



LABORATORY ANALYTICAL REPORT

Client: AMPP
 Project: Tongue River Monitoring Set 1
 Lab ID: H03100036-001
 Client Sample ID: T2/LA-01, (0-6)

Report Date: 01/20/04
 Collection Date: 10/02/03 12:30
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.4	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	0.93	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	57.3	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	4.9	meq/l		0.1		SW6010B	10/23/03 07:09 / rp
Mg-SatPst	2.6	meq/l		0.1		SW6010B	10/23/03 07:09 / rp
Na-SatPst	2.5	meq/l		0.1		SW6010B	10/23/03 07:09 / rp
SAR	1.3	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	5.9	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	0.9	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	3.0	meq/L		0.1		ASA10-3	10/24/03 01:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	19	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	52	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	29	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	SiCL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
K-EXT	365	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
OM-WB	3.90	wt%		0.02		ASA29-3	11/06/03 20:17 / jdh
CEC	46.1	meq/100g		0.1		SW6010B	10/24/03 10:41 / rp
ESP	1.3	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	8.5	wt%		0.1		USDA23c	10/27/03 00:00 / nh
P-Olsen	19	mg/kg		0.1		ASA24-5	11/04/03 02:21 / rp
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.8	meq/100g		0.1		SW6010B	10/24/03 07:52 / rp
METALS, DTPA EXTRACTABLE							
Zn-DTPA	1.00	mg/kg		0.02		SW6010B	10/31/03 01:34 / rp
CLAY MINEROLOGY							
Smectite	20	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	32	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	45	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	4	%		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 Set 1
 Lab ID: H03100036-002
 Client Sample ID: T2/LA-01 (6-18)

Report Date: 01/20/04
 Collection Date: 10/02/03 12:30
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.5	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	0.79	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	53.2	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	3.7	meq/l		0.1		SW6010B	10/23/03 07:12 / rp
Mg-SatPst	1.7	meq/l		0.1		SW6010B	10/23/03 07:12 / rp
Na-SatPst	2.7	meq/l		0.1		SW6010B	10/23/03 07:12 / rp
SAR	1.7	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	4.3	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	1.0	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	2.8	meq/L		0.1		ASA10-3	10/24/03 01:03 / rp
PHYSICAL CHARACTERISTICS							
Sand	27	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	41	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	32	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	CL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	49.0	meq/100g		0.1		SW6010B	10/24/03 10:44 / rp
ESP	1.2	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	8.3	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.8	meq/100g		0.1		SW6010B	10/24/03 07:54 / rp

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 Set 1
 Lab ID: H03100036-003
 Client Sample ID: T2/LA-01 (18-24)

Report Date: 01/20/04
 Collection Date: 10/02/03 12:30
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.8	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	1.02	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	55.0	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	3.7	meq/l		0.1		SW6010B	10/23/03 07:15 / rp
Mg-SatPst	2.5	meq/l		0.1		SW6010B	10/23/03 07:15 / rp
Na-SatPst	3.1	meq/l		0.1		SW6010B	10/23/03 07:15 / rp
SAR	1.8	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	3.4	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	1.4	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	5.5	meq/L		0.1		ASA10-3	10/24/03 01:06 / rp
PHYSICAL CHARACTERISTICS							
Sand	7.0	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	52	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	41	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	SiC	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	42.9	meq/100g		0.1		SW6010B	10/24/03 10:46 / rp
ESP	1.8	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	6.5	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.9	meq/100g		0.1		SW6010B	10/24/03 07:57 / rp
CLAY MINEROLOGY							
Smectite	23	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	39	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	35	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	2	%		1		XrayDiffraction	11/07/03 00:00 / wjj

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

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LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring Set 1
Lab ID: H03100036-004
Client Sample ID: T2/LA-01 (24-28)

