

APPENDIX B

LABORATORY DATA SHEETS

TEST PIT SOIL SAMPLE
LAB DATA SHEETS

**** REPORT ****

Pioneer Technical Services
Joe McElroy
63 1/2 W Broadway
Butte MT 59701

RECEIVED
OCT 10 2008

ANALYTICAL SUMMARY REPORT

October 07, 2008

Joe McElroy
Pioneer Technical Services
63 1/2 W Broadway
Butte, MT 59701

Workorder No.: B08091731

Project Name: McLaren Tailings

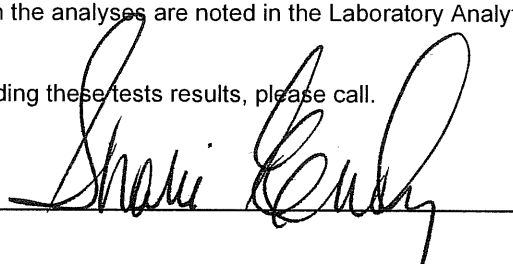
Energy Laboratories Inc received the following 7 samples from Pioneer Technical Services on 9/17/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B08091731-001	McLaren-TP-01-A-091008	09/10/08 17:15	09/17/08	Soil	Metals by ICP/ICPMS, SPLP Mercury, SPLP SPLP Extraction, Mercury SPLP Extraction, Regular
B08091731-002	McLaren-TP-01-B-091008	09/10/08 17:20	09/17/08	Soil	Same As Above
B08091731-003	McLaren-TP-02-A-091108	09/11/08 8:30	09/17/08	Soil	Same As Above
B08091731-004	McLaren-TP-02-B-091108	09/11/08 8:30	09/17/08	Soil	Same As Above
B08091731-005	McLaren-TP-03-A-091108	09/11/08 13:20	09/17/08	Soil	Same As Above
B08091731-006	McLaren-TP-04-091208	09/12/08 14:00	09/17/08	Soil	Same As Above
B08091731-007	McLaren-TP-03B-091108	09/11/08 13:25	09/17/08	Soil	Same As Above

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: _____



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-001
Client Sample ID: McLaren-TP-01-A-091008

Report Date: 10/07/08
Collection Date: 09/10/08 17:15
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 11:54 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 11:54 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 11:54 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Iron	ND	mg/L		1		SW6010B	10/02/08 11:54 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Manganese	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 07:55 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 04:46 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 11:54 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-002
Client Sample ID: McLaren-TP-01-B-091008

Report Date: 10/07/08
Collection Date: 09/10/08 17:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 11:58 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 11:58 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 11:58 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Iron	ND	mg/L		1		SW6010B	10/02/08 11:58 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Manganese	2.4	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 07:57 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:00 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 11:58 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-003
Client Sample ID: McLaren-TP-02-A-091108

Report Date: 10/07/08
Collection Date: 09/11/08 08:30
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:02 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:02 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:02 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Iron	ND	mg/L		1		SW6010B	10/02/08 12:02 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Manganese	1.1	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 07:59 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:35 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:02 / rlh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-004
Client Sample ID: McLaren-TP-02-B-091108

Report Date: 10/07/08
Collection Date: 09/11/08 08:30
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:06 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:06 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:06 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Iron	ND	mg/L		1		SW6010B	10/02/08 12:06 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Manganese	0.6	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:02 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:41 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:06 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-005
Client Sample ID: McLaren-TP-03-A-091108

Report Date: 10/07/08
Collection Date: 09/11/08 13:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPL EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:10 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:10 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:10 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Iron	ND	mg/L		1		SW6010B	10/02/08 12:10 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Manganese	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:04 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:48 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:10 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-006
Client Sample ID: McLaren-TP-04-091208

Report Date: 10/07/08
Collection Date: 09/12/08 14:00
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:14 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:14 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:14 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Iron	ND	mg/L		1		SW6010B	10/02/08 12:14 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Manganese	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:16 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:55 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:14 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-007
Client Sample ID: McLaren-TP-03B-091108

Report Date: 10/07/08
Collection Date: 09/11/08 13:25
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:18 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:18 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:18 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Iron	24	mg/L		1		SW6010B	10/02/08 12:18 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Manganese	4.3	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:18 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:18 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 06:02 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:18 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/07/08

Project: McLaren Tailings

Work Order: B08091731

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34993
Sample ID: MB-34993	Method Blank		Run: ICP202-B_081002A					10/02/08 11:50	
Aluminum	0.1	mg/L	0.005						
Antimony	ND	mg/L	0.02						
Arsenic	ND	mg/L	0.01						
Barium	ND	mg/L	0.0005						
Cadmium	ND	mg/L	0.002						
Chromium	ND	mg/L	0.001						
Copper	ND	mg/L	0.001						
Iron	0.01	mg/L	0.002						
Lead	ND	mg/L	0.008						
Manganese	0.10	mg/L	0.0002						
Nickel	ND	mg/L	0.003						
Zinc	0.003	mg/L	0.003						
Sample ID: B08092451-001AMS3	Sample Matrix Spike		Run: ICP202-B_081002A					10/02/08 12:34	
Aluminum	484	mg/L	5.0		75	125			A
Antimony	0.529	mg/L	0.50	106	75	125			
Arsenic	0.491	mg/L	0.50	98	75	125			
Barium	0.618	mg/L	10	109	75	125			
Cadmium	0.283	mg/L	0.10	100	75	125			
Chromium	0.810	mg/L	0.50	97	75	125			
Copper	0.587	mg/L	0.50	111	75	125			
Iron	34.4	mg/L	1.0		75	125			A
Lead	0.583	mg/L	0.50	106	75	125			
Manganese	4.91	mg/L	0.50	96	75	125			
Nickel	0.768	mg/L	0.50	103	75	125			
Zinc	0.998	mg/L	1.0	82	75	125			
Sample ID: B08092451-001AMSD3	Sample Matrix Spike Duplicate		Run: ICP202-B_081002A					10/02/08 12:38	
Aluminum	491	mg/L	5.0		75	125	1.6	20	A
Antimony	0.544	mg/L	0.50	109	75	125	2.8	20	
Arsenic	0.488	mg/L	0.50	98	75	125	0	20	
Barium	0.612	mg/L	10	108	75	125	0	20	
Cadmium	0.290	mg/L	0.10	103	75	125	2.7	20	
Chromium	0.816	mg/L	0.50	99	75	125	0.7	20	
Copper	0.575	mg/L	0.50	109	75	125	2.1	20	
Iron	34.8	mg/L	1.0		75	125	1.1	20	A
Lead	0.588	mg/L	0.50	107	75	125	0.9	20	
Manganese	5.00	mg/L	0.50	99	75	125	1.9	20	
Nickel	0.775	mg/L	0.50	105	75	125	0.9	20	
Zinc	1.04	mg/L	1.0	90	75	125	4	20	
Sample ID: B08092451-002ADIL	Serial Dilution		Run: ICP202-B_081002A					10/02/08 12:46	
Aluminum	0.183	mg/L	5.0		0	0		20	N
Antimony	ND	mg/L	0.50		0	0	0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/07/08

Project: McLaren Tailings

Work Order: B08091731

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Batch: 34993		
Sample ID: B08092451-002ADIL	Serial Dilution		Run: ICP202-B_081002A				10/02/08 12:46		
Arsenic	ND	mg/L	0.50		0	0	0	20	
Barium	0.0690	mg/L	10		0	0	0	20	
Cadmium	ND	mg/L	0.10		0	0	0	20	
Chromium	ND	mg/L	0.50		0	0	0	20	
Copper	0.00570	mg/L	0.50		0	0		20	N
Iron	0.0310	mg/L	1.0		0	0		20	N
Lead	ND	mg/L	0.50		0	0	0	20	
Manganese	0.112	mg/L	0.50		0	0	0	20	
Nickel	ND	mg/L	0.50		0	0	0	20	
Zinc	ND	mg/L	1.0		0	0	0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/07/08

Project: McLaren Tailings

Work Order: B08091731

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B					Analytical Run: ICP202-B_081002A				
Sample ID: QCS	Initial Calibration Verification Standard								10/02/08 10:04
Aluminum	4.16	mg/L	0.10	104	90	110			
Antimony	0.860	mg/L	0.0100	107	90	110			
Arsenic	0.848	mg/L	0.10	106	90	110			
Barium	0.822	mg/L	0.10	103	90	110			
Cadmium	0.401	mg/L	0.010	100	90	110			
Chromium	0.780	mg/L	0.050	98	90	110			
Copper	0.804	mg/L	0.010	100	90	110			
Iron	4.11	mg/L	0.030	103	90	110			
Lead	0.859	mg/L	0.050	107	90	110			
Manganese	3.96	mg/L	0.010	99	90	110			
Nickel	0.829	mg/L	0.050	104	90	110			
Zinc	0.827	mg/L	0.010	103	90	110			
Sample ID: ICSA	Interference Check Sample A								10/02/08 10:20
Aluminum	522	mg/L	0.10	104	80	120			
Antimony	-0.0233	mg/L	0.0100		-0.05	0.05			
Arsenic	-0.0290	mg/L	0.10		-0.1	0.1			
Barium	0.000970	mg/L	0.10		-0.005	0.0005			
Cadmium	0.00936	mg/L	0.010		-0.001	0.001			
Chromium	-0.00870	mg/L	0.050		-0.01	0.01			
Copper	0.00521	mg/L	0.010		-0.01	0.01			
Iron	222	mg/L	0.091	111	80	120			
Lead	0.0707	mg/L	0.050		-0.01	0.01			
Manganese	0.00354	mg/L	0.010		-0.01	0.01			
Nickel	-0.00125	mg/L	0.050		-0.05	0.05			
Zinc	-0.0431	mg/L	0.010		-0.01	0.01			
Sample ID: ICSAB	Interference Check Sample AB								10/02/08 10:25
Aluminum	537	mg/L	0.10	107	80	120			
Antimony	1.06	mg/L	0.0100	106	80	120			
Arsenic	1.06	mg/L	0.10	106	80	120			
Barium	0.523	mg/L	0.10	105	80	120			
Cadmium	1.00	mg/L	0.010	100	80	120			
Chromium	0.478	mg/L	0.050	96	80	120			
Copper	0.531	mg/L	0.010	106	80	120			
Iron	209	mg/L	0.091	104	80	120			
Lead	1.13	mg/L	0.050	113	80	120			
Manganese	0.499	mg/L	0.010	100	80	120			
Nickel	1.01	mg/L	0.050	101	80	120			
Zinc	0.991	mg/L	0.010	99	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/07/08

Project: McLaren Tailings

Work Order: B08091731

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: 34993
Sample ID: MB-34993	Method Blank					Run: ICPMS204-B_081005A			10/05/08 04:39
Silver	9E-05	mg/L	2E-05						
Sample ID: B08091731-001ADIL	Serial Dilution					Run: ICPMS204-B_081005A			10/05/08 04:53
Silver	ND	mg/L	0.50		0	0	0	20	
Sample ID: B08092451-001AMS3	Sample Matrix Spike					Run: ICPMS204-B_081005A			10/05/08 06:16
Silver	0.262	mg/L	0.50	105	75	125			
Sample ID: B08092451-001AMSD3	Sample Matrix Spike Duplicate					Run: ICPMS204-B_081005A			10/05/08 06:23
Silver	0.265	mg/L	0.50	106	75	125	0	20	
Method: SW6020									Analytical Run: ICPMS204-B_081005A
Sample ID: QCS-ME080514B,080814	Initial Calibration Verification Standard								10/05/08 03:37
Silver	0.0256	mg/L	0.0010	102	90	110			
Sample ID: ICSA	Interference Check Sample A								10/05/08 03:58
Silver	5.03E-05	mg/L	0.0010						
Sample ID: ICSAB	Interference Check Sample AB								10/05/08 04:04
Silver	0.0209	mg/L	0.0010	104	70	130			
Method: SW7470A									Batch: 34992
Sample ID: MB-34992	Method Blank					Run: HGC201-B_081002A			10/02/08 07:48
Mercury	ND	mg/L	0.0005						
Sample ID: MBMS-34992	Sample Matrix Spike					Run: HGC201-B_081002A			10/02/08 07:50
Mercury	0.00940	mg/L	0.020	94	85	115			
Sample ID: MBMSD-34992	Sample Matrix Spike Duplicate					Run: HGC201-B_081002A			10/02/08 07:52
Mercury	0.00935	mg/L	0.020	93	85	115	0	20	
Sample ID: B08091731-005AMS	Sample Matrix Spike					Run: HGC201-B_081002A			10/02/08 08:06
Mercury	0.00915	mg/L	0.020	92	85	115			
Sample ID: B08091731-005AMSD	Sample Matrix Spike Duplicate					Run: HGC201-B_081002A			10/02/08 08:09
Mercury	0.00900	mg/L	0.020	90	85	115	0	20	
Sample ID: B08092451-001AMS	Sample Matrix Spike					Run: HGC201-B_081002A			10/02/08 08:25
Mercury	0.00574	mg/L-dry	0.020	110	85	115			
Sample ID: B08092451-001AMSD	Sample Matrix Spike Duplicate					Run: HGC201-B_081002A			10/02/08 08:27
Mercury	0.00546	mg/L-dry	0.020	104	85	115	0	20	
Sample ID: B08092451-009ADIL	Serial Dilution					Run: HGC201-B_081002A			10/02/08 08:56
Mercury	ND	mg/L	0.020		0	0	0	20	N

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/07/08

Project: McLaren Tailings

Work Order: B08091731

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW7470A							Analytical Run: HGCV201-B_081002A		
Sample ID: QCS	Initial Calibration Verification Standard								10/02/08 07:32
Mercury	0.00211	mg/L	0.0010	105	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Energy Laboratories Inc

Workorder Receipt Checklist



B08091731

Pioneer Technical Services

Login completed by: Gina McCartney

Date and Time Received: 9/17/2008 9:00 AM

Reviewed by: Denise Ruby

Received by: smr

Reviewed Date: 9/18/2008 12:11:00 PM

Carrier name: Return-UPS
Ground

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	20°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None

Company Name: Pioneer Technical Services McLaren Tailings			Project Name, PWS #, Permit #, Etc.:																																																																																																																																																	
Report Mail Address: 631/2 W. Broadway Bute, Mt. 59701			Contact Name, Phone, Fax, E-mail: Joe McElroy 406-782-5177		Sampler Name if other than Contact: Julie Flammang																																																																																																																																															
Invoice Address: Same			Invoice Contact & Phone #: Amanda Booth 406-782-5177		Purchase Order #: ELI Quote #:																																																																																																																																															
Report Required For: POTW/WWTP ☐ DW ☐ Other _____			ANALYSIS REQUESTED																																																																																																																																																	
Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width:10%;">Number of Containers</td> <td rowspan="2" style="width:10%;">Sample Type: A W S V B O</td> <td rowspan="2" style="width:10%;">Air</td> <td rowspan="2" style="width:10%;">Water</td> <td rowspan="2" style="width:10%;">Solids</td> <td rowspan="2" style="width:10%;">Vegetation</td> <td rowspan="2" style="width:10%;">Bioassay</td> <td rowspan="2" style="width:10%;">Other</td> <td rowspan="2" style="width:10%;">SEE ATTACHED</td> <td rowspan="2" style="width:10%;">Normal Turnaround (TAT)</td> <td rowspan="2" style="width:10%;">RUSH Turnaround (TAT)</td> <td rowspan="2" style="width:10%;">Notify ELI prior to RUSH sample submittal for additional charges and scheduling</td> <td rowspan="2" style="width:10%;">Comments: Perkins 6.5 20° RTRN US 020 SEALS dandyfunch 9-17-08 9:00</td> <td rowspan="2" style="width:10%;">Receipt Temp 15.3 °C</td> <td rowspan="2" style="width:10%;">Cooler ID(s) WRA</td> <td rowspan="2" style="width:10%;">Custody Seal Y ☒ N ☐</td> <td rowspan="2" style="width:10%;">Intact Y ☐ N ☐</td> <td rowspan="2" style="width:10%;">Signature Y ☐ N ☐</td> <td rowspan="2" style="width:10%;">Match</td> <td rowspan="2" style="width:10%;">Lab ID</td> </tr> <tr></tr> </table>			Number of Containers	Sample Type: A W S V B O	Air	Water	Solids	Vegetation	Bioassay	Other	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Notify ELI prior to RUSH sample submittal for additional charges and scheduling	Comments: Perkins 6.5 20° RTRN US 020 SEALS dandyfunch 9-17-08 9:00	Receipt Temp 15.3 °C	Cooler ID(s) WRA	Custody Seal Y ☒ N ☐	Intact Y ☐ N ☐	Signature Y ☐ N ☐	Match	Lab ID																																																																																																																											
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Custody Record MUST be Signed Relinquished by: ISSUED Hallam 9/16/08 Date/Time: 10:37 Relinquished by: _____ Date/Time: _____ Shipped by: Hand Delivered Shipped by: _____ Received by: RECEIVED 9/16/08 10:36 Date/Time: 10:36 Received by: dandyfunch 9-17-08 9:00 Date/Time: 9:00 Sample Disposal: _____ Return to client: _____ Lab Disposal: _____ Sample Type: _____ # of fractions: _____																																																																																																																																																				

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, & links.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-001
Client Sample ID: McLaren-TP-01-A-091008

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/10/08 17:15
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 11:54 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 11:54 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 11:54 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Iron	0.02	mg/L	D	0.02		SW6010B	10/02/08 11:54 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Manganese	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 07:55 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 11:54 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 04:46 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 11:54 / rlh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-002
Client Sample ID: McLaren-TP-01-B-091008

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/10/08 17:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 11:58 / rth
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Barium	ND	mg/L		10		SW6010B	10/02/08 11:58 / rth
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 11:58 / rth
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Copper	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Iron	ND	mg/L	D	0.02		SW6010B	10/02/08 11:58 / rth
Lead	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Manganese	2.4	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 07:57 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 11:58 / rth
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:00 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 11:58 / rth

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-003
Client Sample ID: McLaren-TP-02-A-091108

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/11/08 08:30
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:02 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:02 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:02 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Iron	ND	mg/L	D	0.02		SW6010B	10/02/08 12:02 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Manganese	1.1	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 07:59 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:02 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:35 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:02 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-004
Client Sample ID: McLaren-TP-02-B-091108

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/11/08 08:30
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:06 / rth
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Barium	ND	mg/L		10		SW6010B	10/02/08 12:06 / rth
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:06 / rth
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Iron	ND	mg/L		0.01		SW6010B	10/02/08 12:06 / rth
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Manganese	0.6	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:02 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:06 / rth
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:41 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:06 / rth

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-005
Client Sample ID: McLaren-TP-03-A-091108

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/11/08 13:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:10 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:10 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:10 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Iron	0.10	mg/L	D	0.02		SW6010B	10/02/08 12:10 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Manganese	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:04 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:10 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:48 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:10 / rlh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-006
Client Sample ID: McLaren-TP-04-091208

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/12/08 14:00
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	ND	mg/L		5		SW6010B	10/02/08 12:14 / rlh
Antimony	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Arsenic	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Barium	ND	mg/L		10		SW6010B	10/02/08 12:14 / rlh
Cadmium	ND	mg/L		0.1		SW6010B	10/02/08 12:14 / rlh
Chromium	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Copper	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Iron	ND	mg/L		0.01		SW6010B	10/02/08 12:14 / rlh
Lead	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Manganese	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Mercury	ND	mg/L		0.02		SW7470A	10/02/08 08:16 / jjw
Nickel	ND	mg/L		0.5		SW6010B	10/02/08 12:14 / rlh
Silver	ND	mg/L		0.5		SW6020	10/05/08 05:55 / aje
Zinc	ND	mg/L		1		SW6010B	10/02/08 12:14 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08091731-007
Client Sample ID: McLaren-TP-03B-091108

Revised Date: 10/23/08
Report Date: 10/23/08
Collection Date: 09/11/08 13:25
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.182	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Antimony	ND	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Arsenic	ND	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Barium	0.038	mg/L		0.001		SW6010B	10/02/08 12:18 / rlh
Cadmium	0.091	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Chromium	ND	mg/L		0.001		SW6010B	10/02/08 12:18 / rlh
Copper	0.065	mg/L		0.001		SW6010B	10/02/08 12:18 / rlh
Iron	24.5	mg/L		0.01		SW6010B	10/02/08 12:18 / rlh
Lead	ND	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Manganese	4.29	mg/L		0.001		SW6010B	10/02/08 12:18 / rlh
Mercury	ND	mg/L		0.001		SW7470A	10/02/08 08:18 / jjw
Nickel	0.022	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Silver	ND	mg/L		0.001		SW6020	10/05/08 06:02 / aje
Zinc	0.230	mg/L		0.001		SW6020	10/05/08 06:02 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-001
Client Sample ID: TP-3A-3%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:30 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.16	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Copper	0.047	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/19/09 19:07 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Nickel	0.001	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 03:57 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Barium	0.015	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Chromium	0.005	mg/L		0.001		SW6020	03/06/09 20:09 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 03:57 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-002
Client Sample ID: TP-3A-3%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:35 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.015	mg/L	D	0.004		SW6020	03/06/09 20:29 / eli-b
Antimony	0.001	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Copper	0.020	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Iron	0.03	mg/L		0.01		SW6010B	02/19/09 19:15 / eli-b
Manganese	0.001	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Nickel	ND	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 04:46 / eli-b
Arsenic	0.003	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Barium	0.017	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Chromium	0.002	mg/L		0.001		SW6020	03/06/09 20:29 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 04:46 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-003
Client Sample ID: TP-3A-5%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:37 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.013	mg/L	D	0.004		SW6020	03/06/09 20:43 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Copper	0.059	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/19/09 19:23 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Nickel	0.001	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 05:00 / eli-b
Arsenic	0.001	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Barium	0.027	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Chromium	0.011	mg/L		0.001		SW6020	03/06/09 20:43 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 05:00 / eli-b

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-004
Client Sample ID: TP-3A-5%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:40 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.010	mg/L	D	0.004		SW6020	03/06/09 20:50 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Copper	0.037	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/19/09 19:27 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Nickel	0.001	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 05:07 / eli-b
Arsenic	0.003	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Barium	0.021	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Chromium	0.004	mg/L		0.001		SW6020	03/06/09 20:50 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 05:07 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-005
Client Sample ID: TP-4A-3%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:42 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.17	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Copper	0.027	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/19/09 19:31 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 05:14 / eli-b
Arsenic	0.001	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Barium	0.015	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Chromium	0.002	mg/L		0.001		SW6020	03/06/09 20:57 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 05:14 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-006
Client Sample ID: TP-4A-3%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:44 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.041	mg/L	D	0.004		SW6020	03/06/09 21:04 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Copper	0.015	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/19/09 19:35 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 05:21 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Barium	0.016	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Chromium	0.001	mg/L		0.001		SW6020	03/06/09 21:04 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 05:21 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-008
Client Sample ID: TP-4A-5%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 09:54 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.051	mg/L		0.001		SW6020	03/06/09 21:39 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Copper	0.012	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 18:57 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 05:28 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Barium	0.022	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Chromium	0.002	mg/L		0.001		SW6020	03/06/09 21:39 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 05:28 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-009
Client Sample ID: TP-4A-5%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	0.0030	mg/L		0.0010	0.2	SW7470A	02/17/09 09:57 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.013	mg/L	D	0.004		SW6020	03/06/09 21:46 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Copper	0.016	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 19:01 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 05:35 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Barium	0.022	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Chromium	0.003	mg/L		0.001		SW6020	03/06/09 21:46 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 05:35 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-010
Client Sample ID: TP-4A-5%-WLPQL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:01 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.036	mg/L	D	0.004		SW6020	03/06/09 21:52 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Copper	0.034	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 19:05 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Nickel	0.001	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:11 / eli-b
Arsenic	0.001	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Barium	0.020	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Chromium	0.007	mg/L		0.001		SW6020	03/06/09 21:52 / eli-b
Lead	0.001	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:11 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-011
Client Sample ID: TP-3B-3%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:03 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.038	mg/L	D	0.004		SW6020	03/06/09 21:59 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Copper	0.086	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 19:10 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Nickel	0.003	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:18 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Barium	0.040	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Chromium	0.008	mg/L		0.001		SW6020	03/06/09 21:59 / eli-b
Lead	0.004	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:18 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-012
Client Sample ID: TP-3B-3%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:05 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.39	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Copper	0.038	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Iron	0.01	mg/L		0.01		SW6010B	02/20/09 19:14 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Nickel	ND	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:25 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Barium	0.021	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Chromium	0.002	mg/L		0.001		SW6020	03/06/09 22:06 / eli-b
Lead	0.001	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:25 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-013
Client Sample ID: TP-3B-5%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:08 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.017	mg/L	D	0.004		SW6020	03/06/09 22:13 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Copper	0.12	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 19:18 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:32 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Barium	0.080	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Chromium	0.010	mg/L		0.001		SW6020	03/06/09 22:13 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:32 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-014
Client Sample ID: TP-3B-5%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:10 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.43	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Copper	0.074	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 19:30 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:39 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Barium	0.024	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Chromium	0.004	mg/L		0.001		SW6020	03/06/09 22:20 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:39 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-015
Client Sample ID: TP-3B-7%-QL

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:12 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.015	mg/L	D	0.004		SW6020	03/06/09 22:27 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Copper	0.12	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Iron	ND	mg/L		0.01		SW6010B	02/20/09 19:34 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:46 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Barium	0.091	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Chromium	0.010	mg/L		0.001		SW6020	03/06/09 22:27 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:46 / eli-b

**Report
Definitions:**

RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-016
Client Sample ID: TP-3B-7%-LKD

Revised Date: 03/12/09
Report Date: 02/24/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
SPLP METALS							
Mercury	ND	mg/L		0.0010	0.2	SW7470A	02/17/09 10:15 / eli-b
SPLP EXTRACTABLE CONSTITUENTS							
Aluminum	0.28	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Antimony	ND	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Copper	0.097	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Iron	0.03	mg/L		0.01		SW6010B	02/20/09 19:38 / eli-b
Manganese	ND	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Nickel	0.002	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Zinc	ND	mg/L		0.02		SW6020	02/19/09 06:53 / eli-b
Arsenic	0.002	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Barium	0.035	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Cadmium	ND	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Chromium	0.007	mg/L		0.001		SW6020	03/06/09 22:34 / eli-b
Lead	ND	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b
Silver	ND	mg/L		0.001		SW6020	02/19/09 06:53 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Revised Date: 03/12/09
Report Date: 02/24/09
Work Order: H09010213

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: B_37308
Sample ID: MB-37308	Method Blank					Run: SUB-B125116				02/19/09 18:27
Iron		ND	mg/L	0.002						
Sample ID: MBS-37308	Laboratory Fortified Blank					Run: SUB-B125116				02/19/09 18:59
Iron		2.5	mg/L	1.0	102	75	125			
Sample ID: MBSD-37308	Laboratory Fortified Blank Duplicate					Run: SUB-B125116				02/19/09 19:03
Iron		2.5	mg/L	1.0	100	75	125	1.3	20	
Sample ID: H09010213-001A	Sample Matrix Spike					Run: SUB-B125116				02/19/09 19:11
Iron		2.5	mg/L	1.0	100	75	125			
Sample ID: H09010213-002A	Serial Dilution					Run: SUB-B125116				02/19/09 19:19
Iron		0.015	mg/L	1.0		0	0		20	N
Sample ID: MB-37308	Method Blank					Run: SUB-B125188				02/20/09 18:53
Iron		0.004	mg/L	0.002						
Sample ID: B09020184-001AMS3	Sample Matrix Spike					Run: SUB-B125188				02/20/09 19:46
Iron		2.7	mg/L	1.0	100	75	125			
Method: SW6010B										Analytical Run: SUB-B125116
Sample ID: QCS	Initial Calibration Verification Standard									02/19/09 12:35
Iron		4.18	mg/L	0.030	104	90	110			
Sample ID: ICSA	Interference Check Sample A									02/19/09 12:51
Iron		208	mg/L	0.091	104	80	120			
Sample ID: ICSAB	Interference Check Sample AB									02/19/09 12:55
Iron		208	mg/L	0.091	104	80	120			
Method: SW6010B										Analytical Run: SUB-B125188
Sample ID: ICSA	Interference Check Sample A									02/20/09 10:10
Iron		207	mg/L	0.091	104	80	120			
Sample ID: ICSAB	Interference Check Sample AB									02/20/09 10:14
Iron		206	mg/L	0.091	103	80	120			
Sample ID: QCS	Initial Calibration Verification Standard									02/20/09 12:27
Iron		4.09	mg/L	0.030	102	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.



QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Revised Date: 03/12/09
Report Date: 02/24/09
Work Order: H09010213

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: B_37308
Sample ID: MB-37308	11	Method Blank		Run: SUB-B125043				02/19/09 03:36		
Aluminum		0.004	mg/L	0.0002						
Antimony		0.0001	mg/L	2E-05						
Copper		0.0006	mg/L	2E-05						
Manganese		0.0006	mg/L	2E-05						
Nickel		0.0004	mg/L	2E-05						
Zinc		0.003	mg/L	0.0003						
Arsenic		0.0009	mg/L	2E-05						
Barium		7E-05	mg/L	2E-05						
Cadmium		0.00010	mg/L	5E-06						
Chromium		0.001	mg/L	1E-05						
Lead		0.0002	mg/L	2E-05						
Sample ID: H09010213-001A	12	Sample Matrix Spike		Run: SUB-B125043				02/19/09 04:04		
Aluminum		2.7	mg/L	5.0	103	75	125			
Antimony		0.52	mg/L	0.50	104	75	125			
Copper		0.56	mg/L	0.50	102	75	125			
Manganese		2.5	mg/L	0.50	101	75	125			
Nickel		0.51	mg/L	0.50	102	75	125			
Zinc		0.51	mg/L	1.0	101	75	125			
Arsenic		0.51	mg/L	0.50	101	75	125			
Barium		0.52	mg/L	10	102	75	125			
Cadmium		0.26	mg/L	0.10	104	75	125			
Chromium		0.51	mg/L	0.50	102	75	125			
Lead		0.52	mg/L	0.50	104	75	125			
Silver		0.047	mg/L	0.50	19	75	125			S
Sample ID: H09010213-002A	12	Serial Dilution		Run: SUB-B125043				02/19/09 04:53		
Aluminum		0.014	mg/L	5.0		0	0	20		N
Antimony		0.0014	mg/L	0.50		0	0	20		N
Copper		0.022	mg/L	0.50		0	0	20		
Manganese		0.0011	mg/L	0.50		0	0	20		N
Nickel		0.0021	mg/L	0.50		0	0	20		N
Zinc		0.019	mg/L	1.0		0	0	20		N
Arsenic		0.0046	mg/L	0.50		0	0	20		N
Barium		0.018	mg/L	10		0	0	20		
Cadmium		ND	mg/L	0.10		0	0	20		
Chromium		0.0031	mg/L	0.50		0	0	20		
Lead		0.00051	mg/L	0.50		0	0	20		N
Silver		ND	mg/L	0.50		0	0	20		
Sample ID: B09020184-001AMS5	12	Sample Matrix Spike		Run: SUB-B125043				02/19/09 07:07		
Aluminum		3.6	mg/L	5.0	100	75	125			
Antimony		0.50	mg/L	0.50	100	75	125			
Copper		0.50	mg/L	0.50	100	75	125			

Qualifiers:

RL - Analyte reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

RPD - Recovery Percent



QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Revised Date: 03/12/09
Report Date: 02/24/09
Work Order: H09010213

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: B_37308
Sample ID: B09020184-001AMS5 12 Sample Matrix Spike										Run: SUB-B125043 02/19/09 07:07
Manganese		2.4	mg/L	0.50	98	75	125			
Nickel		0.51	mg/L	0.50	101	75	125			
Zinc		0.50	mg/L	1.0	98	75	125			
Arsenic		0.49	mg/L	0.50	97	75	125			
Barium		0.50	mg/L	10	98	75	125			
Cadmium		0.25	mg/L	0.10	100	75	125			
Chromium		0.50	mg/L	0.50	99	75	125			
Lead		0.50	mg/L	0.50	99	75	125			
Silver		0.041	mg/L	0.50	16	75	125			S
Sample ID: MBS-37308 11 Laboratory Fortified Blank										Run: SUB-B125043 02/19/09 03:43
Aluminum		2.4	mg/L	5.0	97	75	125			
Antimony		0.50	mg/L	0.50	99	75	125			
Copper		0.52	mg/L	0.50	104	75	125			
Manganese		2.4	mg/L	0.50	97	75	125			
Nickel		0.53	mg/L	0.50	106	75	125			
Zinc		0.52	mg/L	1.0	103	75	125			
Arsenic		0.51	mg/L	0.50	103	75	125			
Barium		0.49	mg/L	10	97	75	125			
Cadmium		0.25	mg/L	0.10	100	75	125			
Chromium		0.52	mg/L	0.50	104	75	125			
Lead		0.50	mg/L	0.50	101	75	125			
Sample ID: MBSD-37308 11 Laboratory Fortified Blank Duplicate										Run: SUB-B125043 02/19/09 03:50
Aluminum		2.5	mg/L	5.0	100	75	125			20
Antimony		0.51	mg/L	0.50	102	75	125			20
Copper		0.51	mg/L	0.50	102	75	125	1.9		20
Manganese		2.5	mg/L	0.50	101	75	125	4		20
Nickel		0.52	mg/L	0.50	103	75	125	2.4		20
Zinc		0.52	mg/L	1.0	103	75	125			20
Arsenic		0.50	mg/L	0.50	100	75	125	2.6		20
Barium		0.50	mg/L	10	100	75	125			20
Cadmium		0.26	mg/L	0.10	103	75	125	2.9		20
Chromium		0.51	mg/L	0.50	102	75	125	2		20
Lead		0.51	mg/L	0.50	102	75	125	1.8		20
Sample ID: MBS-37308 12 Laboratory Fortified Blank										Run: SUB-B125099 02/19/09 22:47
Aluminum		2.4	mg/L	5.0	95	75	125			
Antimony		0.50	mg/L	0.50	101	75	125			
Copper		0.49	mg/L	0.50	97	75	125			
Manganese		2.5	mg/L	0.50	99	75	125			
Nickel		0.50	mg/L	0.50	99	75	125			
Zinc		0.48	mg/L	1.0	95	75	125			
Arsenic		0.48	mg/L	0.50	97	75	125			

Qualifiers:

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.

RI ND - Not detected at the reporting limit.

NA - Not analyzed
RND - Not reported



QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Revised Date: 03/12/09
Report Date: 02/24/09
Work Order: H09010213

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: B_37308
Sample ID: MBS-37308	12	Laboratory Fortified Blank			Run: SUB-B125099				02/19/09 22:47	
Barium		0.51	mg/L	10	102	75	125			
Cadmium		0.25	mg/L	0.10	102	75	125			
Chromium		0.50	mg/L	0.50	100	75	125			
Lead		0.51	mg/L	0.50	102	75	125			
Silver		0.052	mg/L	0.50	105	75	125			
Sample ID: MBSD-37308	12	Laboratory Fortified Blank Duplicate			Run: SUB-B125099				02/19/09 22:53	
Aluminum		2.4	mg/L	5.0	94	75	125		20	
Antimony		0.51	mg/L	0.50	101	75	125	0.4	20	
Copper		0.49	mg/L	0.50	97	75	125		20	
Manganese		2.5	mg/L	0.50	99	75	125	0.6	20	
Nickel		0.50	mg/L	0.50	100	75	125		20	
Zinc		0.48	mg/L	1.0	96	75	125		20	
Arsenic		0.49	mg/L	0.50	98	75	125		20	
Barium		0.51	mg/L	10	102	75	125		20	
Cadmium		0.25	mg/L	0.10	101	75	125	0.3	20	
Chromium		0.50	mg/L	0.50	101	75	125	0.5	20	
Lead		0.51	mg/L	0.50	103	75	125	0.3	20	
Silver		0.052	mg/L	0.50	105	75	125		20	
Sample ID: MB-37308	12	Method Blank			Run: SUB-B125928				03/06/09 19:14	
Aluminum		0.004	mg/L	0.0002						
Antimony		9E-05	mg/L	2E-05						
Copper		0.0003	mg/L	2E-05						
Manganese		0.0007	mg/L	2E-05						
Nickel		0.0001	mg/L	2E-05						
Zinc		0.002	mg/L	0.0003						
Arsenic		0.0007	mg/L	2E-05						
Barium		5E-05	mg/L	2E-05						
Cadmium		3E-05	mg/L	5E-06						
Chromium		0.0010	mg/L	1E-05						
Lead		6E-05	mg/L	2E-05						
Silver		0.0002	mg/L	2E-05						
Sample ID: MB-37308	12	Method Blank			Run: SUB-B125953				03/09/09 17:14	
Aluminum		0.004	mg/L	0.0002						
Antimony		0.0003	mg/L	2E-05						
Copper		0.0003	mg/L	2E-05						
Manganese		ND	mg/L	2E-05						
Nickel		0.0002	mg/L	2E-05						
Zinc		0.0010	mg/L	0.0003						
Arsenic		0.0003	mg/L	2E-05						
Barium		7E-05	mg/L	2E-05						
Cadmium		0.0002	mg/L	5E-06						

Qualifiers:

RL - Analyte reporting limit.

