



STAR-ORION SOUTH DIAMOND PROJECT
ENVIRONMENTAL IMPACT STATEMENT

APPENDIX 5.2.2-B2

Lab Data



Environmental Division

Certificate of Analysis

ECODYNAMICS CONSULTING

ATTN: JASON NELSON

2nd FL 1304 CENTRAL AVE.

PRINCE ALBERT SK S6V 4W3

Report Date: 06-JAN-10 10:34 (MT)

Version: FINAL REV. 2

Lab Work Order #: **L849968**

Date Received: **21-DEC-09**

Project P.O. #: NOT SUBMITTED

Job Reference:

Legal Site Desc:

CofC Numbers: L849968

Other Information:

Comments: ADDITIONAL 30-DEC-09 10:58

06-JAN-10: Additional analysis

<original signed by>

Brian Morgan
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|--|------------|---|---|---|---|--|
| L849968-1 S106 LF-OF Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Miscellaneous Parameters Total Nitrogen by LECO Basic Salinity SAR and Cations in saturated soil Calcium (Ca) Potassium (K) Magnesium (Mg) Sodium (Na) SAR Saturated Paste pH and EC % Saturation pH in Saturated Paste Conductivity Sat. Paste | 0.48 36.4 4.41 36.8 1.16 116 23.4 30.6 12.8 0.27 734 7.36 0.77 | | 0.10 0.10 0.70 0.1 0.020 1.0 2.0 1.0 4.0 0.10 1.0 0.10 0.10 | % % % % % mg/L mg/L mg/L mg/L SAR % pH dS m-1 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | R1116753 R1116753 R1116753 R1117865 R1117865 R1117629 R1117629 R1117629 R1117629 R1117629 R1117586 R1117586 R1117586 |
| L849968-2 S106 0H Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Miscellaneous Parameters Total Nitrogen by LECO Basic Salinity SAR and Cations in saturated soil Calcium (Ca) Potassium (K) Magnesium (Mg) Sodium (Na) SAR Saturated Paste pH and EC % Saturation pH in Saturated Paste Conductivity Sat. Paste | 0.54 33.5 4.80 34.1 1.20 142 4.9 23.4 15.1 0.31 394 7.44 0.89 | | 0.10 0.10 0.70 0.1 0.020 1.0 2.0 1.0 4.0 0.10 1.0 0.10 0.10 | % % % % % mg/L mg/L mg/L mg/L SAR % pH dS m-1 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | R1116753 R1116753 R1116753 R1117865 R1117865 R1117629 R1117629 R1117629 R1117629 R1117629 R1117586 R1117586 R1117586 |
| L849968-3 S106 CKG1,2,3 Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method | 0.47 1.69 4.06 | | 0.10 0.10 0.70 | % % % | 22-DEC-09 22-DEC-09 22-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 | R1116753 R1116753 R1116753 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------------|------------|------|--------|-----------|-----------|----------|
| L849968-3 S106 CKG1,2,3 Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Carbon by combustion method Total Carbon by Combustion | 2.2 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer % Sand (2.0mm - 0.05mm) | 31.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 49.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 20.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Silt loam / Loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Detailed Salinity Chloride (Cl) (Saturated Paste) Chloride (Cl) | 46.2 | | 3.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117637 |
| SAR, Cations and SO4 in saturated soil Calcium (Ca) | 83.0 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 6.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 15.3 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 18.9 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.50 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sulfur (as SO4) | 59.4 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC % Saturation | 43.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 7.42 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.63 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-4 S106 CKG4 Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon | 0.72 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 1.36 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 6.19 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method Total Carbon by Combustion | 2.1 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer % Sand (2.0mm - 0.05mm) | 8.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 44.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 48.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Silty clay | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Detailed Salinity Chloride (Cl) (Saturated Paste) Chloride (Cl) | 4.9 | | 3.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117637 |
| SAR, Cations and SO4 in saturated soil Calcium (Ca) | 508 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 28.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 105 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 29.3 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.31 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sulfur (as SO4) | 1370 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC % Saturation | 76.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 7.36 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 2.67 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|----------|-----------|-----------|----------|
| L849968-5 S84 LFH | | | | | | | |
| Sampled By: NOT PROVIDED | | | | | | | |
| Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 0.13 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 29.6 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 1.45 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 29.7 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 1.94 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 163 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 66.7 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 28.9 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 444 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.75 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 1.25 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-6 S84 AHE | | | | | | | |
| Sampled By: NOT PROVIDED | | | | | | | |
| Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 1.93 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 1.9 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| CEC and Exchangeable Cations (BaCl2 extrn) | | | | | | | |
| Cation Exchange Capacity (BaCl2 Extn) | | | | | | | |
| Cation Exchange Capacity | 16.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122023 |
| Exchangeable Cations - Water Leach BaCl2 | | | | | | | |
| Sodium (Na) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Potassium (K) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Calcium (Ca) | 13.9 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Magnesium (Mg) | 2.5 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Exchangeable Sodium Percentage | | | | | | | |
| ESP | N/A; Na<DL | | 0.10 | % | | 05-JAN-10 | |
| Metals in Soil - CCME List | | | | | | | |
| Mercury in Soil by CVAAS | | | | | | | |
| Mercury (Hg) | <0.050 | | 0.050 | mg/kg | 31-DEC-09 | 31-DEC-09 | R1120792 |
| Metals in Soil by ICPMS | | | | | | | |
