



Rio Algom

Rio Algom Mining Corp.
P.O. Box 1390
Glenrock, Wyoming 82637 307.358.3744 tel
762 Ross Road 307.266.2449 tel
Douglas, Wyoming 82633 307.358.9201 fax

Certified Mail - 7099 3220 0002 1631 1019
Return Receipt Requested

August 29, 2000

Mr. Phillip Ting
Acting Branch Chief
U.S. Nuclear Regulatory Commission
Division of Low Level Waste Mgt. & Decommissioning
Mail Stop T7J8
11555 Rockville Pike
Rockville, MD 20850

RE: Smith Ranch Facility
NRC License SUA-1548, Docket 40-8964
Semi-Annual Effluent Monitoring Report, January 1 - June 30, 2000

Dear Mr. Ting:

Please find attached the Semi-Annual Effluent Monitoring Report for January 1, 2000 through June 30, 2000, as required pursuant to Smith Ranch License condition 11.5 and 12.2.

During this reporting period there were no areas of concern. If you have any questions regarding the report, please feel free to contact me at (307) 358-3744, ext. 62.

Sincerely,

John W. Cash
Manager, EHS & Regulatory

xc: B. Ferdinand-w/attachments (RAMC/SRP)
M. Freeman-w/o attachments (RAMC/OKC)
P. Goranson-w/attachments (RAMC/OKC)
S. Ingle-w/attachments (WDEQ/Cheyenne) -
Certified Mail - 7099 3220 0002 1631 1002
NRC (Director, Division of Radiation Safety and Safeguards/Arlington)
w/attachments- **Certified Mail - 7099 3220 0002 1631 1026**
file

IE17

RIO ALGOM MINING CORP.
SEMI-ANNUAL EFFLUENT MONITORING REPORT
SMITH RANCH FACILITY
JANUARY 1 THROUGH JUNE 30, 2000

NRC - LICENSE SUA-1548, DOCKET 40-8964
WDEQ/LQD - PERMIT TO MINE #633

RIO ALGOM MINING CORP.- SMITH RANCH FACILITY
SEMI-ANNUAL EFFLUENT MONITORING REPORT
JANUARY 1 THROUGH JUNE 30, 2000

=====

EFFLUENT MONITOR REPORT

The Smith Ranch license, specifically condition 12.2, describes the effluent and environmental monitoring program for the facility. Accordingly, pursuant to 10 CFR §40.65, license condition 12.2, and the parameters from Table 5.3 from the March 31, 1988, license application as amended, the effluent and monitoring results for this semi-annual period are provided.

I. Commercial Operation Data-Injection Rates, Recovery Rates and Injection Manifold Pressures

Presented in the table below are the average injection rates, recovery rates and injection manifold pressures as required by condition 12.2.

Item	Wellfield #1	Wellfield #3	Wellfield #4	Total
Injection Rate Ave. (gpm)	688	2,855	1,274	4,817
Recovery Rate Ave. (gpm)	694	2,872	1,286	4,852
Injection Manifold Pressure Ave. (psi) ⁽¹⁾	100	98	132	---

II. Air Sampling

A. Particulates

Pursuant to license condition 12.2 as defined by Table 5.3, air particulates monitoring is performed by continuous air samplers at the nearest downwind residence (Vollman Ranch), downwind of the restricted area boundary (fence line), and an upwind location (Dave's Water Well). Monitoring is required to be conducted quarterly.⁽²⁾ The results from this quarterly monitoring are presented below.

⁽¹⁾ This is the injection pressure at the manifold. Injection pressure at the individual wellhead is less due to pressure loss through manifold system, pipelines and filters.

⁽²⁾ Samples collected monthly and composited quarterly.