RL ND - Not detected at the reporting limit.

NS - Statistic



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Revised Date: 03/12/09
Report Date: 02/24/09
Work Order: H09010213

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: B_37308
Sample ID: MB-37308	12	Method Blank				Run: SUB-B125953				03/09/09 17:14
Chromium		0.0009	mg/L	1E-05						
Lead		6E-05	mg/L	2E-05						
Silver		0.0004	mg/L	2E-05						

Method: SW6020										Analytical Run: SUB-B125043
Sample ID: QCS-081021A,081125	11	Initial Calibration Verification Standard								02/19/09 02:19
Aluminum		0.25	mg/L	0.0010	102	90	110			
Antimony		0.051	mg/L	0.0010	102	90	110			
Arsenic		0.050	mg/L	0.0010	99	90	110			
Barium		0.050	mg/L	0.0010	100	90	110			
Cadmium		0.026	mg/L	0.0010	104	90	110			
Copper		0.052	mg/L	0.0010	104	90	110			
Lead		0.051	mg/L	0.0010	101	90	110			
Manganese		0.25	mg/L	0.0010	101	90	110			
Nickel		0.052	mg/L	0.0010	104	90	110			
Silver		0.026	mg/L	0.0010	103	90	110			
Zinc		0.052	mg/L	0.0010	103	90	110			

Sample ID: ICSA ME081125C	11	Interference Check Sample A								02/19/09 02:55
Aluminum		37	mg/L	0.0010	75					
Antimony		0.00014	mg/L	0.0010						
Arsenic		5.4E-05	mg/L	0.0010						
Barium		0.00087	mg/L	0.0010						
Cadmium		0.00078	mg/L	0.0010						
Copper		8.4E-05	mg/L	0.0010						
Lead		4.7E-05	mg/L	0.0010						
Manganese		0.00069	mg/L	0.0010						
Nickel		0.0042	mg/L	0.0010						
Silver		-0.00054	mg/L	0.0010						
Zinc		0.0018	mg/L	0.0010						

Sample ID: ICSAB ME081125C,M	11	Interference Check Sample AB								02/19/09 03:01
Aluminum		38	mg/L	0.0010	75	70	130			
Antimony		0.00012	mg/L	0.0010		0	0			
Arsenic		0.010	mg/L	0.0010	103	70	130			
Barium		0.00083	mg/L	0.0010		0	0			
Cadmium		0.010	mg/L	0.0010	103	70	130			
Copper		0.020	mg/L	0.0010	100	70	130			
Lead		5.0E-05	mg/L	0.0010		0	0			
Manganese		0.021	mg/L	0.0010	102	70	130			
Nickel		0.024	mg/L	0.0010	120	70	130			
Silver		0.015	mg/L	0.0010	77	70	130			
Zinc		0.010	mg/L	0.0010	105	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Revised Date: 03/12/09
Report Date: 02/24/09
Work Order: H09010213

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020								Analytical Run: SUB-B125928		
Sample ID: QCS-081021A,081125	2	Initial Calibration Verification Standard								03/06/09 13:04
Aluminum		0.25	mg/L	0.0010	102	90	110			
Chromium		0.050	mg/L	0.0010	100	90	110			
Method: SW7470A								Batch: B_37205		
Sample ID: MB-37205		Method Blank				Run: SUB-B125082		02/17/09 09:23		
Mercury		ND	mg/L	0.0005						
Sample ID: MBMS-37205		Sample Matrix Spike				Run: SUB-B125082		02/17/09 09:26		
Mercury		0.010	mg/L	0.020	102	85	115			
Sample ID: MBMSD-37205		Sample Matrix Spike Duplicate				Run: SUB-B125082		02/17/09 09:28		
Mercury		0.0100	mg/L	0.020	100	85	115		20	
Sample ID: H09010213-001A		Sample Matrix Spike				Run: SUB-B125082		02/17/09 09:33		
Mercury		0.010	mg/L	0.020	102	85	115			
Sample ID: B09020184-001ADIL		Serial Dilution				Run: SUB-B125082		02/17/09 10:24		
Mercury		ND	mg/L	0.020		0	0		20	
Sample ID: B09020184-001AMS		Sample Matrix Spike				Run: SUB-B125082		02/17/09 10:26		
Mercury		0.010	mg/L	0.020	104	85	115			
Method: SW7470A								Analytical Run: SUB-B125082		
Sample ID: QCS		Initial Calibration Verification Standard								02/17/09 09:11
Mercury		0.0018	mg/L	0.020	92	90	110			
Method: USDA23c								Batch: 5985		
Sample ID: LCS0902030000	2	Laboratory Control Sample				Run: MISC SOILS_090219C		02/03/09 00:00		
Lime as CaCO ₃		0.616	%	0.10	111	70	130			
Calcium Oxide		0.345	%	0.056	111	70	130			
Sample ID: H09010213-020ADUP	2	Sample Duplicate				Run: MISC SOILS_090219C		02/03/09 00:00		
Lime as CaCO ₃		86.7	%	0.10				1.7	30	
Calcium Oxide		48.5	%	0.056						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings Site															
Report Mail Address: 63 1/2 W. Broadway Butte, MT 59702			Contact Name, Phone, Fax, E-mail: Joe McElroy (406) 782-5177 jmcElroy@pioneer-technical.com						Sampler Name if other than Contact:									
Invoice Address: Montana Department of Environmental Quality P.O. Box. 200901 Helena, MT 59620-0901			Invoice Contact & Phone #: Tom Henderson (406) 841-5052						Purchase Order #:		ELI Quote #:							
Report Required For: POTW/WWTP ☐ DW ☐ Other _____ Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____			Number of Containers _____ Sample Type: A W ☐ V B ☐ O ☐ Air Water Soils/Solids Vegetation Bioassay Other _____	ANALYSIS REQUESTED						SEE ATTACHED Normal Turnaround (TAT) _____ RUSH Turnaround (TAT) _____		Notify ELI prior to RUSH sample submittal for additional charges and scheduling Comments: Collection time 11/30/09		Shipped by: <u>Hand</u> Cooler ID(s) _____ Receipt Temp <u>17.2 °C</u> Custody Seal Y <u>(N)</u> Intact Y <u>(N)</u> Signature Y <u>(N)</u> Match _____ Lab ID _____				
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time	MATRIX													
1 TP-3A-3% - QL					I													
2 TP-3A-3% LKD					I													
3 TP-3A-5% - QL					I													
4 TP-3A-5% - LKD					I													
5 TP-4A-3% - QL					I													
6 TP-4A-3% - LKD					I													
7 TP-4A-3% - QL					I													
8 TP-4A-5% - LKD					I													
9 TP-4A-5% - QL				I														
10 TP-4A-5% - WLPQL				I														
Custody Record MUST be Signed		Relinquished by (print): J. Hazy		Date/Time: 1-30-09 13:42		Signature: 		Received by (print): Stephanie Dull		Date/Time: 1-30-09 13:43		Signature: Stephanie Dull						
		Relinquished by (print):		Date/Time:		Signature:		Received by (print):		Date/Time:		Signature:						
		Sample Disposal:		Return to client:		Lab Disposal:		Sample Type:		LABORATORY USE ONLY # of fractions								

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, & links.

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings Site																												
Report Mail Address: 63 1/2 W. Broadway Butte, MT 59702			Contact Name, Phone, Fax, E-mail: Joe McElroy (406) 782-5177 jmcelroy@pioneer-technical.com						Sampler Name if other than Contact:																						
Invoice Address: Montana Department of Environmental Quality P.O. Box 200701 Helena, MT 59620-0901			Invoice Contact & Phone #: Tom Henderson (406) 841-5052						Purchase Order #:			ELI Quote #:																			
Report Required For: POTW/WWTP ☐ DW ☐ Other _____			ANALYSIS REQUESTED <table><tr><td rowspan="2">Number of Containers</td><td rowspan="2">Sample Type: A ☒ W ☐ V ☐ B ☐ O</td><td rowspan="2">Air</td><td rowspan="2">Water</td><td rowspan="2">Solids</td><td rowspan="2">Vegetation</td><td rowspan="2">Biosassay</td><td rowspan="2">Other</td><td rowspan="2">SEE ATTACHED</td><td rowspan="2">Normal Turnaround (TAT)</td><td rowspan="2">RUSH Turnaround (TAT)</td><td colspan="2">Notify ELI prior to RUSH sample submittal for additional charges and scheduling</td><td colspan="2">Shipped by: Hand</td></tr><tr><td colspan="2">Comments: Collection from east side</td><td colspan="2">Cooler ID(s)</td></tr></table>										Number of Containers	Sample Type: A ☒ W ☐ V ☐ B ☐ O	Air	Water	Solids	Vegetation	Biosassay	Other	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)	Notify ELI prior to RUSH sample submittal for additional charges and scheduling		Shipped by: Hand		Comments: Collection from east side		Cooler ID(s)	
Number of Containers	Sample Type: A ☒ W ☐ V ☐ B ☐ O	Air																						Water	Solids	Vegetation	Biosassay	Other	SEE ATTACHED	Normal Turnaround (TAT)	RUSH Turnaround (TAT)
			Comments: Collection from east side		Cooler ID(s)																										
Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____													Receipt Temp 17.2 °C		Custody Seal Y ☒ N ☐																
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date		Collection Time		MATRIX						Signature Y ☒ N ☐																		
1 TP-3B-3%-QL							1						Match Y ☒ N ☐																		
2 TP-3B-3%-LKD							1						Lab ID																		
3 TP-3B-5%-QL							1						01010273-0																		
4 TP-3B-5%-LKD							1						010																		
5 TP-3B-7%-QL							1						013																		
6 TP-3B-7%-LKD							1						014																		
7													015																		
8													016																		
9																															
10																															
Custody Record MUST be Signed			Relinquished by (print): D. HARRIS		Date/Time: 1-30-09 13:42		Signature: 		Received by (print): Stephanie Dull		Date/Time: 1-30-09 13:43		Signature: 																		
			Relinquished by (print):		Date/Time:		Signature:		Received by (print):		Date/Time:		Signature:																		
Sample Disposal:			Return to client:		Lab Disposal:		Sample Type:		LABORATORY USE ONLY # of fractions																						

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

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Chain of Custody and Analytical Request Record

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings Site																
Report Mail Address: 63 1/2 W. Broadway Butte, MT 59702			Contact Name, Phone, Fax, E-mail: Joe McElroy (406) 782-5177 jmcclroy@pioneer-technical.com						Sampler Name if other than Contact:										
Invoice Address: Montana Department of Environmental Quality P.O. Box 200901 Helena, MT 59620-0901			Invoice Contact & Phone #: Tom Henderson (406) 841-5052						Purchase Order #:			ELI Quote #:							
Report Required For: POTW/WWTP ☐ DW ☐ Other _____ Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____			Number of Containers Sample Type: A ☒ W ☐ S ☐ V ☐ B ☐ O Air ☐ Water ☐ Soils/Solids ☐ Vegetation ☐ Bioassay ☐ Other _____		ANALYSIS REQUESTED						SEE ATTACHED		Normal Turnaround (TAT) RUSH Turnaround (TAT)		Notify ELI prior to RUSH sample submittal for additional charges and scheduling			Shipped by: Hand	
Comments: Collectore full					Cooler ID(s)														
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	MATRIX												Receipt Temp 17.2 °C	Custody Seal Y ☒ N ☐ Intact Y ☒ N ☐ Signature Y ☒ N ☐ Match Lab ID	
1 Graymount Quicklime					1													1090102130	
2 Graymount Line kiln Dust					1													-018	
3 WLP Quicklime					1													-019	
4 PLS Line kiln Dust					1													-020	
5 PLS Pulverized Line Product					1													-021	
6																			
7																			
8																			
9																			
10																			
Custody Record MUST be Signed			Relinquished by (print): L. Henry		Date/Time: 1-30-09 13:42		Signature: [Signature]		Received by (print): Stephanie Dull		Date/Time: 1-30-09 13:43		Signature: Stephanie Dull		LABORATORY USE ONLY				
			Relinquished by (print):		Date/Time:		Signature:		Received by (print):		Date/Time:		Signature:						
			Sample Disposal:		Return to client:		Lab Disposal:		Sample Type:		LABORATORY USE ONLY # of fractions								

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McLAREN TAILINGS SITE DESCRIPTION OF ANALYSES

POST ADMIXTURE SAMPLES: TP-3A-3%-QL, TP-3A-3%LKD, TP-3A-5%-QL, TP-3A-5%LKD, TP- 4-3% -QL, TP- 4-3%-LKD, TP- 4-5% -QL, TP- 4-5%-LKD, TP-4-5%-WLPQL, TP-3B-3%-QL, TP-3B-3%-LKD, TP-3B-5%-QL, TP-3B-5%-LKD, TP-3B-7%-QL, TP-3B-7%-LKD

Analysis:

SPLP

Synthetic Precipitation Leaching Procedure. (Post Lime addition) to be completed by Energy Laboratory

Aluminum (Al); Antimony (Sb); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr); Copper (Cu); Iron (Fe); Lead (Pb); Manganese (Mn); Mercury (Hg); Nickel (Ni); Silver (Ag); Zinc (Zn).

Laboratory is requested to utilize low level detection limits.

LIME SAMPLES: GRAYMOUNT QUICKLIME, GRAYMOUNT LIME KILN DUST, WLP QUICK LIME, PLS LIME KILN DUST, PLS PULVERIZED LIME PRODUCT

Analysis:

Calcium Oxide by Rapid Sugar Method

EXISTING COVER SOIL SAMPLE
LAB DATA SHEETS

TO: Pioneer Technical Services, Inc.
ADDRESS: Attn: Joe McElroy
 63 1/2 W. Broadway
 Butte, Montana 39701

LAB NO.: B08092193-001-005
DATE: 10/23/08

Montana DEQ
McLaren Tailings Site
FERTILIZER RECOMMENDATIONS
 Fertilizer Suggested in Actual Pounds per Acre

FIELD	CS-01-A 091508	CS-02-A 091508	CS-03-A 091508	CS-04-A 091508	CS-05-A 091508
CROP	Grass	Grass	Grass	Grass	Grass
PROJECTED YIELD	1T	1T	1T	1T	1T
Nitrogen					
Total	30	30	30	30	30
Preplant	30	30	30	30	30
Topdress	0	0	0	0	0
Phosphorus (P₂O₅)					
Broadcast	50	50	50	50	50
Banded					
Potassium (K₂O)					
Broadcast	60	60	60	60	60
Banded					
Sulphur (S)	0	0	0	0	0
Zinc (Zn)					
Iron (Fe)					
Gypsum					
Compost	5T	5T	5T	5T	5T

COMMENTS: Organic matter is quite low. Adding 5T per acre compost will greatly aid with grass establishment and growth.

PREPARED BY: Neal Fehringer, Certified Professional Agronomist, C.C.A., (406) 860-3647.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-001
Client Sample ID: McLaren-CS-01-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 14:00
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	2.9	wt%		0.2		D2974	09/29/08 00:00 / srm
Coarse Fragments	27	%		2		ASA15-5	10/08/08 16:31 / srm
Sand	66	%		1		ASA15-5	10/10/08 08:06 / srm
Silt	27	%		1		ASA15-5	10/10/08 08:06 / srm
Clay	7	%		1		ASA15-5	10/10/08 08:06 / srm
Texture	SL					ASA15-5	10/10/08 08:06 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.70	s.u.		0.10		ASAM10-3.2	10/08/08 16:33 / srm
Conductivity, sat. paste	1.00	mmhos/cm		0.01		ASA10-3	10/08/08 16:33 / srm
Saturation	22.1	%		0.1		USDA27a	10/08/08 16:33 / srm
Calcium, sat. paste	9.35	meq/L		0.05		SW6010B	10/08/08 23:31 / rh
Magnesium, sat. paste	1.61	meq/L		0.08		SW6010B	10/08/08 23:31 / rh
Sodium, sat. paste	0.43	meq/L		0.04		SW6010B	10/08/08 23:31 / rh
Sodium Adsorption Ratio (SAR)	0.18	unitless		0.01		Calculation	10/10/08 13:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/08/08 16:33 / srm
Neutralization Potential	290	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid Potential	0	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid/Base Potential	290	t/kt				Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Total	0.02	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HNO3 Extractable	0.02	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	3	mg/kg		1		ASA24-5	10/08/08 13:00 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	10/02/08 14:12 / srm
Organic Matter	0.74	%		0.02		ASA29-3	10/09/08 11:07 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	72	mg/kg		10		SW6010B	10/07/08 23:03 / rh
EXCHANGEABLES							
Cation Exchange Capacity	9.36	meq/100g		0.09		SW6010B	10/14/08 20:37 / rh
METALS, TOTAL - EPA SW846							
Aluminum	5480	mg/kg		5		SW6010B	09/29/08 20:17 / rh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-001
Client Sample ID: McLaren-CS-01-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 14:00
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Antimony	ND	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Barium	95	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 20:17 / rlh
Chromium	20	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Copper	44	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Iron	14500	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Lead	15	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Manganese	283	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Mercury	ND	mg/kg		1		SW7471A	09/30/08 10:25 / jjw
Nickel	16	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
Zinc	36	mg/kg		5		SW6010B	09/29/08 20:17 / rlh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	10	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3
15 Bar Moisture	3.6	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3

Report Definitions:
 RL - Analyte reporting limit.
 QCL - Quality control limit.
 H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-002
Client Sample ID: McLaren-CS-02-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 15:45
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	10.8	wt%		0.2		D2974	09/29/08 00:00 / srm
Coarse Fragments	20	%		2		ASA15-5	10/08/08 16:31 / srm
Sand	63	%		1		ASA15-5	10/10/08 08:06 / srm
Silt	32	%		1		ASA15-5	10/10/08 08:06 / srm
Clay	5	%		1		ASA15-5	10/10/08 08:06 / srm
Texture	SL					ASA15-5	10/10/08 08:06 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.60	s.u.		0.10		ASAM10-3.2	10/08/08 16:33 / srm
Conductivity, sat. paste	0.72	mmhos/cm		0.01		ASA10-3	10/08/08 16:33 / srm
Saturation	24.6	%		0.1		USDA27a	10/08/08 16:33 / srm
Calcium, sat. paste	6.74	meq/L		0.05		SW6010B	10/08/08 23:35 / rth
Magnesium, sat. paste	1.07	meq/L		0.08		SW6010B	10/08/08 23:35 / rth
Sodium, sat. paste	0.28	meq/L		0.04		SW6010B	10/08/08 23:35 / rth
Sodium Adsorption Ratio (SAR)	0.14	unitless		0.01		Calculation	10/10/08 13:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/08/08 16:33 / srm
Neutralization Potential	340	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid Potential	0	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid/Base Potential	340	t/kt				Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Total	0.02	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HNO3 Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	2	mg/kg		1		ASA24-5	10/08/08 13:02 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	10/02/08 14:14 / srm
Organic Matter	0.74	%		0.02		ASA29-3	10/09/08 11:07 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	58	mg/kg		10		SW6010B	10/07/08 23:10 / rth
EXCHANGEABLES							
Cation Exchange Capacity	9.48	meq/100g		0.09		SW6010B	10/14/08 20:41 / rth
METALS, TOTAL - EPA SW846							
Aluminum	4980	mg/kg		5		SW6010B	09/29/08 20:30 / rth

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-002
Client Sample ID: McLaren-CS-02-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 15:45
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Antimony	ND	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Barium	78	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 20:30 / rlh
Chromium	16	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Copper	16	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Iron	12500	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Lead	12	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Manganese	241	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Mercury	ND	mg/kg		1		SW7471A	09/30/08 10:35 / jjw
Nickel	13	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
Zinc	28	mg/kg		5		SW6010B	09/29/08 20:30 / rlh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	9.8	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3
15 Bar Moisture	3.4	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-003
Client Sample ID: McLaren-CS-03-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 17:05
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	5.1	wt%		0.2		D2974	09/29/08 00:00 / srm
Coarse Fragments	24	%		2		ASA15-5	10/08/08 16:31 / srm
Sand	64	%		1		ASA15-5	10/10/08 08:06 / srm
Silt	30	%		1		ASA15-5	10/10/08 08:06 / srm
Clay	6	%		1		ASA15-5	10/10/08 08:06 / srm
Texture	SL					ASA15-5	10/10/08 08:06 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.80	s.u.		0.10		ASAM10-3.2	10/08/08 16:33 / srm
Conductivity, sat. paste	0.68	mmhos/cm		0.01		ASA10-3	10/08/08 16:33 / srm
Saturation	20.6	%		0.1		USDA27a	10/08/08 16:33 / srm
Calcium, sat. paste	6.12	meq/L		0.05		SW6010B	10/08/08 23:39 / rlh
Magnesium, sat. paste	1.06	meq/L		0.08		SW6010B	10/08/08 23:39 / rlh
Sodium, sat. paste	0.30	meq/L		0.04		SW6010B	10/08/08 23:39 / rlh
Sodium Adsorption Ratio (SAR)	0.16	unitless		0.01		Calculation	10/10/08 13:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/08/08 16:33 / srm
Neutralization Potential	340	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid Potential	0	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid/Base Potential	340	t/kt				Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Total	0.02	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HNO3 Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	1	mg/kg		1		ASA24-5	10/08/08 13:02 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	10/02/08 14:15 / srm
Organic Matter	0.60	%		0.02		ASA29-3	10/09/08 11:07 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	63	mg/kg		10		SW6010B	10/07/08 23:18 / rlh
EXCHANGEABLES							
Cation Exchange Capacity	9.25	meq/100g		0.09		SW6010B	10/14/08 20:45 / rlh
METALS, TOTAL - EPA SW846							
Aluminum	4460	mg/kg		5		SW6010B	09/29/08 20:47 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-003
Client Sample ID: McLaren-CS-03-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 17:05
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Antimony	ND	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Barium	71	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 20:47 / rlh
Chromium	16	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Copper	15	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Iron	10800	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Lead	9	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Manganese	249	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Mercury	ND	mg/kg		1		SW7471A	09/30/08 10:38 / jjw
Nickel	12	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
Zinc	25	mg/kg		5		SW6010B	09/29/08 20:47 / rlh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	10	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h?
15 Bar Moisture	3.5	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h?

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-004
Client Sample ID: McLaren-CS-04-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 18:00
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	4.1	wt%		0.2		D2974	09/29/08 00:00 / srm
Coarse Fragments	29	%		2		ASA15-5	10/08/08 16:31 / srm
Sand	69	%		1		ASA15-5	10/10/08 08:06 / srm
Silt	26	%		1		ASA15-5	10/10/08 08:06 / srm
Clay	5	%		1		ASA15-5	10/10/08 08:06 / srm
Texture	SL					ASA15-5	10/10/08 08:06 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.90	s.u.		0.10		ASAM10-3.2	10/08/08 16:33 / srm
Conductivity, sat. paste	0.61	mmhos/cm		0.01		ASA10-3	10/08/08 16:33 / srm
Saturation	20.1	%		0.1		USDA27a	10/08/08 16:33 / srm
Calcium, sat. paste	4.60	meq/L		0.05		SW6010B	10/08/08 23:42 / rlh
Magnesium, sat. paste	1.12	meq/L		0.08		SW6010B	10/08/08 23:42 / rlh
Sodium, sat. paste	0.49	meq/L		0.04		SW6010B	10/08/08 23:42 / rlh
Sodium Adsorption Ratio (SAR)	0.29	unitless		0.01		Calculation	10/10/08 13:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/08/08 16:33 / srm
Neutralization Potential	320	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid Potential	0	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid/Base Potential	320	t/kt				Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Total	0.02	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HNO3 Extractable	0.01	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	2	mg/kg		1		ASA24-5	10/08/08 13:03 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	10/02/08 14:16 / srm
Organic Matter	0.50	%		0.02		ASA29-3	10/09/08 11:07 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	60	mg/kg		10		SW6010B	10/07/08 23:29 / rlh
EXCHANGEABLES							
Cation Exchange Capacity	8.08	meq/100g		0.09		SW6010B	10/14/08 20:48 / rlh
METALS, TOTAL - EPA SW846							
Aluminum	5040	mg/kg		5		SW6010B	09/29/08 20:51 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-004
Client Sample ID: McLaren-CS-04-A-091508

Report Date: 10/28/08
Collection Date: 09/15/08 18:00
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Antimony	ND	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Barium	82	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 20:51 / rlh
Chromium	18	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Copper	18	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Iron	13100	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Lead	10	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Manganese	280	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Mercury	ND	mg/kg		1		SW7471A	09/30/08 10:40 / jjw
Nickel	18	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
Zinc	31	mg/kg		5		SW6010B	09/29/08 20:51 / rlh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	9.4	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3
15 Bar Moisture	3.2	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-005
Client Sample ID: McLaren-CS-05-A-091508

Report Date: 10/28/08
Collection Date: 09/16/08 08:00
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	8.7	wt%		0.2		D2974	09/29/08 00:00 / srm
Coarse Fragments	33	%		2		ASA15-5	10/08/08 16:31 / srm
Sand	63	%		1		ASA15-5	10/10/08 08:06 / srm
Silt	30	%		1		ASA15-5	10/10/08 08:06 / srm
Clay	7	%		1		ASA15-5	10/10/08 08:06 / srm
Texture	SL					ASA15-5	10/10/08 08:06 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.40	s.u.		0.10		ASAM10-3.2	10/08/08 16:33 / srm
Conductivity, sat. paste	2.51	mmhos/cm		0.01		ASA10-3	10/08/08 16:33 / srm
Saturation	21.2	%		0.1		USDA27a	10/08/08 16:33 / srm
Calcium, sat. paste	29.5	meq/L		0.05		SW6010B	10/10/08 13:28 / jjw
Magnesium, sat. paste	4.67	meq/L		0.08		SW6010B	10/10/08 13:28 / jjw
Sodium, sat. paste	0.63	meq/L		0.04		SW6010B	10/10/08 13:28 / jjw
Sodium Adsorption Ratio (SAR)	0.15	unitless		0.01		Calculation	10/13/08 08:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/08/08 16:33 / srm
Neutralization Potential	300	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid Potential	2.0	t/kt		1.0		Sobek Modifie	10/08/08 00:00 / srm
Acid/Base Potential	300	t/kt				Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Total	0.11	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Hot Water Extractable	0.04	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, HNO3 Extractable	0.06	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	10/08/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	3	mg/kg		1		ASA24-5	10/08/08 13:04 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	10/02/08 14:16 / srm
Organic Matter	0.66	%		0.02		ASA29-3	10/09/08 11:07 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	66	mg/kg		10		SW6010B	10/07/08 23:33 / rlh
EXCHANGEABLES							
Cation Exchange Capacity	9.98	meq/100g		0.09		SW6010B	10/14/08 21:27 / rlh
METALS, TOTAL - EPA SW846							
Aluminum	5040	mg/kg		5		SW6010B	09/29/08 20:55 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: B08092193-005
Client Sample ID: McLaren-CS-05-A-091508

Report Date: 10/28/08
Collection Date: 09/16/08 08:00
Date Received: 09/23/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Antimony	ND	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Barium	88	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 20:55 / rlh
Chromium	18	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Copper	37	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Iron	15000	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Lead	16	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Manganese	314	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Mercury	ND	mg/kg		1		SW7471A	09/30/08 10:42 / jjw
Nickel	15	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
Zinc	38	mg/kg		5		SW6010B	09/29/08 20:55 / rlh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	11	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3
15 Bar Moisture	3.8	wt%	H	0.10		SSSA pt4	10/06/08 08:31 / eli-h3

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/15/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA24-5							Batch: 08100802-PS3		
Sample ID: LCS	Laboratory Control Sample				Run: FIA201-B_081008B				10/08/08 12:57
Phosphorus, Olsen	6.67	mg/kg	1.0	84	50	150			
Sample ID: B08092193-001ADUP	Sample Duplicate				Run: FIA201-B_081008B				10/08/08 13:00
Phosphorus, Olsen	2.15	mg/kg	1.0				18	30	
Sample ID: B08092193-001AMS	Sample Matrix Spike				Run: FIA201-B_081008B				10/08/08 13:01
Phosphorus, Olsen	14.0	mg/kg	1.0	108	50	150			
Sample ID: B08092591-001ADUP	Sample Duplicate				Run: FIA201-B_081008B				10/08/08 13:10
Phosphorus, Olsen	14.3	mg/kg	1.0				3.3	30	
Sample ID: B08092591-001AMS	Sample Matrix Spike				Run: FIA201-B_081008B				10/08/08 13:11
Phosphorus, Olsen	26.5	mg/kg	1.0	121	50	150			
Sample ID: B08092662-001ADUP	Sample Duplicate				Run: FIA201-B_081008B				10/08/08 13:20
Phosphorus, Olsen	19.8	mg/kg	1.0				1.7	30	
Sample ID: B08092662-001AMS	Sample Matrix Spike				Run: FIA201-B_081008B				10/08/08 13:21
Phosphorus, Olsen	32.8	mg/kg	1.0	121	50	150			
Sample ID: B08092801-005ADUP	Sample Duplicate				Run: FIA201-B_081008B				10/08/08 13:30
Phosphorus, Olsen	35.8	mg/kg	1.0				1.3	30	
Sample ID: B08092801-005AMS	Sample Matrix Spike				Run: FIA201-B_081008B				10/08/08 13:31
Phosphorus, Olsen	48.1	mg/kg	1.0	122	50	150			
Sample ID: B08100271-003ADUP	Sample Duplicate				Run: FIA201-B_081008B				10/08/08 13:40
Phosphorus, Olsen	25.9	mg/kg	1.0				5.1	30	
Sample ID: B08100271-003AMS	Sample Matrix Spike				Run: FIA201-B_081008B				10/08/08 13:41
Phosphorus, Olsen	39.4	mg/kg	1.0	116	50	150			
Method: ASA29-3							Batch: R118900		
Sample ID: B08092193-001A DUP	Sample Duplicate				Run: MISC-SOIL_081009A				10/09/08 11:07
Organic Matter	0.740	%	0.020				0	30	
Sample ID: B08100212-002A DUP	Sample Duplicate				Run: MISC-SOIL_081009A				10/09/08 11:07
Organic Matter	1.24	%	0.020				4	30	
Sample ID: LCS-0810091107	Laboratory Control Sample				Run: MISC-SOIL_081009A				10/09/08 11:07
Organic Matter	2.16	%	0.020	89	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/15/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA33-8							Batch: 08100201-NNS2		
Sample ID: LCS	Laboratory Control Sample				Run: FIA201-B_081002B				10/02/08 14:09
Nitrate as N, KCL Extract	7.32	mg/kg	1.0	81	50	150			
Sample ID: B08092193-001ADUP	Sample Duplicate				Run: FIA201-B_081002B				10/02/08 14:13
Nitrate as N, KCL Extract	0.790	mg/kg	1.0				0	30	
Sample ID: B08092193-001AMS	Sample Matrix Spike				Run: FIA201-B_081002B				10/02/08 14:14
Nitrate as N, KCL Extract	6.43	mg/kg	1.0	107	50	150			
Sample ID: B08092351-001ADUP	Sample Duplicate				Run: FIA201-B_081002B				10/02/08 14:20
Nitrate as N, KCL Extract	11.3	mg/kg	1.0				11	30	
Sample ID: B08092591-003ADUP	Sample Duplicate				Run: FIA201-B_081002B				10/02/08 14:29
Nitrate as N, KCL Extract	10.7	mg/kg	1.0				4.3	30	
Sample ID: B08092591-003AMS	Sample Matrix Spike				Run: FIA201-B_081002B				10/02/08 14:30
Nitrate as N, KCL Extract	17.5	mg/kg	1.0	121	50	150			
Sample ID: B08092662-004ADUP	Sample Duplicate				Run: FIA201-B_081002B				10/02/08 14:50
Nitrate as N, KCL Extract	5.01	mg/kg	1.0				3.3	30	
Sample ID: B08092662-004AMS	Sample Matrix Spike				Run: FIA201-B_081002B				10/02/08 14:52
Nitrate as N, KCL Extract	10.4	mg/kg	1.0	107	50	150			
Sample ID: B08092662-014ADUP	Sample Duplicate				Run: FIA201-B_081002B				10/02/08 14:59
Nitrate as N, KCL Extract	1.82	mg/kg	1.0				3	30	
Method: ASAM10-3.2							Batch: R118860		
Sample ID: B08092175-002A DUP	Sample Duplicate				Run: MISC-SOIL_081008C				10/08/08 16:33
pH, sat. paste	8.10	s.u.	0.10				1.2	10	
Sample ID: B08092193-005A DUP	Sample Duplicate				Run: MISC-SOIL_081008C				10/08/08 16:33
pH, sat. paste	7.40	s.u.	0.10				0	10	
Sample ID: LCS-0810081633	Laboratory Control Sample				Run: MISC-SOIL_081008C				10/08/08 16:33
pH, sat. paste	10.8	s.u.	0.10	95	90	110			
Sample ID: B08092165-001A DUP	Sample Duplicate				Run: MISC-SOIL_081008C				10/08/08 16:36
pH, sat. paste	6.80	s.u.	0.10				0	10	
Method: Calculation							Batch: R118986		
Sample ID: B08092175-002A DUP	Sample Duplicate				Run: MISC-SOIL_081010E				10/10/08 13:45
Sodium Adsorption Ratio (SAR)	0.300	unitless	0.010				0	30	
Sample ID: LCS-0810101345	Laboratory Control Sample				Run: MISC-SOIL_081010E				10/10/08 13:45
Sodium Adsorption Ratio (SAR)	2.83	unitless	0.010	133	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/15/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Calculation									Batch: R119023
Sample ID: B08092193-005A DUP	Sample Duplicate					Run: MISC-SOIL_081013A			10/13/08 08:45
Sodium Adsorption Ratio (SAR)	0.150	unitless	0.010				0	30	
Method: Sobek Modified									Batch: R118902
Sample ID: B08081665-005B DUP	Sample Duplicate					Run: MISC-SOIL_081009B			10/08/08 00:00
Neutralization Potential	6.1	t/kt	1.0				0	50	
Acid Potential	0	t/kt	1.0				0	50	
Acid/Base Potential	6.0	t/kt					0	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: B08081665-005B DUP	Sample Duplicate					Run: MISC-SOIL_081009B			10/08/08 00:00
Sulfur, Total	0.0306	%	0.010				3	50	
Sulfur, Hot Water Extractable	0.0282	%	0.010				3.2	50	
Sulfur, HCl Extractable	0.00242	%	0.010				0	50	
Sulfur, HNO3 Extractable	ND	%	0.010				0	50	
Sulfur, Residual	ND	%	0.010				0	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: B08092193-005A DUP	Sample Duplicate					Run: MISC-SOIL_081009B			10/08/08 00:00
Neutralization Potential	300	t/kt	1.0				0.9	50	
Acid Potential	2.2	t/kt	1.0				11	50	
Acid/Base Potential	300	t/kt					0.9	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: B08092193-005A DUP	Sample Duplicate					Run: MISC-SOIL_081009B			10/08/08 00:00
Sulfur, Total	0.111	%	0.010				3.4	50	
Sulfur, Hot Water Extractable	0.0401	%	0.010				8.3	50	
Sulfur, HCl Extractable	ND	%	0.010				0	50	
Sulfur, HNO3 Extractable	0.0664	%	0.010				10	50	
Sulfur, Residual	0.00417	%	0.010				0	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: LCS-SOL5020810081506	Laboratory Control Sample					Run: MISC-SOIL_081009B			10/08/08 00:00
Neutralization Potential	67	t/kt	1.0	90	50	200			
Acid Potential	5.7	t/kt	1.0	141	50	200			
Acid/Base Potential	61	t/kt		86	50	200			
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: LCS-SOL5020810081506	Laboratory Control Sample					Run: MISC-SOIL_081009B			10/08/08 00:00
Sulfur, Total	0.200	%	0.010	111	50	200			
Sulfur, Hot Water Extractable	0.0375	%	0.010	75	50	200			
Sulfur, HCl Extractable	0.0255	%	0.010	127	50	200			
Sulfur, HNO3 Extractable	0.106	%	0.010	118	50	200			
Sulfur, Residual	0.0307	%	0.010	77	50	200			
The acid-base potential was calculated from the non-sulfate sulfur %									

