CFS		100 est.	42 est.	40 est.		28.66*		6.58*		19.78*					3.55*
PHYSICAL PROPERTIES	TEMPERATURE	FIELD	DEGREES C	5.3	6.5	8.4	11.4	14.1			16.6		15.5	16.7	15.8	12.9	16.9	
	CONDUCTIVITY	FIELD	UMHOS/CM	1350	890	810		355			1085		429	466	497	565	610	
		LAB	UMHOS/CM	1300			552	340		650	1100	490						579
	PH	FIELD	PH	8.4	8.25	8.25		7.98			8.55		8.25	8.42	8.5	8.44	8.47	
		LAB	PH	8.13			8.4	7.79		8.27	8.6	8.13						8.6
SOLIDS	SUSPENDED		MG/L	22				56	5	< 5	100						< 5	
	TOTAL-DISS		MG/L	1100				220	430	870	380						410	
CATIONS	CALCIUM	DISSOLVED	MG/L	81				29	63	82	57						65.2	
	MAGNESIUM	DISSOLVED	MG/L	55				17	37	51	30						39	
	SODIUM	DISSOLVED	MG/L	170				15	20	110	18						10.6	
	SAR	NOT APPLICABLE	UNDEFINED	3.6				0.57	0.5	2.3	0.49						0.26	
ANIONS	BICARBONATE	AS HCO3	MG/L	300				88	310	220	180						156	
	CARBONATE	AS CO3	MG/L	< 1				< 1	14	19	< 1						7	
	SULFATE	NOT APPLICABLE	MG/L	540				99	190	420	130						180	
PRIMARY	CADMIUM	TOTAL RECOV	UG/L	< 2				< 2	< 2	< 2	< 2						< 0.1	
	MERCURY	TOTAL RECOV	UG/L	< 0.0002				< 0.0002	< 0.0002	< 0.0002	< 0.0002						< 0.2	
	SELENIUM	TOTAL RECOV	UG/L	< 2				< 2	< 2	< 2	< 2						< 0.1	
SECONDARY	SILVER	TOTAL RECOV	UG/L	< 0.4				< 0.4	< 0.4	< 0.4	< 0.4						< 0.05	
	ZINC	TOTAL RECOV	UG/L	12				9	< 5	< 5	15						< 10	
	IRON	TOTAL RECOV	UG/L	1300				2400	460	310	390						310	
	MANGANESE	TOTAL RECOV	UG/L	190				93	40	38	160						22	
TRACE METALS	MOLYBDENUM	TOTAL RECOV	UG/L	< 50			< 50	< 50	< 50	< 50							< 10	
NUTRIENTS	NITROGEN	AMMIA-FREE	MG/L	0.011				< 0.05	0.005	< 0.05	0.05						< 0.05	
		NITRATE	MG/L	0.25				0.06	< 0.02	0.02	0.02						0.04	
		NITRITE	MG/L	< 0.02				0.06	< 0.02	< 0.02	< 0.02						< 0.02	
		NO3+NO2	MG/L	0.25				0.12	< 0.02	0.02	0.02						0.04	
	PHOSPHATE	ORTHO-DISS	MG/L	< 0.01				< 0.01	0.01	0.35	< 0.01						< 0.01	

Note: Flow data may not be available during winter ice conditions.
 * Stream gage measurement from Consultant : Rivers Unlimited.

