



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-015  
**Client Sample ID:** T2/DB-10 (0-6") [0-6]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**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	11/17/09 08:50 / rrr
Conductivity, sat. paste	0.65	mmhos/cm		0.01		ASA10-3	11/18/09 08:29 / rrr
Saturation	50.1	%		0.1		USDA27a	11/17/09 07:55 / wj
Calcium, sat. paste	3.07	meq/l		0.05		SW6010B	11/19/09 11:22 / sld
Magnesium, sat. paste	1.86	meq/l		0.08		SW6010B	11/19/09 11:22 / sld
Sodium, sat. paste	2.16	meq/l		0.04		SW6010B	11/19/09 11:22 / sld
Sodium Adsorption Ratio (SAR)	1.4	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	4.80	meq/L		0.02		ASA10-3	12/08/09 17:28 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	26	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	44	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	30	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	CL	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Potassium, NH4OAc Extractable	159	mg/kg		1		ASA13-3	12/21/09 11:25 / sld
Cation Exchange Capacity	27.9	meq/100g		0.09		SW6010B	11/19/09 23:15 / sld
Organic Matter	2.39	%		0.02		ASA29-3	11/17/09 11:33 / sah
Lime as CaCO3	5.1	%		0.1		USDA23c	11/17/09 00:00 / sah
Phosphorus	7.3	mg/kg		0.1		ASA24-5	11/24/09 16:12 / stp
Nitrate as N, KCL Extract	24	mg/kg		1.0		ASA38-3	12/04/09 14:28 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.47	meq/100g		0.0044		SW6010B	12/03/09 13:52 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.4	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	1.3	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Fluoride	0.93	mg/kg		0.10		E300.0	11/21/09 20:12 / hm
Sulfate, sat. paste	1.5	meq/L		0.021		E300.0	11/21/09 20:12 / hm
Chloride, sat. paste	0.34	meq/L		0.028		E300.0	11/21/09 20:12 / hm
<b>METALS, DTPA EXTRACTABLE</b>							
Zinc	1.09	mg/kg		0.02		SW6010B	12/17/09 18:37 / sld
<b>METALS, WATER SOLUBLE</b>							
Selenium	ND	mg/kg		0.04		E270.3	12/16/09 11:48 / eau

**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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**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-015  
**Client Sample ID:** T2/DB-10 (0-6") [0-6]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**Matrix:** Soil

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Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, CACL2 EXTRACTABLE</b>							
Barium	1.0	mg/kg		0.20		SW6010B	12/04/09 12:49 / sld
Boron	ND	mg/kg		0.20		SW6010B	12/04/09 12:49 / sld

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-016  
**Client Sample ID:** T2/DB-10 (6-12") [6-12]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**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	11/17/09 08:51 / rrr
Conductivity, sat. paste	0.59	mmhos/cm		0.01		ASA10-3	11/18/09 08:30 / rrr
Saturation	52.0	%		0.1		USDA27a	11/17/09 07:55 / wj
Calcium, sat. paste	2.30	meq/l		0.05		SW6010B	11/19/09 11:25 / sld
Magnesium, sat. paste	1.41	meq/l		0.08		SW6010B	11/19/09 11:25 / sld
Sodium, sat. paste	2.56	meq/l		0.04		SW6010B	11/19/09 11:25 / sld
Sodium Adsorption Ratio (SAR)	1.9	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	3.54	meq/L		0.02		ASA10-3	12/08/09 17:34 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	24	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	42	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	34	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	CL	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	30.0	meq/100g		0.09		SW6010B	11/19/09 23:18 / sld
Lime as CaCO3	4.4	%		0.1		USDA23c	11/17/09 00:00 / sah
Nitrate as N, KCL Extract	27	mg/kg		1.0		ASA38-3	12/04/09 14:30 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.70	meq/100g		0.0044		SW6010B	12/03/09 13:54 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.6	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	1.9	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Sulfate, sat. paste	1.5	meq/L		0.021		E300.0	11/21/09 20:29 / hm
Chloride, sat. paste	0.39	meq/L		0.028		E300.0	11/21/09 20:29 / hm