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings SiteReport Date: 10/15/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 35112
Sample ID: LCS-35112	Laboratory Control Sample					Run: ICP201-B_081007A			10/07/08 22:59
Potassium	200	mg/kg	10	74	50	150			
Sample ID: B08092193-001A DUP	Sample Duplicate					Run: ICP201-B_081007A			10/07/08 23:06
Potassium	66	mg/kg	10				8.8	30	
Sample ID: B08092193-002AMS2	Sample Matrix Spike					Run: ICP201-B_081007A			10/07/08 23:14
Potassium	1000	mg/kg	10	97	50	150			
Sample ID: B08092591-003A DUP	Sample Duplicate					Run: ICP201-B_081007A			10/07/08 23:59
Potassium	350	mg/kg	10				1.1	30	
Sample ID: B08092595-001AMS2	Sample Matrix Spike					Run: ICP201-B_081007A			10/08/08 00:14
Potassium	1200	mg/kg	10	97	50	150			
Sample ID: B08092662-005A DUP	Sample Duplicate					Run: ICP201-B_081007A			10/08/08 01:27
Potassium	250	mg/kg	10				7.3	30	
Sample ID: B08092662-007AMS2	Sample Matrix Spike					Run: ICP201-B_081007A			10/08/08 01:35
Potassium	1100	mg/kg	10	100	50	150			
Sample ID: B08092803-003A DUP	Sample Duplicate					Run: ICP201-B_081007A			10/08/08 02:20
Potassium	230	mg/kg	10				0.7	30	
Sample ID: B08100212-001AMS2	Sample Matrix Spike					Run: ICP201-B_081007A			10/08/08 02:28
Potassium	1300	mg/kg	10	103	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/15/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 35132
Sample ID: LCS-35132	Laboratory Control Sample				Run: ICP201-B_081008A				10/08/08 23:12
Calcium, sat. paste	41.5	meq/L	0.053	113	50	150			
Sodium, sat. paste	12.9	meq/L	0.044	141	50	150			
Sample ID: B08092175-001AMS2	Sample Matrix Spike				Run: ICP201-B_081008A				10/08/08 23:20
Calcium, sat. paste	50.5	meq/L	0.11	98	50	150			
Magnesium, sat. paste	128	meq/L	0.12	108	50	150			
Sodium, sat. paste	23.2	meq/L	0.081	98	50	150			
Sample ID: B08092175-002A DUP	Sample Duplicate				Run: ICP201-B_081008A				10/08/08 23:27
Calcium, sat. paste	17.3	meq/L	0.11				1.7	30	
Magnesium, sat. paste	53.5	meq/L	0.11				2	30	
Sodium, sat. paste	1.76	meq/L	0.079				1.8	30	
Sample ID: B08092193-005A DUP	Sample Duplicate				Run: ICP201-B_081008A				10/08/08 23:58
Calcium, sat. paste	31.4	meq/L	0.053				4	30	
Magnesium, sat. paste	4.88	meq/L	0.082				1.8	30	
Sample ID: B08092594-001AMS2	Sample Matrix Spike				Run: ICP201-B_081008A				10/09/08 00:05
Calcium, sat. paste	26.3	meq/L	0.055	98	50	150			
Magnesium, sat. paste	33.8	meq/L	0.082	101	50	150			
Sodium, sat. paste	12.6	meq/L	0.044	101	50	150			
Sample ID: LCS-35132	Laboratory Control Sample				Run: ICP201-B_081010A				10/10/08 13:25
Calcium, sat. paste	39.6	meq/L	0.053	108	50	150			
Sodium, sat. paste	12.2	meq/L	0.044	134	50	150			
Sample ID: B08092193-005A DUP	Sample Duplicate				Run: ICP201-B_081010A				10/10/08 13:36
Calcium, sat. paste	29.1	meq/L	0.053				1.3	30	
Magnesium, sat. paste	4.58	meq/L	0.082				1.9	30	
Sodium, sat. paste	0.620	meq/L	0.044				1.1	30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/15/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 35218
Sample ID: LCS-35218	Laboratory Control Sample				Run: ICP201-B_081014A				10/14/08 20:33
Cation Exchange Capacity	19.7	meq/100g	0.079	83	60	140			
Sample ID: B08092193-004AMS2	Sample Matrix Spike				Run: ICP201-B_081014A				10/14/08 20:52
Cation Exchange Capacity	29.2	meq/100g	0.081	97	50	150			
Sample ID: B08092193-005A DUP	Sample Duplicate				Run: ICP201-B_081014A				10/14/08 21:31
Cation Exchange Capacity	9.99	meq/100g	0.079				0.1		50
Sample ID: B08100120-001A DUP	Sample Duplicate				Run: ICP201-B_081014A				10/14/08 21:38
Cation Exchange Capacity	8.05	meq/100g	0.079				1.6		50
Sample ID: B08100120-002AMS2	Sample Matrix Spike				Run: ICP201-B_081014A				10/14/08 21:46
Cation Exchange Capacity	29.3	meq/100g	0.081	95	50	150			
Sample ID: B08100120-011A DUP	Sample Duplicate				Run: ICP201-B_081014A				10/14/08 22:31
Cation Exchange Capacity	6.99	meq/100g	0.079				6		50
Sample ID: B08100120-012AMS2	Sample Matrix Spike				Run: ICP201-B_081014A				10/14/08 22:39
Cation Exchange Capacity	24.3	meq/100g	0.081	95	50	150			
Sample ID: B08100120-020AMS2	Sample Matrix Spike				Run: ICP201-B_081014A				10/14/08 23:21
Cation Exchange Capacity	43.7	meq/100g	0.081	93	50	150			
Sample ID: B08100120-021A DUP	Sample Duplicate				Run: ICP201-B_081014A				10/14/08 23:28
Cation Exchange Capacity	23.2	meq/100g	0.079				2.1		50
Method: USDA27a									Batch: R118860
Sample ID: B08092193-005A DUP	Sample Duplicate				Run: MISC-SOIL_081008C				10/08/08 16:33
Saturation	20.9	%	0.10				1.4		30
Sample ID: LCS-0810081633	Laboratory Control Sample				Run: MISC-SOIL_081008C				10/08/08 16:33
Saturation	32.3	%	0.10	85	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/16/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Batch: 34957		
Sample ID: MB-34957	Method Blank		Run: ICP202-B_080929A				09/29/08 20:05		
Aluminum	1	mg/kg	0.4						
Antimony	ND	mg/kg	1						
Arsenic	ND	mg/kg	1						
Barium	3	mg/kg	0.01						
Cadmium	ND	mg/kg	0.07						
Chromium	ND	mg/kg	0.09						
Copper	ND	mg/kg	0.08						
Iron	10	mg/kg	3						
Lead	ND	mg/kg	0.6						
Manganese	0.2	mg/kg	0.03						
Nickel	0.3	mg/kg	0.2						
Silver	ND	mg/kg	0.1						
Zinc	0.3	mg/kg	0.1						
Sample ID: LCS1-34957	Laboratory Control Sample		Run: ICP202-B_080929A				09/29/08 20:09		
Aluminum	8380	mg/kg	5.0	114	65	135			
Antimony	61.8	mg/kg	5.0	81	2.57	180			
Arsenic	85.9	mg/kg	5.0	95	70	130			
Barium	274	mg/kg	5.0	103	70	130			
Cadmium	71.8	mg/kg	1.0	100	70	130			
Chromium	88.3	mg/kg	5.0	104	70	130			
Copper	70.6	mg/kg	5.0	105	70	130			
Iron	17800	mg/kg	5.0	124	70	130			
Lead	119	mg/kg	5.0	101	70	130			
Manganese	224	mg/kg	5.0	105	70	130			
Nickel	90.3	mg/kg	5.0	103	70	130			
Silver	109	mg/kg	5.0	98	70	130			
Zinc	291	mg/kg	5.0	100	70	130			
Sample ID: B08092193-001AMS3	Sample Matrix Spike		Run: ICP202-B_080929A				09/29/08 20:22		
Aluminum	6770	mg/kg	5.0		75	125			A
Antimony	21.4	mg/kg	5.0	43	75	125			S
Arsenic	40.0	mg/kg	5.0	80	75	125			
Barium	133	mg/kg	5.0	75	75	125			
Cadmium	20.2	mg/kg	1.0	79	75	125			
Chromium	60.7	mg/kg	5.0	82	75	125			
Copper	93.5	mg/kg	5.0	100	75	125			
Iron	13200	mg/kg	5.0		75	125			A
Lead	57.5	mg/kg	5.0	84	75	125			
Manganese	468	mg/kg	5.0	74	75	125			S
Nickel	59.0	mg/kg	5.0	86	75	125			
Silver	19.7	mg/kg	5.0	78	75	125			
Zinc	76.0	mg/kg	5.0	80	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings SiteReport Date: 10/16/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34957
Sample ID: B08092193-001AMSD3	Sample Matrix Spike Duplicate				Run: ICP202-B_080929A				09/29/08 20:26
Aluminum	7120	mg/kg	5.0		75	125	5	20	A
Antimony	23.0	mg/kg	5.0	46	75	125	7.1	20	S
Arsenic	41.4	mg/kg	5.0	83	75	125	3.7	20	
Barium	130	mg/kg	5.0	70	75	125	1.6	20	S
Cadmium	20.7	mg/kg	1.0	80	75	125	2.2	20	
Chromium	61.3	mg/kg	5.0	83	75	125	0.9	20	
Copper	91.1	mg/kg	5.0	95	75	125	2.5	20	
Iron	14200	mg/kg	5.0		75	125	6.7	20	A
Lead	62.2	mg/kg	5.0	93	75	125	7.9	20	
Manganese	478	mg/kg	5.0	78	75	125	2.1	20	
Nickel	58.1	mg/kg	5.0	84	75	125	1.5	20	
Silver	19.9	mg/kg	5.0	79	75	125	0.8	20	
Zinc	76.9	mg/kg	5.0	82	75	125	1.1	20	
Sample ID: B08092193-002ADIL	Serial Dilution				Run: ICP202-B_080929A				09/29/08 20:43
Aluminum	5490	mg/kg	5.0		0	0	9.9	10	
Antimony	ND	mg/kg	5.6		0	0	0	10	
Arsenic	ND	mg/kg	6.8		0	0	0	10	
Barium	81.8	mg/kg	5.0		0	0	5.1	10	
Cadmium	ND	mg/kg	1.0		0	0	0	10	
Chromium	19.0	mg/kg	5.0		0	0	15	10	R
Copper	16.0	mg/kg	5.0		0	0	2.3	10	
Iron	13700	mg/kg	17		0	0	9.3	10	
Lead	10.9	mg/kg	5.0		0	0		10	N
Manganese	274	mg/kg	5.0		0	0	13	10	R
Nickel	15.7	mg/kg	5.0		0	0	16	10	R
Silver	0.955	mg/kg	5.0		0	0		10	N
Zinc	32.3	mg/kg	5.0		0	0	13	10	R
Method: SW6010B									Batch: 35112
Sample ID: MB-35112	Method Blank				Run: ICP201-B_081007A				10/07/08 22:55
Potassium	0.4	mg/kg	0.01						
Sample ID: LCS-35112	Laboratory Control Sample				Run: ICP201-B_081007A				10/07/08 22:59
Potassium	200	mg/kg	10	74	50	150			
Sample ID: B08092193-001A DUP	Sample Duplicate				Run: ICP201-B_081007A				10/07/08 23:06
Potassium	66	mg/kg	10				8.8	30	
Sample ID: B08092193-002AMS2	Sample Matrix Spike				Run: ICP201-B_081007A				10/07/08 23:14
Potassium	1000	mg/kg	10	97	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/16/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 35132
Sample ID: MB-35132	Method Blank					Run: ICP201-B_081008A			10/08/08 23:01
Calcium, sat. paste	ND	meq/L	0.0009						
Magnesium, sat. paste	ND	meq/L	0.01						
Sodium, sat. paste	ND	meq/L	0.002						
Sample ID: LCS-35132	Laboratory Control Sample					Run: ICP201-B_081008A			10/08/08 23:12
Calcium, sat. paste	41.5	meq/L	0.053	113	50	150			
Sodium, sat. paste	12.9	meq/L	0.044	141	50	150			
Sample ID: B08092175-001AMS2	Sample Matrix Spike					Run: ICP201-B_081008A			10/08/08 23:20
Calcium, sat. paste	50.5	meq/L	0.11	98	50	150			
Magnesium, sat. paste	128	meq/L	0.12	108	50	150			
Sodium, sat. paste	23.2	meq/L	0.081	98	50	150			
Sample ID: B08092175-002A DUP	Sample Duplicate					Run: ICP201-B_081008A			10/08/08 23:27
Calcium, sat. paste	17.3	meq/L	0.11				1.7	30	
Magnesium, sat. paste	53.5	meq/L	0.11				2	30	
Sodium, sat. paste	1.76	meq/L	0.079				1.8	30	
Sample ID: B08092594-001AMS2	Sample Matrix Spike					Run: ICP201-B_081008A			10/09/08 00:05
Calcium, sat. paste	26.3	meq/L	0.055	98	50	150			
Magnesium, sat. paste	33.8	meq/L	0.082	101	50	150			
Sodium, sat. paste	12.6	meq/L	0.044	101	50	150			
Sample ID: MB-35132	Method Blank					Run: ICP201-B_081010A			10/10/08 13:21
Calcium, sat. paste	ND	meq/L	0.01						
Magnesium, sat. paste	ND	meq/L	0.01						
Sodium, sat. paste	ND	meq/L	0.002						
Sample ID: LCS-35132	Laboratory Control Sample					Run: ICP201-B_081010A			10/10/08 13:25
Calcium, sat. paste	39.6	meq/L	0.053	108	50	150			
Sodium, sat. paste	12.2	meq/L	0.044	134	50	150			
Sample ID: B08092193-005A DUP	Sample Duplicate					Run: ICP201-B_081010A			10/10/08 13:36
Calcium, sat. paste	29.1	meq/L	0.053				1.3	30	
Magnesium, sat. paste	4.58	meq/L	0.082				1.9	30	
Sodium, sat. paste	0.620	meq/L	0.044				1.1	30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ

Project: McLaren Tailings Site

Report Date: 10/16/08

Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 35218
Sample ID: MB-35218	Method Blank					Run: ICP201-B_081014A			10/14/08 20:30
Cation Exchange Capacity	3	meq/100g	0.08						
Sample ID: LCS-35218	Laboratory Control Sample					Run: ICP201-B_081014A			10/14/08 20:33
Cation Exchange Capacity	19.7	meq/100g	0.079	83	60	140			
Sample ID: B08092193-004AMS2	Sample Matrix Spike					Run: ICP201-B_081014A			10/14/08 20:52
Cation Exchange Capacity	29.2	meq/100g	0.081	97	50	150			
Sample ID: B08092193-005A DUP	Sample Duplicate					Run: ICP201-B_081014A			10/14/08 21:31
Cation Exchange Capacity	9.99	meq/100g	0.079				0.1	50	
Sample ID: B08100120-002AMS2	Sample Matrix Spike					Run: ICP201-B_081014A			10/14/08 21:46
Cation Exchange Capacity	29.3	meq/100g	0.081	95	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ

Report Date: 10/16/08

Project: McLaren Tailings Site

Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B			Analytical Run: ICP202-B_080929A						
Sample ID: QCS	Initial Calibration Verification Standard								09/29/08 13:43
Aluminum	4.04	mg/L	0.10	101	90	110			
Antimony	0.831	mg/L	0.0100	104	90	110			
Arsenic	0.815	mg/L	0.10	102	90	110			
Barium	0.836	mg/L	0.10	104	90	110			
Cadmium	0.408	mg/L	0.010	102	90	110			
Chromium	0.800	mg/L	0.050	100	90	110			
Copper	0.818	mg/L	0.010	102	90	110			
Iron	4.18	mg/L	0.030	105	90	110			
Lead	0.827	mg/L	0.050	103	90	110			
Manganese	4.01	mg/L	0.010	100	90	110			
Nickel	0.846	mg/L	0.050	106	90	110			
Silver	0.372	mg/L	0.010	93	90	110			
Zinc	0.842	mg/L	0.010	105	90	110			
Sample ID: ICSA	Interference Check Sample A								09/29/08 13:59
Aluminum	521	mg/L	0.10	104	80	120			
Antimony	-0.0245	mg/L	0.0100		-0.05	0.05			
Arsenic	-0.0154	mg/L	0.10		-0.1	0.1			
Barium	0.00122	mg/L	0.10		-0.005	0.0005			
Cadmium	0.0110	mg/L	0.010		-0.001	0.001			
Chromium	-0.00532	mg/L	0.050		-0.01	0.01			
Copper	0.00287	mg/L	0.010		-0.01	0.01			
Iron	202	mg/L	0.091	101	80	120			
Lead	0.0483	mg/L	0.050		-0.01	0.01			
Manganese	0.00389	mg/L	0.010		-0.01	0.01			
Nickel	0.00462	mg/L	0.050		-0.05	0.05			
Silver	0.00509	mg/L	0.010		-0.005	0.005			
Zinc	-0.0444	mg/L	0.010		-0.01	0.01			
Sample ID: ICSAB	Interference Check Sample AB								09/29/08 14:03
Aluminum	527	mg/L	0.10	105	80	120			
Antimony	1.03	mg/L	0.0100	103	80	120			
Arsenic	1.02	mg/L	0.10	102	80	120			
Barium	0.544	mg/L	0.10	109	80	120			
Cadmium	1.01	mg/L	0.010	101	80	120			
Chromium	0.483	mg/L	0.050	97	80	120			
Copper	0.554	mg/L	0.010	111	80	120			
Iron	204	mg/L	0.091	102	80	120			
Lead	1.09	mg/L	0.050	109	80	120			
Manganese	0.501	mg/L	0.010	100	80	120			
Nickel	1.02	mg/L	0.050	102	80	120			
Silver	0.984	mg/L	0.010	91	80	120			
Zinc	1.00	mg/L	0.010	100	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/16/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Analytical Run: ICP201-B_081007A		
Sample ID: QCS	Initial Calibration Verification Standard								10/07/08 12:24
Potassium	41.6	mg/L	1.0	104	90	110			
Sample ID: ICSA	Interference Check Sample A								10/07/08 12:39
Potassium	-0.0472	mg/L	1.0		-1	1			
Sample ID: ICSAB	Interference Check Sample AB								10/07/08 12:42
Potassium	10.7	mg/L	1.0	107	80	120			
Method: SW6010B							Analytical Run: ICP201-B_081008A		
Sample ID: QCS	Initial Calibration Verification Standard								10/08/08 12:08
Calcium	39.2	mg/L	1.0	98	90	110			
Magnesium	39.9	mg/L	1.0	100	90	110			
Sodium	40.1	mg/L	1.0	100	90	110			
Sample ID: ICSA	Interference Check Sample A								10/08/08 12:22
Calcium	497	mg/L	1.0	99	80	120			
Magnesium	530	mg/L	1.0	106	80	120			
Sodium	-0.0171	mg/L	1.0		-1	1			
Sample ID: ICSAB	Interference Check Sample AB								10/08/08 12:26
Calcium	496	mg/L	1.0	99	80	120			
Magnesium	533	mg/L	1.0	107	80	120			
Sodium	10.6	mg/L	1.0	106	80	120			
Method: SW6010B							Analytical Run: ICP201-B_081010A		
Sample ID: QCS	Initial Calibration Verification Standard								10/10/08 12:36
Calcium	38.1	mg/L	1.0	95	90	110			
Magnesium	38.8	mg/L	1.0	97	90	110			
Sodium	39.5	mg/L	1.0	99	90	110			
Sample ID: ICSA	Interference Check Sample A								10/10/08 12:51
Calcium	484	mg/L	1.0	97	80	120			
Magnesium	518	mg/L	1.0	104	80	120			
Sodium	0.619	mg/L	1.0		-1	1			
Sample ID: ICSAB	Interference Check Sample AB								10/10/08 12:54
Calcium	487	mg/L	1.0	97	80	120			
Magnesium	531	mg/L	1.0	106	80	120			
Sodium	10.3	mg/L	1.0	103	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: MT DEQ
Project: McLaren Tailings Site

Report Date: 10/16/08
Work Order: B08092193

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Analytical Run: ICP201-B_081014A		
Sample ID: QCS	Initial Calibration Verification Standard								10/14/08 12:39
Sodium	40.0	mg/L	1.0	100	90	110			
Sample ID: ICSA	Interference Check Sample A								10/14/08 12:54
Sodium	0.0267	mg/L	1.0		-1	1			
Sample ID: ICSAB	Interference Check Sample AB								10/14/08 12:57
Sodium	11.2	mg/L	1.0	112	80	120			
Method: SW7471A							Batch: 34968		
Sample ID: MB-34968	Method Blank								Run: HGCV201-B_080930A 09/30/08 08:36
Mercury	0.08	mg/kg	0.05						
Sample ID: LCS1-34968	Laboratory Control Sample								Run: HGCV201-B_080930A 09/30/08 08:38
Mercury	6.78	mg/kg	1.0	128	70	130			
Sample ID: B08091472-040AMS3	Sample Matrix Spike								Run: HGCV201-B_080930A 09/30/08 08:53
Mercury	46.0	mg/kg-dry	1.9	124	70	130			
Sample ID: B08091472-040AMSD3	Sample Matrix Spike Duplicate								Run: HGCV201-B_080930A 09/30/08 09:03
Mercury	43.9	mg/kg-dry	1.9	119	70	130	4.5	30	
Sample ID: B08092193-005ADIL	Serial Dilution								Run: HGCV201-B_080930A 09/30/08 10:44
Mercury	ND	mg/kg	1.0		0	0	0	20	N
Method: SW7471A							Analytical Run: HGCV201-B_080930A		
Sample ID: QCS	Initial Calibration Verification Standard								09/30/08 08:29
Mercury	0.00198	mg/L	0.0010	99	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

Energy Laboratories Inc

Workorder Receipt Checklist



B08092193

MT DEQ

Login completed by: Gina McCartney

Date and Time Received: 9/23/2008 8:45 AM

Reviewed by: Denise Ruby

Received by: smr

Reviewed Date: 9/23/2008 5:00:00 PM

Carrier name: Return-UPS
Ground

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	13°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

 Contact and Corrective Action Comments:

None

**McLAREN TAILINGS SITE
SOIL SAMPLES
DESCRIPTION OF ANALYSES**

***TOTAL METALS:**

Aluminum (Al); Antimony (Sb); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr);
Copper (Cu); Iron (Fe); Lead (Pb); Manganese (Mn); Mercury (Hg); Nickel (Ni); Silver (Ag);
Zinc (Zn).

***ABA & SMP:**

Acid-Base Accounting & SMP Buffering Capacity
Modified Sobek method

SPLP

Synthetic Precipitation Leaching Procedure. (Pre and
Post Lime addition) to be completed by Energy
Laboratory

Aluminum (Al); Antimony (Sb); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr);
Copper (Cu); Iron (Fe); Lead (Pb); Manganese (Mn); Mercury (Hg); Nickel (Ni); Silver (Ag);
Zinc (Zn).

PHYSICAL PARAMETERS: - (Pioneer Geotechnical Laboratory - Helena, MT)

Standard Proctor AASHTO Method T-99
Gradation
Atterburg Limits
Moisture Content

Lime Dehydration - ASTM D 3877 and ASTM D 5102

Pre- and post-lime addition moisture content,
Shrink or swell percent
Atterburg Limits (Pre- and Post- lime addition)
SPLP (Post- Lime addition) to be completed by Energy
Laboratory

***AGRONOMIC PARAMETERS:**

%Organic Matter
pH
USDA Texture - Rapid Hydrometer (% Coarse, %Sand,
% Silt, % Clay)
Available Moisture
Field Capacity
Wilting Point
Electrical Conductivity
Sodium Adsorption Ratio
Saturation Percentage
Cation Exchange Capacity
Fertilizer Recommendation (N, P, K) for dry land
pasture

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings Site																	
Report Mail Address: 63 1/2 W. Broadway Butte, Mt 59701			Contact Name, Phone, Fax, E-mail: Joe McElroy 406-782-5177 jmcclroy@pioneer-technical.com					Sampler Name if other than Contact:												
Invoice Address: Same As Above			Invoice Contact & Phone #: Amanda Booth 406-782-5177					Purchase Order #:		ELI Quote #: Bottle 29264										
Report Required For: ☐ POTW/WWTP ☐ DW ☐ Other _____			Number of Containers Sample Type: A W S V B O Air Water Solids/Solids Vegetation Bioassay Other			ANALYSIS REQUESTED										Notify ELI prior to RUSH sample submittal for additional charges and scheduling			Receipt Temp 13°C	
Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____						SEE ATTACHED Normal Turnaround (TAT) RUSH Turnaround (TAT)										Comments: Copied 808091733 Sample 1 gm		Cooler ID(s) X2		
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date		Collection Time											MATRIX		LABORATORY USE ONLY		Custody Seal ☒ Y ☐ N Intact ☒ C ☐ N Signature ☒ V ☐ N Match
1 McLaren-CS-61-A-091508			9/15/08		1400		3 S		✓		✓		✓		✓		B08092193-001			
2 McLaren-CS-62-A-091508			9/15/08		1545		3 S		✓		✓		✓		✓		-002			
3 McLaren-CS-63-A-091508			9/15/08		1705		3 S		✓		✓		✓		✓		-003			
4 McLaren-CS-64-A-091508			9/15/08		1800		3 S		✓		✓		✓		✓		-004			
5 McLaren-CS-65-A-091508			9/16/08		800		3 S		✓		✓		✓		✓		-005			
6																				
7																				
8																				
9																				
10																				
Custody Record MUST be Signed			Relinquished by: Julie L. Lammiman		Date/Time: 9/22/08 1400		Shipped by:		Received by:		Date/Time:									
			Relinquished by: [Signature]		Date/Time:		Shipped by: RTRN UPS CARD		Received by: Sandy L. Mack		Date/Time: 9-23-08									
			Sample Disposal:		Return to client:		Lab Disposal:		Sample Type:		# of fractions									

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, & links.

RESPOSITRY SOIL SAMPLE
LAB DATA SHEETS



TO: Pioneer Technical Services, Inc.
ADDRESS: Attn: Joe McElroy
63 1/2 W. Broadway
Butte, Montana 39701

LAB NO.: B08091733-001-003
DATE: 11/3/08

RECF^{PT}

NOV 07 2008

Montana DEQ
McLaren Tailings Site
FERTILIZER RECOMMENDATIONS
Fertilizer Suggested in Actual Pounds per Acre

FIELD	RA-01-C 090808	RA-01-B 090808	RA-01-A 090808
CROP	Grass	Grass	Grass
PROJECTED YIELD	1T	1T	1T
Nitrogen			
Total	30	30	30
Preplant	30	30	30
Topdress	0	0	0
Phosphorus (P₂O₅)			
Broadcast	50	0	0
Banded			
Potassium (K₂O)			
Broadcast	60	60	60
Banded			
Sulphur (S)	0	0	0
Zinc (Zn)			
Iron (Fe)			
Gypsum			
Compost	5T	5T	5T

COMMENTS: Organic matter is quite low. Adding 5T compost per acre will greatly aid with grass establishment and growth. Potassium levels were not tested. The other set submitted this fall from this site had very low potassium levels. It may be beneficial to apply 60 actual pounds of potash per acre since these tailings are similar in texture.

PREPARED BY: Neal Fehringer, Certified Professional Agronomist, C.C.A., (406) 860-3647.

ANALYTICAL SUMMARY REPORT

November 04, 2008

Tom Henderson

MT DEQ

PO Box 200901

Helena, MT 59620

Workorder No.: B08091733

Project Name: McLaren Tailings

Energy Laboratories Inc received the following 12 samples for MT DEQ on 9/17/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B08091733-001	McLaren-RA-01-C-090808	09/08/08 14:10	09/17/08	Soil	Metals by ICP/ICPMS, Total or Soluble Cation Exchange Capacity Metals, NH4OAc Extractable Cations, Saturated Paste Acid/Base Potential Coarse Fragments Conductivity Mercury in Solid By CVAA Lime Requirement, SMP Buffer Moisture Nitrate as N, KCL Extract Organic Matter/Organic Carbon-WB pH, Saturated Paste Phosphorus-Olsen Digestion, Total Metals NH4AC Soil Extraction for CEC Digestion, Mercury by CVAA NH4AC Soil Extraction Saturated Paste Extraction Particle Size Analysis Sodium Adsorption Ratio Saturation Percentage Sulfur Forms Texture Water Holding Capacity
B08091733-002	McLaren-RA-01-B-090808	09/08/08 14:25	09/17/08	Soil	Same As Above
B08091733-003	McLaren-RA-01-A-090808	09/08/08 14:20	09/17/08	Soil	Same As Above
B08091733-004	McLaren-AS-01-091108	09/11/08 9:30	09/17/08	Soil	Metals by ICP/ICPMS, Total or Soluble Mercury in Solid By CVAA pH of Soil and Waste Digestion, Total Metals Digestion, Mercury by CVAA
B08091733-005	McLaren-AS-02-091108	09/11/08 10:15	09/17/08	Soil	Same As Above
B08091733-006	McLaren-AS-03-091108	09/11/08 13:30	09/17/08	Soil	Same As Above
B08091733-007	McLaren-AS-04-091108	09/11/08 15:20	09/17/08	Soil	Same As Above
B08091733-008	McLaren-AS-05-091108	09/11/08 16:40	09/17/08	Soil	Same As Above
B08091733-009	McLaren-AS-06-091108	09/11/08 16:35	09/17/08	Soil	Same As Above
B08091733-010	McLaren-AS-07-091108	09/11/08 18:35	09/17/08	Soil	Same As Above
B08091733-011	McLaren-AS-08-091208	09/12/08 10:00	09/17/08	Soil	Same As Above
B08091733-012	McLaren-AS-09-091208	09/12/08 11:40	09/17/08	Soil	Same As Above



ANALYTICAL SUMMARY REPORT

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: _____

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-001
Client Sample ID: McLaren-RA-01-C-090808

Report Date: 11/04/08
Collection Date: 09/08/08 14:10
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	6.5	wt%		0.2		D2974	09/22/08 00:00 / srm
Coarse Fragments	45	%		2		ASA15-5	09/25/08 13:30 / srm
Sand	59	%		1		ASA15-5	09/25/08 11:27 / srm
Silt	34	%		1		ASA15-5	09/25/08 11:27 / srm
Clay	7	%		1		ASA15-5	09/25/08 11:27 / srm
Texture	SL					ASA15-5	09/25/08 11:27 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.90	s.u.		0.10		ASAM10-3.2	09/25/08 11:17 / srm
Conductivity, sat. paste	0.31	mmhos/cm		0.01		ASA10-3	09/25/08 11:17 / srm
Saturation	19.3	%		0.1		USDA27a	09/25/08 11:17 / srm
Calcium, sat. paste	2.43	meq/L		0.05		SW6010B	09/25/08 13:35 / rh
Magnesium, sat. paste	0.67	meq/L		0.08		SW6010B	09/25/08 13:35 / rh
Sodium, sat. paste	0.19	meq/L		0.04		SW6010B	09/25/08 13:35 / rh
Sodium Adsorption Ratio (SAR)	0.15	unitless		0.01		Calculation	09/30/08 08:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/02/08 15:06 / srm
Neutralization Potential	330	t/kt		1.0		Sobek Modifie	09/25/08 00:00 / srm
Acid Potential	0	t/kt		1.0		Sobek Modifie	09/25/08 00:00 / srm
Acid/Base Potential	330	t/kt				Sobek Modifie	09/25/08 00:00 / srm
Sulfur, Total	0.02	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, HNO3 Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	2	mg/kg		1		ASA24-5	09/25/08 08:52 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	09/24/08 14:28 / srm
Organic Matter	0.31	%		0.02		ASA29-3	09/23/08 10:03 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	45	mg/kg		10		SW6010B	09/24/08 03:07 / rh
EXCHANGEABLES							
Cation Exchange Capacity	8.26	meq/100g		0.09		SW6010B	09/24/08 04:31 / rh
METALS, TOTAL - EPA SW846							
Aluminum	5760	mg/kg		5		SW6010B	09/29/08 18:44 / rh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 18:44 / rh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-001
Client Sample ID: McLaren-RA-01-C-090808

Report Date: 11/04/08
Collection Date: 09/08/08 14:10
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Barium	87	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 18:44 / rlh
Chromium	23	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Copper	26	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Iron	15400	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Lead	16	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Manganese	354	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 14:55 / jjw
Nickel	19	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
Zinc	40	mg/kg		5		SW6010B	09/29/08 18:44 / rlh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	17	wt%	H	0.10		SSSA pt4	09/29/08 13:00 / eli-h
15 Bar Moisture	3.2	wt%	H	0.10		SSSA pt4	09/29/08 13:00 / eli-h

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-002
Client Sample ID: McLaren-RA-01-B-090808

Report Date: 11/04/08
Collection Date: 09/08/08 14:25
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	5.0	wt%		0.2		D2974	09/22/08 00:00 / srm
Coarse Fragments	18	%		2		ASA15-5	09/25/08 13:30 / srm
Sand	61	%		1		ASA15-5	09/25/08 11:27 / srm
Silt	27	%		1		ASA15-5	09/25/08 11:27 / srm
Clay	12	%		1		ASA15-5	09/25/08 11:27 / srm
Texture	SL					ASA15-5	09/25/08 11:27 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	7.00	s.u.		0.10		ASAM10-3.2	09/25/08 11:17 / srm
Conductivity, sat. paste	0.51	mmhos/cm		0.01		ASA10-3	09/25/08 11:17 / srm
Saturation	26.3	%		0.1		USDA27a	09/25/08 11:17 / srm
Calcium, sat. paste	4.31	meq/L		0.05		SW6010B	09/25/08 13:42 / r/h
Magnesium, sat. paste	1.30	meq/L		0.08		SW6010B	09/25/08 13:42 / r/h
Sodium, sat. paste	0.24	meq/L		0.04		SW6010B	09/25/08 13:42 / r/h
Sodium Adsorption Ratio (SAR)	0.14	unitless		0.01		Calculation	09/30/08 08:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	ND	t/kt		1.0		ASA12-3	10/02/08 15:06 / srm
Neutralization Potential	27	t/kt		1.0		Sobek Modifie	09/25/08 00:00 / srm
Acid Potential	0	t/kt		1.0		Sobek Modifie	09/25/08 00:00 / srm
Acid/Base Potential	27	t/kt				Sobek Modifie	09/25/08 00:00 / srm
Sulfur, Total	0.01	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, HNO3 Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, Residual	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	11	mg/kg		1		ASA24-5	09/25/08 08:54 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	09/24/08 14:28 / srm
Organic Matter	0.66	%		0.02		ASA29-3	09/23/08 10:03 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	81	mg/kg		10		SW6010B	09/24/08 03:11 / r/h
EXCHANGEABLES							
Cation Exchange Capacity	19.0	meq/100g		0.09		SW6010B	09/24/08 04:39 / r/h
METALS, TOTAL - EPA SW846							
Aluminum	12100	mg/kg		5		SW6010B	09/29/08 18:48 / r/h
Antimony	ND	mg/kg		5		SW6010B	09/29/08 18:48 / r/h

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-002
Client Sample ID: McLaren-RA-01-B-090808

Report Date: 11/04/08
Collection Date: 09/08/08 14:25
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Barium	120	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 18:48 / rh
Chromium	31	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Copper	26	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Iron	20500	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Lead	22	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Manganese	348	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:01 / jjw
Nickel	21	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Silver	ND	mg/kg		5		SW6010B	09/29/08 18:48 / rh
Zinc	44	mg/kg		5		SW6010B	09/29/08 18:48 / rh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	23	wt%	H	0.10		SSSA pt4	09/29/08 13:00 / eli-h
15 Bar Moisture	6.7	wt%	H	0.10		SSSA pt4	09/29/08 13:00 / eli-h

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-003
Client Sample ID: McLaren-RA-01-A-090808

