



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 - P 560 605 502
Return Receipt Requested**

February 29, 2000

Mr. Thomas Essig
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, July 1-December 31, 1999**

Dear Mr. Essig:

Please find attached the Semi-Annual Effluent Monitoring Report for July 1, 1999 through December 31, 1999, 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
Supervisor, Environmental Safety &
Regulatory Affairs

Attachments: As Stated

NMSSOI Public

cc: P. Cutillo-w/attachments (WDEQ/Cheyenne)-Certified Mail - P 560 605 503
B. Ferdinand-w/attachments (RAMC/SRP)
M. Freeman-w/o attachments (RAMC/OKC)
P. Goranson-w/attachments (RAMC/OKC)
NRC (Director, Division of Radiation Safety and Safeguards/Arlington)
w/attachments-Certified Mail - P560 605 504
file

**RIO ALGOM MINING CORP.
SEMI-ANNUAL EFFLUENT MONITORING REPORT
SMITH RANCH FACILITY
JULY 1 - DECEMBER 31, 1999**

**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
JULY 1, 1999 - DECEMBER 31, 1999

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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 is the average injection rate, recovery rate and injection manifold pressure as required by condition 12.2.

Item	Wellfield #1	Wellfield #3	Wellfield #4	Total
Injection Rate Ave. (gpm)	1,207	3,803	639	5,649
Recovery Rate Ave. (gpm)	1,214	3,826	643	5,683
Injection Manifold Pressure Ave. (psi) ⁽¹⁾	95	110	85	---

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

Parameter	3rd Quarter				4th Quarter			
	Conc. ($\mu\text{Ci/ml}$)	LLD ($\mu\text{Ci/ml}$)	Error Estimate ($\mu\text{Ci/ml}$)	% of ECL	Conc. ($\mu\text{Ci/ml}$)	LLD ($\mu\text{Ci/ml}$)	Error Estimate ($\mu\text{Ci/ml}$)	% of ECL
U _{nat}	4.46E-15	1.00E-16	N/A	0.2	4.41E-15	1.00E-16	N/A	0.1
Th-230	2.70E-15	1.00E-16	8.44E-18	13.5 ⁽³⁾	7.24E-16	1.00E-16	4.34E-16	3.6
Ra-226	1.43E-15	1.00E-16	4.22E-16	0.2	8.69E-16	1.00E-16	2.90E-16	0.1
Pb-210	5.30E-13	2.00E-15	1.81E-14	88.3 ⁽³⁾	1.18E-13	2.00E-15	6.88E-15	19.7 ⁽³⁾

Dave's Water Well

Parameter	3rd Quarter				4th Quarter			
	Conc. ($\mu\text{Ci/ml}$)	LLD ($\mu\text{Ci/ml}$)	Error Estimate ($\mu\text{Ci/ml}$)	% of ECL	Conc. ($\mu\text{Ci/ml}$)	LLD ($\mu\text{Ci/ml}$)	Error Estimate ($\mu\text{Ci/ml}$)	% of ECL
U _{nat}	5.11E-15	1.00E-16	N/A	0.2	3.81E-15	1.00E-16	N/A	0.1
Th-230	4.52E-15	1.00E-16	1.37E-15	22.6	1.10E-15	1.00E-16	8.22E-16	5.5
Ra-226	3.68E-15	1.00E-16	2.10E-16	0.4	1.10E-15	1.00E-16	8.22E-16	0.1
Pb-210	4.56E-13	2.00E-15	1.90E-14	76.0	3.77E-13	2.00E-15	1.63E-14	62.8

Fence Line

Parameter	3rd Quarter				4th Quarter			
	Conc. ($\mu\text{Ci/ml}$)	LLD ($\mu\text{Ci/ml}$)	Error Estimate ($\mu\text{Ci/ml}$)	% of ECL	Conc. ($\mu\text{Ci/ml}$)	LLD ($\mu\text{Ci/ml}$)	Error Estimate ($\mu\text{Ci/ml}$)	% of ECL
U _{nat}	1.31E-13	1.00E-16	N/A	4.4	7.80E-14	1.00E-16	N/A	2.6
Th-230	3.28E-15	1.00E-16	8.87E-16	16.4 ⁽³⁾	1.72E-15	1.00E-16	6.44E-16	8.6 ⁽³⁾
Ra-226	7.99E-15	1.00E-16	7.10E-16	0.9	2.72E-15	1.00E-16	1.43E-16	0.3
Pb-210	5.22E-13	2.00E-15	1.84E-14	87.0 ⁽³⁾	2.26E-13	2.00E-15	9.09E-15	37.7 ⁽³⁾

⁽³⁾ Although these values are elevated, RAMC believes they represent background values for the area as evidenced by the samples taken at the upwind and designated background location of Dave's Water Well.

