



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-029  
**Client Sample ID:** T2/GC-10 (0-6") [0-6]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.5	s.u.		0.1		ASAM10-3.2	11/11/09 08:08 / rrr
Conductivity, sat. paste	0.61	mmhos/cm		0.01		ASA10-3	11/12/09 15:44 / sah
Saturation	63.5	%		0.1		USDA27a	11/11/09 08:11 / wj
Calcium, sat. paste	3.70	meq/l		0.05		SW6010B	12/01/09 14:14 / sld
Magnesium, sat. paste	2.26	meq/l		0.08		SW6010B	12/01/09 14:14 / sld
Sodium, sat. paste	0.89	meq/l		0.04		SW6010B	12/01/09 14:14 / sld
Sodium Adsorption Ratio (SAR)	0.52	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	5.05	meq/L		0.02		ASA10-3	12/08/09 13:14 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	18	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	47	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	35	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	SiCL	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Potassium, NH4OAc Extractable	192	mg/kg		1		ASA13-3	11/14/09 18:13 / sld
Cation Exchange Capacity	30.2	meq/100g		0.09		SW6010B	11/15/09 21:27 / sld
Organic Matter	3.49	%		0.02		ASA29-3	11/16/09 08:06 / rrr
Lime as CaCO3	8.2	%		0.1		USDA23c	11/16/09 00:00 / sah
Phosphorus	9.1	mg/kg		0.1		ASA24-5	11/24/09 16:01 / stp
Nitrate as N, KCL Extract	4.8	mg/kg		1.0		ASA38-3	11/17/09 16:23 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.32	meq/100g		0.0044		SW6010B	11/14/09 14:13 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	0.9	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Fluoride	0.41	mg/kg		0.10		E300.0	11/21/09 08:26 / hm
Sulfate, sat. paste	0.90	meq/L		0.021		E300.0	11/21/09 08:26 / hm
Chloride, sat. paste	0.38	meq/L		0.028		E300.0	11/21/09 08:26 / hm
<b>METALS, DTPA EXTRACTABLE</b>							
Zinc	1.08	mg/kg		0.02		SW6010B	12/17/09 18:09 / sld
<b>METALS, WATER SOLUBLE</b>							
Selenium	ND	mg/kg		0.04		E270.3	11/24/09 10:12 / eau

**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:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-029  
**Client Sample ID:** T2/GC-10 (0-6") [0-6]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

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Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, CACL2 EXTRACTABLE</b>							
Barium	1.2	mg/kg		0.20		SW6010B	12/04/09 12:03 / sld
Boron	0.22	mg/kg		0.20		SW6010B	12/04/09 12:03 / sld

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-030  
**Client Sample ID:** T2/GC-10 (6-12") [6-12]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.8	s.u.		0.1		ASAM10-3.2	11/11/09 08:09 / rrr
Conductivity, sat. paste	0.37	mmhos/cm		0.01		ASA10-3	11/12/09 15:44 / sah
Saturation	54.4	%		0.1		USDA27a	11/11/09 08:11 / wj
Calcium, sat. paste	2.20	meq/l		0.05		SW6010B	12/01/09 14:17 / sld
Magnesium, sat. paste	1.25	meq/l		0.08		SW6010B	12/01/09 14:17 / sld
Sodium, sat. paste	0.94	meq/l		0.04		SW6010B	12/01/09 14:17 / sld
Sodium Adsorption Ratio (SAR)	0.72	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	2.13	meq/L		0.02		ASA10-3	12/08/09 13:18 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	14	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	50	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	36	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	SiCL	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	24.7	meq/100g		0.09		SW6010B	11/15/09 21:29 / sld
Lime as CaCO3	8.6	%		0.1		USDA23c	11/16/09 00:00 / sah
Nitrate as N, KCL Extract	4.2	mg/kg		1.0		ASA38-3	11/17/09 16:25 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.32	meq/100g		0.0044		SW6010B	11/14/09 14:15 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	1.1	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Sulfate, sat. paste	1.4	meq/L		0.021		E300.0	11/21/09 08:43 / hm
Chloride, sat. paste	0.22	meq/L		0.028		E300.0	11/21/09 08:43 / hm