Report Date: 11/04/08
Collection Date: 09/08/08 14:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS							
Moisture (As Received)	20.9	wt%		0.2		D2974	09/22/08 00:00 / srm
Coarse Fragments	7	%		2		ASA15-5	09/25/08 13:30 / srm
Sand	53	%		1		ASA15-5	09/25/08 11:27 / srm
Silt	33	%		1		ASA15-5	09/25/08 11:27 / srm
Clay	14	%		1		ASA15-5	09/25/08 11:27 / srm
Texture	SL					ASA15-5	09/25/08 11:27 / srm
- C = Clay, S = Sand(y), Si = Silt(y), L = Loam(y)							
SATURATED PASTE							
pH, sat. paste	4.60	s.u.		0.10		ASAM10-3.2	09/25/08 11:17 / srm
Conductivity, sat. paste	0.58	mmhos/cm		0.01		ASA10-3	09/25/08 11:17 / srm
Saturation	135	%		0.1		USDA27a	09/25/08 11:17 / srm
Calcium, sat. paste	3.54	meq/L		0.05		SW6010B	09/25/08 13:57 / rth
Magnesium, sat. paste	1.62	meq/L		0.08		SW6010B	09/25/08 13:57 / rth
Sodium, sat. paste	0.15	meq/L		0.04		SW6010B	09/25/08 13:57 / rth
Sodium Adsorption Ratio (SAR)	0.09	unitless		0.01		Calculation	09/30/08 08:45 / srm
ACID-BASE ACCOUNTING							
Lime Requirement, SMP buffer	11.3	t/kt		1.0		ASA12-3	10/02/08 15:06 / srm
Neutralization Potential	7.2	t/kt		1.0		Sobek Modifie	09/25/08 00:00 / srm
Acid Potential	1.4	t/kt		1.0		Sobek Modifie	09/25/08 00:00 / srm
Acid/Base Potential	6	t/kt				Sobek Modifie	09/25/08 00:00 / srm
Sulfur, Total	0.05	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, Hot Water Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, HCl Extractable	ND	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, HNO3 Extractable	0.02	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
Sulfur, Residual	0.01	%		0.01		Sobek Modifie	09/30/08 00:00 / srm
The acid-base potential was calculated from the non-sulfate sulfur %							
CHEMICAL CHARACTERISTICS							
Phosphorus, Olsen	27	mg/kg		1		ASA24-5	09/25/08 08:58 / srm
Nitrate as N, KCL Extract	ND	mg/kg		1		ASA33-8	09/24/08 14:29 / srm
Organic Matter	27.5	%		0.02		ASA29-3	09/23/08 10:03 / srm
METALS, AMMONIUM ACETATE EXTRACTABLE							
Potassium	380	mg/kg		10		SW6010B	09/24/08 03:15 / rth
EXCHANGEABLES							
Cation Exchange Capacity	35.1	meq/100g		0.09		SW6010B	09/24/08 04:43 / rth
METALS, TOTAL - EPA SW846							
Aluminum	8490	mg/kg		5		SW6010B	09/29/08 19:01 / rth
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:01 / rth

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-003
Client Sample ID: McLaren-RA-01-A-090808

Report Date: 11/04/08
Collection Date: 09/08/08 14:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL - EPA SW846							
Arsenic	8	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Barium	82	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 19:01 / rh
Chromium	21	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Copper	13	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Iron	13400	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Lead	107	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Manganese	524	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:03 / jjw
Nickel	12	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:01 / rh
Zinc	49	mg/kg		5		SW6010B	09/29/08 19:01 / rh
WATER HOLDING CAPACITY							
1/3 Bar Moisture	54	wt%	H	0.10		SSSA pt4	09/29/08 13:00 / eli-h
15 Bar Moisture	24	wt%	H	0.10		SSSA pt4	09/29/08 13:00 / eli-h

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ALLUVIUM SEDIMENT SAMPLE
LAB DATA SHEETS

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-004
Client Sample ID: McLaren-AS-01-091108

Report Date: 11/04/08
Collection Date: 09/11/08 09:30
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	2.93	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	7050	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Arsenic	12	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Barium	98	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Cadmium	2	mg/kg		1		SW6010B	09/29/08 19:05 / rlh
Chromium	33	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Copper	290	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Iron	53100	mg/kg	D	10		SW6010B	09/30/08 20:10 / rlh
Lead	78	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Manganese	103	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:05 / jjw
Nickel	18	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:05 / rlh
Zinc	63	mg/kg		5		SW6010B	09/29/08 19:05 / rlh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-005
Client Sample ID: McLaren-AS-02-091108

Report Date: 11/04/08
Collection Date: 09/11/08 10:15
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	4.21	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	8720	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Arsenic	9	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Barium	81	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Cadmium	2	mg/kg		1		SW6010B	09/29/08 19:09 / rlh
Chromium	30	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Copper	480	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Iron	54200	mg/kg	D	10		SW6010B	09/30/08 20:14 / rlh
Lead	74	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Manganese	144	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:08 / jjw
Nickel	22	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:09 / rlh
Zinc	138	mg/kg		5		SW6010B	09/29/08 19:09 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-006
Client Sample ID: McLaren-AS-03-091108

Report Date: 11/04/08
Collection Date: 09/11/08 13:30
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	7.55	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	4790	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Arsenic	7	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Barium	55	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 19:13 / rlh
Chromium	22	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Copper	121	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Iron	24500	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Lead	28	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Manganese	143	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:10 / jjw
Nickel	13	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:13 / rlh
Zinc	45	mg/kg		5		SW6010B	09/29/08 19:13 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-007
Client Sample ID: McLaren-AS-04-091108

Report Date: 11/04/08
Collection Date: 09/11/08 15:20
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	4.15	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	7640	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Arsenic	10	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Barium	87	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Cadmium	2	mg/kg		1		SW6010B	09/29/08 19:17 / rlh
Chromium	26	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Copper	467	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Iron	54900	mg/kg	D	10		SW6010B	09/30/08 20:18 / rlh
Lead	53	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Manganese	128	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:16 / jjw
Nickel	19	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:17 / rlh
Zinc	87	mg/kg		5		SW6010B	09/29/08 19:17 / rlh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-008
Client Sample ID: McLaren-AS-05-091108

Report Date: 11/04/08
Collection Date: 09/11/08 16:40
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	3.63	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	11700	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Arsenic	8	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Barium	99	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Cadmium	2	mg/kg		1		SW6010B	09/29/08 19:21 / rlh
Chromium	24	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Copper	494	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Iron	31000	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Lead	172	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Manganese	115	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:18 / jjw
Nickel	19	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:21 / rlh
Zinc	123	mg/kg		5		SW6010B	09/29/08 19:21 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-009
Client Sample ID: McLaren-AS-06-091108

Report Date: 11/04/08
Collection Date: 09/11/08 16:35
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	3.97	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	7740	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Arsenic	7	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Barium	78	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Cadmium	1	mg/kg		1		SW6010B	09/29/08 19:25 / rlh
Chromium	30	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Copper	330	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Iron	36800	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Lead	50	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Manganese	118	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:21 / jjw
Nickel	24	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:25 / rlh
Zinc	67	mg/kg		5		SW6010B	09/29/08 19:25 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-010
Client Sample ID: McLaren-AS-07-091108

Report Date: 11/04/08
Collection Date: 09/11/08 18:35
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	4.50	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	9310	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Arsenic	7	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Barium	73	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Cadmium	1	mg/kg		1		SW6010B	09/29/08 19:29 / rlh
Chromium	26	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Copper	372	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Iron	31600	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Lead	78	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Manganese	169	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:23 / jjw
Nickel	27	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:29 / rlh
Zinc	113	mg/kg		5		SW6010B	09/29/08 19:29 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-011
Client Sample ID: McLaren-AS-08-091208

Report Date: 11/04/08
Collection Date: 09/12/08 10:00
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	5.32	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	5520	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Arsenic	ND	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Barium	39	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Cadmium	ND	mg/kg		1		SW6010B	09/29/08 19:33 / rlh
Chromium	22	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Copper	191	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Iron	24400	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Lead	28	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Manganese	104	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:25 / jjw
Nickel	15	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:33 / rlh
Zinc	43	mg/kg		5		SW6010B	09/29/08 19:33 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings
Lab ID: B08091733-012
Client Sample ID: McLaren-AS-09-091208

Report Date: 11/04/08
Collection Date: 09/12/08 11:40
Date Received: 09/17/08
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CORROSIVITY							
pH of Soil and Waste	5.78	s.u.		0.10		SW9045D	09/19/08 10:00 / pwc
METALS, TOTAL - EPA SW846							
Aluminum	6720	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Antimony	ND	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Arsenic	6	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Barium	106	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Cadmium	1	mg/kg		1		SW6010B	09/29/08 19:37 / rlh
Chromium	15	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Copper	317	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Iron	18400	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Lead	73	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Manganese	101	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Mercury	ND	mg/kg		1		SW7471A	10/01/08 15:27 / jjw
Nickel	24	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Silver	ND	mg/kg		5		SW6010B	09/29/08 19:37 / rlh
Zinc	151	mg/kg		5		SW6010B	09/29/08 19:37 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA10-3									Batch: R118127
Sample ID: B08091112-001A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:13
Conductivity, sat. paste	35.5	mmhos/cm	0.010				2.5	30	
Sample ID: LCS-0809251113	Laboratory Control Sample					Run: MISC-SOIL_080925B			09/25/08 11:13
Conductivity, sat. paste	3.84	mmhos/cm	0.010	122	50	150			
Sample ID: B08091126-001A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:17
Conductivity, sat. paste	8.19	mmhos/cm	0.010				1.4	30	
Sample ID: B08091331-001A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:17
Conductivity, sat. paste	2.61	mmhos/cm	0.010				0.4	30	
Sample ID: B08091642-002A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:17
Conductivity, sat. paste	4.87	mmhos/cm	0.010				5.8	30	
Sample ID: B08091733-001A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:17
Conductivity, sat. paste	0.290	mmhos/cm	0.010				6.7	30	
Method: ASA12-3									Batch: R118547
Sample ID: B08091733-003A DUP	Sample Duplicate					Run: MISC-SOIL_081002B			10/02/08 15:06
Lime Requirement, SMP buffer	11.3	t/kt	1.0				0	30	
Method: ASA15-5									Batch: R118127
Sample ID: B08091646-001A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:27
Sand	43	%	1.0				0	40	
Silt	42	%	1.0				0	40	
Clay	15	%	1.0				0	40	
Sample ID: LCS-0809251127	Laboratory Control Sample					Run: MISC-SOIL_080925B			09/25/08 11:27
Sand	43	%	1.0	107	50	150			
Silt	34	%	1.0	92	50	150			
Clay	23	%	1.0	100	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA24-5							Batch: 08092501-PS3		
Sample ID: LCS	Laboratory Control Sample				Run: FIA201-B_080925B			09/25/08 08:32	
Phosphorus, Olsen	4.46	mg/kg	1.0	91	50	150			
Sample ID: B08091625-001ADUP	Sample Duplicate				Run: FIA201-B_080925B			09/25/08 08:39	
Phosphorus, Olsen	3370	mg/kg-dry	13				2.7	30	
Sample ID: B08091625-001AMS	Sample Matrix Spike				Run: FIA201-B_080925B			09/25/08 08:41	
Phosphorus, Olsen	6890	mg/kg-dry	13	107	50	150			
Sample ID: B08091733-003ADUP	Sample Duplicate				Run: FIA201-B_080925B			09/25/08 08:59	
Phosphorus, Olsen	26.9	mg/kg	1.0				1.3	30	
Sample ID: B08091733-003AMS	Sample Matrix Spike				Run: FIA201-B_080925B			09/25/08 09:01	
Phosphorus, Olsen	51.4	mg/kg	1.0	115	50	150			
Method: ASA29-3							Batch: R117927		
Sample ID: B08091323-001A DUP	Sample Duplicate				Run: MISC-SOIL_080923A			09/23/08 10:03	
Organic Matter	4.83	%	0.020				0.8	30	
Sample ID: B08091733-003A DUP	Sample Duplicate				Run: MISC-SOIL_080923A			09/23/08 10:03	
Organic Matter	27.5	%	0.020				0.3	30	
Sample ID: LCS-0809231003	Laboratory Control Sample				Run: MISC-SOIL_080923A			09/23/08 10:03	
Organic Matter	2.29	%	0.020	95	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA33-8							Batch: 08092401-NNS2		
Sample ID: LCS	Laboratory Control Sample				Run: FIA201-B_080924B			09/24/08 14:04	
Nitrate as N, KCL Extract	8.18	mg/kg	1.0	91	50	150			
Sample ID: B08081239-007ADUP	Sample Duplicate				Run: FIA201-B_080924B			09/24/08 14:07	
Nitrate as N, KCL Extract	3.71	mg/kg	1.0				3.3	30	
Sample ID: B08081239-007AMS	Sample Matrix Spike				Run: FIA201-B_080924B			09/24/08 14:08	
Nitrate as N, KCL Extract	9.52	mg/kg	1.0	108	50	150			
Sample ID: B08091630-001ADUP	Sample Duplicate				Run: FIA201-B_080924B			09/24/08 14:13	
Nitrate as N, KCL Extract	177	mg/kg	1.0				2.8	30	
Sample ID: B08091649-004ADUP	Sample Duplicate				Run: FIA201-B_080924B			09/24/08 14:24	
Nitrate as N, KCL Extract	2.57	mg/kg	1.0				2.3	30	
Sample ID: B08091649-004AMS	Sample Matrix Spike				Run: FIA201-B_080924B			09/24/08 14:24	
Nitrate as N, KCL Extract	8.33	mg/kg	1.0	109	50	150			
Sample ID: B08091791-003ADUP	Sample Duplicate				Run: FIA201-B_080924B			09/24/08 14:33	
Nitrate as N, KCL Extract	5.31	mg/kg	1.0				0	30	
Sample ID: B08091945-005ADUP	Sample Duplicate				Run: FIA201-B_080924B			09/24/08 14:43	
Nitrate as N, KCL Extract	5.89	mg/kg	1.0				2.6	30	
Sample ID: B08091945-005AMS	Sample Matrix Spike				Run: FIA201-B_080924B			09/24/08 14:43	
Nitrate as N, KCL Extract	11.6	mg/kg	1.0	112	50	150			
Method: ASAM10-3.2							Batch: R118127		
Sample ID: B08091112-001A DUP	Sample Duplicate				Run: MISC-SOIL_080925B			09/25/08 11:13	
pH, sat. paste	7.20	s.u.	0.10				1.4	10	
Sample ID: LCS-0809251113	Laboratory Control Sample				Run: MISC-SOIL_080925B			09/25/08 11:13	
pH, sat. paste	11.4	s.u.	0.10	100	90	110			
Sample ID: B08091126-001A DUP	Sample Duplicate				Run: MISC-SOIL_080925B			09/25/08 11:17	
pH, sat. paste	8.00	s.u.	0.10				0	10	
Sample ID: B08091331-001A DUP	Sample Duplicate				Run: MISC-SOIL_080925B			09/25/08 11:17	
pH, sat. paste	7.20	s.u.	0.10				1.4	10	
Sample ID: B08091642-002A DUP	Sample Duplicate				Run: MISC-SOIL_080925B			09/25/08 11:17	
pH, sat. paste	8.00	s.u.	0.10				0	10	
Sample ID: B08091733-001A DUP	Sample Duplicate				Run: MISC-SOIL_080925B			09/25/08 11:17	
pH, sat. paste	7.90	s.u.	0.10				0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Calculation									Batch: R118348
Sample ID: B08091733-001A DUP	Sample Duplicate					Run: MISC-SOIL_080930B			09/30/08 08:45
Sodium Adsorption Ratio (SAR)	0.120	unitless	0.010				22	30	
Sample ID: LCS-0809300845	Laboratory Control Sample					Run: MISC-SOIL_080930B			09/30/08 08:45
Sodium Adsorption Ratio (SAR)	2.53	unitless	0.010	119	50	150			
Method: D2974									Batch: R117842
Sample ID: B08091126-001ADUP	Sample Duplicate					Run: MISC-SOIL_080922A			09/22/08 00:00
Moisture (As Received)	28.0	wt%	0.20						
Method: Sobek Modified									Batch: R118352
Sample ID: B08091340-001A DUP	Sample Duplicate					Run: MISC-SOIL_080930C			09/25/08 00:00
Neutralization Potential	5.0	t/kt	1.0				0	50	
Acid Potential	0	t/kt	1.0				0	50	
Acid/Base Potential	4.7	t/kt					0.4	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: B08091733-001A DUP	Sample Duplicate					Run: MISC-SOIL_080930C			09/25/08 00:00
Neutralization Potential	330	t/kt	1.0				0.8	50	
Acid Potential	0	t/kt	1.0				0	50	
Acid/Base Potential	330	t/kt					0.8	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: B08091777-001A DUP	Sample Duplicate					Run: MISC-SOIL_080930C			09/25/08 00:00
Neutralization Potential	120	t/kt	1.0				2.3	50	
Acid Potential	0	t/kt	1.0				0	50	
Acid/Base Potential	120	t/kt					2.4	50	
The acid-base potential was calculated from the non-sulfate sulfur %									
Sample ID: LCS-SOL5020809251647	Laboratory Control Sample					Run: MISC-SOIL_080930C			09/25/08 00:00
Neutralization Potential	68	t/kt	1.0	92	50	200			
Acid Potential	4.5	t/kt	1.0	112	50	200			
Acid/Base Potential	63	t/kt		89	50	200			
The acid-base potential was calculated from the non-sulfate sulfur %									

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte-	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Sobek Modified							Batch: R118372		
Sample ID: B08091340-001A DUP	Sample Duplicate				Run: MISC-SOIL_080930D			09/30/08 00:00	
Sulfur, Total	0.0139	%	0.010				1.8	50	
Sulfur, Hot Water Extractable	0.00294	%	0.010				0	50	
Sulfur, HCl Extractable	0.00592	%	0.010				0	50	
Sulfur, HNO3 Extractable	0.00359	%	0.010				0	50	
Sulfur, Residual	0.00149	%	0.010				0	50	
Sample ID: B08091733-001A DUP	Sample Duplicate				Run: MISC-SOIL_080930D			09/30/08 00:00	
Sulfur, Total	0.0186	%	0.010				3.9	50	
Sulfur, Hot Water Extractable	ND	%	0.010				0	50	
Sulfur, HCl Extractable	0.00716	%	0.010				0	50	
Sulfur, HNO3 Extractable	0.00913	%	0.010				0	50	
Sulfur, Residual	0.00257	%	0.010				0	50	
Sample ID: LCS-SOL5020809301052	Laboratory Control Sample				Run: MISC-SOIL_080930D			09/30/08 00:00	
Sulfur, Total	0.202	%	0.010	112	50	200			
Sulfur, Hot Water Extractable	0.0585	%	0.010	117	50	200			
Sulfur, HCl Extractable	0.0140	%	0.010	70	50	200			
Sulfur, HNO3 Extractable	0.0989	%	0.010	110	50	200			
Sulfur, Residual	0.0301	%	0.010	75	50	200			
Method: SW6010B							Batch: 34859		
Sample ID: LCS-34859	Laboratory Control Sample				Run: ICP201-B_080923A			09/24/08 01:58	
Potassium	190	mg/kg	10	70	50	150			
Sample ID: B08091638-001A DUP	Sample Duplicate				Run: ICP201-B_080923A			09/24/08 02:06	
Potassium	520	mg/kg	10				0.2	30	
Sample ID: B08091642-001AMS2	Sample Matrix Spike				Run: ICP201-B_080923A			09/24/08 02:13	
Potassium	1300	mg/kg	10	97	50	150			
Sample ID: B08091791-001A DUP	Sample Duplicate				Run: ICP201-B_080923A			09/24/08 03:22	
Potassium	230	mg/kg	10				5.5	30	
Sample ID: B08091791-003AMS2	Sample Matrix Spike				Run: ICP201-B_080923A			09/24/08 03:30	
Potassium	1300	mg/kg	10	99	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34868
Sample ID: LCS-34868	Laboratory Control Sample				Run: ICP201-B_080923A				09/24/08 04:12
Cation Exchange Capacity	19.7	meq/100g	0.079	83	60	140			
Sample ID: B08091597-003A DUP	Sample Duplicate				Run: ICP201-B_080923A				09/24/08 04:27
Cation Exchange Capacity	24.0	meq/100g	0.079				3.1	50	
Sample ID: B08091733-001AMS2	Sample Matrix Spike				Run: ICP201-B_080923A				09/24/08 04:35
Cation Exchange Capacity	29.3	meq/100g	0.081	97	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34879
Sample ID: LCS-34879	Laboratory Control Sample				Run: ICP201-B_080924A				09/25/08 07:04
Calcium, sat. paste	39.9	meq/L	0.053	109	50	150			
Sodium, sat. paste	10.7	meq/L	0.044	118	50	150			
Sample ID: B08091126-001A DUP	Sample Duplicate				Run: ICP201-B_080924A				09/25/08 07:12
Calcium, sat. paste	26.5	meq/L	0.11				4	30	
Magnesium, sat. paste	88.5	meq/L	0.11				4.2	30	
Sodium, sat. paste	1.44	meq/L	0.079				4.8	30	
Sample ID: B08091331-001A DUP	Sample Duplicate				Run: ICP201-B_080924A				09/25/08 07:19
Calcium, sat. paste	12.6	meq/L	0.053				2.5	30	
Magnesium, sat. paste	2.82	meq/L	0.082				2.8	30	
Sodium, sat. paste	12.4	meq/L	0.044				5.3	30	
Sample ID: B08091331-002AMS2	Sample Matrix Spike				Run: ICP201-B_080924A				09/25/08 07:27
Calcium, sat. paste	11.7	meq/L	0.050	93	50	150			
Magnesium, sat. paste	10.1	meq/L	0.082	97	50	150			
Sodium, sat. paste	9.98	meq/L	0.044	94	50	150			
Sample ID: B08091642-002A DUP	Sample Duplicate				Run: ICP201-B_080924A				09/25/08 08:13
Calcium, sat. paste	13.9	meq/L	0.053				11	30	
Magnesium, sat. paste	16.1	meq/L	0.082				16	30	
Sodium, sat. paste	31.1	meq/L	0.044				14	30	
Sample ID: B08091649-001AMS2	Sample Matrix Spike				Run: ICP201-B_080924A				09/25/08 08:52
Calcium, sat. paste	40.7	meq/L	0.055	104	50	150			
Magnesium, sat. paste	27.7	meq/L	0.082	101	50	150			
Sodium, sat. paste	36.3	meq/L	0.044	119	50	150			
Sample ID: LCS-34879	Laboratory Control Sample				Run: ICP201-B_080925A				09/25/08 13:19
Calcium, sat. paste	41.2	meq/L	0.053	112	50	150			
Sodium, sat. paste	11.5	meq/L	0.044	126	50	150			
Sample ID: B08091733-001A DUP	Sample Duplicate				Run: ICP201-B_080925A				09/25/08 13:38
Calcium, sat. paste	2.23	meq/L	0.050				8.9	30	
Magnesium, sat. paste	0.641	meq/L	0.082				4.8	30	
Sodium, sat. paste	0.146	meq/L	0.044				26	30	
Sample ID: B08091733-002AMS2	Sample Matrix Spike				Run: ICP201-B_080925A				09/25/08 13:53
Calcium, sat. paste	9.17	meq/L	0.050	97	50	150			
Magnesium, sat. paste	9.44	meq/L	0.082	99	50	150			
Sodium, sat. paste	4.59	meq/L	0.044	100	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/02/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: USDA27a									Batch: R118127
Sample ID: B08091642-002A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:17
Saturation	69.9	%	0.10				3.8	30	
Sample ID: B08091733-001A DUP	Sample Duplicate					Run: MISC-SOIL_080925B			09/25/08 11:17
Saturation	19.8	%	0.10				2.6	30	
Sample ID: LCS-0809251117	Laboratory Control Sample					Run: MISC-SOIL_080925B			09/25/08 11:17
Saturation	34.9	%	0.10	92	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/09/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34859
Sample ID: MB-34859	Method Blank					Run: ICP201-B_080923A			09/24/08 01:54
Potassium	0.07	mg/kg	0.01						
Sample ID: LCS-34859	Laboratory Control Sample					Run: ICP201-B_080923A			09/24/08 01:58
Potassium	190	mg/kg	10	70	50	150			
Sample ID: B08091791-001A DUP	Sample Duplicate					Run: ICP201-B_080923A			09/24/08 03:22
Potassium	230	mg/kg	10				5.5	30	
Sample ID: B08091791-003AMS2	Sample Matrix Spike					Run: ICP201-B_080923A			09/24/08 03:30
Potassium	1300	mg/kg	10	99	50	150			
Method: SW6010B									Batch: 34868
Sample ID: MB-34868	Method Blank					Run: ICP201-B_080923A			09/24/08 04:08
Cation Exchange Capacity	3	meq/100g	0.08						
Sample ID: LCS-34868	Laboratory Control Sample					Run: ICP201-B_080923A			09/24/08 04:12
Cation Exchange Capacity	19.7	meq/100g	0.079	83	60	140			
Sample ID: B08091597-003A DUP	Sample Duplicate					Run: ICP201-B_080923A			09/24/08 04:27
Cation Exchange Capacity	24.0	meq/100g	0.079				3.1	50	
Sample ID: B08091733-001AMS2	Sample Matrix Spike					Run: ICP201-B_080923A			09/24/08 04:35
Cation Exchange Capacity	29.3	meq/100g	0.081	97	50	150			
Method: SW6010B									Batch: 34879
Sample ID: MB-34879	Method Blank					Run: ICP201-B_080925A			09/25/08 13:16
Calcium, sat. paste	ND	meq/L	0.0009						
Magnesium, sat. paste	0.02	meq/L	0.01						
Sodium, sat. paste	ND	meq/L	0.002						
Sample ID: LCS-34879	Laboratory Control Sample					Run: ICP201-B_080925A			09/25/08 13:19
Calcium, sat. paste	41.2	meq/L	0.053	112	50	150			
Sodium, sat. paste	11.5	meq/L	0.044	126	50	150			
Sample ID: B08091733-001A DUP	Sample Duplicate					Run: ICP201-B_080925A			09/25/08 13:38
Calcium, sat. paste	2.23	meq/L	0.050				8.9	30	
Magnesium, sat. paste	0.641	meq/L	0.082				4.8	30	
Sodium, sat. paste	0.146	meq/L	0.044				26	30	
Sample ID: B08091733-002AMS2	Sample Matrix Spike					Run: ICP201-B_080925A			09/25/08 13:53
Calcium, sat. paste	9.17	meq/L	0.050	97	50	150			
Magnesium, sat. paste	9.44	meq/L	0.082	99	50	150			
Sodium, sat. paste	4.59	meq/L	0.044	100	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/09/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34956
Sample ID: MB-34956	Method Blank		Run: ICP202-B_080930A					09/30/08 19:19	
Antimony	ND	mg/kg	1						
Arsenic	ND	mg/kg	1						
Barium	ND	mg/kg	0.01						
Cadmium	ND	mg/kg	0.07						
Chromium	0.2	mg/kg	0.09						
Copper	ND	mg/kg	0.08						
Iron	6	mg/kg	3						
Lead	ND	mg/kg	0.6						
Manganese	ND	mg/kg	0.03						
Nickel	ND	mg/kg	0.2						
Silver	ND	mg/kg	0.1						
Zinc	ND	mg/kg	0.1						
Sample ID: LCS1-34956									09/30/08 19:23
Laboratory Control Sample		Run: ICP202-B_080930A							
Aluminum	7940	mg/kg	5.0	108	65	135			
Antimony	63.5	mg/kg	5.0	83	2.57	180			
Arsenic	82.5	mg/kg	5.0	91	70	130			
Barium	251	mg/kg	5.0	96	70	130			
Cadmium	68.9	mg/kg	1.0	96	70	130			
Chromium	84.6	mg/kg	5.0	99	70	130			
Copper	66.8	mg/kg	5.0	99	70	130			
Iron	16700	mg/kg	5.0	116	70	130			
Lead	115	mg/kg	5.0	97	70	130			
Manganese	213	mg/kg	5.0	100	70	130			
Nickel	84.9	mg/kg	5.0	97	70	130			
Silver	105	mg/kg	5.0	93	70	130			
Zinc	273	mg/kg	5.0	94	70	130			
Sample ID: B08091655-001AMS3									09/30/08 19:41
Sample Matrix Spike		Run: ICP202-B_080930A							
Aluminum	889	mg/kg	5.0	206	75	125			S
Antimony	46.3	mg/kg	11	93	75	125			
Arsenic	42.2	mg/kg	14	84	75	125			
Barium	51.0	mg/kg	5.0	100	75	125			
Cadmium	22.9	mg/kg	1.0	91	75	125			
Chromium	46.6	mg/kg	5.0	89	75	125			
Copper	50.5	mg/kg	5.0	98	75	125			
Iron	1070	mg/kg	33	161	75	125			S
Lead	48.2	mg/kg	5.5	96	75	125			
Manganese	268	mg/kg	5.0	89	75	125			
Nickel	47.1	mg/kg	5.0	94	75	125			
Silver	20.4	mg/kg	5.0	82	75	125			
Zinc	48.2	mg/kg	5.0	96	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/09/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 34956
Sample ID: B08091655-001AMSD3	Sample Matrix Spike Duplicate			Run: ICP202-B_080930A				09/30/08 19:45	
Aluminum	875	mg/kg	5.0	200	75	125	1.6	20	S
Antimony	45.0	mg/kg	11	90	75	125	2.9	20	
Arsenic	43.5	mg/kg	14	87	75	125	3.1	20	
Barium	51.6	mg/kg	5.0	102	75	125	1.3	20	
Cadmium	23.7	mg/kg	1.0	95	75	125	3.8	20	
Chromium	47.9	mg/kg	5.0	91	75	125	2.7	20	
Copper	52.4	mg/kg	5.0	101	75	125	3.7	20	
Iron	791	mg/kg	33	48	75	125	30	20	SR
Lead	31.6	mg/kg	5.5	63	75	125	42	20	SR
Manganese	275	mg/kg	5.0	92	75	125	2.6	20	
Nickel	48.3	mg/kg	5.0	97	75	125	2.4	20	
Silver	19.8	mg/kg	5.0	79	75	125	3.4	20	
Zinc	47.5	mg/kg	5.0	95	75	125	1.4	20	
Sample ID: B08091655-002ADIL	Serial Dilution			Run: ICP202-B_080930A				09/30/08 19:53	
Antimony	ND	mg/kg	56		0	0	0	10	
Arsenic	ND	mg/kg	68		0	0	0	10	
Barium	ND	mg/kg	5.0		0	0	0	10	
Cadmium	ND	mg/kg	3.3		0	0	0	10	
Chromium	ND	mg/kg	5.0		0	0	0	10	
Copper	ND	mg/kg	5.0		0	0	0	10	
Iron	786	mg/kg	170		0	0		10	N
Lead	ND	mg/kg	28		0	0	0	10	
Manganese	69.3	mg/kg	5.0		0	0	2.7	10	
Nickel	ND	mg/kg	9.6		0	0	0	10	
Silver	ND	mg/kg	6.9		0	0	0	10	
Zinc	ND	mg/kg	6.2		0	0	0	10	
Method: SW6010B									Analytical Run: ICP201-B_080923A
Sample ID: QCS	Initial Calibration Verification Standard							09/23/08 13:56	
Potassium	41.2	mg/L	1.0	103	90	110			
Sodium	40.5	mg/L	1.0	101	90	110			
Sample ID: ICSA	Interference Check Sample A							09/23/08 14:11	
Potassium	-0.122	mg/L	1.0		-1	1			
Sodium	0.0206	mg/L	1.0		-1	1			
Sample ID: ICSAB	Interference Check Sample AB							09/23/08 14:15	
Potassium	10.3	mg/L	1.0	103	80	120			
Sodium	10.4	mg/L	1.0	104	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

R - RPD exceeds advisory limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/09/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Analytical Run: ICP201-B_080925A		
Sample ID: QCS	Initial Calibration Verification Standard								09/25/08 12:38
Calcium	39.5	mg/L	1.0	99	90	110			
Magnesium	40.1	mg/L	1.0	100	90	110			
Sodium	41.0	mg/L	1.0	102	90	110			
Sample ID: ICSA	Interference Check Sample A								09/25/08 12:53
Calcium	507	mg/L	1.0	101	80	120			
Magnesium	542	mg/L	1.0	108	80	120			
Sodium	0.0322	mg/L	1.0		-1	1			
Sample ID: ICSAB	Interference Check Sample AB								09/25/08 12:56
Calcium	515	mg/L	1.0	103	80	120			
Magnesium	559	mg/L	1.0	112	80	120			
Sodium	10.7	mg/L	1.0	107	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/09/08

Project: McLaren Tailings

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Analytical Run: ICP202-B_080929A		
Sample ID: QCS Initial Calibration Verification Standard							09/29/08 13:43		
Aluminum	4.04	mg/L	0.10	101	90	110			
Antimony	0.831	mg/L	0.0100	104	90	110			
Arsenic	0.815	mg/L	0.10	102	90	110			
Barium	0.836	mg/L	0.10	104	90	110			
Cadmium	0.408	mg/L	0.010	102	90	110			
Chromium	0.800	mg/L	0.050	100	90	110			
Copper	0.818	mg/L	0.010	102	90	110			
Iron	4.18	mg/L	0.030	105	90	110			
Lead	0.827	mg/L	0.050	103	90	110			
Manganese	4.01	mg/L	0.010	100	90	110			
Nickel	0.846	mg/L	0.050	106	90	110			
Silver	0.372	mg/L	0.010	93	90	110			
Zinc	0.842	mg/L	0.010	105	90	110			
Sample ID: ICSA Interference Check Sample A							09/29/08 13:59		
Aluminum	521	mg/L	0.10	104	80	120			
Antimony	-0.0245	mg/L	0.0100		-0.05	0.05			
Arsenic	-0.0154	mg/L	0.10		-0.1	0.1			
Barium	0.00122	mg/L	0.10		-0.005	0.0005			
Cadmium	0.0110	mg/L	0.010		-0.001	0.001			
Chromium	-0.00532	mg/L	0.050		-0.01	0.01			
Copper	0.00287	mg/L	0.010		-0.01	0.01			
Iron	202	mg/L	0.091	101	80	120			
Lead	0.0483	mg/L	0.050		-0.01	0.01			
Manganese	0.00389	mg/L	0.010		-0.01	0.01			
Nickel	0.00462	mg/L	0.050		-0.05	0.05			
Silver	0.00509	mg/L	0.010		-0.005	0.005			
Zinc	-0.0444	mg/L	0.010		-0.01	0.01			
Sample ID: ICSAB Interference Check Sample AB							09/29/08 14:03		
Aluminum	527	mg/L	0.10	105	80	120			
Antimony	1.03	mg/L	0.0100	103	80	120			
Arsenic	1.02	mg/L	0.10	102	80	120			
Barium	0.544	mg/L	0.10	109	80	120			
Cadmium	1.01	mg/L	0.010	101	80	120			
Chromium	0.483	mg/L	0.050	97	80	120			
Copper	0.554	mg/L	0.010	111	80	120			
Iron	204	mg/L	0.091	102	80	120			
Lead	1.09	mg/L	0.050	109	80	120			
Manganese	0.501	mg/L	0.010	100	80	120			
Nickel	1.02	mg/L	0.050	102	80	120			
Silver	0.984	mg/L	0.010	91	80	120			
Zinc	1.00	mg/L	0.010	100	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Project: McLaren Tailings

Report Date: 10/09/08

Work Order: B08091733

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Analytical Run: ICP202-B_080930A		
Sample ID: QCS	Initial Calibration Verification Standard								09/30/08 14:23
Iron	4.12	mg/L	0.030	103	90	110			
Sample ID: ICSA	Interference Check Sample A								09/30/08 14:39
Iron	201	mg/L	0.091	100	80	120			
Sample ID: ICSAB	Interference Check Sample AB								09/30/08 14:43
Iron	203	mg/L	0.091	101	80	120			
Method: SW7471A							Batch: 35014		
Sample ID: MB-35014	Method Blank				Run: HGCV201-B_081001B				10/01/08 14:50
Mercury	ND	mg/kg	0.05						
Sample ID: LCS1-35014	Laboratory Control Sample				Run: HGCV201-B_081001B				10/01/08 14:53
Mercury	5.42	mg/kg	1.0	103	70	130			
Sample ID: B08091733-001AMS3	Sample Matrix Spike				Run: HGCV201-B_081001B				10/01/08 14:57
Mercury	10.4	mg/kg	1.0	104	70	130			
Sample ID: B08091733-001AMSD3	Sample Matrix Spike Duplicate				Run: HGCV201-B_081001B				10/01/08 14:59
Mercury	11.8	mg/kg	1.0	118	70	130	12	30	
Sample ID: B08092360-006ADIL	Serial Dilution				Run: HGCV201-B_081001B				10/01/08 16:09
Mercury	ND	mg/kg	1.0		0	0	0	20	N
Method: SW7471A							Analytical Run: HGCV201-B_081001B		
Sample ID: QCS	Initial Calibration Verification Standard								10/01/08 14:44
Mercury	0.00187	mg/kg	1.0	94	85	115			
Method: SW9045D							Batch: R117788		
Sample ID: B08091733-012ADUP	Sample Duplicate				Run: MISC-HZW_080919A				09/19/08 10:00
pH of Soil and Waste	5.77	s.u.	0.10				0.2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

Energy Laboratories Inc

Workorder Receipt Checklist



B08091733

MT DEQ

Login completed by: Gina McCartney

Date and Time Received: 9/17/2008 9:00 AM

Reviewed by: Denise Ruby

Received by: smr

Reviewed Date: 9/19/2008 10:42:00 AM

Carrier name: Return-UPS
Ground

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	20°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings		
Report Mail Address: 63 1/2 W. Broadway Butte, Mt. 59701			Contact Name, Phone, Fax, E-mail: Joe McElroy 406-782-5177		
Invoice Address:			Sampler Name if other than Contact: Julie Flannery		
Report Required For: ☐ POTW/WWTP ☐ DW ☐ Other _____			Purchase Order #:		
Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____			Invoice Contact & Phone #: Amanda Booth 406-782-5177		
Notify ELI prior to RUSH sample submittal for additional charges and scheduling			Receipt Temp 150 °C		
			Cooler ID(s) MMU		
Comments: Billings 20 V2 RTN UPS GED SBAIS C Landy Ruck 9-17-08 9:00			Custody Seal Y ☒ N ☐ Intact Y ☒ N ☐ Signature Y ☒ N ☐ Match Lab ID		
ANALYSIS REQUESTED			SEE ATTACHED		
Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Biossey Other			Normal Turnaround (TAT) RUSH Turnaround (TAT)		
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date		
Collection Time			MATRIX		
1 McLaren-RA-01-C-090808			9/8/08 1410 350.1		
2 McLaren-RA-01-B-090808			9/8/08 1425 3		
3 McLaren-RA-01-A-090808			9/8/08 1420 3		
4 McLaren-AS-01-091108			9/11/08 930 2		
5 McLaren-AS-02-091108			9/11/08 1515 2		
6 McLaren-AS-03-091108			9/11/08 1330 2		
7 McLaren-AS-04-091108			9/11/08 1520 2		
8 McLaren-AS-05-091108			9/11/08 1640 2		
9 McLaren-AS-06-091108			9/11/08 1635 2		
10 McLaren-AS-07-091108			9/11/08 1835 2		
Relinquished by: Isaac Hall			Date/Time: 9/16/08 10:37		
Relinquished by:			Shipped by: Hand Delivered		
Shipped by:			Received by: R. T. 7.16.08 10:36		
Received by:			Date/Time: 9-17-08 9:30		
LABORATORY USE ONLY			LABORATORY USE ONLY		
Sample Type:			# of fractions		
Sample Disposal: Return to client: _____ Lab Disposal: _____			In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.		

