



LABORATORY ANALYTICAL REPORT

Client: AMPP
 Project: Tongue River Monitoring
 Lab ID: H03100135-037
 Client Sample ID: T2/BHA-1-(0-8)

Report Date: 02/03/04
 Collection Date: 10/22/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.5	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	1.21	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	47.0	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	3.2	meq/l		0.1		SW6010B	11/17/03 12:54 / jdh
Magnesium, Saturated Paste	1.3	meq/l		0.1		SW6010B	11/17/03 12:54 / jdh
Sodium, Saturated Paste	4.5	meq/l		0.1		SW6010B	11/17/03 12:54 / jdh
Sodium Adsorption Ratio (SAR)	3.0	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	6.0	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	11.2	mg/L		0.2		ASA10-3	12/08/03 16:38 / cwh
Sulfate, Saturated Paste	3.6	meq/L		0.2		ASA10-3	11/18/03 01:50 / jdh
PHYSICAL CHARACTERISTICS							
Sand	10	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	43	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	47	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Potassium, NH4OAc Extractable	332	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
Organic Matter	1.80	wt%		0.02		ASA29-3	12/09/03 08:48 / jdh
Cation Exchange Capacity	44.5	meq/100g		0.1		SW6010B	11/17/03 02:38 / jdh
Exchangeable Sodium Percentage	2.9	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	2.4	wt%		0.1		USDA23c	11/13/03 00:00 / nh
Phosphorus	92	mg/kg		0.1		ASA24-5	11/18/03 09:27 / jdh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.5	meq/100g		0.1		SW6010B	11/24/03 05:12 / jdh
METALS, DTPA EXTRACTABLE							
Zinc	1.69	mg/kg		0.02		SW6010B	11/25/03 12:52 / jdh
CLAY MINEROLOGY							
Smectite	10	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	66	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	20	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	5	%		1		XrayDiffraction	11/07/03 00:00 / wjj

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-038
Client Sample ID: T2/BHA-1-(8-15)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.5	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	0.80	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	47.6	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	2.6	meq/l		0.1		SW6010B	11/17/03 12:57 / jdh
Magnesium, Saturated Paste	1.0	meq/l		0.1		SW6010B	11/17/03 12:57 / jdh
Sodium, Saturated Paste	2.8	meq/l		0.1		SW6010B	11/17/03 12:57 / jdh
Sodium Adsorption Ratio (SAR)	2.1	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	3.3	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	3.3	mg/L		0.1		ASA10-3	12/08/03 16:40 / cwh
Sulfate, Saturated Paste	3.7	meq/L		0.2		ASA10-3	11/18/03 01:53 / jdh
PHYSICAL CHARACTERISTICS							
Sand	11	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	42	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	47	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	33.3	meq/100g		0.1		SW6010B	11/17/03 02:41 / jdh
Exchangeable Sodium Percentage	2.7	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	2.6	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.0	meq/100g		0.1		SW6010B	11/24/03 05:15 / jdh

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: AMPP
 Project: Tongue River Monitoring
 Lab ID: H03100135-039
 Client Sample ID: T2/BHA-1-(15-30)

Report Date: 02/03/04
 Collection Date: 10/22/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.7	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	1.05	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	43.0	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	3.3	meq/l		0.1		SW6010B	11/17/03 01:05 / jdh
Magnesium, Saturated Paste	1.7	meq/l		0.1		SW6010B	11/17/03 01:05 / jdh
Sodium, Saturated Paste	3.1	meq/l		0.1		SW6010B	11/17/03 01:05 / jdh
Sodium Adsorption Ratio (SAR)	1.9	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	3.0	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	13.8	mg/L		0.6		ASA10-3	12/08/03 16:42 / cwh
Sulfate, Saturated Paste	5.7	meq/L		0.2		ASA10-3	11/18/03 01:56 / jdh
PHYSICAL CHARACTERISTICS							
Sand	9.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	43	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	48	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	33.1	meq/100g		0.1		SW6010B	11/17/03 02:43 / jdh
Exchangeable Sodium Percentage	3.4	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	6.3	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.3	meq/100g		0.1		SW6010B	11/24/03 05:17 / jdh
CLAY MINEROLOGY							
Smectite	9	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	49	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	27	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	15	%		1		XrayDiffraction	11/07/03 00:00 / wjj

