1930475 - R8 SEMS

SW-36

Business Phone 605-341-7284
Home Phone 605-341-2458
Hours 8:00 — 4:30 M — F

Travis Laboratories

COAL — ORES — ENVIRONMENTAL WATERS — FEEDS — SOILS

1854 Lombardy Dr.
Rapid City, South Dakota 57701

JAMES H. TRAVIS
Laboratory Director

REPORT DATE: 12-14-88

COMPANY: Brohm Mining Co.

ADDRESS:

CITY-STATE:

SAMPLE #: SW-36

SAMPLE DATE-TIME: 11-26-88

DATE RECEIVED: 11-29-88

LABORATORY #: 6479

PARAMETER -- Minerals	RESULT
Alkalinity (CaCO3), mg/l	178
Bicarbonate (HCO3), mg/l	217
Carbonate (CO3), mg/l	0
Chloride (C1), mg/l	2
Fluoride (F), mg/l	
Sulfate (SO4), mg/l	10
Calcium (Ca), mg/l	62
Magnesium (Mg), mg/l	8
Potassium (K), mg/l	1
Sodium (Na), mg/l	7
Major Anions, MEQ/L	3.83
Major Cations, MEQ/L	4.08
Cation - Anion Balance, %	3.16
PARAMETER -- MISCELLANEOUS	
pH, Units	7.81
Conductivity, umhos/cm	355
Cyanide, Total, mg/l	
Cyanide, WAD, mg/l	
Cyanide, Free, mg/l	
Hardness (CaCO3), GPG: mg/l	188
Oil & Grease, mg/l	
Solids, Dissolved, mg/l	209
Solids, Suspended, mg/l	1
Turbidity, NTU	147

METALS:
Tot X Tot Rec ____ Diss ____ EP Tox ____

Antimony (Sb), mg/l	<0.005
Aluminum (A1), mg/l	0.26
Arsenic (As), mg/l	<0.005
Barium (Ba), mg/l	<0.10
Beryllium (Be), mg/l	<0.0005
Boron (B), mg/l	<0.20
Cadmium (Cd), mg/l	<0.0005
Chromium (Cr), mg/l	<0.005
Cobalt (Co), mg/l	<0.005
Copper (Cu), mg/l	0.026
Gold (Au), mg/l	
Iron (Fe), mg/l	0.90
Lead (Pb), mg/l	<0.005
Lithium (Li), mg/l	<0.005
Manganese (Mn), mg/l	<0.03
Mercury (Hg), mg/l	0.0004
Molybdenum (Mo), mg/l	<0.05
Nickel (Ni), mg/l	0.017
Selenium (Se), mg/l	<0.002
Silicon (Si), mg/l	
Silver (Ag), mg/l	<0.0005
Strontium (Sr), mg/l	
Vanadium (V), mg/l	<0.005
Zinc (Zn), mg/l	0.04
PARAMETER --Nutrients	
Nitrogen, Ammonia, mg/l	<0.03
Nitrogen, Nitrate, mg/l	<0.10
Nitrogen, Nitrite, mg/l	<0.010
Nitrogen, Total Kjeldahl, mg/l	0.18
Phosphorus, Ortho, mg/l	
Phosphorus, Total, mg/l	0.015

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Hours 8:00 — 4:30 M — F

Travis Laboratories

COAL — ORES — ENVIRONMENTAL WATERS — FEEDS — SOILS

1854 Lombardy Dr
Rapid City, South Dakota 57701

JAMES H. TRAVIS
Laboratory Director

REPORT DATE: 12-14-88

COMPANY: Brohm Mining Co.

ADDRESS:

CITY-STATE:

SAMPLE #: SW-36

SAMPLE DATE-TIME: 11-26-88

DATE RECEIVED: 11-29-88

LABORATORY #: 6480

	PARAMETER -- Minerals	RESULT
	Alkalinity (CaCO3), mg/l	
	Bicarbonate (HCO3), mg/l	
	Carbonate (CO3), mg/l	
	Chloride (C1), mg/l	
	Fluoride (F), mg/l	
	Sulfate (SO4), mg/l	
	Calcium (Ca), mg/l	
	Magnesium (Mg), mg/l	
	Potassium (K), mg/l	
	Sodium (Na), mg/l	
	Major Anions, MEQ/L	
	Major Cations, MEQ/L	
	Cation - Anion Balance, %	
	PARAMETER -- MISCELLANEOUS	
	pH, Units	
	Conductivity, umhos/cm	
	Cyanide, Total, mg/l	
	Cyanide, WAD, mg/l	
	Cyanide, Free, mg/l	
	Hardness (CaCO3), GPG: mg/l	
	Oil & Grease, mg/l	
	Solids, Dissolved, mg/l	
	Solids, Suspended, mg/l	
	Turbidity, NTU	