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

For additional information, downloadable fee schedule, forms, & links.

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings										
Report Mail Address: 63 1/2 W. Broadway Butte, MT. 59701			Contact Name, Phone, Fax, E-mail: Joe McElroy 406-782-5177					Sampler Name if other than Contact: Julie Flammang					
Invoice Address: Same			Invoice Contact & Phone #: Amanda Booth 406-782-5177					Purchase Order #:		ELI Quote #:			
Report Required For: ☐ POTW/WWTP ☐ DW ☐ Other _____ Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____			Number of Containers _____ Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other _____		ANALYSIS REQUESTED SEE ATTACHED Normal Turnaround (TAT) RUSH Turnaround (TAT)					Notify ELI prior to RUSH sample submittal for additional charges and scheduling Comments: Boilwgs 50" X3 RTM UPS GRD SEALS (C) Landy Kneuch 9-17-08-9:00		Receipt Temp 15.0 °C	
Cooler ID(s) Hand													
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	MATRIX						Custody Seal Y ☒ N ☐ Intact Y ☒ N ☐ Signature Match Y ☒ N ☐ Lab ID		
1 McLaren-AS-08-091208			9/12/08	1000	2						B0801733-011		
2 McLaren-AS-09-091208			9/12/08	1140	2						-012		
3													
4													
5													
6													
7													
8													
9													
10													

Custody Record MUST be Signed

Relinquished by: Isabel Hall	Date/Time: 9/16/08 10:37	Shipped by: Hand Delivered	Received by: RTM 9/16/08 (A2LA) Julie	Date/Time: 9/16/08
Relinquished by:	Date/Time:	Shipped by:	Received by: Landy Kneuch	Date/Time: 9-17-08 9:00

LABORATORY USE ONLY
 Sample Type: _____ # of fractions: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, & links.

**McLAREN TAILINGS SITE
SOIL SAMPLES
DESCRIPTION OF ANALYSES**

TOTAL METALS:

Aluminum (Al); Antimony (Sb); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr); Copper (Cu); Iron (Fe); Lead (Pb); Manganese (Mn); Mercury (Hg); Nickel (Ni); Silver (Ag); Zinc (Zn).

ABA & SMP:

Acid-Base Accounting & SMP Buffering Capacity

Modified Sobek method

SPLP

Synthetic Precipitation Leaching Procedure. (Pre and Post Lime addition) to be completed by Energy Laboratory

Aluminum (Al); Antimony (Sb); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr); Copper (Cu); Iron (Fe); Lead (Pb); Manganese (Mn); Mercury (Hg); Nickel (Ni); Silver (Ag); Zinc (Zn).

PHYSICAL PARAMETERS: - (Pioneer Geotechnical Laboratory - Helena, MT)

Standard Proctor AASHTO Method T-99
Gradation
Atterburg Limits
Moisture Content

Lime Dehydration - ASTM D 3877 and ASTM D 5102

Pre- and post-lime addition moisture content,
Shrink or swell percent
Atterberg Limits (Pre- and Post- lime addition)
SPLP (Post- Lime addition) to be completed by Energy Laboratory

AGRONOMIC PARAMETERS:

%Organic Matter
pH
USDA Texture - Rapid Hydrometer (% Coarse, %Sand, % Silt, % Clay)
Available Moisture
Field Capacity
Wilting Point
Electrical Conductivity
Sodium Adsorption Ratio
Saturation Percentage
Cation Exchange Capacity
Fertilizer Recommendation (N, P, K) for dry land pasture

Energy Laboratories Inc

1120 So. 27th Street
Billings, MT 59107
(406) 252-6325

CHAIN-OF-CUSTODY RECORD

Page 1 of 1
18-Sep-08

Custody Seal: Y N

Intacted: Y N

Signature Match: Y N

Shipped By: _____

Receipt Temp: _____

Subcontractor:

ELI - Helena
3161 East Lyndale Ave
Helena, MT 596045688
TEL: (406) 442-0711 FAX:
Acct #: 1

Subcontractor's Client: Pioneer Technical Services

Shipped By: _____

Requested Tests

WATER HOLDING

Sample ID	Matrix	Collection Date	Bottle Type
B08091733-001A	Soil	09/08/08 02:10 P	ZIPLOCK
B08091733-002A	Soil	09/08/08 02:25 P	ZIPLOCK
B08091733-003A	Soil	09/08/08 02:20 P	ZIPLOCK

1
1
1

Comments:

QC Level:

STD

Date/Time

Date/Time

Relinquished by: _____

Relinquished by: _____

Received by: _____

Received by: _____

9/18/8 10:00

GROUNDWATER LAB DATA SHEETS

ANALYTICAL SUMMARY REPORT

October 10, 2008

Joe McElroy
Pioneer Technical Services
63 1/2 W Broadway
Butte, MT 59701

Workorder No.: B08092225

Project Name: McLaren Tailings

Energy Laboratories Inc received the following 4 samples from Pioneer Technical Services on 9/23/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B08092225-001	MW-02-091808	09/18/08 18:10	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO3 Solids, Total Dissolved Solids, Total Suspended
B08092225-002	W3-10-091808	09/18/08 18:45	09/23/08	Aqueous	Same As Above
B08092225-003	MW-04-10-091808	09/18/08 13:40	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mineral Balance Review Anions by ion chromatography Conductivity Hardness as CaCO3 Solids, Total Dissolved Solids, Total Suspended
B08092225-004	MW-05-091808	09/18/08 8:35	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO3 Solids, Total Dissolved Solids, Total Suspended

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: _____



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08092225-001
Client Sample ID: MW-02-091808

Report Date: 10/10/08
Collection Date: 09/18/08 18:10
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	2730	umhos/cm		1		A2510 B	09/23/08 17:28 / clr
Solids, Total Suspended TSS @ 105 C	50	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	2460	mg/L		10		A2540 C	09/24/08 16:01 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	288	mg/L		1		A2320 B	09/30/08 13:36 / ehb
Bicarbonate as HCO ₃	351	mg/L		1		A2320 B	09/30/08 13:36 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/30/08 13:36 / ehb
Sulfate	1480	mg/L		1		E300.0	09/29/08 08:31 / qed
Hardness as CaCO ₃	1650	mg/L		1		A2340 B	09/30/08 12:07 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 21:21 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 03:00 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 03:00 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 21:21 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 03:00 / aje
Calcium	420	mg/L		1		E200.7	09/24/08 21:21 / rlh
Chromium	ND	mg/L		0.01		E200.8	09/29/08 03:00 / aje
Copper	ND	mg/L		0.01		E200.8	09/29/08 03:00 / aje
Iron	48.2	mg/L		0.03		E200.7	09/24/08 21:21 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 03:00 / aje
Magnesium	145	mg/L		1		E200.7	09/24/08 21:21 / rlh
Manganese	1.04	mg/L		0.01		E200.7	09/24/08 21:21 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 03:00 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 21:21 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 03:00 / aje
Zinc	ND	mg/L		0.01		E200.8	09/29/08 03:00 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08092225-002
Client Sample ID: W3-10-091808

Report Date: 10/10/08
Collection Date: 09/18/08 18:45
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	1180	umhos/cm		1		A2510 B	09/23/08 17:29 / clr
Solids, Total Suspended TSS @ 105 C	41	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	923	mg/L		10		A2540 C	09/24/08 15:59 / afb
INORGANICS							
Alkalinity, Total as CaCO3	132	mg/L		1		A2320 B	09/30/08 13:42 / ehb
Bicarbonate as HCO3	162	mg/L		1		A2320 B	09/30/08 13:42 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/30/08 13:42 / ehb
Sulfate	530	mg/L		1		E300.0	09/29/08 08:43 / qed
Hardness as CaCO3	678	mg/L		1		A2340 B	09/30/08 12:07 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 21:41 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 03:07 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 03:07 / aje
Barium	0.1	mg/L		0.1		E200.7	09/24/08 21:41 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 21:41 / rlh
Calcium	172	mg/L		1		E200.7	09/24/08 21:41 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 21:41 / rlh
Copper	ND	mg/L		0.01		E200.7	09/24/08 21:41 / rlh
Iron	2.32	mg/L		0.03		E200.7	09/24/08 21:41 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 03:07 / aje
Magnesium	60	mg/L		1		E200.7	09/24/08 21:41 / rlh
Manganese	0.47	mg/L		0.01		E200.7	09/24/08 21:41 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 03:07 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 21:41 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 03:07 / aje
Zinc	0.01	mg/L		0.01		E200.8	09/29/08 03:07 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08092225-003
Client Sample ID: MW-04-10-091808

Report Date: 10/10/08
Collection Date: 09/18/08 13:40
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	5800	umhos/cm		1		A2510 B	09/23/08 17:31 / clr
Solids, Total Suspended TSS @ 105 C	40	mg/L		10		A2540 D	09/24/08 13:46 / afb
Solids, Total Dissolved TDS @ 180 C	7760	mg/L		10		A2540 C	09/24/08 16:06 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	NA	mg/L		1		A2320 B	09/30/08 13:45 / ehb
Bicarbonate as HCO ₃	NA	mg/L		1		A2320 B	09/30/08 13:45 / ehb
Carbonate as CO ₃	NA	mg/L		1		A2320 B	09/30/08 13:45 / ehb
Sulfate	4870	mg/L		1		E300.0	10/08/08 21:51 / qed
Hardness as CaCO ₃	2150	mg/L		1		A2340 B	09/30/08 12:07 / rls
- At the time of analysis, sample pH was <4.5, unable to analyze for Alkalinity.							
METALS, DISSOLVED							
Aluminum	13.9	mg/L		0.1		E200.7	09/24/08 21:45 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 03:13 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 03:13 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 21:45 / rlh
Cadmium	0.006	mg/L		0.001		E200.8	09/29/08 03:13 / aje
Calcium	406	mg/L		1		E200.7	09/24/08 21:45 / rlh
Chromium	ND	mg/L		0.01		E200.8	09/29/08 03:13 / aje
Copper	1.86	mg/L		0.01		E200.7	09/24/08 21:45 / rlh
Iron	1490	mg/L	D	0.9		E200.7	09/24/08 21:45 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 03:13 / aje
Magnesium	277	mg/L		1		E200.7	09/24/08 21:45 / rlh
Manganese	19.6	mg/L		0.01		E200.7	09/24/08 21:45 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 03:13 / aje
Nickel	0.24	mg/L		0.01		E200.7	09/24/08 21:45 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 03:13 / aje
Zinc	1.73	mg/L		0.01		E200.7	09/24/08 21:45 / rlh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: B08092225-004
Client Sample ID: MW-05-091808

Report Date: 10/10/08
Collection Date: 09/18/08 08:35
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	313	umhos/cm		1		A2510 B	09/23/08 17:31 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:46 / afb
Solids, Total Dissolved TDS @ 180 C	178	mg/L		10		A2540 C	09/24/08 16:04 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	149	mg/L		1		A2320 B	09/30/08 13:50 / ehb
Bicarbonate as HCO ₃	182	mg/L		1		A2320 B	09/30/08 13:50 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/30/08 13:50 / ehb
Sulfate	9	mg/L		1		E300.0	09/29/08 09:29 / qed
Hardness as CaCO ₃	164	mg/L		1		A2340 B	09/30/08 12:07 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 21:49 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 03:20 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 03:20 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 21:49 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 21:49 / rlh
Calcium	51	mg/L		1		E200.7	09/24/08 21:49 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 21:49 / rlh
Copper	ND	mg/L		0.01		E200.7	09/24/08 21:49 / rlh
Iron	ND	mg/L		0.03		E200.7	09/24/08 21:49 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 03:20 / aje
Magnesium	9	mg/L		1		E200.7	09/24/08 21:49 / rlh
Manganese	ND	mg/L		0.01		E200.7	09/24/08 21:49 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 03:20 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 21:49 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 03:20 / aje
Zinc	ND	mg/L		0.01		E200.7	09/24/08 21:49 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B							Batch: R118415		
Sample ID: MBLK	Method Blank				Run: MAN-TECH_080930A		09/30/08 11:23		
Alkalinity, Total as CaCO3	ND	mg/L	1						
Bicarbonate as HCO3	1	mg/L	1						
Carbonate as CO3	ND	mg/L	1						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_080930A		09/30/08 11:29		
Alkalinity, Total as CaCO3	96.5	mg/L	1.0	96	90	110			
Sample ID: B08092324-006AMS	Sample Matrix Spike				Run: MAN-TECH_080930A		09/30/08 14:34		
Alkalinity, Total as CaCO3	304	mg/L	1.0	93	80	120			
Sample ID: B08092324-006AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_080930A		09/30/08 14:40		
Alkalinity, Total as CaCO3	299	mg/L	1.0	90	80	120	1.6	20	
Method: A2510 B							Batch: PHSC080923A		
Sample ID: PHC1080722A	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:55		
Conductivity	151	umhos/cm	1.0	101	90	110			
Sample ID: PHC1071220B	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:57		
Conductivity	4990	umhos/cm	1.0	100	90	110			
Sample ID: PHC1080605C	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:57		
Conductivity	19800	umhos/cm	1.0	99	90	110			
Sample ID: B08092225-002ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 17:30		
Conductivity	1180	umhos/cm	1.0				0.2	10	
Sample ID: B08092225-002ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 17:30		
Conductivity	1180	umhos/cm	1.0				0.2	10	
Sample ID: B08092225-002ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 17:30		
Conductivity	1180	umhos/cm	1.0				0.2	10	
Method: A2540 C							Batch: TDS080924B		
Sample ID: MBLK4	Method Blank				Run: WC-BAL-99-3A_080924B		09/24/08 15:49		
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB4	Laboratory Fortified Blank				Run: WC-BAL-99-3A_080924B		09/24/08 15:49		
Solids, Total Dissolved TDS @ 180 C	1120	mg/L	10	102	90	110			
Sample ID: B08092190-013A MS	Sample Matrix Spike				Run: WC-BAL-99-3A_080924B		09/24/08 15:54		
Solids, Total Dissolved TDS @ 180 C	4760	mg/L	10	102	80	120			
Sample ID: B08092190-013A MSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_080924B		09/24/08 15:54		
Solids, Total Dissolved TDS @ 180 C	4760	mg/L	10	102	80	120	0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D							Batch: TSS080924A		
Sample ID: LCS1	Laboratory Control Sample				Run: WC-BAL-99-3A_080924A		09/24/08 13:44		
Solids, Total Suspended TSS @ 105 C	193	mg/L	10	97	75	120			
Sample ID: MBLK1	Method Blank				Run: WC-BAL-99-3A_080924A		09/24/08 13:44		
Solids, Total Suspended TSS @ 105 C	ND	mg/L	1						
Sample ID: B08092190-010A DUP	Sample Duplicate				Run: WC-BAL-99-3A_080924A		09/24/08 13:45		
Solids, Total Suspended TSS @ 105 C	1.00	mg/L	10				0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Analytical Run: ICP202-B_080924A		
Sample ID: ICV	Continuing Calibration Verification Standard							09/24/08 10:15	
Aluminum	2.61	mg/L	0.10	104	95	105			
Barium	2.58	mg/L	0.10	103	95	105			
Cadmium	2.51	mg/L	0.010	100	95	105			
Calcium	24.7	mg/L	1.0	99	95	105			
Chromium	2.55	mg/L	0.050	102	95	105			
Copper	2.53	mg/L	0.010	101	95	105			
Iron	2.55	mg/L	0.030	102	95	105			
Magnesium	24.9	mg/L	1.0	100	95	105			
Manganese	2.51	mg/L	0.010	100	95	105			
Nickel	2.53	mg/L	0.050	101	95	105			
Zinc	2.59	mg/L	0.010	103	95	105			
Method: E200.7							Batch: R118071		
Sample ID: MB-SPDIS080924A	Method Blank		Run: ICP202-B_080924A				09/24/08 11:04		
Aluminum	ND	mg/L	0.007						
Barium	0.0006	mg/L	0.0001						
Cadmium	ND	mg/L	0.0003						
Calcium	ND	mg/L	0.009						
Chromium	ND	mg/L	0.002						
Copper	0.002	mg/L	0.001						
Iron	ND	mg/L	0.002						
Magnesium	ND	mg/L	0.01						
Manganese	ND	mg/L	0.0002						
Nickel	ND	mg/L	0.001						
Zinc	0.0004	mg/L	0.0004						
Sample ID: LFB-SPDIS080924A	Laboratory Fortified Blank		Run: ICP202-B_080924A				09/24/08 11:08		
Aluminum	4.96	mg/L	0.10	99	85	115			
Barium	1.03	mg/L	0.10	103	85	115			
Cadmium	0.501	mg/L	0.010	100	85	115			
Calcium	50.9	mg/L	1.0	102	85	115			
Chromium	1.00	mg/L	0.050	100	85	115			
Copper	0.992	mg/L	0.010	99	85	115			
Iron	5.15	mg/L	0.030	103	85	115			
Magnesium	50.5	mg/L	1.0	101	85	115			
Manganese	4.92	mg/L	0.010	98	85	115			
Nickel	1.03	mg/L	0.050	103	85	115			
Zinc	1.05	mg/L	0.010	105	85	115			
Sample ID: B08092225-001BMS2	Sample Matrix Spike		Run: ICP202-B_080924A				09/24/08 21:25		
Aluminum	25.5	mg/L	0.10	102	70	130			
Barium	5.02	mg/L	0.10	100	70	130			
Cadmium	2.54	mg/L	0.0015	102	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: R118071		
Sample ID: B08092225-001BMS2	Sample Matrix Spike			Run: ICP202-B_080924A			09/24/08 21:25		
Calcium	641	mg/L	1.0	88	70	130			
Chromium	4.99	mg/L	0.010	100	70	130			
Copper	5.02	mg/L	0.010	100	70	130			
Iron	69.1	mg/L	0.030	83	70	130			
Magnesium	392	mg/L	1.0	99	70	130			
Manganese	25.7	mg/L	0.010	99	70	130			
Nickel	5.25	mg/L	0.010	105	70	130			
Zinc	5.17	mg/L	0.010	102	70	130			
Sample ID: B08092225-001BMSD2	Sample Matrix Spike Duplicate			Run: ICP202-B_080924A			09/24/08 21:29		
Aluminum	25.0	mg/L	0.10	100	70	130	1.9	20	
Barium	4.98	mg/L	0.10	99	70	130	0.7	20	
Cadmium	2.48	mg/L	0.0015	99	70	130	2.5	20	
Calcium	640	mg/L	1.0	88	70	130	0.1	20	
Chromium	4.86	mg/L	0.010	97	70	130	2.6	20	
Copper	4.94	mg/L	0.010	99	70	130	1.7	20	
Iron	70.5	mg/L	0.030	89	70	130	2	20	
Magnesium	391	mg/L	1.0	98	70	130	0.4	20	
Manganese	25.3	mg/L	0.010	97	70	130	1.6	20	
Nickel	5.07	mg/L	0.010	101	70	130	3.5	20	
Zinc	5.07	mg/L	0.010	100	70	130	1.8	20	
Sample ID: B08092199-004BMS2	Sample Matrix Spike			Run: ICP202-B_080924A			09/24/08 21:57		
Aluminum	9.95	mg/L	0.10	100	70	130			
Barium	1.94	mg/L	0.10	97	70	130			
Cadmium	0.984	mg/L	0.0014	98	70	130			
Calcium	99.0	mg/L	1.0	99	70	130			
Chromium	1.94	mg/L	0.010	97	70	130			
Copper	1.93	mg/L	0.010	96	70	130			
Iron	9.93	mg/L	0.030	99	70	130			
Magnesium	97.9	mg/L	1.0	98	70	130			
Manganese	9.62	mg/L	0.010	96	70	130			
Nickel	2.03	mg/L	0.010	101	70	130			
Zinc	2.01	mg/L	0.010	101	70	130			
Sample ID: B08092199-004BMSD2	Sample Matrix Spike Duplicate			Run: ICP202-B_080924A			09/24/08 22:01		
Aluminum	9.74	mg/L	0.10	97	70	130	2.1	20	
Barium	1.94	mg/L	0.10	97	70	130	0.2	20	
Cadmium	0.976	mg/L	0.0014	98	70	130	0.8	20	
Calcium	98.6	mg/L	1.0	99	70	130	0.4	20	
Chromium	1.92	mg/L	0.010	96	70	130	0.6	20	
Copper	1.91	mg/L	0.010	95	70	130	0.9	20	
Iron	9.96	mg/L	0.030	100	70	130	0.3	20	
Magnesium	97.8	mg/L	1.0	98	70	130	0.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R118071
Sample ID: B08092199-004BMDS2	Sample Matrix Spike Duplicate				Run: ICP202-B_080924A				09/24/08 22:01
Manganese	9.56	mg/L	0.010	96	70	130	0.6	20	
Nickel	2.01	mg/L	0.010	101	70	130	0.7	20	
Zinc	2.00	mg/L	0.010	100	70	130	0.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8					Analytical Run: ICPMS203-B_080928A				
Sample ID: QCS-080514A, 080814B, Initial Calibration Verification Standard					09/29/08 00:40				
Antimony	0.0508	mg/L	0.050	102	90	110			
Arsenic	0.0501	mg/L	0.0050	100	90	110			
Cadmium	0.0263	mg/L	0.0010	105	90	110			
Chromium	0.0517	mg/L	0.010	103	90	110			
Copper	0.0528	mg/L	0.010	106	90	110			
Lead	0.0505	mg/L	0.010	101	90	110			
Mercury	0.00193	mg/L	0.0010	97	90	110			
Silver	0.0261	mg/L	0.0050	104	90	110			
Zinc	0.0532	mg/L	0.010	106	90	110			
Method: E200.8					Batch: R118297				
Sample ID: LRB		Method Blank		Run: ICPMS203-B_080928A			09/28/08 17:00		
Antimony	6E-06	mg/L	4E-06						
Arsenic	ND	mg/L	4E-05						
Cadmium	7E-06	mg/L	3E-06						
Chromium	8E-05	mg/L	4E-05						
Copper	0.0001	mg/L	3E-05						
Lead	2E-05	mg/L	3E-06						
Mercury	ND	mg/L	1E-05						
Silver	6E-05	mg/L	7E-06						
Zinc	0.001	mg/L	3E-05						
Sample ID: LFB		Laboratory Fortified Blank		Run: ICPMS203-B_080928A			09/28/08 17:07		
Antimony	0.0517	mg/L	0.050	103	85	115			
Arsenic	0.0546	mg/L	0.0050	109	85	115			
Cadmium	0.0529	mg/L	0.0010	106	85	115			
Chromium	0.0529	mg/L	0.010	106	85	115			
Copper	0.0527	mg/L	0.010	105	85	115			
Lead	0.0504	mg/L	0.010	101	85	115			
Mercury	0.000930	mg/L	0.0010	93	85	115			
Silver	0.0210	mg/L	0.0050	105	85	115			
Zinc	0.0566	mg/L	0.010	111	85	115			
Sample ID: B08092218-006AMS		Sample Matrix Spike		Run: ICPMS203-B_080928A			09/29/08 02:40		
Antimony	0.0505	mg/L	0.0050	101	70	130			
Arsenic	0.0516	mg/L	0.0050	101	70	130			
Cadmium	0.0497	mg/L	0.0010	99	70	130			
Chromium	0.0511	mg/L	0.010	102	70	130			
Copper	0.0507	mg/L	0.010	101	70	130			
Lead	0.0505	mg/L	0.010	101	70	130			
Mercury	0.00101	mg/L	0.0010	101	70	130			
Silver	0.0196	mg/L	0.0050	98	70	130			
Zinc	0.0546	mg/L	0.010	103	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: R118297		
Sample ID: B08092218-006AMSD	Sample Matrix Spike Duplicate			Run: ICPMS203-B_080928A			09/29/08 02:47		
Antimony	0.0508	mg/L	0.0050	101	70	130	0.5	20	
Arsenic	0.0534	mg/L	0.0050	105	70	130	3.4	20	
Cadmium	0.0500	mg/L	0.0010	100	70	130	0.7	20	
Chromium	0.0522	mg/L	0.010	104	70	130	2.1	20	
Copper	0.0506	mg/L	0.010	101	70	130	0.1	20	
Lead	0.0517	mg/L	0.010	103	70	130	2.3	20	
Mercury	0.00105	mg/L	0.0010	105	70	130	4	20	
Silver	0.0197	mg/L	0.0050	98	70	130	0.6	20	
Zinc	0.0549	mg/L	0.010	104	70	130	0.7	20	
Sample ID: B08092190-001BMS	Sample Matrix Spike			Run: ICPMS203-B_080928A			09/29/08 04:00		
Antimony	0.102	mg/L	0.0050	102	70	130			
Arsenic	0.105	mg/L	0.0050	104	70	130			
Cadmium	0.0987	mg/L	0.0010	99	70	130			
Chromium	0.105	mg/L	0.010	105	70	130			
Copper	0.0992	mg/L	0.010	99	70	130			
Lead	0.104	mg/L	0.010	103	70	130			
Mercury	0.00172	mg/L	0.0010	86	70	130			
Silver	0.0125	mg/L	0.0050	31	70	130			S
Zinc	0.103	mg/L	0.010	99	70	130			
Sample ID: B08092190-001BMSD	Sample Matrix Spike Duplicate			Run: ICPMS203-B_080928A			09/29/08 04:06		
Antimony	0.104	mg/L	0.0050	104	70	130	2.2	20	
Arsenic	0.108	mg/L	0.0050	107	70	130	3.1	20	
Cadmium	0.101	mg/L	0.0010	101	70	130	1.8	20	
Chromium	0.107	mg/L	0.010	107	70	130	1.9	20	
Copper	0.101	mg/L	0.010	100	70	130	1.6	20	
Lead	0.105	mg/L	0.010	105	70	130	1.7	20	
Mercury	0.00171	mg/L	0.0010	86	70	130	0.3	20	
Silver	0.0116	mg/L	0.0050	29	70	130	7.2	20	S
Zinc	0.104	mg/L	0.010	100	70	130	0.9	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings

Work Order: B08092225

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0							Analytical Run: IC202-B_080928A		
Sample ID: ICV	Initial Calibration Verification Standard								09/28/08 16:50
Sulfate	98.6	mg/L	1.0	99	90	110			
Method: E300.0							Batch: R118282		
Sample ID: ICB	Method Blank								09/28/08 17:01
Sulfate	0.4	mg/L	0.06						
Sample ID: LFB	Laboratory Fortified Blank								09/28/08 17:13
Sulfate	39.0	mg/L	1.0	96	90	110			
Sample ID: B08092212-001AMS	Sample Matrix Spike								09/29/08 07:33
Sulfate	3760	mg/L	1.2	97	90	110			
Sample ID: B08092212-001AMSD	Sample Matrix Spike Duplicate								09/29/08 07:44
Sulfate	3750	mg/L	1.2	97	90	110	0.2	20	
Sample ID: B08092285-001AMS	Sample Matrix Spike								09/29/08 10:15
Sulfate	104	mg/L	1.0	104	90	110			
Sample ID: B08092285-001AMSD	Sample Matrix Spike Duplicate								09/29/08 10:27
Sulfate	104	mg/L	1.0	104	90	110	0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Energy Laboratories Inc

Workorder Receipt Checklist



B08092225

Pioneer Technical Services

Login completed by: Gina McCartney

Date and Time Received: 9/23/2008 8:45 AM

Reviewed by: Denise Ruby

Received by: smr

Reviewed Date: 9/24/2008 8:25:00 AM

Carrier name: Return-UPS
Ground

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	3°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT, provide as much information as possible. Refer to corresponding notes on reverse side.

Company Name: Pioneer Technical Services			Project Name, PWS #, Permit #, Etc.: McLaren Tailings													
Report Mail Address: 634a W. Broadway Butte, Mt 59701			Contact Name, Phone, Fax, E-mail: Joe McElroy 406-782-5177					Sampler Name if other than Contact: Julie Flammang								
Invoice Address: Same as Above			Invoice Contact & Phone #: Amanda Booth 406-782-5177					Purchase Order #:		ELI Quote #: Bottle order 29264						
Report Required For: POTW/WWTP ☐ DW ☐ Other _____			ANALYSIS REQUESTED										Notify ELI prior to RUSH sample submittal for additional charges and scheduling		Receipt Temp 3 °C	
Special Report Formats - ELI must be notified prior to sample submittal for the following: NELAC ☐ A2LA ☐ Level IV ☐ Other _____ EDD/EDT ☐ Format _____			SEE ATTACHED										Comments:		Cooler ID(s) 12	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	Number of Containers	Sample Type: A W S V B O	Air	Water	Solids	Vegetation	Bioassay	Other	Custody Seal ☒ N Intact ☒ N Signature ☒ N Match		Lab ID	
1 McLaren-mw-02-091808			9/18/08	1810	3	W	✓	✓	✓	✓			130809		2225-001	
2 McLaren-W3-10-091808			9/18/08	1845	3	W	✓	✓	✓	✓			-		002	
3 McLaren-mw-04-10-091808			9/18/08	1340	3	W	✓	✓	✓	✓			-		003	
4 McLaren-mw-05-091808			9/18/08	535	3	W	✓	✓	✓	✓			-		004	
5																
6																
7																
8																
9																
10																
Custody Record MUST be Signed			Relinquished by: Julie Flammang		Date/Time: 9/22/08 1400		Shipped by:		Received by:		Date/Time:					
			Relinquished by: [Signature]		Date/Time:		Shipped by: RTRN UPS (GRL)		Received by: [Signature]		Date/Time: 9-22-08 8:45					
			Sample Disposal:		Return to client:		Lab Disposal:		Sample Type:		# of fractions:					

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, & links.

**** REPORT ****

Pioneer Technical Services
Joe McElroy
63 1/2 W Broadway
Butte MT 59701

RECEIVED
OCT 15 2008



ANALYTICAL SUMMARY REPORT

October 10, 2008

Joe McElroy
Pioneer Technical Services
63 1/2 W Broadway
Butte, MT 59701

Workorder No.: B08092190

Project Name: McLaren Tailings Site

Energy Laboratories Inc received the following 17 samples from Pioneer Technical Services on 9/23/2008 for analysis.