Vollman Ranch

	1 ST Quarter				2 ND Quarter			
Parameter	Conc. (μ Ci/ml)	LLD (μ Ci/ml)	Error Estimate (μ Ci/ml)	% of ECL	Conc. (μ Ci/ml)	LLD (μ Ci/ml)	Error Estimate (μ Ci/ml)	% of ECL
U _{nat}	4.52E-15	1.00E-16	N/A	1.51E-1	4.05E-15	1.00E-16	N/A	0.14E+00
Th-230	1.63E-16	1.00E-16	0.00E+0	0.82E+00	1.67E-16	1.00E-16	0.00E+0	0.84E+00
Ra-226	1.63E-16	1.00E-16	0.00E+0	1.81E-02	1.08E-15	1.00E-16	3.33E-16	1.20E-1
Pb-210	3.94E-13	2.00E-15	1.60E-14	6.57E+01	2.62E-13	2.00E-15	1.34E-14	4.37E+01

Dave's Water Well⁽³⁾

	1 ST Quarter				2 ND Quarter			
Parameter	Conc. (μ Ci/ml)	LLD (μ Ci/ml)	Error Estimate (μ Ci/ml)	% of ECL	Conc. (μ Ci/ml)	LLD (μ Ci/ml)	Error Estimate (μ Ci/ml)	% of ECL
U _{nat}	4.38E-15	1.00E-16	N/A	1.46E-01	2.64E-15	1.00E-16	N/A	8.80E-2
Th-230	3.81E-16	1.00E-16	0.00E+0	1.91E+00	2.11E-16	1.00E-16	0.00E+0	1.06E+00
Ra-226	3.81E-16	1.00E-16	0.00E+0	4.23E-02	1.79E-15	1.00E-16	4.22E-16	1.99E-1
Pb-210	7.32E-13	2.00E-15	3.37E-14	1.22E+02	2.71E-13	2.00E-15	1.56E-14	4.51E+01

Fence Line

	1 ST Quarter				2 ND Quarter			
Parameter	Conc. (μ Ci/ml)	LLD (μ Ci/ml)	Error Estimate (μ Ci/ml)	% of ECL	Conc. (μ Ci/ml)	LLD (μ Ci/ml)	Error Estimate (μ Ci/ml)	% of ECL
U _{nat}	2.81E-14	1.00E-16	N/A	9.37E-01	2.12E-14	1.00E-16	N/A	7.07E-01
Th-230	1.70E-16	1.00E-16	0.00E+0	8.50E-01	1.78E-15	1.00E-16	8.08E-16	8.90E+00
Ra-226	3.05E-15	1.00E-16	1.70E-16	3.39E-01	1.13E-14	1.00E-16	3.23E-16	1.26E+00
Pb-210	5.78E-13	2.00E-15	1.87E-14	9.63E+01	3.73E-13	2.00E-15	2.34E-14	6.22E+01

(3) Daves Water Well is the upwind or background monitoring location. The elevated Pb-210 values are likely caused by a nearby coal-fired power plant as well as an active strip coal mine.

B. Radon

Pursuant to license condition 12.2 as defined by Table 5.3, radon is monitored by continuous samplers (track etch) at the nearest downwind residence (Vollman Ranch), downwind of the restricted area boundary (fence line), and an upwind location (Dave's Water Well). Monitoring is required to be conducted quarterly. The results indicate the values continue to be indistinguishable and within the sphere of background. Accordingly, Rio Algom to show compliance with the provisions of 10 CFR §1301, uses the provisions provided in 10 CFR §1302(b)(1).

Vollman Ranch⁽⁴⁾

	1 st Quarter	2 nd Quarter
Parameter	Conc. ($\mu\text{Ci/ml}$)	Conc. ($\mu\text{Ci/ml}$)
Radon	5.0E-10	6.0E-10

Dave's Water Well

	1 st Quarter	2 nd Quarter
Parameter	Conc. ($\mu\text{Ci/ml}$)	Conc. ($\mu\text{Ci/ml}$)
Radon	9.0E-10	8.0E-10

Fence Line

	1 st Quarter	2 nd Quarter
Parameter	Conc. ($\mu\text{Ci/ml}$)	Conc. ($\mu\text{Ci/ml}$)
Radon	6.0E-10	1.9E-9

III. Water

A. Groundwater

The groundwater monitoring program requires operating livestock or domestic wells within 1 kilometer of operating wellfields be sampled quarterly for natural uranium and radium-226. Vollman's Pond and Smith Windmill #1 are within 1 kilometer of wellfield #1 and Smith's Windmill #2 and the Solar Pump are within 1 kilometer of wellfield #3. There are no livestock or domestic wells within 1 kilometer of wellfield #4. The results of the quarterly samples for the operating livestock wells are presented in the table below.