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

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 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-040
Client Sample ID: T2/BHA-1-(30-60)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.7	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	1.24	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	34.7	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	3.4	meq/l		0.1		SW6010B	11/17/03 01:07 / jdh
Magnesium, Saturated Paste	2.2	meq/l		0.1		SW6010B	11/17/03 01:07 / jdh
Sodium, Saturated Paste	4.3	meq/l		0.1		SW6010B	11/17/03 01:07 / jdh
Sodium Adsorption Ratio (SAR)	2.6	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	2.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	20	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	55	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	25	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	24.5	meq/100g		0.1		SW6010B	11/17/03 02:46 / jdh
Exchangeable Sodium Percentage	3.0	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	4.1	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	0.9	meq/100g		0.1		SW6010B	11/24/03 05:20 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-041
Client Sample ID: T2/BHA-10-(0-2)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.3	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	3.14	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	43.9	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	8.2	meq/l		0.1		SW6010B	11/17/03 01:10 / jdh
Magnesium, Saturated Paste	4.7	meq/l		0.1		SW6010B	11/17/03 01:10 / jdh
Sodium, Saturated Paste	13.6	meq/l		0.1		SW6010B	11/17/03 01:10 / jdh
Sodium Adsorption Ratio (SAR)	5.4	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	14.7	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	9.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	45	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	46	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	40.4	meq/100g		0.1		SW6010B	11/17/03 02:51 / jdh
Exchangeable Sodium Percentage	6.1	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	4.1	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	3.1	meq/100g		0.1		SW6010B	11/24/03 05:25 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-042
Client Sample ID: T2/BHA-10-(0-6)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.5	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	2.07	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	56.0	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	7.2	meq/l		0.1		SW6010B	11/17/03 01:13 / jdh
Magnesium, Saturated Paste	3.5	meq/l		0.1		SW6010B	11/17/03 01:13 / jdh
Sodium, Saturated Paste	7.3	meq/l		0.1		SW6010B	11/17/03 01:13 / jdh
Sodium Adsorption Ratio (SAR)	3.2	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	7.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	ND	mg/L		0.1		ASA10-3	12/08/03 16:44 / cwh
Sulfate, Saturated Paste	9.2	meq/L		0.2		ASA10-3	11/18/03 01:59 / jdh
PHYSICAL CHARACTERISTICS							
Sand	10	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	44	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	46	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Fluoride	ND	mg/kg		1.0		A4500-F C	11/19/03 14:45 / ddb
Potassium, NH4OAc Extractable	401	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
Organic Matter	2.00	wt%		0.02		ASA29-3	12/09/03 08:48 / jdh
Cation Exchange Capacity	31.9	meq/100g		0.1		SW6010B	11/17/03 02:54 / jdh
Exchangeable Sodium Percentage	4.2	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	3.1	wt%		0.1		USDA23c	11/13/03 00:00 / nh
Phosphorus	34	mg/kg		0.1		ASA24-5	11/18/03 09:30 / jdh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.7	meq/100g		0.1		SW6010B	11/24/03 05:28 / jdh
METALS, HOT WATER EXTRACTABLE							
Barium	ND	mg/kg		5		SW6010B	11/24/03 16:35 / rh
Boron	ND	mg/kg		1		SW6010B	11/24/03 16:35 / rh
Selenium	ND	mg/kg		0.05		SW6020	11/20/03 11:28 / car
METALS, DTPA EXTRACTABLE							
Zinc	1.05	mg/kg		0.02		SW6010B	11/25/03 12:55 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-043
Client Sample ID: T2/BHA-10-(6-12)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.6	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	1.57	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	54.0	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	4.8	meq/l		0.1		SW6010B	11/17/03 01:15 / jdh
Magnesium, Saturated Paste	4.0	meq/l		0.1		SW6010B	11/17/03 01:15 / jdh
Sodium, Saturated Paste	5.6	meq/l		0.1		SW6010B	11/17/03 01:15 / jdh
Sodium Adsorption Ratio (SAR)	2.7	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	5.0	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	2.2	mg/L		0.1		ASA10-3	12/08/03 16:46 / cwh
Sulfate, Saturated Paste	10.5	meq/L		0.2		ASA10-3	11/18/03 02:02 / jdh
PHYSICAL CHARACTERISTICS							
Sand	4.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	50	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	46	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	36.9	meq/100g		0.1		SW6010B	11/17/03 02:56 / jdh
Exchangeable Sodium Percentage	2.7	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	3.1	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.3	meq/100g		0.1		SW6010B	11/24/03 05:30 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-044