METALS:
Tot ____ Tot Rec ____ Diss X EP Tox ____

	Antimony (Sb), mg/l	<0.005
	Aluminum (A1), mg/l	<0.10
	Arsenic (As), mg/l	<0.005
	Barium (Ba), mg/l	<0.10
	Beryllium (Be), mg/l	<0.0005
	Boron (B), mg/l	<0.20
	Cadmium (Cd), mg/l	<0.0005
	Chromium (Cr), mg/l	<0.005
	Cobalt (Co), mg/l	<0.005
	Copper (Cu), mg/l	0.012
	Gold (Au), mg/l	
	Iron (Fe), mg/l	<0.05
	Lead (Pb), mg/l	<0.005
	Lithium (Li), mg/l	<0.005
	Manganese (Mn), mg/l	<0.03
	Mercury (Hg), mg/l	0.0004
	Molybdenum (Mo), mg/l	<0.05
	Nickel (Ni), mg/l	<0.005
	Selenium (Se), mg/l	<0.002
	Silicon (Si), mg/l	
	Silver (Ag), mg/l	<0.0005
	Strontium (Sr), mg/l	
	Vanadium (V), mg/l	<0.005
	Zinc (Zn), mg/l	0.01
	PARAMETER --Nutrients	
	Nitrogen, Ammonia, mg/l	
	Nitrogen, Nitrate, mg/l	
	Nitrogen, Nitrite, mg/l	
	Nitrogen, Total Kjeldahl, mg/l	
	Phosphorus, Ortho, mg/l	
	Phosphorus, Total, mg/l	

BROHM MINING CORPORATION

FIELD MEASUREMENTS AND OBSERVATIONS

SURFACE WATER

SITE: SW-36

Watershed: Two-Bit Crk

Location: N: _____ E: _____

SW 1/4 SW 1/4 Sec 30 T 5 N, R 4 E

DATE	TEMP C	pH	Cond. umhos	Flow gpm	Gauge Height	Sample	Comments
11-26-88	2.1	8.23	342	60.35	—	yes	1st measurement

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 11/26/88

Time 11:05

Sampler SW
(Initials)

Sampling Station Number..... SW-36

Temperature (degrees C)..... 2.1

pH..... 8.23

Conductivity (umhos/cm)..... 74mV 342 umhos/cm

Flow (gpm) (see gauging sheet)..... 60.35 (floating chip)

Water Sample (Yes/No)..... Yes

Filtered Metals (Yes/No)..... No

Number/Type Bottles..... 4

Comments.....

flow too shallow to measure w/ pygmy meter.

- floating chip method used

- sample collected ~20 ft below confluence

- first measurement/sample for site

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 11-26-88

Meter Used: floating chip

Sampler: SW

Stream Width: 2-2'

Station No.: SW-36

Total Flow:

Gauge Height: N/A

Interval	Midpoint	~~Width~~ Depth	~~Depth~~ Width	Area (sft)	Velocity (fps)	Qcfs
0-.3		.2x1	.3	.063	10 (.35)	.0221
.3-.6		.3x1	.3	.093	12 (.2917)	.0271
.6-.9		.2x9	.3	.087	14 (.25)	.0218
.9-1.2		.2x5	.3	.075	14 (.25)	.0188
1.2-1.5		.2x1	.3	.063	16 (.2188)	.0138
1.5-1.8		.2x2	.3	.0660	14 (.25)	.0165
1.8-2.2		.2x4	.4	.0960	7 (.5)	.0480
					total	.1681
					.1681 x .8 =	.1345

TOTAL .1345 (adjusted)

Comments: first measurement for site

float length = 3.5'

= 60.35 gpm

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 9 / 6 / 90

Time 10:20

Sampler mt
(Initials)

Sampling Station Number..... SW-36

Temperature (degrees C)..... 19.4

pH..... 6.33

Conductivity (umhos/cm)..... 353

Flow (gpm).....

Water Sample (Yes/No).....

Filtered Metals (Yes/No).....

Number/Type Bottles..... min Diss Total

Comments.....

Slight Rain 9-5-90

GROUND-WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 6 / 5 / 90

Time _____

Sampler mt
(Initials)

Sampling Station Number..... SW-36

Temperature (degrees C)..... 18.

pH..... 7.0

Conductivity (umhos/cm)..... ~~[illegible]~~ 213

Depth to Water (ft)..... _____

Water Sample (Yes/No)..... _____

Filtered Metals (Yes/No)..... min Tot Dess

Number/Type Bottles..... _____

Comments..... _____

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 9-6-90

Sampler: mt.