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⁾

	3rd Quarter	4th Quarter
Parameter	Conc. ($\mu\text{Ci/ml}$)	Conc. ($\mu\text{Ci/ml}$)
Radon	1.3E-9	1.4E-9

Dave's Water Well

	3rd Quarter	4th Quarter
Parameter	Conc. ($\mu\text{Ci/ml}$)	Conc. ($\mu\text{Ci/ml}$)
Radon	9.0E-10	2.6E-9

Fence Line

	3rd Quarter	4th Quarter
Parameter	Conc. ($\mu\text{Ci/ml}$)	Conc. ($\mu\text{Ci/ml}$)
Radon	1.8E-9	1.1E-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. 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

Location	3rd Quarter		4th Quarter	
	Unat ($\mu\text{Ci/ml}$)	Ra-226 ($\mu\text{Ci/ml}$)	Unat ($\mu\text{Ci/ml}$)	Ra-226 ($\mu\text{Ci/ml}$)
Vollman Pond	2.03E-9	1.2E-9	1.02E-8	6.6E-9
Smith's Windmill #1	3.45E-8	3.7E-9	2.64E-8	1.1E-9
Smith's Windmill #2	6.16E-8	8.00E-10	6.23E-8	1.1E-9
Solar Pump	5.35E-9	1.3E-9	9.27E-8	1.9E-9

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 4th quarter of the report period, there was no flow in Sage Creek and therefore, no analytical results are available for the fourth quarter. However, a sample below the restricted area was collected on 8/19/99 of the third quarter. 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

Sample Location	3 rd Qtr.		4 th Qtr.	
	Unat ($\mu\text{g/ml}$)	Ra226 ($\mu\text{Ci/ml}$)	Unat ($\mu\text{g/ml}$)	Ra226 ($\mu\text{Ci/ml}$)
Below Restricted Area	8.0E-3	7.0E-10	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. This sampling was conducted on June 17, 1999, and reported in the 1st half 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	0.61	0.95	0.61

V. Vegetation

Vegetation sampling is performed annually at the downwind air sampling station. This sampling was performed on June 17, 1999, and reported in the 1st half semi-annual effluent report.

Vegetation Sample Result

Location	U _μ Ci/Kg	Ra _{226μ} Ci/Kg	Th _{230μ} Ci/Kg	Pb _{210μ} Ci/Kg
Downwind of Air Sampling Station	3.9E-05	340E-06	2.8E-06	36.3E-06

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 (μR/hr)

Location	3rd Quarter	4th Quarter
Vollman Ranch	10.4	10.9
Fence Line	12.6	11.01
Dave's Water Well	9.9	9.8
Wellfield #1	10.6	9.6
Wellfield #3	9.3	9.5
Wellfield #4	10.0	11.5
Pond	10.7	10.4

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 3rd and 4th quarter are presented in the table below.

Deferred Production Status
Direct Radiation Measurements

Location	3rd Quarter ($\mu\text{R}/\text{Hr}$)	4th Quarter ($\mu\text{R}/\text{Hr}$)
Downwind of Radon Sampling Location	15	20
Upwind of Process Plant	20	20
Process Leach Tank	20	30
Evaporation Ponds	20	24

Appendix A

Rio Algom Mining Corp.

Smith Ranch Uranium Project

October 11, 1999

Certified Mail-Z 780 870 118
Return Receipt Requested

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 September 30, 1999.

There was "**No Discharge**" from either discharge point during the quarter. All fluids were discharged to the Deep Disposal Well.

Sincerely,

John Cash
Supervisor, Environmental and
Regulatory Affairs

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

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

001 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

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
99	07	01		99	09	30
		(20-21)	(22-23)	(24-25)	(26-27) (28-29) (30-31)	

*** NO DISCHARGE [X] ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (3 Card Only) (46-53)			QUALITY OR CONCENTRATION (4 Card Only) (38-45) (46-53) (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE (54-55)	MAXIMUM (56-57)	UNITS (58-59)	MINIMUM (38-40)	AVERAGE (41-43)	MAXIMUM (44-45)	UNITS (46-48)			
PH	SAMPLE MEASUREMENT	*****	*****			*****				(12)	
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	8.0 MINIMUM	*****	9.0 MAXIMUM	SU		QTRLY GRAB	
ZINC, TOTAL (AS ZN)	SAMPLE MEASUREMENT	*****	*****							(19)	
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	*****	*****							(19)	
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										
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	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.)	TELEPHONE	DATE				
			307 358-2744	99	10	08	
R. P. Luke President	Bill Ferdinand	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
TYPED OR PRINTED							