Client Sample ID: T2/BHA-10-(12-24)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.7	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	1.14	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	56.1	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	3.0	meq/l		0.1		SW6010B	11/17/03 01:18 / jdh
Magnesium, Saturated Paste	1.8	meq/l		0.1		SW6010B	11/17/03 01:18 / jdh
Sodium, Saturated Paste	4.2	meq/l		0.1		SW6010B	11/17/03 01:18 / jdh
Sodium Adsorption Ratio (SAR)	2.7	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	3.3	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	2.9	mg/L		0.2		ASA10-3	12/08/03 16:48 / cwh
Sulfate, Saturated Paste	6.2	meq/L		0.2		ASA10-3	11/18/03 02:05 / jdh
PHYSICAL CHARACTERISTICS							
Sand	3.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	45	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	52	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	37.0	meq/100g		0.1		SW6010B	11/17/03 03:04 / jdh
Exchangeable Sodium Percentage	2.7	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	7.6	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.2	meq/100g		0.1		SW6010B	11/24/03 05:33 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-045
Client Sample ID: T2/BHA-10-(24-36)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.5	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	3.60	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	50.8	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	23.1	meq/l		0.1		SW6010B	11/17/03 01:21 / jdh
Magnesium, Saturated Paste	11.6	meq/l		0.1		SW6010B	11/17/03 01:21 / jdh
Sodium, Saturated Paste	8.3	meq/l		0.1		SW6010B	11/17/03 01:21 / jdh
Sodium Adsorption Ratio (SAR)	2.0	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	3.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	7.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	47	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	46	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiC	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	40.4	meq/100g		0.1		SW6010B	11/17/03 03:07 / jdh
Cation Exchange Capacity	40.4	meq/100g		0.1		SW6010B	12/07/03 06:29 / jdh
Exchangeable Sodium Percentage	2.7	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	5.6	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.5	meq/100g		0.1		SW6010B	11/24/03 05:35 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-046
Client Sample ID: T2/BHA-10-(36-60)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.5	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	3.80	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	50.8	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	25.5	meq/l		0.1		SW6010B	11/17/03 01:23 / jdh
Magnesium, Saturated Paste	11.7	meq/l		0.1		SW6010B	11/17/03 01:23 / jdh
Sodium, Saturated Paste	9.2	meq/l		0.1		SW6010B	11/17/03 01:23 / jdh
Sodium Adsorption Ratio (SAR)	2.1	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	2.8	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	22	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	48	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	30	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	CL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Fluoride	1.0	mg/kg		1.0		A4500-F C	11/19/03 14:45 / ddb
Cation Exchange Capacity	29.3	meq/100g		0.1		SW6010B	11/17/03 03:10 / jdh
Exchangeable Sodium Percentage	3.4	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	4.8	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.5	meq/100g		0.1		SW6010B	11/24/03 05:38 / jdh
METALS, HOT WATER EXTRACTABLE							
Barium	ND	mg/kg		5		SW6010B	11/24/03 16:39 / rh
Boron	ND	mg/kg		1		SW6010B	11/24/03 16:39 / rh
Selenium	ND	mg/kg		0.05		SW6020	11/20/03 11:33 / car

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100135-047
Client Sample ID: T2/BHA-10-(60-96)

Report Date: 02/03/04
Collection Date: 10/22/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.5	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
Conductivity, Paste Extract	3.50	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Saturation	44.7	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Calcium, Saturated Paste	22.3	meq/l		0.1		SW6010B	11/17/03 01:26 / jdh
Magnesium, Saturated Paste	12.3	meq/l		0.1		SW6010B	11/17/03 01:26 / jdh
Sodium, Saturated Paste	8.0	meq/l		0.1		SW6010B	11/17/03 01:26 / jdh
Sodium Adsorption Ratio (SAR)	1.9	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alkalinity, Saturated Paste	2.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	31	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	38	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	31	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	CL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	29.8	meq/100g		0.1		SW6010B	11/17/03 03:12 / jdh
Exchangeable Sodium Percentage	3.8	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	3.8	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.5	meq/100g		0.1		SW6010B	11/24/03 05:46 / jdh

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

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