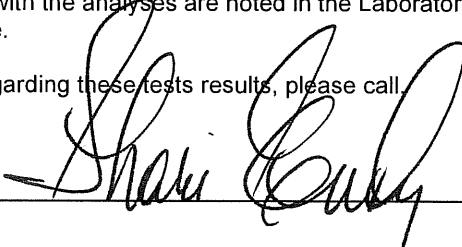
Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B08092190-001	McLaren-PZ-01S-091908	09/19/08 12:45	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO3 pH Solids, Total Dissolved Solids, Total Suspended
B08092190-002	McLaren-PZ-01D-091908	09/19/08 10:00	09/23/08	Aqueous	Same As Above
B08092190-003	McLaren-PZ-02S-091808	09/18/08 15:40	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO3 Solids, Total Dissolved Solids, Total Suspended
B08092190-004	McLaren-PZ-02D-091808	09/18/08 15:00	09/23/08	Aqueous	Same As Above
B08092190-005	McLaren-PZ-03D-091808	09/18/08 12:37	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mineral Balance Review Anions by ion chromatography Conductivity Hardness as CaCO3 Solids, Total Dissolved Solids, Total Suspended
B08092190-006	McLaren-PZ-04S-091808	09/18/08 18:45	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO3 Solids, Total Dissolved Solids, Total Suspended
B08092190-007	McLaren-SW-01-SG1-091908	09/19/08 8:45	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO3 pH Metals Preparation by EPA 200.2 Solids, Total Dissolved Solids, Total Suspended
B08092190-008	McLaren-SW-02-Miller-091908	09/19/08 9:00	09/23/08	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

B08092190-009	McLaren-SW-03-SBC-04-091908	09/19/08 9:30	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Anions by ion chromatography Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ pH Metals Preparation by EPA 200.2 Digestion, Mercury by CVAA Solids, Total Dissolved Solids, Total Suspended
B08092190-010	McLaren-PZ-08-091908	09/19/08 11:50	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO ₃ Metals Preparation by EPA 200.2 Solids, Total Dissolved Solids, Total Suspended
B08092190-011	McLaren-PZ-09-091908	09/19/08 12:30	09/23/08	Aqueous	Same As Above
B08092190-012	McLaren-PZ-04D-091808	09/18/08 18:24	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO ₃ Solids, Total Dissolved Solids, Total Suspended
B08092190-013	McLaren-PZ-05S-091808	09/18/08 17:15	09/23/08	Aqueous	Same As Above
B08092190-014	McLaren-PZ-05D-091808	09/18/08 16:48	09/23/08	Aqueous	Same As Above
B08092190-015	McLaren-PZ-05D-T-091808	09/18/08 17:05	09/23/08	Aqueous	Same As Above
B08092190-016	McLaren-PZ-06D-091908	09/19/08 9:30	09/23/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anions by ion chromatography Conductivity Hardness as CaCO ₃ pH Solids, Total Dissolved Solids, Total Suspended
B08092190-017	McLaren-PZ-07D-091908	09/19/08 11:10	09/23/08	Aqueous	Same As Above

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: 



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-001
Client Sample ID: McLaren-PZ-01S-091908

Report Date: 10/10/08
Collection Date: 09/19/08 12:45
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500 H	09/23/08 16:26 / clr
Conductivity	4120	umhos/cm		1		A2510 B	09/23/08 16:22 / clr
Solids, Total Suspended TSS @ 105 C	827	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	4130	mg/L		10		A2540 C	09/24/08 10:14 / afb
INORGANICS							
Alkalinity, Total as CaCO3	268	mg/L		1		A2320 B	09/29/08 22:03 / ehb
Bicarbonate as HCO3	327	mg/L		1		A2320 B	09/29/08 22:03 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 22:03 / ehb
Sulfate	2700	mg/L		1		E300.0	09/29/08 00:35 / qed
Hardness as CaCO3	2860	mg/L		1		A2340 B	09/24/08 18:35 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 18:35 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 03:26 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 03:26 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 18:35 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 03:26 / aje
Calcium	488	mg/L		1		E200.7	09/24/08 18:35 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 18:35 / rlh
Copper	ND	mg/L		0.01		E200.7	09/24/08 18:35 / rlh
Iron	17.7	mg/L		0.03		E200.7	09/24/08 18:35 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 03:26 / aje
Magnesium	400	mg/L		1		E200.7	09/24/08 18:35 / rlh
Manganese	0.71	mg/L		0.01		E200.7	09/24/08 18:35 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 03:26 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 18:35 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 03:26 / aje
Zinc	ND	mg/L		0.01		E200.7	09/24/08 18:35 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-002
Client Sample ID: McLaren-PZ-01D-091908

Report Date: 10/10/08
Collection Date: 09/19/08 10:00
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.8	s.u.		0.1		A4500 H	09/23/08 16:47 / clr
Conductivity	757	umhos/cm		1		A2510 B	09/23/08 16:30 / clr
Solids, Total Suspended TSS @ 105 C	13	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	469	mg/L		10		A2540 C	09/24/08 15:23 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	269	mg/L		1		A2320 B	09/29/08 22:10 / ehb
Bicarbonate as HCO ₃	328	mg/L		1		A2320 B	09/29/08 22:10 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 22:10 / ehb
Sulfate	125	mg/L		1		E300.0	09/29/08 00:46 / qed
Hardness as CaCO ₃	385	mg/L		1		A2340 B	09/24/08 18:43 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 18:43 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 04:20 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 04:20 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 18:43 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 18:43 / rlh
Calcium	112	mg/L		1		E200.7	09/24/08 18:43 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 18:43 / rlh
Copper	ND	mg/L		0.01		E200.7	09/24/08 18:43 / rlh
Iron	1.45	mg/L		0.03		E200.7	09/24/08 18:43 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 04:20 / aje
Magnesium	26	mg/L		1		E200.7	09/24/08 18:43 / rlh
Manganese	2.37	mg/L		0.01		E200.7	09/24/08 18:43 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 04:20 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 18:43 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 04:20 / aje
Zinc	ND	mg/L		0.01		E200.7	09/24/08 18:43 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-003
Client Sample ID: McLaren-PZ-02S-091808

Report Date: 10/10/08
Collection Date: 09/18/08 15:40
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	5290	umhos/cm		1		A2510 B	09/23/08 16:31 / clr
Solids, Total Suspended TSS @ 105 C	2780	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	5630	mg/L		10		A2540 C	09/24/08 15:25 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	268	mg/L		1		A2320 B	09/29/08 22:28 / ehb
Bicarbonate as HCO ₃	327	mg/L		1		A2320 B	09/29/08 22:28 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 22:28 / ehb
Sulfate	3730	mg/L		1		E300.0	09/29/08 00:58 / qed
Hardness as CaCO ₃	3850	mg/L		1		A2340 B	09/24/08 18:47 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 18:47 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 04:26 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 04:26 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 18:47 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 04:26 / aje
Calcium	461	mg/L		1		E200.7	09/24/08 18:47 / rlh
Chromium	ND	mg/L		0.01		E200.8	09/29/08 04:26 / aje
Copper	ND	mg/L		0.01		E200.8	09/29/08 04:26 / aje
Iron	5.43	mg/L		0.03		E200.7	09/24/08 18:47 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 04:26 / aje
Magnesium	656	mg/L		1		E200.7	09/24/08 18:47 / rlh
Manganese	0.48	mg/L		0.01		E200.7	09/24/08 18:47 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 04:26 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 18:47 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 04:26 / aje
Zinc	ND	mg/L		0.01		E200.8	09/29/08 04:26 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-004
Client Sample ID: McLaren-PZ-02D-091808

Report Date: 10/10/08
Collection Date: 09/18/08 15:00
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	741	umhos/cm		1		A2510 B	09/23/08 16:32 / clr
Solids, Total Suspended TSS @ 105 C	192	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	489	mg/L		10		A2540 C	09/24/08 15:22 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	233	mg/L		1		A2320 B	09/29/08 22:35 / ehb
Bicarbonate as HCO ₃	284	mg/L		1		A2320 B	09/29/08 22:35 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 22:35 / ehb
Sulfate	166	mg/L		1		E300.0	09/29/08 01:09 / qed
Hardness as CaCO ₃	408	mg/L		1		A2340 B	09/24/08 18:51 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 18:51 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 04:33 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 04:33 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 18:51 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 18:51 / rlh
Calcium	116	mg/L		1		E200.7	09/24/08 18:51 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 18:51 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 04:33 / aje
Iron	3.16	mg/L		0.03		E200.7	09/24/08 18:51 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 04:33 / aje
Magnesium	29	mg/L		1		E200.7	09/24/08 18:51 / rlh
Manganese	1.51	mg/L		0.01		E200.7	09/24/08 18:51 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 04:33 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 18:51 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 04:33 / aje
Zinc	ND	mg/L		0.01		E200.7	09/24/08 18:51 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-005
Client Sample ID: McLaren-PZ-03D-091808

Report Date: 10/10/08
Collection Date: 09/18/08 12:37
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	2740	umhos/cm		1		A2510 B	09/23/08 16:33 / clr
Solids, Total Suspended TSS @ 105 C	71	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	2960	mg/L		10		A2540 C	09/25/08 16:03 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	ND	mg/L		1		A2320 B	09/29/08 22:39 / ehb
Bicarbonate as HCO ₃	ND	mg/L		1		A2320 B	09/29/08 22:39 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 22:39 / ehb
Sulfate	1930	mg/L		1		E300.0	09/29/08 01:21 / qed
Hardness as CaCO ₃	1220	mg/L		1		A2340 B	09/30/08 12:07 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 18:55 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 04:39 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 04:39 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 18:55 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 04:39 / aje
Calcium	312	mg/L		1		E200.7	09/24/08 18:55 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 18:55 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 04:39 / aje
Iron	437	mg/L		0.03		E200.7	09/24/08 18:55 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 04:39 / aje
Magnesium	107	mg/L		1		E200.7	09/24/08 18:55 / rlh
Manganese	6.16	mg/L		0.01		E200.7	09/24/08 18:55 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 04:39 / aje
Nickel	0.03	mg/L		0.01		E200.8	09/29/08 04:39 / aje
Silver	ND	mg/L		0.005		E200.8	09/29/08 04:39 / aje
Zinc	0.06	mg/L		0.01		E200.8	09/29/08 04:39 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-006
Client Sample ID: McLaren-PZ-04S-091808

Report Date: 10/10/08
Collection Date: 09/18/08 18:45
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	2360	umhos/cm		1		A2510 B	09/23/08 16:33 / clr
Solids, Total Suspended TSS @ 105 C	81	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	2060	mg/L		10		A2540 C	09/24/08 15:30 / afb
INORGANICS							
Alkalinity, Total as CaCO3	298	mg/L		1		A2320 B	09/29/08 22:44 / ehb
Bicarbonate as HCO3	363	mg/L		1		A2320 B	09/29/08 22:44 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 22:44 / ehb
Sulfate	1170	mg/L		1		E300.0	09/29/08 22:39 / qed
Hardness as CaCO3	1330	mg/L		1		A2340 B	09/24/08 18:59 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 18:59 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 04:46 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 04:46 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 18:59 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 04:46 / aje
Calcium	364	mg/L		1		E200.7	09/24/08 18:59 / rlh
Chromium	ND	mg/L		0.01		E200.8	09/29/08 04:46 / aje
Copper	ND	mg/L		0.01		E200.8	09/29/08 04:46 / aje
Iron	24.9	mg/L		0.03		E200.7	09/24/08 18:59 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 04:46 / aje
Magnesium	102	mg/L		1		E200.7	09/24/08 18:59 / rlh
Manganese	0.92	mg/L		0.01		E200.7	09/24/08 18:59 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 04:46 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 18:59 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 04:46 / aje
Zinc	0.01	mg/L		0.01		E200.8	09/29/08 04:46 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-012
Client Sample ID: McLaren-PZ-04D-091808

Report Date: 10/10/08
Collection Date: 09/18/08 18:24
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	660	umhos/cm		1		A2510 B	09/23/08 16:41 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	409	mg/L		10		A2540 C	09/24/08 15:36 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	254	mg/L		1		A2320 B	09/29/08 23:16 / ehb
Bicarbonate as HCO ₃	309	mg/L		1		A2320 B	09/29/08 23:16 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 23:16 / ehb
Sulfate	97	mg/L		1		E300.0	09/29/08 03:29 / qed
Hardness as CaCO ₃	355	mg/L		1		A2340 B	09/24/08 19:40 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:40 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 06:13 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 06:13 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 19:40 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 19:40 / rlh
Calcium	106	mg/L		1		E200.7	09/24/08 19:40 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 19:40 / rlh
Copper	0.01	mg/L		0.01		E200.8	09/29/08 06:13 / aje
Iron	0.49	mg/L		0.03		E200.7	09/24/08 19:40 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 06:13 / aje
Magnesium	22	mg/L		1		E200.7	09/24/08 19:40 / rlh
Manganese	2.05	mg/L		0.01		E200.7	09/24/08 19:40 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 06:13 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 19:40 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 06:13 / aje
Zinc	ND	mg/L		0.01		E200.8	09/29/08 06:13 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-010
Client Sample ID: McLaren-PZ-08-091908

Report Date: 10/10/08
Collection Date: 09/19/08 11:50
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	4	umhos/cm		1		A2510 B	09/23/08 16:38 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	09/24/08 15:33 / afb
INORGANICS							
Alkalinity, Total as CaCO3	1	mg/L		1		A2320 B	09/29/08 23:06 / ehb
Bicarbonate as HCO3	1	mg/L		1		A2320 B	09/29/08 23:06 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 23:06 / ehb
Sulfate	ND	mg/L		1		E300.0	09/29/08 03:06 / qed
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/30/08 12:07 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:24 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 05:46 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 05:46 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 19:24 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 19:24 / rlh
Calcium	ND	mg/L		1		E200.7	09/24/08 19:24 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 19:24 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 05:46 / aje
Iron	ND	mg/L		0.03		E200.7	09/24/08 19:24 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 05:46 / aje
Magnesium	ND	mg/L		1		E200.7	09/24/08 19:24 / rlh
Manganese	ND	mg/L		0.01		E200.7	09/24/08 19:24 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 05:46 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 19:24 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 05:46 / aje
Zinc	ND	mg/L		0.01		E200.7	09/24/08 19:24 / rlh
METALS, TOTAL RECOVERABLE							
Antimony	ND	mg/L		0.005		E200.8	09/29/08 05:53 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 05:53 / aje
Barium	ND	mg/L		0.1		E200.7	09/25/08 06:37 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 05:53 / aje
Chromium	ND	mg/L		0.01		E200.7	09/25/08 06:37 / rlh
Copper	ND	mg/L		0.01		E200.7	09/25/08 06:37 / rlh
Iron	ND	mg/L		0.03		E200.7	09/25/08 06:37 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 05:53 / aje
Manganese	ND	mg/L		0.01		E200.7	09/25/08 06:37 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 05:53 / aje
Nickel	ND	mg/L		0.01		E200.7	09/25/08 06:37 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 05:53 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-010
Client Sample ID: McLaren-PZ-08-091908

Report Date: 10/10/08
Collection Date: 09/19/08 11:50
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL RECOVERABLE							
Zinc	ND	mg/L		0.01		E200.7	09/25/08 06:37 / rlh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-011
Client Sample ID: McLaren-PZ-09-091908

Report Date: 10/13/08
Collection Date: 09/19/08 12:30
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	5	umhos/cm		1		A2510 B	09/23/08 16:38 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	09/24/08 15:34 / afb
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		1		A2320 B	09/29/08 23:09 / ehb
Bicarbonate as HCO3	1	mg/L		1		A2320 B	09/29/08 23:09 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 23:09 / ehb
Sulfate	ND	mg/L		1		E300.0	09/29/08 03:17 / qed
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/30/08 12:07 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:36 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 05:59 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 05:59 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 19:36 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 19:36 / rlh
Calcium	ND	mg/L		1		E200.7	09/24/08 19:36 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 19:36 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 05:59 / aje
Iron	ND	mg/L		0.03		E200.7	09/24/08 19:36 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 05:59 / aje
Magnesium	ND	mg/L		1		E200.7	09/24/08 19:36 / rlh
Manganese	ND	mg/L		0.01		E200.7	09/24/08 19:36 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 05:59 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 19:36 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 05:59 / aje
Zinc	ND	mg/L		0.01		E200.8	09/29/08 05:59 / aje
METALS, TOTAL RECOVERABLE							
Antimony	ND	mg/L		0.005		E200.8	09/29/08 06:06 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 06:06 / aje
Barium	ND	mg/L		0.1		E200.7	09/25/08 06:41 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 06:06 / aje
Chromium	ND	mg/L		0.01		E200.7	09/25/08 06:41 / rlh
Copper	ND	mg/L		0.01		E200.7	09/25/08 06:41 / rlh
Iron	ND	mg/L		0.03		E200.7	09/25/08 06:41 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 06:06 / aje
Manganese	ND	mg/L		0.01		E200.7	09/25/08 06:41 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 06:06 / aje
Nickel	ND	mg/L		0.01		E200.7	09/25/08 06:41 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 06:06 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-011
Client Sample ID: McLaren-PZ-09-091908

Report Date: 10/10/08
Collection Date: 09/19/08 12:30
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL RECOVERABLE							
Zinc	ND	mg/L		0.01		E200.7	09/25/08 06:41 / rlh

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-013
Client Sample ID: McLaren-PZ-05S-091808

Report Date: 10/10/08
Collection Date: 09/18/08 17:15
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	2860	umhos/cm		1		A2510 B	09/23/08 16:41 / clr
Solids, Total Suspended TSS @ 105 C	94	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	2730	mg/L		10		A2540 C	09/24/08 15:54 / afb
INORGANICS							
Alkalinity, Total as CaCO3	271	mg/L		1		A2320 B	09/29/08 23:47 / ehb
Bicarbonate as HCO3	331	mg/L		1		A2320 B	09/29/08 23:47 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 23:47 / ehb
Sulfate	1590	mg/L		1		E300.0	09/29/08 03:40 / qed
Hardness as CaCO3	1840	mg/L		1		A2340 B	09/24/08 19:44 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:44 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 07:24 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 07:24 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 19:44 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 07:24 / aje
Calcium	598	mg/L		1		E200.7	09/24/08 19:44 / rlh
Chromium	ND	mg/L		0.01		E200.8	09/29/08 07:24 / aje
Copper	ND	mg/L		0.01		E200.8	09/29/08 07:24 / aje
Iron	72.4	mg/L		0.03		E200.7	09/24/08 19:44 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 23:39 / jjw
Magnesium	85	mg/L		1		E200.7	09/24/08 19:44 / rlh
Manganese	1.84	mg/L		0.01		E200.7	09/24/08 19:44 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 23:39 / jjw
Nickel	0.02	mg/L		0.01		E200.8	09/29/08 07:24 / aje
Silver	ND	mg/L		0.005		E200.8	09/29/08 07:24 / aje
Zinc	0.02	mg/L		0.01		E200.8	09/29/08 07:24 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-014
Client Sample ID: McLaren-PZ-05D-091808

Report Date: 10/10/08
Collection Date: 09/18/08 16:48
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	900	umhos/cm		1		A2510 B	09/23/08 16:42 / clr
Solids, Total Suspended TSS @ 105 C	55	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	618	mg/L		10		A2540 C	09/24/08 15:52 / afb
INORGANICS							
Alkalinity, Total as CaCO3	227	mg/L		1		A2320 B	09/29/08 23:53 / ehb
Bicarbonate as HCO3	277	mg/L		1		A2320 B	09/29/08 23:53 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 23:53 / ehb
Sulfate	249	mg/L		1		E300.0	09/29/08 03:52 / qed
Hardness as CaCO3	497	mg/L		1		A2340 B	09/24/08 19:48 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:48 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 07:31 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 07:31 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 19:48 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 19:48 / rlh
Calcium	154	mg/L		1		E200.7	09/24/08 19:48 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 19:48 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 07:31 / aje
Iron	39.9	mg/L		0.03		E200.7	09/24/08 19:48 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 07:31 / aje
Magnesium	27	mg/L		1		E200.7	09/24/08 19:48 / rlh
Manganese	0.80	mg/L		0.01		E200.7	09/24/08 19:48 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 23:47 / jjw
Nickel	ND	mg/L		0.01		E200.7	09/24/08 19:48 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 07:31 / aje
Zinc	0.01	mg/L		0.01		E200.8	09/29/08 07:31 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-015
Client Sample ID: McLaren-PZ-05D-T-091808

Report Date: 10/10/08
Collection Date: 09/18/08 17:05
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity	887	umhos/cm		1		A2510 B	09/23/08 16:43 / clr
Solids, Total Suspended TSS @ 105 C	46	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	629	mg/L		10		A2540 C	09/24/08 15:51 / afb
INORGANICS							
Alkalinity, Total as CaCO3	226	mg/L		1		A2320 B	09/29/08 23:59 / ehb
Bicarbonate as HCO3	276	mg/L		1		A2320 B	09/29/08 23:59 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/29/08 23:59 / ehb
Sulfate	250	mg/L		1		E300.0	09/29/08 04:04 / qed
Hardness as CaCO3	497	mg/L		1		A2340 B	09/24/08 19:52 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:52 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 07:37 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 07:37 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 19:52 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 19:52 / rlh
Calcium	155	mg/L		1		E200.7	09/24/08 19:52 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 19:52 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 07:37 / aje
Iron	39.7	mg/L		0.03		E200.7	09/24/08 19:52 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 23:54 / jjw
Magnesium	27	mg/L		1		E200.7	09/24/08 19:52 / rlh
Manganese	0.79	mg/L		0.01		E200.7	09/24/08 19:52 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 23:54 / jjw
Nickel	ND	mg/L		0.01		E200.7	09/24/08 19:52 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 07:37 / aje
Zinc	0.09	mg/L		0.01		E200.7	09/24/08 19:52 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-016
Client Sample ID: McLaren-PZ-06D-091908

Report Date: 10/10/08
Collection Date: 09/19/08 09:30
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	6.4	s.u.		0.1		A4500 H	09/23/08 17:07 / clr
Conductivity	883	umhos/cm		1		A2510 B	09/23/08 16:45 / clr
Solids, Total Suspended TSS @ 105 C	32	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	642	mg/L		10		A2540 C	09/24/08 15:58 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	41	mg/L		1		A2320 B	09/30/08 00:03 / ehb
Bicarbonate as HCO ₃	50	mg/L		1		A2320 B	09/30/08 00:03 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/30/08 00:03 / ehb
Sulfate	361	mg/L		1		E300.0	09/29/08 04:39 / qed
Hardness as CaCO ₃	387	mg/L		1		A2340 B	09/24/08 20:04 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 20:04 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 07:44 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 07:44 / aje
Barium	ND	mg/L		0.1		E200.7	09/24/08 20:04 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 20:04 / rlh
Calcium	103	mg/L		1		E200.7	09/24/08 20:04 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 20:04 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 07:44 / aje
Iron	85.8	mg/L		0.03		E200.7	09/24/08 20:04 / rlh
Lead	ND	mg/L		0.01		E200.8	09/30/08 00:02 / jjw
Magnesium	31	mg/L		1		E200.7	09/24/08 20:04 / rlh
Manganese	1.13	mg/L		0.01		E200.7	09/24/08 20:04 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/30/08 00:02 / jjw
Nickel	ND	mg/L		0.01		E200.7	09/24/08 20:04 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 07:44 / aje
Zinc	0.02	mg/L		0.01		E200.8	09/29/08 07:44 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-017
Client Sample ID: McLaren-PZ-07D-091908

Report Date: 10/10/08
Collection Date: 09/19/08 11:10
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500 H	09/23/08 17:07 / clr
Conductivity	568	umhos/cm		1		A2510 B	09/23/08 16:45 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:45 / afb
Solids, Total Dissolved TDS @ 180 C	355	mg/L		10		A2540 C	09/24/08 15:57 / afb
INORGANICS							
Alkalinity, Total as CaCO3	236	mg/L		1		A2320 B	09/30/08 00:10 / ehb
Bicarbonate as HCO3	288	mg/L		1		A2320 B	09/30/08 00:10 / ehb
Carbonate as CO3	ND	mg/L		1		A2320 B	09/30/08 00:10 / ehb
Sulfate	68	mg/L		1		E300.0	09/29/08 05:13 / qed
Hardness as CaCO3	308	mg/L		1		A2340 B	09/24/08 20:08 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 20:08 / rlh
Antimony	ND	mg/L		0.005		E200.8	09/29/08 07:51 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 07:51 / aje
Barium	0.2	mg/L		0.1		E200.7	09/24/08 20:08 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/24/08 20:08 / rlh
Calcium	95	mg/L		1		E200.7	09/24/08 20:08 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/24/08 20:08 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 07:51 / aje
Iron	0.68	mg/L		0.03		E200.7	09/24/08 20:08 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 07:51 / aje
Magnesium	17	mg/L		1		E200.7	09/24/08 20:08 / rlh
Manganese	2.10	mg/L		0.01		E200.7	09/24/08 20:08 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 07:51 / aje
Nickel	ND	mg/L		0.01		E200.7	09/24/08 20:08 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 07:51 / aje
Zinc	ND	mg/L		0.01		E200.8	09/29/08 07:51 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



ANALYTICAL SUMMARY REPORT

October 16, 2008

Mike Borduin

Pioneer Technical Services

63 1/2 W Broadway

Butte, MT 59701

OCT 22 2008

RECEIVED

Workorder No.: H08100046

Project Name: McLaren Tailings

Energy Laboratories Inc received the following 2 samples from Pioneer Technical Services on 10/3/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H08100046-001	MT-PW01-092908	09/29/08 19:40	10/03/08	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Conductivity Mercury, Total Hardness as CaCO3 Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Solids, Total Dissolved Solids, Total Suspended
H08100046-002	MT-PW01-100208	10/02/08 9:45	10/03/08	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005

eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002

eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006

eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945

eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012

eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: H08100046-001
Client Sample ID: MT-PW01-092908

Report Date: 10/15/08
Collection Date: 09/29/08 19:40
Date Received: 10/03/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.7	s.u.		0.1		A4500-H B	10/06/08 16:06 / abb
Conductivity	666	umhos/cm		1		A2510 B	10/03/08 15:26 / kjw
Solids, Total Suspended TSS @ 105 C	19	mg/L		10		A2540 D	10/03/08 13:19 / abb
Solids, Total Dissolved TDS @ 180 C	416	mg/L		10		A2540 C	10/03/08 13:24 / abb
INORGANICS							
Alkalinity, Total as CaCO ₃	260	mg/L		4		A2320 B	10/07/08 11:25 / kjw
Bicarbonate as HCO ₃	320	mg/L		4		A2320 B	10/07/08 11:25 / kjw
Carbonate as CO ₃	ND	mg/L		4		A2320 B	10/07/08 11:25 / kjw
Sulfate	120	mg/L		1		E300.0	10/08/08 20:26 / abb
Hardness as CaCO ₃	374	mg/L		1		A2340 B	10/14/08 17:47 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	10/08/08 21:56 / eli-b
Antimony	ND	mg/L		0.005		E200.8	10/10/08 03:13 / eli-b
Arsenic	ND	mg/L		0.005		E200.8	10/10/08 03:13 / eli-b
Barium	0.1	mg/L		0.1		E200.7	10/08/08 21:56 / eli-b
Cadmium	ND	mg/L		0.001		E200.7	10/08/08 21:56 / eli-b
Calcium	112	mg/L		1		E200.7	10/08/08 21:56 / eli-b
Chromium	ND	mg/L		0.01		E200.7	10/08/08 21:56 / eli-b
Copper	ND	mg/L		0.01		E200.7	10/08/08 21:56 / eli-b
Iron	0.35	mg/L		0.03		E200.7	10/08/08 21:56 / eli-b
Lead	ND	mg/L		0.01		E200.8	10/10/08 03:13 / eli-b
Magnesium	23	mg/L		1		E200.7	10/08/08 21:56 / eli-b
Manganese	1.91	mg/L		0.01		E200.7	10/08/08 21:56 / eli-b
Mercury	ND	mg/L		0.001		E200.8	10/10/08 03:13 / eli-b
Nickel	ND	mg/L		0.01		E200.7	10/08/08 21:56 / eli-b
Silver	ND	mg/L		0.005		E200.8	10/10/08 03:13 / eli-b
Zinc	ND	mg/L		0.01		E200.7	10/08/08 21:56 / eli-b
METALS, TOTAL							
Aluminum	0.4	mg/L		0.1		E200.7	10/09/08 03:16 / eli-b
Antimony	ND	mg/L		0.005		E200.8	10/10/08 03:52 / eli-b
Arsenic	ND	mg/L		0.005		E200.8	10/10/08 03:52 / eli-b
Barium	0.1	mg/L		0.1		E200.7	10/09/08 03:16 / eli-b
Cadmium	ND	mg/L		0.001		E200.7	10/09/08 03:16 / eli-b
Chromium	ND	mg/L		0.01		E200.8	10/10/08 03:52 / eli-b
Copper	0.05	mg/L		0.01		E200.7	10/09/08 03:16 / eli-b
Iron	2.12	mg/L		0.03		E200.7	10/09/08 03:16 / eli-b
Lead	ND	mg/L		0.01		E200.8	10/10/08 03:52 / eli-b
Manganese	1.88	mg/L		0.01		E200.7	10/09/08 03:16 / eli-b
Mercury	ND	mg/L		0.001		E245.1	10/10/08 09:15 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: H08100046-001
Client Sample ID: MT-PW01-092908

Report Date: 10/15/08
Collection Date: 09/29/08 19:40
Date Received: 10/03/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Nickel	ND	mg/L		0.01		E200.7	10/09/08 03:16 / eli-b
Silver	ND	mg/L		0.005		E200.8	10/10/08 03:52 / eli-b
Zinc	ND	mg/L		0.01		E200.7	10/09/08 03:16 / eli-b

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: H08100046-002
Client Sample ID: MT-PW01-100208

Report Date: 10/15/08
Collection Date: 10/02/08 09:45
Date Received: 10/03/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.5	s.u.		0.1		A4500-H B	10/06/08 16:08 / abb
Conductivity	678	umhos/cm		1		A2510 B	10/03/08 15:26 / kjw
Solids, Total Suspended TSS @ 105 C	10	mg/L		10		A2540 D	10/03/08 13:20 / abb
Solids, Total Dissolved TDS @ 180 C	424	mg/L		10		A2540 C	10/03/08 13:25 / abb
INORGANICS							
Alkalinity, Total as CaCO ₃	270	mg/L		4		A2320 B	10/07/08 12:13 / kjw
Bicarbonate as HCO ₃	330	mg/L		4		A2320 B	10/07/08 12:13 / kjw
Carbonate as CO ₃	ND	mg/L		4		A2320 B	10/07/08 12:13 / kjw
Sulfate	120	mg/L		1		E300.0	10/08/08 20:45 / abb
Hardness as CaCO ₃	368	mg/L		1		A2340 B	10/14/08 17:47 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	10/08/08 22:04 / eli-b
Antimony	ND	mg/L		0.005		E200.8	10/10/08 04:00 / eli-b
Arsenic	ND	mg/L		0.005		E200.8	10/10/08 04:00 / eli-b
Barium	0.1	mg/L		0.1		E200.7	10/08/08 22:04 / eli-b
Cadmium	ND	mg/L		0.001		E200.7	10/08/08 22:04 / eli-b
Calcium	110	mg/L		1		E200.7	10/08/08 22:04 / eli-b
Chromium	ND	mg/L		0.01		E200.7	10/08/08 22:04 / eli-b
Copper	ND	mg/L		0.01		E200.7	10/08/08 22:04 / eli-b
Iron	0.38	mg/L		0.03		E200.7	10/08/08 22:04 / eli-b
Lead	ND	mg/L		0.01		E200.8	10/10/08 04:00 / eli-b
Magnesium	23	mg/L		1		E200.7	10/08/08 22:04 / eli-b
Manganese	2.00	mg/L		0.01		E200.7	10/08/08 22:04 / eli-b
Mercury	ND	mg/L		0.001		E200.8	10/10/08 04:00 / eli-b
Nickel	ND	mg/L		0.01		E200.7	10/08/08 22:04 / eli-b
Silver	ND	mg/L		0.005		E200.8	10/10/08 04:00 / eli-b
Zinc	ND	mg/L		0.01		E200.7	10/08/08 22:04 / eli-b
METALS, TOTAL							
Aluminum	0.4	mg/L		0.1		E200.7	10/09/08 03:20 / eli-b
Antimony	ND	mg/L		0.005		E200.8	10/10/08 04:08 / eli-b
Arsenic	ND	mg/L		0.005		E200.8	10/10/08 04:08 / eli-b
Barium	0.1	mg/L		0.1		E200.7	10/09/08 03:20 / eli-b
Cadmium	ND	mg/L		0.001		E200.7	10/09/08 03:20 / eli-b
Chromium	ND	mg/L		0.01		E200.8	10/10/08 04:08 / eli-b
Copper	0.04	mg/L		0.01		E200.7	10/09/08 03:20 / eli-b
Iron	1.88	mg/L		0.03		E200.7	10/09/08 03:20 / eli-b
Lead	ND	mg/L		0.01		E200.8	10/10/08 04:08 / eli-b
Manganese	2.00	mg/L		0.01		E200.7	10/09/08 03:20 / eli-b
Mercury	ND	mg/L		0.001		E245.1	10/10/08 09:18 / eli-b

Report Definitions: RL - Analyte reporting limit.
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LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings
Lab ID: H08100046-002
Client Sample ID: MT-PW01-100208

Report Date: 10/15/08
Collection Date: 10/02/08 09:45
Date Received: 10/03/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Nickel	ND	mg/L		0.01		E200.7	10/09/08 03:20 / eli-b
Silver	ND	mg/L		0.005		E200.8	10/10/08 04:08 / eli-b
Zinc	ND	mg/L		0.01		E200.7	10/09/08 03:20 / eli-b

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B								Analytical Run: TITTR_081007A		
Sample ID: CCV1_081007A	3	Continuing Calibration Verification Standard								10/07/08 12:03
Alkalinity, Total as CaCO ₃		1100	mg/L	4.0	106	90	110			
Bicarbonate as HCO ₃		21	mg/L	4.0		0	0			
Carbonate as CO ₃		770	mg/L	4.0		0	0			
Method: A2320 B								Batch: 081007A-ALK-W		
Sample ID: MBLK1_081007A	3	Method Blank								10/07/08 09:24
Alkalinity, Total as CaCO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		ND	mg/L	1						
Carbonate as CO ₃		ND	mg/L	0.9						
Sample ID: LCS1_081007A		Laboratory Control Sample				Run: TITTR_081007A		10/07/08 09:34		
Alkalinity, Total as CaCO ₃		600	mg/L	4.0	100	90	110			
Sample ID: H08100043-003BMS		Sample Matrix Spike				Run: TITTR_081007A		10/07/08 11:39		
Alkalinity, Total as CaCO ₃		610	mg/L	4.0	98	90	110			
Sample ID: H08100043-003BMSD		Sample Matrix Spike Duplicate				Run: TITTR_081007A		10/07/08 11:50		
Alkalinity, Total as CaCO ₃		610	mg/L	4.0	98	90	110	0	20	
Sample ID: H08100069-003ADUP	3	Sample Duplicate				Run: TITTR_081007A		10/07/08 14:33		
Alkalinity, Total as CaCO ₃		68	mg/L	4.0				0	20	
Bicarbonate as HCO ₃		83	mg/L	4.0				0	20	
Carbonate as CO ₃		ND	mg/L	4.0				0	20	
Method: A2510 B								Analytical Run: COND_081003A		
Sample ID: CCV1_081003A		Continuing Calibration Verification Standard								10/03/08 15:11
Conductivity		716	umhos/cm	1.0	100	90	110			
Method: A2510 B								Batch: 081003A-COND-PROBE-W		
Sample ID: LCS1_081003A		Laboratory Control Sample				Run: COND_081003A		10/03/08 15:01		
Conductivity		1400	umhos/cm	1.0	99	90	110			
Method: A2540 C								Batch: 081003A-SLDS-TDS-W		
Sample ID: MBLK1_081003A		Method Blank				Run: SOLIDS_081003B		10/03/08 13:23		
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	1.0						
Sample ID: LCS1_081003A		Laboratory Control Sample				Run: SOLIDS_081003B		10/03/08 13:23		
Solids, Total Dissolved TDS @ 180 C		1020	mg/L	10	102	90	110			
Sample ID: H08100038-001AMS		Sample Matrix Spike				Run: SOLIDS_081003B		10/03/08 13:23		
Solids, Total Dissolved TDS @ 180 C		2670	mg/L	10	96	80	120			
Sample ID: H08100038-001AMSD		Sample Matrix Spike Duplicate				Run: SOLIDS_081003B		10/03/08 13:23		
Solids, Total Dissolved TDS @ 180 C		2720	mg/L	10	99	80	120	2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: Pioneer Technical Services

Project: McLaren Tailings

Report Date: 10/15/08

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D								Batch: 081003A-SLDS-TSS-W		
Sample ID: MBLK1_081003A	Method Blank					Run: SOLIDS_081003A		10/03/08 13:10		
Solids, Total Suspended TSS @ 105 C		ND	mg/L	1						
Sample ID: LCS1_081003A								Run: SOLIDS_081003A		
Solids, Total Suspended TSS @ 105 C		1860	mg/L	10	93	70	130			10/03/08 13:10
Method: A4500-H B								Batch: 081006A-PH-W		
Sample ID: LCS1_081006A	Laboratory Control Sample					Run: PH2_081006A		10/06/08 15:57		
pH		7.04	s.u.	0.10	101	99	101			
Sample ID: H08100046-002ADUP								Run: PH2_081006A		
pH		7.54	s.u.	0.10				0	2	10/06/08 16:09