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)

WY0022411
 PERMIT NUMBER

003 Q
 DISCHARGE NUMBER

(SUER 04)
 F - FINAL
 MINOR

Form Approved
 OMB No. 2040-00045
 Expires 9-30-91

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
99	07	01	TO	99	09	30
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

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

FACILITY Smith Ranch Project
 LOCATION 762 Ross Road, Douglas, WY 82633
Bill Ferdinand

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (3 Card Only) (46-53)			QUALITY OR CONCENTRATION (4 Card Only) (46-53) (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				(03)	*****	*****	*****				
50050 1 0 0	PERMIT REQUIREMENT	REPORT MX MO AV	REPORT DAILY MX	MGD	*****	*****	*****	****			CONTINTOTALZ DOUS
EFFLUENT GROSS VALUE											
	SAMPLE MEASUREMENT										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
R. P. Luke/President
 TYPED OR PRINTED

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
 Bill Ferdinand
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
 DATE
 AREA NUMBER YEAR MO DAY
 307 358-3744 99 10 08

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.

Rio Algom Mining Corp.

Smith Ranch Uranium Facility

Certified Mail – P 560 606 483
Return Receipt Requested

January 06, 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 December 31, 1999.

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

Sincerely,



John Cash
Supervisor, Environmental and
Regulatory Affairs

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

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

001 Q

DISCHARGE NUMBER

(SUBR 04)

F - FINAL

MINOR

Form Approved

OMB No. 2040-0045

Expires 9-30-91

FACILITY Smith Ranch Facility

LOCATION 762855 Road, Douglas, WY 82633

ATTN: ROBERT E. BLACKSTONE Bill Ferdinand

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	99	10	01		99	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

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

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (34-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH		*****	*****		No Discharge	*****	No Discharge	(12)			
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	8.0 MINIMUM	*****	9.0 MAXIMUM	SU		QTRLY	GRAB
ZINC, TOTAL (AS ZN)		*****	*****		No Discharge	No Discharge	No Discharge	(19)			
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)		*****	*****		No Discharge	No Discharge	No Discharge	(19)			
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										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

R.P. Luke/President

TYPED OR PRINTED

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
Bill Ferdinand/Manager

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

307 358-3744

DATE

00 01 09
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 003 Q
 PERMIT NUMBER DISCHARGE NUMBER

Form Approved OMB No. 2040-1003-45
 (SUBR 04) F - FINAL Expires 9-30-91
 MINOR

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

MONITORING PERIOD
 FROM YEAR MO DAY TO YEAR MO DAY
 99 10 01 TO 99 12 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)	SAMPLE MEASUREMENT PERMIT REQUIREMENT	(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		*****	*****			*****		(12)			
00400 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	No Discharge	*****	No Discharge				QTRLY GRAB
BICARBONATE ION- (AS HCO3)		*****	*****		6.0	*****	9.0				
00440 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	MINIMUM	*****	MAXIMUM	SU			
OIL AND GREASE		*****	*****			*****		(19)			
FREON EXTR-GRAV METH		*****	*****		No Discharge	*****	No Discharge				
00556 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	REPORT	*****	4500				QTRLY GRAB
SODIUM, TOTAL (AS NA)		*****	*****		MX MO AV	*****	DAILY MX	MG/L			
00929 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	*****	*****	10				CONTINVISUAL UOUS
CHLORIDE (AS CL)		*****	*****		No Discharge	*****	No Discharge				
00940 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	REPORT	*****	1500				QTRLY GRAB
ARSENIC, TOTAL (AS AS)		*****	*****		MX MO AV	*****	DAILY MX	MG/L			
01002 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	*****	*****	750				QTRLY GRAB
SELENIUM, TOTAL (AS SE)		*****	*****		No Discharge	*****	No Discharge				
01147 1 0 0 EFFLUENT GROSS VALUE		*****	*****	****	REPORT	*****	REPORT				QTRLY GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 R.P. Luke/President
 TYPED OR PRINTED

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
 Bill Ferdinand/Manager
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE DATE
 307 358-3744 00 01 5095
 AREA 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

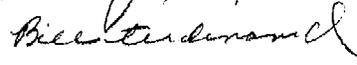
Form Approved
 OMB No. 2040-0045
 Expires 9-30-91

FACILITY Smith Ranch Facility
 LOCATION 762 Ross Road, Douglas, WY 82633
 ATTN: ~~ROBERT EXXY BLACKSTONE~~ Bill Ferdinand

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	99	10	01		99	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

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

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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER R.P. Luke/President TYPED OR PRINTED	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/Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
			307	353-3744	00	01	05

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