Report Date: 01/20/04
Collection Date: 10/02/03 12:30
Date Received: 10/07/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.9	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	1.07	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	48.2	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	3.6	meq/l		0.1		SW6010B	10/23/03 07:17 / rp
Mg-SatPst	3.9	meq/l		0.1		SW6010B	10/23/03 07:17 / rp
Na-SatPst	2.7	meq/l		0.1		SW6010B	10/23/03 07:17 / rp
SAR	1.4	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	3.0	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	27	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	45	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	28	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	CL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	39.5	meq/100g		0.1		SW6010B	10/24/03 10:49 / rp
ESP	1.2	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	7.5	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.6	meq/100g		0.1		SW6010B	10/24/03 08:00 / rp

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 Set 1
 Lab ID: H03100036-005
 Client Sample ID: T2/LA-01 (28-42)

Report Date: 01/20/04
 Collection Date: 10/02/03 12:30
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	8.0	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	1.11	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	70.6	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	3.0	meq/l		0.1		SW6010B	10/23/03 07:20 / rp
Mg-SatPst	5.0	meq/l		0.1		SW6010B	10/23/03 07:20 / rp
Na-SatPst	3.1	meq/l		0.1		SW6010B	10/23/03 07:20 / rp
SAR	1.6	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	2.9	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	< 1.0	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	50	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	50	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	SiC	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	44.2	meq/100g		0.1		SW6010B	10/24/03 10:52 / rp
ESP	2.0	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	6.5	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	1.1	meq/100g		0.1		SW6010B	10/24/03 08:02 / rp

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 Set 1
Lab ID: H03100036-006
Client Sample ID: T2/LA-01 (42-60)

Report Date: 01/20/04
Collection Date: 10/02/03 12:30
Date Received: 10/07/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	8.0	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	0.95	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	37.0	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	2.3	meq/l		0.1		SW6010B	10/23/03 07:22 / rp
Mg-SatPst	3.8	meq/l		0.1		SW6010B	10/23/03 07:22 / rp
Na-SatPst	3.3	meq/l		0.1		SW6010B	10/23/03 07:22 / rp
SAR	1.9	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	3.0	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	49	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	38	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	13	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	L	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	20.0	meq/100g		0.1		SW6010B	10/24/03 10:54 / rp
ESP	2.7	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	12.9	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.7	meq/100g		0.1		SW6010B	10/24/03 08:05 / rp

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 Set 1
 Lab ID: H03100036-013
 Client Sample ID: T2/LA-10, (0-6)

Report Date: 01/20/04
 Collection Date: 10/02/03 15:00
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.4	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	2.76	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	51.5	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	14.4	meq/l		0.1		SW6010B	10/23/03 07:25 / rp
Mg-SatPst	8.9	meq/l		0.1		SW6010B	10/23/03 07:25 / rp
Na-SatPst	12.5	meq/l		0.1		SW6010B	10/23/03 07:25 / rp
SAR	3.7	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	5.2	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	0.7	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	29.9	meq/L		0.1		ASA10-3	10/24/03 01:09 / rp
PHYSICAL CHARACTERISTICS							
Sand	25	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	48	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	27	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	CL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
F	1.5	mg/kg		1.0		A4500-F C	10/31/03 11:30 / ddb
K-EXT	304	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
OM-WB	3.20	wt%		0.02		ASA29-3	11/06/03 20:17 / jdh
CEC	39.7	meq/100g		0.1		SW6010B	10/24/03 10:57 / rp
ESP	3.1	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	7.1	wt%		0.1		USDA23c	10/27/03 00:00 / nh
P-Olsen	21	mg/kg		0.1		ASA24-5	11/04/03 02:24 / rp
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	1.9	meq/100g		0.1		SW6010B	10/24/03 08:07 / rp
METALS, HOT WATER EXTRACTABLE							
Ba-H2O	< 5	mg/kg		5		SW6020	10/31/03 14:15 / jjw
B-H2O	0.5	mg/kg		0.1		SW6020	10/31/03 14:15 / jjw
Se-H2O	< 0.01	mg/kg		0.01		SW6020	10/31/03 14:15 / jjw
METALS, DTPA EXTRACTABLE							
Zn-DTPA	1.07	mg/kg		0.02		SW6010B	10/31/03 01:37 / rp