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: B_35137
Sample ID: MB-35137	8	Method Blank				Run: SUB-B118881				10/09/08 01:39
Aluminum		ND	mg/L	0.007						
Barium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	0.0007						
Copper		ND	mg/L	0.001						
Iron		ND	mg/L	0.01						
Manganese		ND	mg/L	0.0003						
Nickel		ND	mg/L	0.002						
Zinc		ND	mg/L	0.001						
Sample ID: LCS5-35137	8	Laboratory Control Sample				Run: SUB-B118881				10/09/08 01:43
Aluminum		2.521	mg/L	0.10	101	85	115			
Barium		0.5020	mg/L	0.10	100	85	115			
Cadmium		0.2425	mg/L	0.0010	97	85	115			
Copper		0.5020	mg/L	0.010	100	85	115			
Iron		2.465	mg/L	0.030	99	85	115			
Manganese		2.415	mg/L	0.010	97	85	115			
Nickel		0.5050	mg/L	0.010	101	85	115			
Zinc		0.5060	mg/L	0.010	101	85	115			
Sample ID: B08100632-007BMS5	8	Sample Matrix Spike				Run: SUB-B118881				10/09/08 02:39
Aluminum		2.690	mg/L	0.10	105	70	130			
Barium		0.5078	mg/L	0.10	99	70	130			
Cadmium		0.2379	mg/L	0.0015	94	70	130			
Copper		0.4808	mg/L	0.010	96	70	130			
Iron		2.785	mg/L	0.030	103	70	130			
Manganese		2.463	mg/L	0.010	98	70	130			
Nickel		0.4884	mg/L	0.010	98	70	130			
Zinc		0.5046	mg/L	0.010	101	70	130			
Sample ID: B08100632-007BMSD	8	Sample Matrix Spike Duplicate				Run: SUB-B118881				10/09/08 02:43
Aluminum		2.765	mg/L	0.10	108	70	130	2.7	20	
Barium		0.5140	mg/L	0.10	100	70	130	1.2	20	
Cadmium		0.2494	mg/L	0.0015	98	70	130	4.7	20	
Copper		0.4982	mg/L	0.010	100	70	130	3.6	20	
Iron		2.820	mg/L	0.030	104	70	130	1.2	20	
Manganese		2.440	mg/L	0.010	97	70	130	0.9	20	
Nickel		0.5034	mg/L	0.010	101	70	130	3	20	
Zinc		0.5226	mg/L	0.010	105	70	130	3.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: SUB-B118881		
Sample ID: ICV	<u>11</u> Continuing Calibration Verification Standard								10/08/08 12:15	
Aluminum		2.51	mg/L	0.10	100	95	105			
Barium		2.51	mg/L	0.10	100	95	105			
Cadmium		2.54	mg/L	0.010	102	95	105			
Calcium		25.1	mg/L	1.0	100	95	105			
Chromium		2.47	mg/L	0.050	99	95	105			
Copper		2.58	mg/L	0.010	103	95	105			
Iron		2.57	mg/L	0.030	103	95	105			
Magnesium		24.9	mg/L	1.0	100	95	105			
Manganese		2.52	mg/L	0.010	101	95	105			
Nickel		2.53	mg/L	0.050	101	95	105			
Zinc		2.60	mg/L	0.010	104	95	105			
Sample ID: QCS	<u>11</u> Initial Calibration Verification Standard								10/08/08 12:11	
Aluminum		4.13	mg/L	0.10	103	90	110			
Barium		0.818	mg/L	0.10	102	90	110			
Cadmium		0.403	mg/L	0.010	101	90	110			
Calcium		40.4	mg/L	1.0	101	90	110			
Chromium		0.790	mg/L	0.050	99	90	110			
Copper		0.846	mg/L	0.010	106	90	110			
Iron		4.14	mg/L	0.030	103	90	110			
Magnesium		40.0	mg/L	1.0	100	90	110			
Manganese		3.94	mg/L	0.010	99	90	110			
Nickel		0.832	mg/L	0.050	104	90	110			
Zinc		0.824	mg/L	0.010	103	90	110			
Sample ID: ICSA	<u>11</u> Interference Check Sample A								10/08/08 12:27	
Aluminum		554	mg/L	0.10	111	80	120			
Barium		0.000720	mg/L	0.10		-0.005	0.0005			
Cadmium		0.0121	mg/L	0.010		-0.001	0.001			
Calcium		470	mg/L	1.0	94	80	120			
Chromium		0.00276	mg/L	0.050		-0.01	0.01			
Copper		0.000930	mg/L	0.010		-0.01	0.01			
Iron		194	mg/L	0.091	97	80	120			
Magnesium		513	mg/L	1.0	103	80	120			
Manganese		0.00171	mg/L	0.010		-0.01	0.01			
Nickel		-0.00105	mg/L	0.050		-0.05	0.05			
Zinc		-0.0428	mg/L	0.010		-0.01	0.01			
Sample ID: ICSAB	<u>11</u> Interference Check Sample AB								10/08/08 12:31	
Aluminum		559	mg/L	0.10	112	80	120			
Barium		0.521	mg/L	0.10	104	80	120			
Cadmium		0.983	mg/L	0.010	98	80	120			
Calcium		471	mg/L	1.0	94	80	120			
Chromium		0.485	mg/L	0.050	97	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: SUB-B118881		
Sample ID: ICSAB		11 Interference Check Sample AB							10/08/08 12:31	
Copper		0.570	mg/L	0.010	114	80	120			
Iron		197	mg/L	0.091	98	80	120			
Magnesium		519	mg/L	1.0	104	80	120			
Manganese		0.496	mg/L	0.010	99	80	120			
Nickel		0.977	mg/L	0.050	98	80	120			
Zinc		0.980	mg/L	0.010	98	80	120			
Method: E200.7								Batch: B_R118881		
Sample ID: MB-SPDIS081008A		11 Method Blank							Run: SUB-B118881	
									10/08/08 13:04	
Aluminum		ND	mg/L	0.007						
Barium		ND	mg/L	0.0001						
Cadmium		ND	mg/L	0.0003						
Calcium		ND	mg/L	0.009						
Chromium		ND	mg/L	0.002						
Copper		ND	mg/L	0.001						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.01						
Manganese		ND	mg/L	0.0002						
Nickel		ND	mg/L	0.001						
Zinc		ND	mg/L	0.0004						
Sample ID: LFB-SPDIS081008A		11 Laboratory Fortified Blank							Run: SUB-B118881	
									10/08/08 13:08	
Aluminum		5.03	mg/L	0.10	101	85	115			
Barium		0.999	mg/L	0.10	100	85	115			
Cadmium		0.507	mg/L	0.010	101	85	115			
Calcium		51.2	mg/L	1.0	102	85	115			
Chromium		1.00	mg/L	0.050	100	85	115			
Copper		1.01	mg/L	0.010	101	85	115			
Iron		5.20	mg/L	0.030	104	85	115			
Magnesium		52.3	mg/L	1.0	105	85	115			
Manganese		4.95	mg/L	0.010	99	85	115			
Nickel		1.06	mg/L	0.050	106	85	115			
Zinc		1.05	mg/L	0.010	105	85	115			
Sample ID: B08100663-004DMS2		11 Sample Matrix Spike							Run: SUB-B118881	
									10/08/08 21:48	
Aluminum		24.78	mg/L	0.10	99	70	130			
Barium		5.258	mg/L	0.10	104	70	130			
Cadmium		2.438	mg/L	0.0015	98	70	130			
Calcium		487.2	mg/L	1.0	98	70	130			
Chromium		4.877	mg/L	0.010	98	70	130			
Copper		4.980	mg/L	0.010	100	70	130			
Iron		25.36	mg/L	0.030	101	70	130			
Magnesium		420.8	mg/L	1.0	100	70	130			
Manganese		27.19	mg/L	0.010	97	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Batch: B_R118881		
Sample ID: B08100663-004DMS2				<u>11</u>	Sample Matrix Spike		Run: SUB-B118881		10/08/08 21:48	
Nickel		5.176	mg/L		0.010	103	70	130		
Zinc		5.191	mg/L		0.010	103	70	130		
Sample ID: B08100663-004DMSD				<u>11</u>	Sample Matrix Spike Duplicate		Run: SUB-B118881		10/08/08 21:52	
Aluminum		25.05	mg/L		0.10	100	70	130	1.1	20
Barium		5.284	mg/L		0.10	104	70	130	0.5	20
Cadmium		2.484	mg/L		0.0015	99	70	130	1.9	20
Calcium		499.6	mg/L		1.0	103	70	130	2.5	20
Chromium		4.965	mg/L		0.010	99	70	130	1.8	20
Copper		5.006	mg/L		0.010	100	70	130	0.5	20
Iron		25.68	mg/L		0.030	103	70	130	1.3	20
Magnesium		432.6	mg/L		1.0	104	70	130	2.8	20
Manganese		27.66	mg/L		0.010	98	70	130	1.7	20
Nickel		5.238	mg/L		0.010	104	70	130	1.2	20
Zinc		5.268	mg/L		0.010	104	70	130	1.5	20
Sample ID: B08100619-014CMS2				<u>11</u>	Sample Matrix Spike		Run: SUB-B118881		10/08/08 22:37	
Aluminum		9.81	mg/L		0.10	98	70	130		
Barium		2.10	mg/L		0.10	105	70	130		
Cadmium		0.956	mg/L		0.0021	96	70	130		
Calcium		161	mg/L		1.0	88	70	130		
Chromium		1.91	mg/L		0.010	95	70	130		
Copper		2.08	mg/L		0.010	97	70	130		
Iron		10.2	mg/L		0.030	100	70	130		
Magnesium		109	mg/L		1.0	97	70	130		
Manganese		9.40	mg/L		0.010	94	70	130		
Nickel		2.01	mg/L		0.010	101	70	130		
Zinc		2.00	mg/L		0.010	100	70	130		
Sample ID: B08100619-014CMSD				<u>11</u>	Sample Matrix Spike Duplicate		Run: SUB-B118881		10/08/08 22:41	
Aluminum		9.91	mg/L		0.10	99	70	130	1	20
Barium		2.11	mg/L		0.10	105	70	130	0.6	20
Cadmium		0.981	mg/L		0.0021	98	70	130	2.6	20
Calcium		166	mg/L		1.0	93	70	130	2.9	20
Chromium		1.98	mg/L		0.010	99	70	130	3.5	20
Copper		2.11	mg/L		0.010	99	70	130	1.3	20
Iron		10.4	mg/L		0.030	102	70	130	2.2	20
Magnesium		111	mg/L		1.0	99	70	130	1.9	20
Manganese		9.74	mg/L		0.010	97	70	130	3.6	20
Nickel		2.07	mg/L		0.010	104	70	130	2.9	20
Zinc		2.06	mg/L		0.010	103	70	130	3	20

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										
Batch: B_35137										
Sample ID: MB-35137	<u>5</u>	Method Blank				Run: SUB-B118955				10/10/08 00:56
Antimony		ND	mg/L	1E-05						
Arsenic		ND	mg/L	4E-05						
Chromium		0.0003	mg/L	4E-05						
Lead		1E-05	mg/L	8E-06						
Silver		ND	mg/L	3E-05						
Sample ID: LCS5-35137	<u>5</u>	Laboratory Control Sample				Run: SUB-B118955				10/10/08 01:03
Antimony		0.52	mg/L	0.0030	104	85	115			
Arsenic		0.49	mg/L	0.0010	98	85	115			
Chromium		0.49	mg/L	0.010	98	85	115			
Lead		0.50	mg/L	0.0010	101	85	115			
Silver		0.049	mg/L	0.0050	98	85	115			
Sample ID: B08100632-007BMS5	<u>5</u>	Sample Matrix Spike				Run: SUB-B118955				10/10/08 02:20
Antimony		0.5290	mg/L	0.0050	106	70	130			
Arsenic		0.5585	mg/L	0.0050	101	70	130			
Chromium		0.5000	mg/L	0.010	100	70	130			
Lead		0.5145	mg/L	0.010	103	70	130			
Silver		0.04550	mg/L	0.0050	91	70	130			
Sample ID: B08100632-007BMSD	<u>5</u>	Sample Matrix Spike Duplicate				Run: SUB-B118955				10/10/08 02:27
Antimony		0.5295	mg/L	0.0050	106	70	130	0.1	20	
Arsenic		0.5505	mg/L	0.0050	100	70	130	1.4	20	
Chromium		0.4918	mg/L	0.010	98	70	130	1.7	20	
Lead		0.4985	mg/L	0.010	100	70	130	3.2	20	
Silver		0.04609	mg/L	0.0050	92	70	130	1.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: SUB-B118955		
Sample ID: QCS - ME080514B, M <u>6</u> Initial Calibration Verification Standard								10/09/08 11:10		
Antimony		0.051	mg/L	0.050	102	90	110			
Arsenic		0.050	mg/L	0.0050	99	90	110			
Chromium		0.050	mg/L	0.010	100	90	110			
Lead		0.050	mg/L	0.010	100	90	110			
Mercury		0.0019	mg/L	0.0010	97	90	110			
Silver		0.026	mg/L	0.0050	102	90	110			
Sample ID: QCS - ME080514B, M <u>6</u> Initial Calibration Verification Standard								10/09/08 21:51		
Antimony		0.052	mg/L	0.050	103	90	110			
Arsenic		0.050	mg/L	0.0050	100	90	110			
Chromium		0.051	mg/L	0.010	102	90	110			
Lead		0.050	mg/L	0.010	100	90	110			
Mercury		0.0020	mg/L	0.0010	98	90	110			
Silver		0.026	mg/L	0.0050	103	90	110			
Method: E200.8								Batch: B_R118955		
Sample ID: LRB <u>5</u> Method Blank								Run: SUB-B118955		
								10/09/08 11:49		
Antimony		3E-05	mg/L	1E-05						
Arsenic		ND	mg/L	4E-05						
Lead		ND	mg/L	8E-06						
Mercury		ND	mg/L	1E-05						
Silver		6E-05	mg/L	3E-05						
Sample ID: LFB <u>5</u> Laboratory Fortified Blank								Run: SUB-B118955		
								10/09/08 11:56		
Antimony		0.050	mg/L	0.050	99	85	115			
Arsenic		0.049	mg/L	0.0050	98	85	115			
Lead		0.050	mg/L	0.010	101	85	115			
Mercury		0.00094	mg/L	0.0010	94	85	115			
Silver		0.019	mg/L	0.0050	96	85	115			
Sample ID: H08100053-001B <u>5</u> Sample Matrix Spike								Run: SUB-B118955		
								10/10/08 04:23		
Antimony		0.04926	mg/L	0.0050	98	70	130			
Arsenic		0.07531	mg/L	0.0050	98	70	130			
Lead		0.05047	mg/L	0.010	100	70	130			
Mercury		0.0009900	mg/L	0.0010	90	70	130			
Silver		0.01093	mg/L	0.0050	55	70	130			S
Sample ID: H08100053-001B <u>5</u> Sample Matrix Spike Duplicate								Run: SUB-B118955		
								10/10/08 04:31		
Antimony		0.05094	mg/L	0.0050	101	70	130	3.4	20	
Arsenic		0.07688	mg/L	0.0050	101	70	130	2.1	20	
Lead		0.05043	mg/L	0.010	100	70	130	0.1	20	
Mercury		0.0008850	mg/L	0.0010	80	70	130	0	20	
Silver		0.01375	mg/L	0.0050	69	70	130	23	20	SR

Qualifiers:

RL - Analyte reporting limit.

R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/15/08

Project: McLaren Tailings

Work Order: H08100046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1										Batch: B_35172
Sample ID: MB-35172		Method Blank					Run: SUB-B118968			10/10/08 07:29
Mercury		ND	mg/L	5E-05						
Sample ID: LFB-35172		Laboratory Fortified Blank					Run: SUB-B118968			10/10/08 07:34
Mercury		0.0021	mg/L	0.0010	107	85	115			
Sample ID: B08100663-004CMS		Sample Matrix Spike					Run: SUB-B118968			10/10/08 09:11
Mercury		0.0025	mg/L	0.0010	126	70	130			
Sample ID: B08100663-004CMSD		Sample Matrix Spike Duplicate					Run: SUB-B118968			10/10/08 09:13
Mercury		0.0024	mg/L	0.0010	120	70	130	4.9	30	
Sample ID: B08092733-001BMS		Sample Matrix Spike					Run: SUB-B118968			10/10/08 08:25
Mercury		0.39	mg/L	0.013		70	130			A
Sample ID: B08092733-001BMSD		Sample Matrix Spike Duplicate					Run: SUB-B118968			10/10/08 08:27
Mercury		0.39	mg/L	0.013		70	130	0.6	30	A
Method: E245.1										Analytical Run: SUB-B118968
Sample ID: QCS		Initial Calibration Verification Standard								10/10/08 07:11
Mercury		0.0022	mg/L	0.0010	108	90	110			
Method: E300.0										Analytical Run: IC101-H_081008A
Sample ID: ICV		Initial Calibration Verification Standard								10/08/08 12:59
Sulfate		100	mg/L	1.0	104	90	110			
Sample ID: CCV		Continuing Calibration Verification Standard								10/08/08 18:10
Sulfate		100	mg/L	1.0	104	90	110			
Method: E300.0										Batch: R49026
Sample ID: LFB		Laboratory Fortified Blank					Run: IC101-H_081008A			10/08/08 13:18
Sulfate		40	mg/L	1.0	101	90	110			
Sample ID: LCS		Laboratory Control Sample					Run: IC101-H_081008A			10/08/08 14:16
Sulfate		28	mg/L	1.0	99	90	110			
Sample ID: H08100053-001A MS		Sample Matrix Spike					Run: IC101-H_081008A			10/08/08 21:24
Sulfate		120	mg/L	1.0	108	90	110			
Sample ID: H08100053-001A MSD		Sample Matrix Spike Duplicate					Run: IC101-H_081008A			10/08/08 21:43
Sulfate		120	mg/L	1.0	109	90	110	0.6	20	
Sample ID: H08100069-003A MS		Sample Matrix Spike					Run: IC101-H_081008A			10/09/08 00:19
Sulfate		110	mg/L	1.0	105	90	110			
Sample ID: H08100069-003A MSD		Sample Matrix Spike Duplicate					Run: IC101-H_081008A			10/09/08 00:38
Sulfate		110	mg/L	1.0	106	90	110	1.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

PLEASE PRINT- Provide as much information as possible.

Company Name: <i>Pioneer Technical Services, Inc.</i>	Project Name, PWS, Permit, Etc. <i>McLaren Tailings</i>	Sample Origin State: <i>Montana</i>	EPA/State Compliance: Yes ☒ No ☐
Report Mail Address: <i>63 1/2 West Broadway St. Butte, MT 59701</i>	Contact Name: <i>Mike Borduin</i>	Phone/Fax: <i>(406) 782-5177 x 8020</i> <i>(406) 782-5866 (Fax)</i>	Email: <i>mborduin@pioneer-technical.com</i>
Invoice Address: <i>Same as above</i>	Invoice Contact & Phone: <i>Same</i>	Purchase Order:	Quote/Bottle Order: <i>29667</i>

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW	☐ A2LA
☐ GSA	☒ EDD/EDT (Electronic Data)
☐ POTW/WWTP	Format: _____
☐ State: _____	☐ LEVEL IV
☐ Other: _____	☐ NELAC

Number of Containers Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other	ANALYSIS REQUESTED										SEE ATTACHED	Normal Turnaround (TAT)	R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page	Comments:	Shipped by: <i>hand del.</i>
	1L Plastic, Non-Filtered, Unpreserved (See attached methods list)	1L Plastic, Non-Filtered, Unpreserved (See attached methods list)	500mL Non-Filtered, Unpreserved TDS, TSS	250 mL non-filtered, HNO ₃ (See attached methods list)	250 mL filtered, HNO ₃ (See attached methods list)	250 mL filtered, HNO ₃ (See attached methods list)	250 mL filtered, HNO ₃ (See attached methods list)	250 mL filtered, HNO ₃ (See attached methods list)	250 mL filtered, HNO ₃ (See attached methods list)	250 mL filtered, HNO ₃ (See attached methods list)						Cooler ID(s):
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	MATRIX											Receipt Temp <i>5.2</i> °C
1 MT-PWD1-092908			9-29-2008	1945	W	X			X	X	X	X	X	X	X	On Ice: ☒ Yes ☐ No
2 MT-PWD1-100208			10-02-2008	0945	W	X			X	X	X	X	X	X	X	Custody Seal Bottles/Coolers Intact Signature Match
3																<i>Y</i> N <i>B</i> Q <i>Y</i> N <i>Y</i> N
4																
5																
6																
7																
8																
9																
10																

Custody Record MUST be Signed	Relinquished by (print): <i>Michael Borduin</i>	Date/Time: <i>10/02/2008 12:15</i>	Signature: <i>M. Borduin</i>	Received by (print): <i>Thomas Henderson</i>	Date/Time: <i>10/02/2008 12:15</i>	Signature: <i>Th Henderson</i>
	Relinquished by (print): <i>Thomas Henderson</i>	Date/Time: <i>10/03/2008 0813</i>	Signature: <i>Th Henderson</i>	Received by (print): <i>Wanda Johnson</i>	Date/Time: <i>10-3-08 8:13</i>	Signature: <i>W Johnson</i>
	Sample Disposal:	Return to Client:	Lab Disposal:	Received by Laboratory:	Date/Time:	Signature:



ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

BOTTLE ORDER 29667



SHIPPED TO: Pioneer Technical Services

Contact: Julie Flammang
63 1/2 W Broadway
Butte MT 59701

Order Created by: Debbie Fosjord

Ship Date: 9/24/2008

Phone: 4067825177

VIA:

Bottle Type Required	Test(s)	Per Samp	Qty
250 mL Plastic, Filtered, HNO3 (Red) to pH <2	Metals by ICP/ICPMS, Dissolved	1	7
	Hardness as CaCO3		
250 mL Plastic, Non-filtered, HNO3(Red) to pH <2	Metals by ICP/ICPMS, Tot. Rec.	1	7
1 Liter Plastic, Non-filtered, Unpreserved	Alkalinity	1	7
	Anions by ion chromatography		
	pH		
	Conductivity		
1 Liter Plastic, Non-filtered, Unpreserved	Solids, Total Dissolved	1	7
	Solids, Total Suspended		

Comments:

Please list all metals you need on the COC when returning samples to the lab. Dissolved metals MUST be filtered BEFORE preserving.

The following is a list of preservatives. The color-coded vial caps correspond to the color-coded sample container or label.

Nitric (HNO3) Acid = Red-capped Vial
Phosphoric (H3PO4) Acid = White-capped Vial
Sodium Hydroxide (NaOH) = Green-capped Vial
Fill 40 ml VOA vials completely full with no headspace.

Sulfuric (H2SO4) Acid = Yellow-capped Vial
Zinc Acetate (ZnOAc) = Purple-capped Vial
Hydrochloric (HCl) Acid = Blue-capped Vial

Material Safety Data Sheets(MSDS) Available @ EnergyLab.com ->Services -> MSDS Sheets

Corrosive Chemicals: Nitric, Sulfuric, Phosphoric, Hydrochloric Acids and Sodium Hydroxide. Zinc Acetate is a skin irritant.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

**McLAREN TAILINGS SITE
GROUNDWATER SAMPLES
DESCRIPTION OF ANALYSES**

Energy laboratory Billings, Montana

TOTAL/DISSOLVED METALS: (Total Metals for pumping well only, all others
Dissolved Metals)

Aluminum (Al); Antimony (Sb); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr); Copper (Cu); Iron (Fe); Lead (Pb); Manganese (Mn); Mercury (Hg); Nickel (Ni); Silver (Ag); Zinc (Zn).

LABORATORY PARAMETERS: Hardness ✓
Alkalinity Forms ✓
Sulfates ✓
Specific Conductivity ✓
Total Suspended Solids (TSS) ✓
Total Dissolved Solids (TDS) ✓

FIELD PARAMETERS: Temperature
pH
Specific Conductivity
Dissolved Oxygen
eH
Turbidity
Field Iron
Field Alkalinity
Depth to Water

Energy Laboratories Inc

Workorder Receipt Checklist



Pioneer Technical Services

H08100046

Login completed by: Serena K. Dobler

Date and Time Received: 10/3/2008 8:13 AM

Reviewed by: *SDS*

Received by: wjj

Reviewed Date: 10/3/08

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	5.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
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LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings, Cooke City
Lab ID: H08090269-001
Client Sample ID: TP-24-WS

Report Date: 09/29/08
Collection Date: 09/11/08 17:50
Date Received: 09/15/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	5.4	s.u.		0.1		A4500-H B	09/18/08 13:52 / abb
Conductivity	2170	umhos/cm		1		A2510 B	09/22/08 16:29 / kjw
Solids, Total Suspended TSS @ 105 C	12500	mg/L		10		A2540 D	09/18/08 09:06 / kjw
Solids, Total Dissolved TDS @ 180 C	1580	mg/L		10		A2540 C	09/18/08 08:57 / kjw
INORGANICS							
Alkalinity, Total as CaCO3	20	mg/L		4		A2320 B	09/22/08 13:04 / abb
Chloride	1	mg/L		1		E300.0	09/24/08 14:46 / skd
Sulfate	1200	mg/L		1		E300.0	09/24/08 14:46 / skd
Hardness as CaCO3	730	mg/L		1		A2340 B	09/22/08 12:02 / sld
METALS, DISSOLVED							
Calcium	238	mg/L		1		E200.7	09/22/08 10:28 / sld
Magnesium	33	mg/L		1		E200.7	09/22/08 10:28 / sld
Potassium	20	mg/L		1		E200.7	09/22/08 10:28 / sld
Sodium	3	mg/L		1		E200.7	09/22/08 10:28 / sld
METALS, TOTAL RECOVERABLE							
Aluminum	139.1	mg/L		0.1		E200.7	09/22/08 17:13 / eli-b
Arsenic	0.157	mg/L		0.005		E200.8	09/22/08 23:40 / eli-b
Barium	1.2	mg/L		0.1		E200.8	09/22/08 23:40 / eli-b
Cadmium	0.011	mg/L		0.001		E200.8	09/22/08 23:40 / eli-b
Chromium	0.25	mg/L		0.01		E200.8	09/22/08 23:40 / eli-b
Copper	30.90	mg/L		0.01		E200.8	09/22/08 23:40 / eli-b
Iron	1326	mg/L	D	0.7		E200.7	09/22/08 17:13 / eli-b
Lead	0.67	mg/L		0.01		E200.8	09/22/08 23:40 / eli-b
Manganese	8.55	mg/L		0.01		E200.8	09/22/08 23:40 / eli-b
Mercury	ND	mg/L		0.001		E245.1	09/24/08 16:31 / eli-b
Selenium	0.012	mg/L		0.005		E200.8	09/22/08 23:40 / eli-b
Silver	0.207	mg/L		0.005		E200.8	09/22/08 23:40 / eli-b
Zinc	1.73	mg/L		0.01		E200.8	09/22/08 23:40 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

**SURFACE WATER SAMPLE
LAB DATA SHEETS**



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-007
Client Sample ID: McLaren-SW-01-SG1-091908

Report Date: 10/10/08
Collection Date: 09/19/08 08:45
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	8.0	s.u.		0.1		A4500 H	09/23/08 16:55 / clr
Conductivity	265	umhos/cm		1		A2510 B	09/23/08 16:34 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	142	mg/L		10		A2540 C	09/24/08 15:29 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	128	mg/L		1		A2320 B	09/29/08 22:51 / ehb
Bicarbonate as HCO ₃	156	mg/L		1		A2320 B	09/29/08 22:51 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 22:51 / ehb
Sulfate	7	mg/L		1		E300.0	09/29/08 02:31 / qed
Hardness as CaCO ₃	141	mg/L		1		A2340 B	09/26/08 09:06 / rls
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:03 / rlh
Calcium	44	mg/L		1		E200.7	09/24/08 19:03 / rlh
Copper	0.05	mg/L		0.01		E200.7	09/24/08 19:03 / rlh
Iron	ND	mg/L		0.03		E200.7	09/24/08 19:03 / rlh
Magnesium	8	mg/L		1		E200.7	09/24/08 19:03 / rlh
METALS, TOTAL RECOVERABLE							
Antimony	ND	mg/L		0.005		E200.8	09/29/08 04:53 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 04:53 / aje
Barium	ND	mg/L		0.1		E200.7	09/25/08 06:22 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 04:53 / aje
Chromium	ND	mg/L		0.01		E200.7	09/25/08 06:22 / rlh
Copper	ND	mg/L		0.01		E200.7	09/25/08 06:22 / rlh
Iron	ND	mg/L		0.03		E200.7	09/25/08 06:22 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 04:53 / aje
Manganese	ND	mg/L		0.01		E200.7	09/25/08 06:22 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 04:53 / aje
Nickel	ND	mg/L		0.01		E200.7	09/25/08 06:22 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 04:53 / aje
Zinc	ND	mg/L		0.01		E200.7	09/25/08 06:22 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-008
Client Sample ID: McLaren-SW-02-Miller-091908

Report Date: 10/10/08
Collection Date: 09/19/08 09:00
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.8	s.u.		0.1		A4500 H	09/23/08 16:56 / clr
Conductivity	213	umhos/cm		1		A2510 B	09/23/08 16:37 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	123	mg/L		10		A2540 C	09/24/08 15:27 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	69	mg/L		1		A2320 B	09/29/08 22:57 / ehb
Bicarbonate as HCO ₃	84	mg/L		1		A2320 B	09/29/08 22:57 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 22:57 / ehb
Sulfate	35	mg/L		1		E300.0	09/29/08 02:42 / qed
Hardness as CaCO ₃	107	mg/L		1		A2340 B	10/02/08 09:07 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:15 / rlh
Calcium	35	mg/L		1		E200.7	09/24/08 19:15 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 05:26 / aje
Iron	ND	mg/L		0.03		E200.7	09/24/08 19:15 / rlh
Magnesium	5	mg/L		1		E200.7	09/24/08 19:15 / rlh
METALS, TOTAL RECOVERABLE							
Antimony	ND	mg/L		0.005		E200.8	09/29/08 05:33 / aje
Arsenic	ND	mg/L		0.005		E200.8	09/29/08 05:33 / aje
Barium	ND	mg/L		0.1		E200.7	09/25/08 06:34 / rlh
Cadmium	ND	mg/L		0.001		E200.8	09/29/08 05:33 / aje
Chromium	ND	mg/L		0.01		E200.7	09/25/08 06:34 / rlh
Copper	ND	mg/L		0.01		E200.7	09/25/08 06:34 / rlh
Iron	ND	mg/L		0.03		E200.7	09/25/08 06:34 / rlh
Lead	ND	mg/L		0.01		E200.8	09/29/08 05:33 / aje
Manganese	ND	mg/L		0.01		E200.7	09/25/08 06:34 / rlh
Mercury	ND	mg/L		0.001		E200.8	09/29/08 05:33 / aje
Nickel	ND	mg/L		0.01		E200.7	09/25/08 06:34 / rlh
Silver	ND	mg/L		0.005		E200.8	09/29/08 05:33 / aje
Zinc	ND	mg/L		0.01		E200.7	09/25/08 06:34 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Pioneer Technical Services
Project: McLaren Tailings Site
Lab ID: B08092190-009
Client Sample ID: McLaren-SW-03-SBC-04-091908