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-017  
**Client Sample ID:** T2/DB-10 (12-24") [12-24]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**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	11/17/09 08:51 / rrr
Conductivity, sat. paste	0.91	mmhos/cm		0.01		ASA10-3	11/18/09 08:30 / rrr
Saturation	43.2	%		0.1		USDA27a	11/17/09 07:55 / wj
Calcium, sat. paste	3.04	meq/l		0.05		SW6010B	11/19/09 11:27 / sld
Magnesium, sat. paste	2.13	meq/l		0.08		SW6010B	11/19/09 11:27 / sld
Sodium, sat. paste	4.92	meq/l		0.04		SW6010B	11/19/09 11:27 / sld
Sodium Adsorption Ratio (SAR)	3.1	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	3.38	meq/L		0.02		ASA10-3	12/08/09 17:40 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	28	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	48	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	24	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	L	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	22.6	meq/100g		0.09		SW6010B	11/19/09 23:26 / sld
Lime as CaCO3	6.9	%		0.1		USDA23c	11/17/09 00:00 / sah
Nitrate as N, KCL Extract	13	mg/kg		1.0		ASA38-3	12/04/09 14:32 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.88	meq/100g		0.0044		SW6010B	12/03/09 13:57 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.7	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	3.0	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Sulfate, sat. paste	6.8	meq/L		0.021		E300.0	11/21/09 20:45 / hm
Chloride, sat. paste	0.20	meq/L		0.028		E300.0	11/21/09 20:45 / hm

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-018  
**Client Sample ID:** T2/DB-10 (24-36") [24-36]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**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	11/17/09 08:52 / rrr
Conductivity, sat. paste	1.22	mmhos/cm		0.01		ASA10-3	11/18/09 08:31 / rrr
Saturation	35.5	%		0.1		USDA27a	11/17/09 07:55 / wj
Calcium, sat. paste	3.65	meq/l		0.05		SW6010B	11/19/09 11:30 / sld
Magnesium, sat. paste	2.91	meq/l		0.08		SW6010B	11/19/09 11:30 / sld
Sodium, sat. paste	6.83	meq/l		0.04		SW6010B	11/19/09 11:30 / sld
Sodium Adsorption Ratio (SAR)	3.8	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	3.47	meq/L		0.02		ASA10-3	12/08/09 17:46 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	44	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	38	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	18	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	L	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	15.0	meq/100g		0.09		SW6010B	11/19/09 23:29 / sld
Lime as CaCO3	7.2	%		0.1		USDA23c	11/17/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.86	meq/100g		0.0044		SW6010B	12/03/09 14:00 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.6	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	4.1	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.29	meq/L		0.028		E300.0	11/21/09 21:02 / hm

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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:** H09110013-019  
**Client Sample ID:** T2/DB-10 (36-60") [36-60]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**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	11/17/09 08:53 / rrr
Conductivity, sat. paste	1.42	mmhos/cm		0.01		ASA10-3	11/18/09 08:32 / rrr
Saturation	34.7	%		0.1		USDA27a	11/17/09 07:56 / wj
Calcium, sat. paste	3.62	meq/l		0.05		SW6010B	11/19/09 11:32 / sld
Magnesium, sat. paste	2.89	meq/l		0.08		SW6010B	11/19/09 11:32 / sld
Sodium, sat. paste	9.27	meq/l		0.04		SW6010B	11/19/09 11:32 / sld
Sodium Adsorption Ratio (SAR)	5.1	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	3.21	meq/L		0.02		ASA10-3	12/08/09 17:51 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	44	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	38	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	18	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	L	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	15.0	meq/100g		0.09		SW6010B	11/19/09 23:31 / sld
Lime as CaCO3	6.7	%		0.1		USDA23c	11/17/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.2	meq/100g		0.0044		SW6010B	12/03/09 14:02 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.9	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	5.9	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Fluoride	0.89	mg/kg		0.10		E300.0	11/21/09 21:18 / hm
Chloride, sat. paste	0.32	meq/L		0.028		E300.0	11/21/09 21:18 / hm
<b>METALS, WATER SOLUBLE</b>							
Selenium	ND	mg/kg		0.04		E270.3	12/16/09 11:50 / eau
<b>METALS, CaCl2 EXTRACTABLE</b>							
Barium	0.41	mg/kg		0.20		SW6010B	12/04/09 12:59 / sld
Boron	0.24	mg/kg		0.20		SW6010B	12/04/09 12:59 / sld