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 Set 1
 Lab ID: H03100036-014
 Client Sample ID: T2/LA-10, (6-12)

Report Date: 01/20/04
 Collection Date: 10/02/03 15:00
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.7	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	3.56	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	47.5	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	15.7	meq/l		0.1		SW6010B	10/23/03 07:28 / rp
Mg-SatPst	9.8	meq/l		0.1		SW6010B	10/23/03 07:28 / rp
Na-SatPst	20.1	meq/l		0.1		SW6010B	10/23/03 07:28 / rp
SAR	5.6	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	3.6	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	0.7	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	41.6	meq/L		0.1		ASA10-3	10/24/03 01:12 / rp
PHYSICAL CHARACTERISTICS							
Sand	27	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	47	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	26	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	L	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	39.7	meq/100g		0.1		SW6010B	10/24/03 10:59 / rp
ESP	3.5	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	7.7	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.3	meq/100g		0.1		SW6010B	10/24/03 08:10 / rp

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 Set 1
 Lab ID: H03100036-015
 Client Sample ID: T2/LA-10, (12-24)

Report Date: 01/20/04
 Collection Date: 10/02/03 15:00
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.8	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	4.33	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	47.4	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	21.7	meq/l		0.1		SW6010B	10/23/03 07:30 / rp
Mg-SatPst	18.8	meq/l		0.1		SW6010B	10/23/03 07:30 / rp
Na-SatPst	22.1	meq/l		0.1		SW6010B	10/23/03 07:30 / rp
SAR	4.9	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	2.9	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	0.3	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	58.8	meq/L		0.1		ASA10-3	10/24/03 01:15 / rp
PHYSICAL CHARACTERISTICS							
Sand	23	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	50	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	27	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	CL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	36.2	meq/100g		0.1		SW6010B	10/24/03 11:02 / rp
ESP	3.6	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	8.2	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.3	meq/100g		0.1		SW6010B	10/24/03 08:13 / rp

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 Set 1
 Lab ID: H03100036-016
 Client Sample ID: T2/LA-10, (24-36)

Report Date: 01/20/04
 Collection Date: 10/02/03 15:00
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.9	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	4.48	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	41.6	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	19.8	meq/l		0.1		SW6010B	10/23/03 07:33 / rp
Mg-SatPst	22.6	meq/l		0.1		SW6010B	10/23/03 07:33 / rp
Na-SatPst	20.8	meq/l		0.1		SW6010B	10/23/03 07:33 / rp
SAR	4.5	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	2.5	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	38	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	42	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	20	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	L	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	30.5	meq/100g		0.1		SW6010B	10/24/03 11:05 / rp
ESP	3.7	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	7.4	wt%		0.1		USDA23c	10/27/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.0	meq/100g		0.1		SW6010B	10/24/03 08:15 / rp

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 Set 1
 Lab ID: H03100036-017
 Client Sample ID: T2/LA-10, (36-60)

Report Date: 01/20/04
 Collection Date: 10/02/03 15:00
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	8.0	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	3.78	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	36.3	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	10.2	meq/l		0.1		SW6010B	10/23/03 07:35 / rp
Mg-SatPst	16.1	meq/l		0.1		SW6010B	10/23/03 07:35 / rp
Na-SatPst	23.8	meq/l		0.1		SW6010B	10/23/03 07:35 / rp
SAR	6.6	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	2.7	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	53	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	33	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	14	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	SL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
F	1.6	mg/kg		1.0		A4500-F C	10/31/03 11:30 / ddb
CEC	27.5	meq/100g		0.1		SW6010B	10/24/03 11:07 / rp
ESP	5.1	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	8.7	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.3	meq/100g		0.1		SW6010B	10/24/03 08:18 / rp
METALS, HOT WATER EXTRACTABLE							
Ba-H2O	< 5	mg/kg		5		SW6020	10/31/03 14:33 / jjw
B-H2O	0.5	mg/kg		0.1		SW6020	10/31/03 14:33 / jjw
Se-H2O	0.02	mg/kg		0.01		SW6020	10/31/03 14:33 / jjw