Station No.. SW-36

Gauge Height: _____

Meter Used: Pygmy

Stream Width: 6'

Total Flow: .21

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
0 - .5	.25	.5	.1	.05	0	0
.5 - 1	.75	.5	.2	.1	.1	.01
1 - 1.5	1.25	.5	1.5	.75	.1	.075
1.5 - 2	1.75	.5	.2	.1	0	0
2 - 2.5	2.25	.5	.2	.1	.2	.02
2.5 - 3	2.75	.5	.2	.1	.1	.01
3 - 3.5	3.25	.5	.2	.1	.1	.01
3.5 - 4	3.75	.5	.1	.05	.3	.015
4 - 4.5	4.25	.5	.2	.1	.3	.03
4.5 - 5	4.75	.5	.1	.05	.3	.015
5 - 5.5	5.25	.5	.1	.05	.4	.02
5.5 - 6	5.75	.5	.1	.05	.1	.005
					TOTAL	.21

Comments: _____

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 5-9-90

Meter Used: Pygmy

Sampler: mf

Stream Width: 12'

Station No.: SW-36

Total Flow: 7.06

Gauge Height: _____

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
2-3	2.5	1	.45	.45	.4	.18
3-4	3.5	1	.6	.6	.6	.36
4-5	4.5	1	.6	.6	1.9	1.14
5-6	5.5	1	.8	.8	2.1	1.68
6-7	6.5	1	.7	.7	1.8	1.26
7-8	7.5	1	.7	.7	1.4	.98
8-9	8.5	1	.6	.6	.8	.48
9-10	9.5	1	.65	.65	.6	.39
10-11	10.5	1	.5	.5	.4	.2
11-12	11.5	1	.4	.4	.0	0
12-13	12.5	1	.5	.5	.5	.25
13-14	13.5	1	.4	.4	.2	.08
14-15	14.5	1	.3	.3	.2	.06
					TOTAL	7.06

Comments: _____

X 448

316

SURFACE WATER STREAM GAUGING - FIELD FORM

Date: 6-5-96

Meter Used: Pygmy

Sampler: MA.

Stream Width: 8'

Station No.. SW-36

Total Flow: 1.535

Gauge Height: _____

Interval	Midpoint	Width	Depth	Area (sft)	Velocity (fps)	Qcfs
0-1	.5	1	.2	.2	1.4	.28
1-2	1.50	1	.25	.25	1.3	.325
2-3	2.5	1	.25	.25	.8	.2
3-4	3.5	1	.35	.35	.9	.315
4-5	4.5	1	.3	.3	.6	.18
5-6	5.5	1	.3	.3	.6	.18
6-7	6.5	1	.1	.1	.4	.04
7-8	7.5	1	.05	.05	.3	.015
					TOTAL	1.535

Comments: _____

MID-CONTINENT
TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS
AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-36
SAMPLE DATE: 05/09/90
SAMPLE TIME:

LAB NUMBER: 19900511208
REPORT DATE: 05/14/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	132.
Hardness	.
PH	5.89
Solids, Dissolved, mg/l	88.
Solids, Suspended, mg/l	1.5
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	50.
Bicarbonate	61.
Carbonate, mg/l	0.
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	10.

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	<.001	.037
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	.001	.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.001	.004
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.001	<.001
Silicon	.	.
Silver	.	.
Sodium	2.94	.
Strontium	.	.
Vanadium	.	.
Zinc	.016	.566

Amy M. Dougall 05-14-90

MID-CONTINENT TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-36
SAMPLE DATE: 05/09/90
SAMPLE TIME:

LAB NUMBER: 19900511208
REPORT DATE: 05/14/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	132.
Hardness	.
PH	5.89
Solids, Dissolved, mg/l	88.
Solids, Suspended, mg/l	1.5
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	50.
Bicarbonate	61.
Carbonate, mg/l	0.
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	10.

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	<.001	.037
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	.001	.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.001	.004
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.001	<.001
Silicon	.	.
Silver	.	.
Sodium	2.94	.
Strontium	.	.
Vanadium	.	.
Zinc	.016	.566

Amy M. Doyle 05-14-90

MID-CONTINENT
TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS
AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-36
SAMPLE DATE: 06/05/90
SAMPLE TIME:

LAB NUMBER: 19900606105
REPORT DATE: 06/07/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	142.0
Hardness	.
PH	7.43
Solids, Dissolved, mg/l	214.0
Solids, Suspended, mg/l	7.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	96.0
Bicarbonate	117.1
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	5.00

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	.002	.004
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.001	.004
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.001	<.001
Silicon	.	.
Silver	.	.
Sodium	3.22	.
Strontium	.	.
Vanadium	.	.
Zinc	.016	.036

Dean Durand
6-7-90

MID-CONTINENT TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-36
SAMPLE DATE: 06/05/90
SAMPLE TIME:

LAB NUMBER: 19900606105
REPORT DATE: 06/07/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	142.0
Hardness	.
PH	7.43
Solids, Dissolved, mg/l	214.0
Solids, Suspended, mg/l	7.0
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	96.0
Bicarbonate	117.1
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Flouride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	5.00