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SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JAN	MAR	APR			MAY		JUN	
				1/21/2011	3/17/2011	4/8/2011	4/19/2011	4/22/2011	5/18/2011	5/28/2011	6/16/2011	6/29/2011
Field parameters	Date											
	Water level		ft	frozen	frozen	frozen				Too high		Too high
	Flow		cfs	frozen	frozen	frozen						
Physical properties	Temperature	Field	degrees c									
	Conductivity	Field	umhos/cm									
		Lab	umhos/cm	872	617		370	344	311		400	400
	Ph	Field	ph									
		Lab	s.u.	8.5	8.2		8.1	8	8		7.85	7.85
Solids	Suspended	mg/l		7						42	42	
	Total-diss	mg/l		430						210	210	
Cations	Calcium	Dissolved	mg/l		49.2					36	36	
	Magnesium	Dissolved	mg/l		28.4					21	21	
	Sodium	Dissolved	mg/l		18.4					7.9	7.9	
	Sar	Not applicable	ratio		0.52					0.26	0.26	
Anions	Bicarbonate	As hco3	mg/l		146					88	88	
	Carbonate	As co3	mg/l		2					< 1	< 1	
	Sulfate	Not applicable	mg/l	310	200					100	100	
Primary	Cadmium	Total recov	ug/l		< 0.5					< 2	< 2	
	Mercury	Total recov	ug/l									
	Selenium	Total recov	ug/l		0.1					< 10	< 10	
Secondary	Silver	Total recov	ug/l		<0.3					< 0.4	< 0.4	
	Zinc	Total recov	ug/l		< 50					7	7	
	Iron	Total recov	ug/l		660					1900	1900	
	Manganese	Total recov	ug/l		86					69	69	
Trace metals	Molybdenum	Total recov	ug/l		10					< 50	< 50	
Nutrients	Nitrogen	Amnia-free	mg/l		<0.5						0.006	0.006
		Nitrate	mg/l									
		Nitrite	mg/l									
		No3+no2	mg/l		0.09						0.04	0.04
	Phosphate	Ortho-diss	mg/l		0.04						0.01	0.01

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DATUM 6586.44

SITE: 69 (SURFACE WATER SITE 69, TROUT CREEK ABOVE CONFLUENCE)

CATEGORY	PARAMETER	ANALYSIS TYPE	UNITS	JUL		AUG				SEP	
				7/6/2011	7/25/2011	8/2/2011	8/9/2011	8/16/2011	8/25/2011	8/30/2011	9/7/2011
Field parameters	Date										
	Water level		ft								
	Flow		cfs		66.84					27.07	23.43
Physical properties	Temperature	Field	degrees c								
	Conductivity	Field	umhos/cm								
		Lab	umhos/cm	320	486	540	588	595	625	600	560
	Ph	Field	ph								
		Lab	s.u.	802	8.4	8.03	8	8.2	8	8.1	8.3
	Solids	Suspended	mg/l	30	16	19					8
Total-diss		mg/l	220	330	370					370	
Cations	Calcium	Dissolved	mg/l	27.6	39.2	59					53.4
	Magnesium	Dissolved	mg/l	15.5	23.8	35					34.1
	Sodium	Dissolved	mg/l	7.0	14.5	23					14.7
	Sar	Not applicable	ratio	0.26	0.45	0.59					0.39
Anions	Bicarbonate	As hco3	mg/l	93	131	150					142
	Carbonate	As co3	mg/l	< 20	< 20	< 1					< 2
	Sulfate	Not applicable	mg/l	80	140	170					180
Primary	Cadmium	Total recov	ug/l	< 0.5	< 0.5	< 2					< 2
	Mercury	Total recov	ug/l								
	Selenium	Total recov	ug/l	< 0.3	< 0.3	< 2					0.1
Secondary	Silver	Total recov	ug/l	< 0.3	< 0.3	< 0.4					< 0.05
	Zinc	Total recov	ug/l	< 50	< 50	5					< 10
	Iron	Total recov	ug/l	1310	920	870					470
	Manganese	Total recov	ug/l	57	65	61					36
Trace metals	Molybdenum	Total recov	ug/l	< 50	< 50	< 50					< 10
Nutrients	Nitrogen	Amnia-free	mg/l	0.13	< 0.5	0.001					< 0.05
		Nitrate	mg/l								
		Nitrite	mg/l								
		No3+no2	mg/l	< 0.1	< 0.1	0.02					< 0.02
	Phosphate	Ortho-diss	mg/l	0.02	0.02	< 0.01					0.02