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**LABORATORY ANALYTICAL REPORT**

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-020  
**Client Sample ID:** T2/DB-10 (60-96") [60-96]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	8.1	s.u.		0.1		ASAM10-3.2	11/17/09 08:53 / rrr
Conductivity, sat. paste	2.61	mmhos/cm		0.01		ASA10-3	11/18/09 08:32 / rrr
Saturation	27.9	%		0.1		USDA27a	11/17/09 07:56 / wj
Calcium, sat. paste	4.15	meq/l		0.05		SW6010B	11/19/09 11:35 / sld
Magnesium, sat. paste	4.91	meq/l		0.08		SW6010B	11/19/09 11:35 / sld
Sodium, sat. paste	19.1	meq/l		0.04		SW6010B	11/19/09 11:35 / sld
Sodium Adsorption Ratio (SAR)	9.0	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	2.60	meq/L		0.02		ASA10-3	12/08/09 18:11 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	66	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	24	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	10	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	SL	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	8.65	meq/100g		0.09		SW6010B	11/19/09 23:34 / sld
Lime as CaCO3	6.6	%		0.1		USDA23c	11/17/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.5	meq/100g		0.0044		SW6010B	12/03/09 14:05 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	1.0	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	11	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.34	meq/L		0.028		E300.0	11/21/09 21:35 / hm

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LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP Tier II (Formerly Referred To As AMPP)  
**Lab ID:** H09110013-021  
**Client Sample ID:** T2/DB-10 (0-2") [0-2]

**Report Date:** 12/22/09  
**Collection Date:** 10/28/09 17:00  
**Date Received:** 11/02/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.7	s.u.		0.1		ASAM10-3.2	11/17/09 08:55 / rrr
Conductivity, sat. paste	0.50	mmhos/cm		0.01		ASA10-3	11/18/09 08:34 / rrr
Saturation	47.6	%		0.1		USDA27a	11/17/09 07:56 / wj
Calcium, sat. paste	2.25	meq/l		0.05		SW6010B	11/19/09 11:40 / sld
Magnesium, sat. paste	1.47	meq/l		0.08		SW6010B	11/19/09 11:40 / sld
Sodium, sat. paste	1.93	meq/l		0.04		SW6010B	11/19/09 11:40 / sld
Sodium Adsorption Ratio (SAR)	1.4	unitless		0.01		Calculation	11/19/09 15:16 / wj
Bicarbonate, sat. paste	4.00	meq/L		0.02		ASA10-3	12/08/09 18:23 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	28	%		1		ASA15-5	11/18/09 15:11 / sah
Silt	42	%		1		ASA15-5	11/18/09 15:11 / sah
Clay	30	%		1		ASA15-5	11/18/09 15:11 / sah
Texture	CL	unitless				ASA15-5	11/18/09 15:11 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	27.6	meq/100g		0.09		SW6010B	11/19/09 23:39 / sld
Lime as CaCO3	5.0	%		0.1		USDA23c	11/17/09 00:00 / sah
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.42	meq/100g		0.0044		SW6010B	12/03/09 14:10 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.3	meq/100g		0.1		Calculation	11/19/09 15:16 / wj
Exchangeable Sodium Percentage	1.2	%		0.1		USDA20a	11/19/09 15:16 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.28	meq/L		0.028		E300.0	11/21/09 22:40 / hm

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