⁽⁴⁾ NVLAP Vendor does not provide percent error or lower level of detection.

Local Groundwater Wells

	1 st Quarter		2 nd Quarter	
Location	Unat (μ Ci/ml)	Ra-226 (μ Ci/ml)	Unat (μ Ci/ml)	Ra-226 (μ Ci/ml)
Vollman Pond	9.88E-8	<2.0E-10	7.45E-10	<2.0E-10
Smith Pond	No Water	No Water	7.24E-9	1.3E-8
Smith's Windmill #1	2.36E-7	1.6E-9	2.63E-8	1.2E-9
Smith's Windmill #2	No Water	No Water	6.00E-8	6.0E-10
Solar Pump	5.35E-9	1.2E-9	5.08E-9	5.0E-10

B. Surface Water

The surface water monitoring program requires two (2) samples from Sage Creek and one (1) sample from the outfall of the treatment plant. Each is on a quarterly basis. The Sage Creek samples are to be taken upstream and downstream from the restricted areas when flow is available in the creek.

During the 1st and 2nd quarter of the report period, there was no flow in Sage Creek and therefore, no analytical results are available. There was no flow above the restricted area during either quarter. In regards to the outfall from the treatment plant, upon commencement of commercial operations, the discharge is routed to the facility's central processing plant and disposed through the UIC permitted disposal well. Thus, there was no discharge from the outfall during the report period. The NPDES reporting for this outfall is presented in Appendix A.

Sage Creek Sample Results

	1 st Qtr.		2 nd Qtr.	
Sample Location	Unat (μ g/ml)	Ra226 (μ Ci/ml)	Unat (μ g/ml)	Ra226 (μ Ci/ml)
Below Restricted Area	No Flow	No Flow	No Flow	No Flow
Above Restricted Area	No Flow	No Flow	No Flow	No Flow

IV. Soil

Soil sampling is conducted annually at the downwind air sampling station. A sample will be taken during the second half of the calendar year with the results presented in the July 1 through December 31 semi-annual effluent report.

Soil Sample Result

Location	U_{nat} pCi/g	Ra_{226} pCi/g	Pb_{210} pCi/g
Downwind of Air Sampling Station	NA	NA	NA

V. Vegetation

Vegetation sampling is performed annually at the downwind air sampling station. The sampling will be performed during the second half of the calendar year with the results reported in the July 1 through December 31, 2000 semi-annual effluent report.

Vegetation Sample Result

Location	U_{μ} Ci/Kg	$Ra_{226\mu}$ Ci/Kg	$Th_{230\mu}$ Ci/Kg	$Pb_{210\mu}$ Ci/Kg
Downwind of Air Sampling Station	NA	NA	NA	NA

VI. Direct Radiation

Direct radiation readings are measured at the three (3) air monitoring stations, downwind of the evaporation pond, and at each wellfield using TLD badges (thermoluminescent dosimeters) on a quarterly basis. Provided in the table below are the results from those measurements.

Direct Radiation (μ R/hr)

Location	1 st Quarter	2 nd Quarter
Vollman Ranch	9.8	9.0
Fence Line	11.8	10.8
Dave's Water Well	11.7	9.9
Wellfield #1	10.9	10.1
Wellfield #3	10.6	8.6
Wellfield #4	10.8	10.4
Pond	12.4	10.8

VII. Stack Sampling

As constructed, there are no effluent stacks from the yellowcake vacuum dryers. Accordingly, there is no stack sampling of the yellowcake dryer.