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-031  
**Client Sample ID:** T2/GC-10 (12-24") [12-24]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.9	s.u.		0.1		ASAM10-3.2	11/11/09 08:10 / rrr
Conductivity, sat. paste	0.43	mmhos/cm		0.01		ASA10-3	11/12/09 15:45 / sah
Saturation	47.7	%		0.1		USDA27a	11/11/09 08:11 / wj
Calcium, sat. paste	2.22	meq/l		0.05		SW6010B	12/01/09 14:25 / sld
Magnesium, sat. paste	1.44	meq/l		0.08		SW6010B	12/01/09 14:25 / sld
Sodium, sat. paste	1.30	meq/l		0.04		SW6010B	12/01/09 14:25 / sld
Sodium Adsorption Ratio (SAR)	0.96	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	2.49	meq/L		0.02		ASA10-3	12/08/09 13:28 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	16	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	53	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	31	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	SiCL	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	24.7	meq/100g		0.09		SW6010B	11/15/09 21:35 / sld
Lime as CaCO3	9.0	%		0.1		USDA23c	11/16/09 00:00 / sah
Nitrate as N, KCL Extract	3.3	mg/kg		1.0		ASA38-3	11/17/09 16:29 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.40	meq/100g		0.0044		SW6010B	11/14/09 14:20 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	1.4	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Sulfate, sat. paste	2.0	meq/L		0.021		E300.0	11/21/09 09:16 / hm
Chloride, sat. paste	0.13	meq/L		0.028		E300.0	11/21/09 09:16 / hm

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-032  
**Client Sample ID:** T2/GC-10 (24-36") [24-36]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	8.0	s.u.		0.1		ASAM10-3.2	11/11/09 08:10 / rrr
Conductivity, sat. paste	0.53	mmhos/cm		0.01		ASA10-3	11/12/09 15:46 / sah
Saturation	42.0	%		0.1		USDA27a	11/11/09 08:11 / wj
Calcium, sat. paste	2.59	meq/l		0.05		SW6010B	12/01/09 14:27 / sld
Magnesium, sat. paste	1.74	meq/l		0.08		SW6010B	12/01/09 14:27 / sld
Sodium, sat. paste	1.74	meq/l		0.04		SW6010B	12/01/09 14:27 / sld
Sodium Adsorption Ratio (SAR)	1.2	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	2.10	meq/L		0.02		ASA10-3	12/08/09 13:33 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	32	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	44	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	24	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	L	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	21.3	meq/100g		0.09		SW6010B	11/15/09 21:43 / sld
Lime as CaCO3	8.2	%		0.1		USDA23c	11/16/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.47	meq/100g		0.0044		SW6010B	11/14/09 14:23 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.4	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	1.9	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.13	meq/L		0.028		E300.0	11/21/09 09:32 / hm

**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:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-033  
**Client Sample ID:** T2/GC-10 (36-60") [36-60]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	8.0	s.u.		0.1		ASAM10-3.2	11/11/09 08:11 / rrr
Conductivity, sat. paste	0.58	mmhos/cm		0.01		ASA10-3	11/12/09 15:46 / sah
Saturation	34.2	%		0.1		USDA27a	11/11/09 08:11 / wj
Calcium, sat. paste	3.18	meq/l		0.05		SW6010B	12/01/09 14:35 / sld
Magnesium, sat. paste	2.08	meq/l		0.08		SW6010B	12/01/09 14:35 / sld
Sodium, sat. paste	1.82	meq/l		0.04		SW6010B	12/01/09 14:35 / sld
Sodium Adsorption Ratio (SAR)	1.1	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	1.52	meq/L		0.02		ASA10-3	12/08/09 13:38 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	42	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	38	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	20	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	L	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	16.1	meq/100g		0.09		SW6010B	11/15/09 21:46 / sld
Lime as CaCO3	7.5	%		0.1		USDA23c	11/16/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.35	meq/100g		0.0044		SW6010B	11/14/09 14:31 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	1.8	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Fluoride	0.64	mg/kg		0.10		E300.0	11/21/09 09:48 / hm
Chloride, sat. paste	0.21	meq/L		0.028		E300.0	11/21/09 09:48 / hm
<b>METALS, WATER SOLUBLE</b>							
Selenium	ND	mg/kg		0.04		E270.3	11/24/09 10:15 / eau
<b>METALS, CaCl2 EXTRACTABLE</b>							
Barium	0.46	mg/kg		0.20		SW6010B	12/04/09 12:06 / sld
Boron	ND	mg/kg		0.20		SW6010B	12/04/09 12:06 / sld