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 Set 1
Lab ID: H03100036-018
Client Sample ID: T2/LA-10, (60-96)

Report Date: 01/20/04
Collection Date: 10/02/03 15:00
Date Received: 10/07/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.8	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	4.20	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	31.4	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	11.5	meq/l		0.1		SW6010B	10/23/03 07:38 / rp
Mg-SatPst	18.5	meq/l		0.1		SW6010B	10/23/03 07:38 / rp
Na-SatPst	25.4	meq/l		0.1		SW6010B	10/23/03 07:38 / rp
SAR	6.6	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	2.6	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	62	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	28	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	10	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	SL	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
CEC	23.1	meq/100g		0.1		SW6010B	10/24/03 11:10 / rp
ESP	5.2	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	8.5	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.0	meq/100g		0.1		SW6010B	10/24/03 08:20 / rp

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 Set 1
 Lab ID: H03100036-019
 Client Sample ID: T2/LA-10, (0-2)

Report Date: 01/20/04
 Collection Date: 10/02/03 15:00
 Date Received: 10/07/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.3	s.u.		0.1		ASAM10-3.2	11/06/03 20:17 / jdh
COND	1.62	mmhos/cm		0.01		ASAM10-3	11/06/03 20:17 / jdh
Percent Sat	54.1	wt%		0.1		USDA27a	11/06/03 20:17 / jdh
Ca-SatPst	8.2	meq/l		0.1		SW6010B	10/23/03 07:41 / rp
Mg-SatPst	5.4	meq/l		0.1		SW6010B	10/23/03 07:41 / rp
Na-SatPst	4.0	meq/l		0.1		SW6010B	10/23/03 07:41 / rp
SAR	1.5	unitless		0.1		Calculation	11/06/03 20:17 / jdh
Alk-SatPst	8.2	meq/L		1.0		ASA10-3	10/22/03 00:00 / rp
Nitrate as N, Saturated Paste	0.6	mg/L		0.1		ASA10-3	10/23/03 12:00 / cwh
SO4-SatPst	8.2	meq/L		0.1		ASA10-3	10/24/03 01:17 / rp
PHYSICAL CHARACTERISTICS							
Sand	29	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Silt	49	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Clay	22	wt%		1.0		ASA15-5	11/06/03 20:17 / jdh
Texture	L	unitless				ASA15-5	11/06/03 20:17 / jdh
C=Clay, S=Sand(y), Si=Silt(y), L=Loam(y)							
CHEMICAL CHARACTERISTICS							
F	1.0	mg/kg		1.0		A4500-F C	10/31/03 11:30 / ddb
K-EXT	336	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
OM-WB	4.25	wt%		0.02		ASA29-3	10/27/03 00:00 / jdh
CEC	41.2	meq/100g		0.1		SW6010B	10/24/03 11:12 / rp
ESP	1.9	%		0.1		USDA20b	11/06/03 20:17 / jdh
Lime as CaCO3	6.7	wt%		0.1		USDA23c	10/27/03 00:00 / nh
P-Olsen	28	mg/kg		0.1		ASA24-5	11/04/03 02:27 / rp
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	1.0	meq/100g		0.1		SW6010B	10/24/03 08:23 / rp
METALS, HOT WATER EXTRACTABLE							
Ba-H2O	< 5	mg/kg		5		SW6020	10/31/03 14:37 / jjw
B-H2O	0.5	mg/kg		0.1		SW6020	10/31/03 14:37 / jjw
Se-H2O	< 0.01	mg/kg		0.01		SW6020	10/31/03 14:37 / jjw
METALS, DTPA EXTRACTABLE							
Zn-DTPA	1.29	mg/kg		0.02		SW6010B	10/31/03 01:40 / rp

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

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