Report Date: 10/10/08
Collection Date: 09/19/08 09:30
Date Received: 09/23/08
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.6	s.u.		0.1		A4500 H	09/23/08 16:57 / clr
Conductivity	306	umhos/cm		1		A2510 B	09/23/08 16:36 / clr
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/24/08 13:44 / afb
Solids, Total Dissolved TDS @ 180 C	173	mg/L		10		A2540 C	09/24/08 15:35 / afb
INORGANICS							
Alkalinity, Total as CaCO ₃	120	mg/L		1		A2320 B	09/29/08 23:03 / ehb
Bicarbonate as HCO ₃	146	mg/L		1		A2320 B	09/29/08 23:03 / ehb
Carbonate as CO ₃	ND	mg/L		1		A2320 B	09/29/08 23:03 / ehb
Sulfate	34	mg/L		1		E300.0	09/29/08 02:54 / qed
Hardness as CaCO ₃	160	mg/L		1		A2340 B	09/24/08 19:19 / klc
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	09/24/08 19:19 / rlh
Calcium	50	mg/L		1		E200.7	09/24/08 19:19 / rlh
Copper	ND	mg/L		0.01		E200.8	09/29/08 05:39 / aje
Iron	0.13	mg/L		0.03		E200.7	09/24/08 19:19 / rlh
Magnesium	9	mg/L		1		E200.7	09/24/08 19:19 / rlh
METALS, TOTAL RECOVERABLE							
Antimony	ND	mg/L		0.005		E200.8	09/25/08 14:30 / jjw
Arsenic	ND	mg/L		0.005		E200.8	09/25/08 14:30 / jjw
Barium	ND	mg/L		0.1		E200.7	09/25/08 18:44 / rlh
Cadmium	ND	mg/L		0.001		E200.7	09/25/08 18:44 / rlh
Chromium	ND	mg/L		0.01		E200.7	09/25/08 18:44 / rlh
Copper	ND	mg/L		0.01		E200.7	09/25/08 18:44 / rlh
Iron	1.63	mg/L		0.03		E200.7	09/25/08 18:44 / rlh
Lead	ND	mg/L		0.01		E200.8	09/27/08 05:46 / aje
Manganese	0.06	mg/L		0.01		E200.7	09/25/08 18:44 / rlh
Mercury	ND	mg/L		0.001		E245.1	09/29/08 09:46 / jjw
Nickel	ND	mg/L		0.01		E200.7	09/25/08 18:44 / rlh
Silver	ND	mg/L		0.005		E200.8	09/27/08 05:46 / aje
Zinc	ND	mg/L		0.01		E200.7	09/25/08 18:44 / rlh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B							Batch: R118347		
Sample ID: MBLK	Method Blank				Run: MAN-TECH_080929A		09/29/08 21:03		
Alkalinity, Total as CaCO3	1	mg/L	1						
Bicarbonate as HCO3	2	mg/L	1						
Carbonate as CO3	ND	mg/L	1						
Sample ID: LCS	Laboratory Control Sample				Run: MAN-TECH_080929A		09/29/08 21:09		
Alkalinity, Total as CaCO3	97.6	mg/L	1.0	96	90	110			
Sample ID: B08092190-002AMS	Sample Matrix Spike				Run: MAN-TECH_080929A		09/29/08 22:16		
Alkalinity, Total as CaCO3	424	mg/L	1.0	91	80	120			
Sample ID: B08092190-002AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_080929A		09/29/08 22:22		
Alkalinity, Total as CaCO3	424	mg/L	1.0	91	80	120	0.1	20	
Sample ID: B08092190-012AMS	Sample Matrix Spike				Run: MAN-TECH_080929A		09/29/08 23:22		
Alkalinity, Total as CaCO3	419	mg/L	1.0	97	80	120			
Sample ID: B08092190-012AMSD	Sample Matrix Spike Duplicate				Run: MAN-TECH_080929A		09/29/08 23:29		
Alkalinity, Total as CaCO3	408	mg/L	1.0	90	80	120	2.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B							Batch: PHSC080923A		
Sample ID: PHC1080722A	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:55		
Conductivity	151	umhos/cm	1.0	101	90	110			
Sample ID: PHC1071220B	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:57		
Conductivity	4990	umhos/cm	1.0	100	90	110			
Sample ID: PHC1080605C	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:57		
Conductivity	19800	umhos/cm	1.0	99	90	110			
Sample ID: B08092190-001ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:24		
Conductivity	4140	umhos/cm	1.0				0.5	10	
Sample ID: B08092190-011ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:40		
Conductivity	4.60	umhos/cm	1.0				0	10	
Sample ID: B08092190-001ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:24		
Conductivity	4140	umhos/cm	1.0				0.5	10	
Sample ID: B08092190-011ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:40		
Conductivity	4.60	umhos/cm	1.0				0	10	
Sample ID: B08092190-001ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:24		
Conductivity	4140	umhos/cm	1.0				0.5	10	
Sample ID: B08092190-011ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:40		
Conductivity	4.60	umhos/cm	1.0				0	10	
Method: A2540 C							Batch: TDS080924A		
Sample ID: MBLK1	Method Blank				Run: WC-BAL-99-3A_080924B		09/24/08 09:36		
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB1	Laboratory Fortified Blank				Run: WC-BAL-99-3A_080924B		09/24/08 09:36		
Solids, Total Dissolved TDS @ 180 C	1120	mg/L	10	101	90	110			
Sample ID: B08092062-006A MS	Sample Matrix Spike				Run: WC-BAL-99-3A_080924B		09/24/08 09:40		
Solids, Total Dissolved TDS @ 180 C	3800	mg/L	10	101	80	120			
Sample ID: B08092062-006A MSD	Sample Matrix Spike Duplicate				Run: WC-BAL-99-3A_080924B		09/24/08 09:40		
Solids, Total Dissolved TDS @ 180 C	3810	mg/L	10	101	80	120	0.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C							Batch: TDS080924B		
Sample ID: MBLK3	Method Blank					Run: WC-BAL-99-3A_080924B		09/24/08 15:19	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB3	Laboratory Fortified Blank					Run: WC-BAL-99-3A_080924B		09/24/08 15:20	
Solids, Total Dissolved TDS @ 180 C	1130	mg/L	10	102	90	110			
Sample ID: B08092190-002A MS	Sample Matrix Spike					Run: WC-BAL-99-3A_080924B		09/24/08 15:23	
Solids, Total Dissolved TDS @ 180 C	2480	mg/L	10	101	80	120			
Sample ID: B08092190-002A MSD	Sample Matrix Spike Duplicate					Run: WC-BAL-99-3A_080924B		09/24/08 15:24	
Solids, Total Dissolved TDS @ 180 C	2490	mg/L	10	102	80	120	0.4	20	
Method: A2540 C							Batch: TDS080925B		
Sample ID: MBLK4	Method Blank					Run: WC-BAL-99-3A_080925B		09/25/08 15:51	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
Sample ID: LFB4	Laboratory Fortified Blank					Run: WC-BAL-99-3A_080925B		09/25/08 15:51	
Solids, Total Dissolved TDS @ 180 C	1110	mg/L	10	101	90	110			
Sample ID: B08092336-001A MS	Sample Matrix Spike					Run: WC-BAL-99-3A_080925B		09/25/08 15:53	
Solids, Total Dissolved TDS @ 180 C	2110	mg/L	10	102	80	120			
Sample ID: B08092336-001A MSD	Sample Matrix Spike Duplicate					Run: WC-BAL-99-3A_080925B		09/25/08 15:54	
Solids, Total Dissolved TDS @ 180 C	2110	mg/L	10	102	80	120	0.1	20	
Method: A2540 D							Batch: TSS080924A		
Sample ID: B08092190-001A DUP	Sample Duplicate					Run: WC-BAL-99-3A_080924A		09/24/08 13:44	
Solids, Total Suspended TSS @ 105 C	816	mg/L	10				1.3	10	
Sample ID: LCS1	Laboratory Control Sample					Run: WC-BAL-99-3A_080924A		09/24/08 13:44	
Solids, Total Suspended TSS @ 105 C	193	mg/L	10	97	75	120			
Sample ID: MBLK1	Method Blank					Run: WC-BAL-99-3A_080924A		09/24/08 13:44	
Solids, Total Suspended TSS @ 105 C	ND	mg/L	1						
Sample ID: B08092190-010A DUP	Sample Duplicate					Run: WC-BAL-99-3A_080924A		09/24/08 13:45	
Solids, Total Suspended TSS @ 105 C	1.00	mg/L	10				0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500 H							Batch: PHSC080923A		
Sample ID: PHC1080722D	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:59		
pH	4.01	s.u.	0.10	100	97	103			
Sample ID: PHC1080722E	Laboratory Control Sample				Run: ORION555A_080923A		09/23/08 08:59		
pH	6.91	s.u.	0.10	99	98	102			
Sample ID: B08092190-001ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:27		
pH	6.79	s.u.	0.10				0.1	10	
Sample ID: B08092190-001ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:27		
pH	6.79	s.u.	0.10				0.1	10	
Sample ID: B08092190-001ADUP	Sample Duplicate				Run: ORION555A_080923A		09/23/08 16:27		
pH	6.79	s.u.	0.10				0.1	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: 34923
Sample ID: MB-34923	Method Blank		Run: ICP202-B_080925A				09/25/08 18:19		
Barium	ND	mg/L	0.001						
Cadmium	ND	mg/L	0.001						
Chromium	ND	mg/L	0.001						
Copper	0.003	mg/L	0.001						
Iron	0.006	mg/L	0.005						
Manganese	ND	mg/L	0.001						
Nickel	ND	mg/L	0.001						
Zinc	ND	mg/L	0.001						
Sample ID: LCS5-34923	Laboratory Control Sample		Run: ICP202-B_080925A				09/25/08 18:23		
Barium	0.507	mg/L	0.10	101	85	115			
Cadmium	0.243	mg/L	0.0010	97	85	115			
Chromium	0.483	mg/L	0.010	97	85	115			
Copper	0.495	mg/L	0.010	98	85	115			
Iron	2.46	mg/L	0.030	98	85	115			
Manganese	2.44	mg/L	0.010	98	85	115			
Nickel	0.501	mg/L	0.010	100	85	115			
Zinc	0.514	mg/L	0.010	103	85	115			
Sample ID: B08092190-009CMS5	Sample Matrix Spike		Run: ICP202-B_080925A				09/25/08 18:48		
Barium	0.557	mg/L	0.10	111	70	130			
Cadmium	0.242	mg/L	0.0010	97	70	130			
Chromium	0.486	mg/L	0.010	97	70	130			
Copper	0.485	mg/L	0.010	97	70	130			
Iron	4.00	mg/L	0.030	160	70	130			S
Manganese	2.50	mg/L	0.010	100	70	130			
Nickel	0.502	mg/L	0.010	100	70	130			
Zinc	0.516	mg/L	0.010	103	70	130			
Sample ID: B08092190-009CMSD5	Sample Matrix Spike Duplicate		Run: ICP202-B_080925A				09/25/08 18:52		
Barium	0.570	mg/L	0.10	114	70	130	2.4	20	
Cadmium	0.239	mg/L	0.0010	96	70	130	1.2	20	
Chromium	0.475	mg/L	0.010	95	70	130	2.3	20	
Copper	0.487	mg/L	0.010	97	70	130	0.5	20	
Iron	4.04	mg/L	0.030	161	70	130	1	20	S
Manganese	2.51	mg/L	0.010	101	70	130	0.6	20	
Nickel	0.495	mg/L	0.010	99	70	130	1.5	20	
Zinc	0.511	mg/L	0.010	102	70	130	1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Analytical Run: ICP202-B_080924A		
Sample ID: ICV	Continuing Calibration Verification Standard						09/24/08 10:15		
Aluminum	2.61	mg/L	0.10	104	95	105			
Barium	2.58	mg/L	0.10	103	95	105			
Cadmium	2.51	mg/L	0.010	100	95	105			
Calcium	24.7	mg/L	1.0	99	95	105			
Chromium	2.55	mg/L	0.050	102	95	105			
Copper	2.53	mg/L	0.010	101	95	105			
Iron	2.55	mg/L	0.030	102	95	105			
Magnesium	24.9	mg/L	1.0	100	95	105			
Manganese	2.51	mg/L	0.010	100	95	105			
Nickel	2.53	mg/L	0.050	101	95	105			
Zinc	2.59	mg/L	0.010	103	95	105			
Method: E200.7							Batch: R118071		
Sample ID: MB-SPDIS080924A	Method Blank		Run: ICP202-B_080924A				09/24/08 11:04		
Aluminum	ND	mg/L	0.007						
Barium	0.0006	mg/L	0.0001						
Cadmium	ND	mg/L	0.0003						
Calcium	ND	mg/L	0.009						
Chromium	ND	mg/L	0.002						
Copper	0.002	mg/L	0.001						
Iron	ND	mg/L	0.002						
Magnesium	ND	mg/L	0.01						
Manganese	ND	mg/L	0.0002						
Nickel	ND	mg/L	0.001						
Zinc	0.0004	mg/L	0.0004						
Sample ID: LFB-SPDIS080924A	Laboratory Fortified Blank		Run: ICP202-B_080924A				09/24/08 11:08		
Aluminum	4.96	mg/L	0.10	99	85	115			
Barium	1.03	mg/L	0.10	103	85	115			
Cadmium	0.501	mg/L	0.010	100	85	115			
Calcium	50.9	mg/L	1.0	102	85	115			
Chromium	1.00	mg/L	0.050	100	85	115			
Copper	0.992	mg/L	0.010	99	85	115			
Iron	5.15	mg/L	0.030	103	85	115			
Magnesium	50.5	mg/L	1.0	101	85	115			
Manganese	4.92	mg/L	0.010	98	85	115			
Nickel	1.03	mg/L	0.050	103	85	115			
Zinc	1.05	mg/L	0.010	105	85	115			
Sample ID: B08092168-001BMS2	Sample Matrix Spike		Run: ICP202-B_080924A				09/24/08 18:27		
Aluminum	25.1	mg/L	0.10	101	70	130			
Barium	5.26	mg/L	0.10	100	70	130			
Cadmium	2.50	mg/L	0.0015	100	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: R118071		
Sample ID: B08092168-001BMS2	Sample Matrix Spike			Run: ICP202-B_080924A			09/24/08 18:27		
Calcium	254	mg/L	1.0	101	70	130			
Chromium	4.92	mg/L	0.010	98	70	130			
Copper	4.95	mg/L	0.010	99	70	130			
Iron	26.1	mg/L	0.030	102	70	130			
Magnesium	251	mg/L	1.0	100	70	130			
Manganese	24.6	mg/L	0.010	98	70	130			
Nickel	5.15	mg/L	0.010	103	70	130			
Zinc	5.11	mg/L	0.010	102	70	130			
Sample ID: B08092168-001BMSD2	Sample Matrix Spike Duplicate			Run: ICP202-B_080924A			09/24/08 18:31		
Aluminum	25.1	mg/L	0.10	100	70	130	0.3	20	
Barium	5.27	mg/L	0.10	101	70	130	0.3	20	
Cadmium	2.48	mg/L	0.0015	99	70	130	0.9	20	
Calcium	254	mg/L	1.0	101	70	130	0.1	20	
Chromium	4.87	mg/L	0.010	97	70	130	1.1	20	
Copper	4.96	mg/L	0.010	99	70	130	0.1	20	
Iron	25.9	mg/L	0.030	102	70	130	0.6	20	
Magnesium	251	mg/L	1.0	100	70	130	0.2	20	
Manganese	24.4	mg/L	0.010	98	70	130	0.6	20	
Nickel	5.10	mg/L	0.010	102	70	130	1	20	
Zinc	5.11	mg/L	0.010	102	70	130	0	20	
Sample ID: B08092190-010BMS2	Sample Matrix Spike			Run: ICP202-B_080924A			09/24/08 19:28		
Aluminum	4.91	mg/L	0.10	98	70	130			
Barium	0.966	mg/L	0.10	97	70	130			
Cadmium	0.493	mg/L	0.0010	99	70	130			
Calcium	48.5	mg/L	1.0	97	70	130			
Chromium	0.970	mg/L	0.010	97	70	130			
Copper	1.01	mg/L	0.010	100	70	130			
Iron	4.87	mg/L	0.030	97	70	130			
Magnesium	48.7	mg/L	1.0	97	70	130			
Manganese	4.71	mg/L	0.010	94	70	130			
Nickel	1.01	mg/L	0.010	101	70	130			
Zinc	1.03	mg/L	0.010	103	70	130			
Sample ID: B08092190-010BMSD2	Sample Matrix Spike Duplicate			Run: ICP202-B_080924A			09/24/08 19:32		
Aluminum	5.05	mg/L	0.10	101	70	130	2.7	20	
Barium	0.997	mg/L	0.10	100	70	130	3.1	20	
Cadmium	0.506	mg/L	0.0010	101	70	130	2.5	20	
Calcium	50.4	mg/L	1.0	101	70	130	3.9	20	
Chromium	0.994	mg/L	0.010	99	70	130	2.4	20	
Copper	1.05	mg/L	0.010	104	70	130	3.5	20	
Iron	5.02	mg/L	0.030	100	70	130	3.1	20	
Magnesium	50.3	mg/L	1.0	101	70	130	3.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: R118071		
Sample ID: B08092190-010BMSD2		Sample Matrix Spike Duplicate			Run: ICP202-B_080924A			09/24/08 19:32	
Manganese	4.89	mg/L	0.010	98	70	130	3.9	20	
Nickel	1.03	mg/L	0.010	103	70	130	1.8	20	
Zinc	1.06	mg/L	0.010	106	70	130	3.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7					Analytical Run: ICP201-B_080924A				
Sample ID: ICV	Continuing Calibration Verification Standard								09/24/08 11:36
Barium	2.58	mg/L	0.10	103	95	105			
Chromium	2.52	mg/L	0.050	101	95	105			
Copper	2.52	mg/L	0.010	101	95	105			
Iron	2.53	mg/L	0.030	101	95	105			
Manganese	2.57	mg/L	0.010	103	95	105			
Nickel	2.53	mg/L	0.050	101	95	105			
Zinc	2.55	mg/L	0.010	102	95	105			
Method: E200.7					Batch: R118121				
Sample ID: MB-TJADIS080924A	Method Blank				Run: ICP201-B_080924A			09/24/08 12:02	
Barium	ND	mg/L	0.0002						
Chromium	ND	mg/L	0.004						
Copper	ND	mg/L	0.007						
Iron	ND	mg/L	0.005						
Manganese	ND	mg/L	0.001						
Nickel	ND	mg/L	0.004						
Zinc	ND	mg/L	0.001						
Sample ID: LFB-TJADIS080924A	Laboratory Fortified Blank				Run: ICP201-B_080924A			09/24/08 12:05	
Barium	1.07	mg/L	0.10	107	85	115			
Chromium	0.985	mg/L	0.050	98	85	115			
Copper	0.993	mg/L	0.010	99	85	115			
Iron	5.00	mg/L	0.030	100	85	115			
Manganese	4.98	mg/L	0.010	100	85	115			
Nickel	1.02	mg/L	0.050	102	85	115			
Zinc	1.02	mg/L	0.010	102	85	115			
Sample ID: B08092190-007CMS2	Sample Matrix Spike				Run: ICP201-B_080924A			09/25/08 06:26	
Barium	1.11	mg/L	0.10	105	70	130			
Chromium	0.980	mg/L	0.010	98	70	130			
Copper	0.996	mg/L	0.010	99	70	130			
Iron	4.90	mg/L	0.030	98	70	130			
Manganese	4.79	mg/L	0.010	96	70	130			
Nickel	1.00	mg/L	0.010	100	70	130			
Zinc	1.000	mg/L	0.010	100	70	130			
Sample ID: B08092190-007CMSD2	Sample Matrix Spike Duplicate				Run: ICP201-B_080924A			09/25/08 06:30	
Barium	1.15	mg/L	0.10	109	70	130	3.4	20	
Chromium	1.04	mg/L	0.010	104	70	130	5.7	20	
Copper	1.02	mg/L	0.010	101	70	130	2.5	20	
Iron	5.25	mg/L	0.030	105	70	130	6.9	20	
Manganese	5.16	mg/L	0.010	103	70	130	7.3	20	
Nickel	1.08	mg/L	0.010	108	70	130	7.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: R118121		
Sample ID: B08092190-007CMSD2	Sample Matrix Spike Duplicate				Run: ICP201-B_080924A			09/25/08 06:30	
Zinc	1.07	mg/L	0.010	107	70	130	6.5	20	
Method: E200.7							Analytical Run: ICP202-B_080925A		
Sample ID: ICV	Continuing Calibration Verification Standard							09/25/08 12:44	
Barium	2.56	mg/L	0.10	103	95	105			
Cadmium	2.54	mg/L	0.010	102	95	105			
Chromium	2.50	mg/L	0.050	100	95	105			
Copper	2.51	mg/L	0.010	101	95	105			
Iron	2.58	mg/L	0.030	103	95	105			
Manganese	2.53	mg/L	0.010	101	95	105			
Nickel	2.55	mg/L	0.050	102	95	105			
Zinc	2.51	mg/L	0.010	100	95	105			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: 34923		
Sample ID: MB-34923	Method Blank			Run: ICPMS202-B_080925A			09/25/08 14:00		
Antimony	2E-05	mg/L	1E-05						
Arsenic	ND	mg/L	4E-05						
Lead	4E-05	mg/L	8E-06						
Silver	0.0004	mg/L	3E-05						
Sample ID: LCS5-34923	Laboratory Control Sample			Run: ICPMS202-B_080925A			09/25/08 14:08		
Antimony	0.515	mg/L	0.0050	103	85	115			
Arsenic	0.490	mg/L	0.0050	98	85	115			
Lead	0.507	mg/L	0.010	101	85	115			
Sample ID: B08092190-009CMS5	Sample Matrix Spike			Run: ICPMS202-B_080925A			09/25/08 17:06		
Antimony	0.516	mg/L	0.0050	103	70	130			
Arsenic	0.498	mg/L	0.0050	100	70	130			
Lead	0.512	mg/L	0.010	102	70	130			
Silver	0.0458	mg/L	0.0050	92	70	130			
Sample ID: B08092190-009CMSD5	Sample Matrix Spike Duplicate			Run: ICPMS202-B_080925A			09/25/08 17:44		
Antimony	0.524	mg/L	0.0050	105	70	130	1.5	20	
Arsenic	0.503	mg/L	0.0050	101	70	130	1.1	20	
Lead	0.518	mg/L	0.010	104	70	130	1.2	20	
Silver	0.0449	mg/L	0.0050	90	70	130	1.9	20	
Sample ID: MB-34923	Method Blank			Run: ICPMS202-B_080926A			09/27/08 04:45		
Antimony	ND	mg/L	1E-05						
Arsenic	ND	mg/L	4E-05						
Lead	2E-05	mg/L	8E-06						
Silver	ND	mg/L	3E-05						
Sample ID: LCS5-34923	Laboratory Control Sample			Run: ICPMS202-B_080926A			09/27/08 04:52		
Antimony	0.523	mg/L	0.0030	104	85	115			
Arsenic	0.486	mg/L	0.0010	97	85	115			
Lead	0.500	mg/L	0.0010	100	85	115			
Silver	0.0478	mg/L	0.0050	96	85	115			
Sample ID: B08092190-009CMS5	Sample Matrix Spike			Run: ICPMS202-B_080926A			09/27/08 05:54		
Antimony	0.523	mg/L	0.0030	105	70	130			
Arsenic	0.491	mg/L	0.0010	98	70	130			
Lead	0.503	mg/L	0.0010	101	70	130			
Silver	0.0471	mg/L	0.0050	94	70	130			
Sample ID: B08092190-009CMSD5	Sample Matrix Spike Duplicate			Run: ICPMS202-B_080926A			09/27/08 06:02		
Antimony	0.522	mg/L	0.0030	104	70	130	0.2	20	
Arsenic	0.497	mg/L	0.0010	99	70	130	1.2	20	
Lead	0.507	mg/L	0.0010	101	70	130	0.8	20	
Silver	0.0474	mg/L	0.0050	95	70	130	0.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: 34923		
Sample ID: B08092190-009CMSD5 Sample Matrix Spike Duplicate							Run: ICPMS202-B_080926A 09/27/08 06:02		
Method: E200.8							Analytical Run: ICPMS202-B_080925A		
Sample ID: QCS - ME080514B, ME0 Initial Calibration Verification Standard							09/25/08 10:57		
Antimony	0.0493	mg/L	0.050	99	90	110			
Arsenic	0.0502	mg/L	0.0050	100	90	110			
Method: E200.8							Analytical Run: ICPMS202-B_080926A		
Sample ID: QCS - ME080514B, ME0 Initial Calibration Verification Standard							09/26/08 21:48		
Lead	0.0509	mg/L	0.010	102	90	110			
Silver	0.0256	mg/L	0.0050	102	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
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Method: E200.8

Analytical Run: ICPMS203-B_080928A

Sample ID: QCS-080514A, 080814B, Initial Calibration Verification Standard

09/29/08 00:40

Antimony	0.0508	mg/L	0.050	102	90	110			
Arsenic	0.0501	mg/L	0.0050	100	90	110			
Cadmium	0.0263	mg/L	0.0010	105	90	110			
Chromium	0.0517	mg/L	0.010	103	90	110			
Copper	0.0528	mg/L	0.010	106	90	110			
Lead	0.0505	mg/L	0.010	101	90	110			
Mercury	0.00193	mg/L	0.0010	97	90	110			
Nickel	0.0536	mg/L	0.010	107	90	110			
Silver	0.0261	mg/L	0.0050	104	90	110			
Zinc	0.0532	mg/L	0.010	106	90	110			

Method: E200.8

Batch: R118297

Sample ID: LRB

Method Blank

Run: ICPMS203-B_080928A

09/28/08 17:00

Antimony	6E-06	mg/L	4E-06						
Arsenic	ND	mg/L	4E-05						
Cadmium	7E-06	mg/L	3E-06						
Chromium	8E-05	mg/L	4E-05						
Copper	0.0001	mg/L	3E-05						
Lead	2E-05	mg/L	3E-06						
Mercury	ND	mg/L	1E-05						
Nickel	0.00010	mg/L	3E-05						
Silver	6E-05	mg/L	7E-06						
Zinc	0.001	mg/L	3E-05						

Sample ID: LFB

Laboratory Fortified Blank

Run: ICPMS203-B_080928A

09/28/08 17:07

Antimony	0.0517	mg/L	0.050	103	85	115			
Arsenic	0.0546	mg/L	0.0050	109	85	115			
Cadmium	0.0529	mg/L	0.0010	106	85	115			
Chromium	0.0529	mg/L	0.010	106	85	115			
Copper	0.0527	mg/L	0.010	105	85	115			
Lead	0.0504	mg/L	0.010	101	85	115			
Mercury	0.000930	mg/L	0.0010	93	85	115			
Nickel	0.0532	mg/L	0.010	106	85	115			
Silver	0.0210	mg/L	0.0050	105	85	115			
Zinc	0.0566	mg/L	0.010	111	85	115			

Sample ID: B08092190-001BMS

Sample Matrix Spike

Run: ICPMS203-B_080928A

09/29/08 04:00

Antimony	0.102	mg/L	0.0050	102	70	130			
Arsenic	0.105	mg/L	0.0050	104	70	130			
Cadmium	0.0987	mg/L	0.0010	99	70	130			
Chromium	0.105	mg/L	0.010	105	70	130			
Copper	0.0992	mg/L	0.010	99	70	130			
Lead	0.104	mg/L	0.010	103	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8							Batch: R118297		
Sample ID: B08092190-001BMS	Sample Matrix Spike		Run: ICPMS203-B_080928A				09/29/08 04:00		
Mercury	0.00172	mg/L	0.0010	86	70	130			
Nickel	0.103	mg/L	0.010	100	70	130			
Silver	0.0125	mg/L	0.0050	31	70	130			S
Zinc	0.103	mg/L	0.010	99	70	130			
Sample ID: B08092190-001BMSD	Sample Matrix Spike Duplicate		Run: ICPMS203-B_080928A				09/29/08 04:06		
Antimony	0.104	mg/L	0.0050	104	70	130	2.2	20	
Arsenic	0.108	mg/L	0.0050	107	70	130	3.1	20	
Cadmium	0.101	mg/L	0.0010	101	70	130	1.8	20	
Chromium	0.107	mg/L	0.010	107	70	130	1.9	20	
Copper	0.101	mg/L	0.010	100	70	130	1.6	20	
Lead	0.105	mg/L	0.010	105	70	130	1.7	20	
Mercury	0.00171	mg/L	0.0010	86	70	130	0.3	20	
Nickel	0.105	mg/L	0.010	102	70	130	2.4	20	
Silver	0.0116	mg/L	0.0050	29	70	130	7.2	20	S
Zinc	0.104	mg/L	0.010	100	70	130	0.9	20	
Sample ID: B08092190-012BMS	Sample Matrix Spike		Run: ICPMS203-B_080928A				09/29/08 06:19		
Antimony	0.0506	mg/L	0.0050	101	70	130			
Arsenic	0.0520	mg/L	0.0050	104	70	130			
Cadmium	0.0496	mg/L	0.0010	99	70	130			
Chromium	0.0514	mg/L	0.010	103	70	130			
Copper	0.0605	mg/L	0.010	100	70	130			
Lead	0.0512	mg/L	0.010	102	70	130			
Mercury	0.000990	mg/L	0.0010	99	70	130			
Nickel	0.0537	mg/L	0.010	101	70	130			
Silver	0.0189	mg/L	0.0050	95	70	130			
Zinc	0.0533	mg/L	0.010	101	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8					Analytical Run: ICPMS202-B_080929A				
Sample ID: QCS - ME080514B, ME0	Initial Calibration Verification Standard								09/29/08 17:21
Lead	0.0520	mg/L	0.010	104	90	110			
Mercury	0.00200	mg/L	0.0010	100	90	110			
Method: E200.8					Batch: R118350				
Sample ID: LRB	Method Blank				Run: ICPMS202-B_080929A		09/29/08 12:20		
Lead	ND	mg/L	8E-06						
Mercury	ND	mg/L	1E-05						
Sample ID: LFB	Laboratory Fortified Blank				Run: ICPMS202-B_080929A		09/29/08 12:28		
Lead	0.0504	mg/L	0.010	101	85	115			
Mercury	0.00105	mg/L	0.0010	103	85	115			
Sample ID: B08092190-016BMS	Sample Matrix Spike				Run: ICPMS202-B_080929A		09/30/08 00:10		
Lead	0.0535	mg/L	0.010	107	70	130			
Mercury	0.000600	mg/L	0.0010	60	70	130			S
Sample ID: B08092190-016BMSD	Sample Matrix Spike Duplicate				Run: ICPMS202-B_080929A		09/30/08 00:17		
Lead	0.0520	mg/L	0.010	104	70	130	2.9	20	
Mercury	0.000679	mg/L	0.0010	68	70	130	0	20	S
Method: E245.1					Batch: 34942				
Sample ID: MB-34942	Method Blank				Run: HGCV201-B_080929B		09/29/08 09:37		
Mercury	ND	mg/L	5E-05						
Sample ID: LFB-34942	Laboratory Fortified Blank				Run: HGCV201-B_080929B		09/29/08 09:44		
Mercury	0.00190	mg/L	0.0010	95	85	115			
Sample ID: B08092190-009CMS	Sample Matrix Spike				Run: HGCV201-B_080929B		09/29/08 09:48		
Mercury	0.00218	mg/L	0.0010	109	70	130			
Sample ID: B08092190-009CMSD	Sample Matrix Spike Duplicate				Run: HGCV201-B_080929B		09/29/08 10:01		
Mercury	0.00183	mg/L	0.0010	92	70	130	17	30	
Method: E245.1					Analytical Run: HGCV201-B_080929B				
Sample ID: QCS	Initial Calibration Verification Standard								09/29/08 09:22
Mercury	0.00184	mg/L	0.0010	92	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Pioneer Technical Services

Report Date: 10/10/08

Project: McLaren Tailings Site

Work Order: B08092190

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0							Analytical Run: IC202-B_080928A		
Sample ID: ICV	Initial Calibration Verification Standard								09/28/08 16:50
Sulfate	98.6	mg/L	1.0	99	90	110			
Method: E300.0							Batch: R118282		
Sample ID: ICB	Method Blank								09/28/08 17:01
Sulfate	0.4	mg/L	0.06						
Sample ID: LFB	Laboratory Fortified Blank								09/28/08 17:13
Sulfate	39.0	mg/L	1.0	96	90	110			
Sample ID: B08092190-006AMS	Sample Matrix Spike								09/29/08 01:44
Sulfate	1280	mg/L	1.0		90	110			A
Sample ID: B08092190-006AMSD	Sample Matrix Spike Duplicate								09/29/08 02:19
Sulfate	1280	mg/L	1.0		90	110	0.1	20	A
Sample ID: B08092190-016AMS	Sample Matrix Spike								09/29/08 04:50
Sulfate	468	mg/L	1.0	107	90	110			
Sample ID: B08092190-016AMSD	Sample Matrix Spike Duplicate								09/29/08 05:02
Sulfate	469	mg/L	1.0	108	90	110	0.2	20	
Sample ID: B08091900-005AMS	Sample Matrix Spike								09/29/08 21:30
Sulfate	2030	mg/L	1.0	105	90	110			
Sample ID: B08091900-005AMSD	Sample Matrix Spike Duplicate								09/29/08 21:41
Sulfate	2030	mg/L	1.0	105	90	110	0.1	20	

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

ND - Not detected at the reporting limit.

Energy Laboratories Inc

Workorder Receipt Checklist



B08092190

Pioneer Technical Services

Login completed by: Darwin c. Miller

Date and Time Received: 9/23/2008 8:45 AM

Reviewed by: Denise Ruby

Received by: dcm

Reviewed Date: 9/24/2008 9:05:00 AM

Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

Page 1 of 3

PLEASE PRINT- Provide as much information as possible.

Company Name: Pioneer Technical Services			Project Name, PWS, Permit, Etc. McLaren Tailings Site			Sample Origin State: Montana		EPA/State Compliance: Yes ☐ No ☐				
Report Mail Address: 63 1/2 W. Broadway Butte, MT 59701			Contact Name: Joe McElroy		Phone/Fax: 406-782-5177		Email: jmcclroy@pioneer-technical.com		Sampler: (Please Print) Julie Flammang			
Invoice Address: Same As Above			Invoice Contact & Phone: Ammanda Booth 406-782-5177			Purchase Order:		Quote/Bottle Order: 29264				
Special Report/Formats – ELI must be notified prior to sample submittal for the following: ☐ DW ☐ A2LA ☐ GSA ☐ EDD/EDT (Electronic Data) ☐ POTW/WWTP ☐ Format: _____ ☐ State: _____ ☐ LEVEL IV ☐ Other: _____ ☐ NELAC			ANALYSIS REQUESTED						R U S H Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page Comments: Om* - Al, Sb, As Ba, Cd, Cr, Cu, Fe Pb, Mn, Hg, Ni Ag, Zn		Shipped by: UPS	
			SEE ATTACHED Normal Turnaround (TAT)								Cooler ID(s):	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	MATRIX	Om*	Hardness, Alkalinity, F _{org}	Sulfates, SC	PH	TDS, TSS	Receipt Temp 2 °C	On Ice: ☒ Yes ☐ No
1 McLaren-PZ-015-091908			9/19/08	1245	3 W	✓	✓	✓	✓	✓	LABORATORY USE ONLY	Custody Seal ☒ N ☐ C
2 McLaren-PZ-010-091908			9/19/08	1000	3 W	✓	✓	✓	✓	✓		Intact ☒ N ☐ C
3 McLaren-PZ-025-091808			9/18/08	1540	3 W	✓	✓	✓	✓	✓		Signature Match ☒ N ☐ C
4 McLaren-PZ-020-091808			9/18/08	1500	3 W	✓	✓	✓	✓	✓		
5 McLaren-PZ-030-091808			9/18/08	1237	3 W	✓	✓	✓	✓	✓		
6 McLaren-PZ-045-091808			9/18/08	1845	3 W	✓	✓	✓	✓	✓		
7												
8												
9												
10												
Custody Record MUST be Signed	Relinquished by (print): Julie Flammang		Date/Time: 9/22/08		Signature: Julie Flammang		Received by (print):		Date/Time:		Signature:	
	Relinquished by (print):		Date/Time:		Signature:		Received by (print):		Date/Time:		Signature:	
	Sample Disposal: Return to Client: _____		Lab Disposal: _____		Received by Laboratory:		Date/Time: 9-23-08 8:45am		Signature: Dan M			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



Chain of Custody and Analytical Request Record

Page 2 of 3

PLEASE PRINT- Provide as much information as possible.

Company Name: Pioneer Technical Services			Project Name, PWS, Permit, Etc. McLaren Tailings Site			Sample Origin State: Montana		EPA/State Compliance: Yes ☐ No ☐								
Report Mail Address: 63 1/2 W. Broadway Butte, MT 59701			Contact Name: Joe McElroy 406-782-5177		Phone/Fax: 406-782-5177		Email: jmcclroy@pioneer-technical.com		Sampler: (Please Print) Julie Flammang							
Invoice Address: Same As Above			Invoice Contact & Phone: Amanda Booth 406-782-5177			Purchase Order:		Quote/Bottle Order: 29264								
Special Report/Formats – ELI must be notified prior to sample submittal for the following: ☐ DW ☐ GSA ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____ ☐ A2LA ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC			ANALYSIS REQUESTED						R U S H Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page Comments: *-Sb, As, Ba, Cd, Cr Cu, Fe, Pb, Mn, Hg Ni, Ag, Zn ***-Al, Sb, As, Ba Cd, Cr, Cu, Fe, Pb Mn, Hg, Ni, Ag, Zn		Shipped by: UPS					
			SEE ATTACHED Normal Turnaround (TAT)								Receipt Temp 2 °C					
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	MATRIX	TRM*	DM*	DM-AL, Fe, Cu	Hardness, Alkalinity, F	SC, Sulfates	pH	TDS, TSS	On Ice: ☒ Yes ☐ No		Custody Seal Intact ☒ N ☐ C Signature Match ☒ N ☐ C	
1 McLaren-SW-01-S61-091908			9/19/08	845	4 W	✓		✓	✓	✓	✓	✓	BOS092190-007		LABORATORY USE ONLY	
2 McLaren-SW-02 Miller-091908			9/19/08	900	4 W	✓		✓	✓	✓	✓	✓	-008			
3 McLaren-SW-03-SBC-04-091908			9/19/08	930	4 W	✓		✓	✓	✓	✓	✓	-009			
4 McLaren-PZ-08-091908			9/19/08	1150	4 W	✓	✓	✓	✓	✓	✓	✓	-010			
5 McLaren-PZ-09-091908			9/19/08	1230	4 W	✓	✓	✓	✓	✓	✓	✓	-011			
6																
7																
8																
9																
10																
Custody Record MUST be Signed		Relinquished by (print): Julie Flammang		Date/Time: 9/22/08 1400		Signature: Julie Flammang		Received by (print):		Date/Time:		Signature:				
		Relinquished by (print):		Date/Time:		Signature:		Received by (print):		Date/Time:		Signature:				
		Sample Disposal:		Return to Client:		Lab Disposal:		Received by Laboratory:		Date/Time: 9-23-08 8:45am		Signature: Danielle				

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



Chain of Custody and Analytical Request Record

Page 3 of 3

PLEASE PRINT- Provide as much information as possible.

Company Name: Pioneer Technical Services			Project Name, PWS, Permit, Etc. McLaren Tailings			Sample Origin State: Montana		EPA/State Compliance: Yes ☐ No ☐												
Report Mail Address: 63 1/2 W. Broadway Butte, MT 59701			Contact Name: Joe McElroy		Phone/Fax: 406-782-5177		Email: jmcclroy@pioneer-technical.com		Sampler: (Please Print) Julie Flammang											
Invoice Address: Same As Above			Invoice Contact & Phone:			Purchase Order:		Quote/Bottle Order: 29264												
Special Report/Formats – ELI must be notified prior to sample submittal for the following: ☐ DW ☐ A2LA ☐ GSA ☐ EDD/EDT (Electronic Data) ☐ POTW/WWTP ☐ Format: ☐ State: ☐ LEVEL IV ☐ Other: ☐ NELAC			Number of Containers Sample Type: A W S V B O Air Water Solids/Solids Vegetation Bioassay Other	ANALYSIS REQUESTED								R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page		Shipped by: UPS					
				SEE ATTACHED Normal Turnaround (TAT)									Comments:		Receipt Temp 2 °C		On Ice: ☒ Yes ☐ No			
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)			Collection Date	Collection Time	MATRIX	Dm*	Hardness	Alkalinity	Form	Sulfate	SC	PH	TDS	TSS	Custody Seal ☒ Y ☐ N		Intact ☒ Y ☐ N		Signature Match ☒ Y ☐ N	
1 McLaren-PZ-040-091808			9/18/08	1824	3 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	B08092190-012					
2 McLaren-PZ-055-091808			9/18/08	1715	3 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	-013					
3 McLaren-PZ-05D-091808			9/18/08	1648	3 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	-014					
4 McLaren-PZ-05D-T-091808			9/18/08	1705	3 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	-015					
5 McLaren-PZ-06D-091908			9/19/08	930	3 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	-016					
6 McLaren-PZ-070-091908			9/19/08	1110	3 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	-017					
7																				
8																				
9																				
10																				
Custody Record MUST be Signed			Relinquished by (print): Julie Flammang		Date/Time: 9/22/08 1400		Signature: Julie Flammang		Received by (print):		Date/Time:		Signature:							
			Relinquished by (print):		Date/Time:		Signature:		Received by (print):		Date/Time:		Signature:							
			Sample Disposal: Return to Client:		Lab Disposal:		Received by Laboratory:		Date/Time: 9-23-08 8:45 am		Signature: Daniel									

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**LIME SAMPLE
LAB DATA SHEETS**



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-017
Client Sample ID: Graymount Quicklime

Report Date: 02/27/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CHEMICAL CHARACTERISTICS							
Calcium Oxide	89.6	%		0.06		USDA23c	02/03/09 00:00 / wj

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

PRELIMINARY



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-018
Client Sample ID: Graymount Lime Kiln Dust

Report Date: 02/27/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CHEMICAL CHARACTERISTICS							
Calcium Oxide	46.8	%		0.06		USDA23c	02/03/09 00:00 / wj

**Report
Definitions:**

RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

PRELIMINARY



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-019
Client Sample ID: WLP Quicklime

Report Date: 02/27/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CHEMICAL CHARACTERISTICS							
Calcium Oxide	98.3	%		0.06		USDA23c	02/03/09 00:00 / wj

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

PRELIMINARY



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-020
Client Sample ID: PLS Lime Kiln Dust

Report Date: 02/27/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CHEMICAL CHARACTERISTICS							
Calcium Oxide	49.4	%		0.06		USDA23c	02/03/09 00:00 / wj

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

PRELIMINARY



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: MT DEQ
Project: McLaren Tailings Site
Lab ID: H09010213-021
Client Sample ID: PLS Pulverized Lime Kiln Product

Report Date: 02/27/09
Collection Date: 01/29/09 17:00
Date Received: 01/30/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
CHEMICAL CHARACTERISTICS							
Calcium Oxide	88.4	%		0.06		USDA23c	02/03/09 00:00 / wj

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

PRELIMINARY