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	.002	.004
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	<.001	.001
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.001	.004
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	<.001	<.001
Silicon	.	.
Silver	.	.
Sodium	3.22	.
Strontium	.	.
Vanadium	.	.
Zinc	.016	.036

Dean Aurand
6-7-90

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AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-36
DESCRITPION:
SAMPLE DATE: 09/06/90
SAMPLE TIME:

ACCOUNT NUMBER: W1000
LAB NUMBER: 19900907203
REPORT DATE: 09/10/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	303.
Hardness	.
PH	7.16
Solids, Dissolved, mg/l	196.
Solids, Suspended, mg/l	2.5
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	166.
Bicarbonate	203.
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Fluoride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	13.3

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	<.001	.003
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	.001	.002
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.015	.018
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	.001	.001
Silicon	.	.
Silver	.	.
Sodium	3.56	.
Strontium	.	.
Vanadium	.	.
Zinc	.028	.025

09-10-90

MID-CONTINENT TESTING LABORATORIES, INC.
HIGH TECHNOLOGY OIL ANALYSIS AND ENVIRONMENTAL TESTING

2100 S. 7th, Suite 211 • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

SAMPLE NAME: SW-36
DESCRITPION:
SAMPLE DATE: 09/06/90
SAMPLE TIME:

ACCOUNT NUMBER: W1000
LAB NUMBER: 19900907203
REPORT DATE: 09/10/90

MYRON ANDERSEN
BROHM MINING CORP.
P.O. BOX 485
DEADWOOD, SD 57732

PHYSICAL PROPERTIES	VALUE
Conductivity, umhos/cm	303.
Hardness	.
PH	7.16
Solids, Dissolved, mg/l	196.
Solids, Suspended, mg/l	2.5
Turbidity, NTU	.

INORGANIC & NONMETALLIC	VALUE
Alkalinity	166.
Bicarbonate	203.
Carbonate, mg/l	0.0
Chloride, mg/l	.
Cyanide, Total, mg/l	.
Cyanide, WAD, mg/l	.
Cyanide, Free, mg/l	.
Fluoride, mg/l	.
Nitrogen, Ammonia, mg/l	.
Nitrogen, Nitrate, mg/l	<.050
Nitrogen, Nitrite, mg/l	.
Sulfate, mg/l	13.3

METALS mg/l	DISSOLVED	TOTAL
Antimony	.	.
Aluminum	.	.
Arsenic	<.001	.003
Barium	.	.
Beryllium	.	.
Boron	.	.
Cadmium	.001	.002
Calcium	.	.
Chromium	.	.
Cobalt	.	.
Copper	.015	.018
Gold	.	.
Iron	.	.
Lead	.	.
Lithium	.	.
Manganese	.	.
Magnesium	.	.
Mercury	.	.
Molybdenum	.	.
Nickel	.	.
Potassium	.	.
Selenium	.001	.001
Silicon	.	.
Silver	.	.
Sodium	3.56	.
Strontium	.	.
Vanadium	.	.
Zinc	.028	.025

09-10-90

RECEIVED
SEP 11 1990
BROHM MINING CO.

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 9 / 6 /8 9

Time 13:55

Sampler MA
(Initials)

Sampling Station Number..... SW-36

Temperature (degrees C)..... 13.4

pH..... 7.25

Conductivity (umhos/cm)..... 338

Flow (gpm)..... 5-10 gpm (7.5 gpm est)

Water Sample (Yes/No)..... Yes

Filtered Metals (Yes/No)..... No

Number/Type Bottles..... 4 total metals

Comments.....

estimate flow

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 01 / 23 /89

Time 14:30

Sampler SW
(Initials)

Sampling Station Number..... SW-36

Temperature (degrees C)..... 0.1

pH..... 7.91 ~~.352 mS/cm~~ HA

Conductivity (umhos/cm)..... Orion -66mV HACH .352 mS/cm

Flow (gpm)..... ice over

Water Sample (Yes/No)..... (Yes)

Filtered Metals (Yes/No)..... (Yes)

Number/Type Bottles..... 4

Comments.....

site frozen over
- unable to get good flow measurement
- most flow in between rocks/alluvium

SURFACE WATER SAMPLING FORM

FIELD MEASUREMENTS

Date 5 / 7 /8 9

Time 9:35

Sampler SW
(Initials)

Sampling Station Number..... SW-36

Temperature (degrees C)..... 5.9

pH..... 7.45

Conductivity (umhos/cm)..... 111.5

Flow (gpm).....

Water Sample (Yes/No).....

Filtered Metals (Yes/No).....

Number/Type Bottles..... 4

Comments.....

flow greatly increased due to snow melt