VIII. Other Effluent Monitoring Results

A. Gamma Radiation Survey

During "Deferred Production Status" of the O-Sand Pilot area, gamma radiation was measured quarterly at the following four (4) locations. Please note that with the initiation of commercial operations in wellfield #3 on August 10, 1998, the "Deferred Production Status" monitoring requirements are no longer required. Although, not required, measurements obtained during the 1st and 2nd quarter are presented in the table below.

Deferred Production Status
Direct Radiation Measurements

Location	1 st Quarter (μ R/Hr)	2 nd Quarter (μ R/Hr)
Downwind of Radon Sampling Location	25	23
Upwind of Process Plant	22	15
Process Leach Tank	24	25
Evaporation Ponds	50	58

APPENDIX A



Rio Algom

Rio Algom Mining Corp.

P.O. Box 1390

Glenrock, Wyoming 82637

762 Ross Road

Douglas, Wyoming 82633

307.358.3744 tel

307.266.2449 tel

307.358.9201 fax

CERTIFIED MAIL - 7099 3220 0008 5206 1408
RETURN RECEIPT REQUESTED

April 5, 2000

Mr. Chris Abernathy
Department of Environmental Quality
Water Quality Division
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

Dear Mr. Abernathy:

Attached are the Discharge Monitoring Reports for the Smith Ranch Facility, Permit Number WY-0022411 for the quarter ending March 31, 2000.

There was "No Discharge" from either discharge point during the quarter.

Sincerely,

John W. Cash
Supervisor, Environmental Safety and
Regulatory Affairs

xc: B. Ferdinand - w/attachments
M. Freeman - w/o attachments
P. Goranson - w/attachments
File - w/attachments

NAME RIO ALGOM MINING CORPORATION

ADDRESS P O BOX 1390

GLENROCK

WY 82637-1390

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

WY0022411

PERMIT NUMBER

001 Q

DISCHARGE NUMBER

(SUBR 04)

F - FINAL

MINOR

Form Approved

OMB No. 2040-0045

Expires 9-30-91

FACILITY Smith Ranch

LOCATION 762 Ross Road, Douglas, WY 82633

ATTN: ~~ROBERT XXXX BLACKSTONE~~ Bill Ferdinand

MONITORING PERIOD

FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	2000	01	01		2000	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH	SAMPLE MEASUREMENT	*****	*****		ND	*****	ND	(12)	0		Grab
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	8.0 MINIMUM	*****	9.0 MAXIMUM	SU		QTRLY	GRAB
ZINC, TOTAL (AS ZN)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab
01092 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	0.5 MX MO AV	REPORT MX WK AV	1.0 DAILY MX	MG/L		QTRLY	GRAB
SELENIUM, TOTAL (AS SE)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab
01147 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	0.05 MX MO AV	REPORT MX WK AV	0.10 DAILY MX	MG/L		QTRLY	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG- NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)	TELEPHONE	DATE		
R.P. Luke/President TYPED OR PRINTED		Bill Ferdinand SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	307 358-3744 AREA CODE NUMBER	2000 YEAR	04 MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SAMPLES SHALL BE TAKEN FROM THE FINAL TREATMENT UNIT AND PRIOR TO ADMIXTURE WITH DILUENT WATER.

PERMITTEE NAME/ADDRESS (Include
Facility Name/Location if different)
NAME RIO ALGOM MINING CORPORATION
ADDRESS P O BOX 1390
GLENROCK WY 82637-1390

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)
WY0022411

PERMIT NUMBER

(17-19)
003 Q

DISCHARGE NUMBER

(SUBR 04)
F - FINAL
MINOR

Form Approved

OMB No. 2040-00845

Expires 9-30-91

FACILITY Smith Ranch
LOCATION 762 Ross Road, Douglas, WY 82633
ATTN: ROBERT E. BLACKSTONE Bill Ferdinand

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
FROM 10	00	01	TO 10	03	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