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-034  
**Client Sample ID:** T2/GC-10 (60-96") [60-96]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	8.0	s.u.		0.1		ASAM10-3.2	11/11/09 08:12 / rrr
Conductivity, sat. paste	0.58	mmhos/cm		0.01		ASA10-3	11/12/09 15:48 / sah
Saturation	23.5	%		0.1		USDA27a	11/11/09 08:11 / wj
Calcium, sat. paste	2.91	meq/l		0.05		SW6010B	12/01/09 14:38 / sld
Magnesium, sat. paste	2.14	meq/l		0.08		SW6010B	12/01/09 14:38 / sld
Sodium, sat. paste	1.43	meq/l		0.04		SW6010B	12/01/09 14:38 / sld
Sodium Adsorption Ratio (SAR)	0.90	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	1.55	meq/L		0.02		ASA10-3	12/08/09 13:43 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	70	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	20	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	10	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	SL	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	9.47	meq/100g		0.09		SW6010B	11/15/09 21:48 / sld
Lime as CaCO3	6.0	%		0.1		USDA23c	11/16/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.29	meq/100g		0.0044		SW6010B	11/14/09 14:33 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	2.7	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.25	meq/L		0.028		E300.0	11/21/09 10:05 / hm

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110004-035  
**Client Sample ID:** T2/GC-10 (0-2") [0-2]

**Report Date:** 12/18/09  
**Collection Date:** 10/27/09 17:00  
**Date Received:** 10/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.6	s.u.		0.1		ASAM10-3.2	11/11/09 08:12 / rrr
Conductivity, sat. paste	0.36	mmhos/cm		0.01		ASA10-3	11/12/09 15:49 / sah
Saturation	62.6	%		0.1		USDA27a	11/11/09 08:12 / wj
Calcium, sat. paste	2.19	meq/l		0.05		SW6010B	12/01/09 14:40 / sld
Magnesium, sat. paste	1.35	meq/l		0.08		SW6010B	12/01/09 14:40 / sld
Sodium, sat. paste	0.78	meq/l		0.04		SW6010B	12/01/09 14:40 / sld
Sodium Adsorption Ratio (SAR)	0.59	unitless		0.01		Calculation	11/16/09 07:56 / wj
Bicarbonate, sat. paste	3.24	meq/L		0.02		ASA10-3	12/08/09 13:48 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	16	%		1		ASA15-5	11/11/09 15:29 / wj
Silt	50	%		1		ASA15-5	11/11/09 15:29 / wj
Clay	34	%		1		ASA15-5	11/11/09 15:29 / wj
Texture	SiCL	unitless				ASA15-5	11/11/09 15:29 / wj
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	27.4	meq/100g		0.09		SW6010B	11/15/09 21:51 / sld
Lime as CaCO3	8.3	%		0.1		USDA23c	11/16/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.31	meq/100g		0.0044		SW6010B	11/14/09 14:36 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/16/09 07:56 / wj
Exchangeable Sodium Percentage	0.9	%		0.1		USDA20a	11/16/09 07:56 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.30	meq/L		0.028		E300.0	11/21/09 10:54 / hm

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