*** NO DISCHARGE (XXX) ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
PH	SAMPLE MEASUREMENT	*****	*****		ND	*****	ND	(12)	0	Grab	
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	6.0 MINIMUM	*****	9.0 MAXIMUM	SU		QTRLY GRAB	
BICARBONATE ION- (AS HCO3)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0	Grab	
00440 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	4500 DAILY MX	MG/L		QTRLY GRAB	
OIL AND GREASE	SAMPLE MEASUREMENT	*****	*****		*****	*****	ND	(19)	0	Cont. Visual	
FREON EXTR-GRAV METH	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10 DAILY MX	MG/L		CONTINVISUAL UOUS	
00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0	Grab	
SODIUM, TOTAL (AS NA)	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	1500 DAILY MX	MG/L		QTRLY GRAB	
00929 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0	Grab	
CHLORIDE (AS CL)	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	750 DAILY MX	MG/L		QTRLY GRAB	
00940 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0	Grab	
ARSENIC, TOTAL (AS AS)	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	REPORT DAILY MX	MG/L		QTRLY GRAB	
01002 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0	Grab	
SELENIUM, TOTAL (AS SE)	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	REPORT DAILY MX	MG/L		QTRLY GRAB	
01147 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0	Grab	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)							TELEPHONE		DATE	
R.P. Luke/President											
TYPED OR PRINTED	Bill Ferdinand							307 358-3744		2000 04 05	
	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SAMPLES SHALL BE TAKEN FROM THE FINAL TREATMENT UNIT AND PRIOR TO ADMIXTURE WITH DILUENT WATER.

MINOR

NOTE: Read instructions before completing this form.

PAGE 2 OF 2



Rio Algom

Rio Algom Mining Corp.
P.O. Box 1390
Glenrock, Wyoming 82637 307.358.3744 tel
762 Ross Road 307.266.2449 tel
Douglas, Wyoming 82633 307.358.9201 fax

Certified Mail - 7099 3220 0008 5206 1712
Return Receipt Requested

July 11, 2000

Mr. Chris Abernathy
Department of Environmental Quality
Water Quality Division
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

Dear Mr. Abernathy:

Attached are the Discharge Monitoring Reports for the Smith Ranch Facility,
Permit Number WY-0022411 for the quarter ending June 30, 2000.

There was **"No Discharge"** from either discharge point during the quarter.

Sincerely,

John Cash
Supervisor, Environmental and
Regulatory Affairs

Attachments: As stated

xc: B. Ferdinand-w/ attachments
M. Freeman-w/o attachments
P. Goranson-w/ attachments
file-w/ attachments

NAME RIO ALGOM MINING CORPORATION

 ADDRESS P O BOX 1390
GLENROCK
WY 82637-1390

DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

WY0022411

PERMIT NUMBER

003 G

DISCHARGE NUMBER

(SUBR 04)

F - FINAL

MINOR

Form Approved

OMB No. 2040-0045

Expires 9-30-91

 FACILITY Smith Ranch Project

 LOCATION 762 Ross Road, Douglas, WY 82633

 ATTN: ROBERT E. BLACKSTONE Bill Ferdinand

MONITORING PERIOD

 FROM YEAR 2000 MO 04 DAY 01 TO YEAR 2000 MO 06 DAY 30
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45) (46-53) (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS					
PH	SAMPLE MEASUREMENT	*****	*****		ND	*****	ND	(12)	0		Grab		
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	8.0 MINIMUM	*****	8.0 MAXIMUM	SU		QTRLY	GRAB		
BICARBONATE ION- (AS HCO3)	SAMPLE MEASUREMENT	*****	*****		ND		ND	(19)	0		Grab		
00440 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	4500 DAILY MX	MG/L		QTRLY	GRAB		
OIL AND GREASE FREON EXTR-GRAV METH	SAMPLE MEASUREMENT	*****	*****		*****	*****	ND	(19)	0	Continuous Vis			
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10 DAILY MX	MG/L		CONTINVISUAL UOUS			
SODIUM, TOTAL (AS NA)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab		
00929 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	1500 DAILY MX	MG/L		QTRLY	GRAB		
CHLORIDE (AS CL)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab		
00940 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	750 DAILY MX	MG/L		QTRLY	GRAB		
ARSENIC, TOTAL (AS AS)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab		
01002 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	REPORT DAILY MX	MG/L		QTRLY	GRAB		
SELENIUM, TOTAL (AS SE)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab		
01147 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	REPORT MX MO AV	REPORT MX WK AV	REPORT DAILY MX	MG/L		QTRLY	GRAB		
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000, and/or maximum imprisonment of between 6 months and 5 years.)							TELEPHONE		DATE		
Rob Luke/President									307 358-3744		2000 06 26		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR	MO	DAY

Bill Ferdinand

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

AREA CODE

NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SAMPLES SHALL BE TAKEN FROM THE FINAL TREATMENT UNIT AND PRIOR TO ADMIXTURE WITH DILUENT WATER.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME RIO ALGOM MINING CORPORATION

ADDRESS P O BOX 1390

GLENROCK

WY 82637-1390

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

WY0022411

PERMIT NUMBER

003 Q

DISCHARGE NUMBER

(SUBR 04)

F - FINAL

MINOR

Form Approved

OMB No. 2040-00345

Expires 9-30-91

FACILITY Smith Ranch Project

LOCATION 762 Ross Road, Douglas, WY 82633

ATTN: ROBERT XXXXXXXXXXXXXXXXXXXXXXXXXX Bill Ferdinand

MONITORING PERIOD

FROM YEAR MO DAY TO YEAR MO DAY
2000 04 01 TO 2000 06 30
(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

*** NO DISCHARGE ***
NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	ND	ND	(03)	*****	*****	*****		0	Cont. Total	
	PERMIT REQUIREMENT	REPORT MX MO AV	REPORT DAILY MX	MGD	*****	*****	*****	****		CONTINUTALZ UOUS	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)	Bill Ferdinand	TELEPHONE	DATE		
Rob Luke/President			307 358-3744	2000	06	26
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SAMPLES SHALL BE TAKEN FROM THE FINAL TREATMENT UNIT AND PRIOR TO ADMIXTURE WITH DILUENT WATER.

NAME RIO ALGOM MINING CORPORATION

 ADDRESS P O BOX 1390
GLENROCK
WY 82637-1390

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

WY0022411

PERMIT NUMBER

001 Q

DISCHARGE NUMBER

(SUBR 04)

F - FINAL

MINOR

Form Approved

OMB No. 2040-10845

Expires 9-30-91

 FACILITY Smith Ranch Project

 LOCATION 762 Ross Road, Douglas, WY 82633

 ATTN: ROBERT E. BLACKSTONE, Bill Ferdinand

MONITORING PERIOD

 FROM 2000 04 01 TO 2000 06 30
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH	SAMPLE MEASUREMENT	*****	*****		ND	*****	ND	(12)	0		Grab
00400 1 0 0	PERMIT REQUIREMENT	*****	*****	****	6.0	*****	9.0	SU		QTRLY	GRAB
EFFLUENT GROSS VALUE				****	MINIMUM		MAXIMUM				
ZINC, TOTAL (AS ZN)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)			Grab
01092 1 0 0	PERMIT REQUIREMENT	*****	*****	****	0.5	REPORT	1.0	MG/L		QTRLY	GRAB
EFFLUENT GROSS VALUE				****	MX MO AV	MX WK AV	DAILY MX				
SELENIUM, TOTAL (AS SE)	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	0		Grab
01147 1 0 0	PERMIT REQUIREMENT	*****	*****	****	0.05	REPORT	0.10	MG/L		QTRLY	GRAB
EFFLUENT GROSS VALUE				****	MX MO AV	MX WK AV	DAILY MX				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)	TELEPHONE		DATE		
Rob Luke/President TYPED OR PRINTED		Bill Ferdinand SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	307 AREA CODE	358-3744 NUMBER	2000 YEAR	06 MO

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