| Antimony (Sb) | <0.20 | | 0.20 | mg/kg | | 04-JAN-10 | R1121273 |
| Arsenic (As) | 3.54 | | 0.20 | mg/kg | | 04-JAN-10 | R1121273 |
| Barium (Ba) | 93.6 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Beryllium (Be) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Cadmium (Cd) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Chromium (Cr) | 8.86 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Cobalt (Co) | 5.6 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Copper (Cu) | 5.4 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Lead (Pb) | 5.5 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|--------|-----------|-----------|----------|
| L849968-6 S84 AHE Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Metals in Soil by ICPMS | | | | | | | |
| Molybdenum (Mo) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Nickel (Ni) | 8.4 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Selenium (Se) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Silver (Ag) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Thallium (Tl) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Tin (Sn) | <5.0 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Uranium (U) | <2.0 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Vanadium (V) | 15.3 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Zinc (Zn) | 25 | | 10 | mg/kg | | 04-JAN-10 | R1121273 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 0.154 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 55.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 32.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 13.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Sandy loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 119 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 11.2 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 23.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 52.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.46 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.84 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-7 S84 AE Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 43.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 6.4 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 8.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 34.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.62 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.31 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-8 S84 BT Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 49.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 36.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 15.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|--|------------|--|--|--|--|--|
| L849968-8 S84 BT Sampled By: NOT PROVIDED Matrix: SOIL Basic Salinity SAR and Cations in saturated soil Calcium (Ca) Potassium (K) Magnesium (Mg) Sodium (Na) SAR Saturated Paste pH and EC % Saturation pH in Saturated Paste Conductivity Sat. Paste | 55.2 4.1 12.3 6.1 0.19 37.0 7.27 0.38 | | 1.0 2.0 1.0 4.0 0.10 1.0 0.10 0.10 | mg/L mg/L mg/L mg/L SAR % pH dS m-1 | 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | R1117629 R1117629 R1117629 R1117629 R1117629 R1117586 R1117586 R1117586 |
| L849968-9 S84 BCK Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Detailed Salinity Chloride (Cl) (Saturated Paste) Chloride (Cl) SAR, Cations and SO4 in saturated soil Calcium (Ca) Potassium (K) Magnesium (Mg) Sodium (Na) SAR Sulfur (as SO4) Saturated Paste pH and EC % Saturation pH in Saturated Paste Conductivity Sat. Paste | <0.10 0.43 <0.70 0.4 8.2 56.9 3.5 12.9 9.8 0.30 17.6 41.0 7.55 0.42 | | 0.10 0.10 0.70 0.1 3.0 1.0 2.0 1.0 4.0 0.10 6.0 1.0 0.10 0.10 | % % % % mg/L mg/L mg/L mg/L SAR mg/L % pH dS m-1 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | R1116753 R1116753 R1116753 R1117865 R1117637 R1117629 R1117629 R1117629 R1117629 R1117629 R1117629 R1117586 R1117586 R1117586 |
| L849968-10 S84 11CK Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Detailed Salinity Chloride (Cl) (Saturated Paste) Chloride (Cl) SAR, Cations and SO4 in saturated soil Calcium (Ca) | 2.02 0.59 17.0 2.6 6.3 70.6 | | 0.10 0.10 0.70 0.1 3.0 1.0 | % % % % mg/L mg/L | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 | R1116753 R1116753 R1116753 R1117865 R1117637 R1117629 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------------|------------|-------|--------|-----------|-----------|----------|
| L849968-10 S84 11CK Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| SAR, Cations and SO4 in saturated soil | | | | | | | |
| Potassium (K) | 3.8 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 18.7 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 10.6 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.29 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sulfur (as SO4) | 37.0 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 54.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 7.59 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.52 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-11 S84 11CKGI Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 2.30 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.73 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 19.4 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 3.0 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 5.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 62.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 33.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Silty clay loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Detailed Salinity | | | | | | | |
| Chloride (Cl) (Saturated Paste) | | | | | | | |
| Chloride (Cl) | 3.8 | | 3.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117637 |
| SAR, Cations and SO4 in saturated soil | | | | | | | |
| Calcium (Ca) | 60.6 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 3.5 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 17.3 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 9.5 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.28 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sulfur (as SO4) | 19.9 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 60.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 7.57 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.45 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-12 S104 OH Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 0.14 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 39.7 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 1.57 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 39.8 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 2.11 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|----------|-----------|-----------|----------|
| L849968-12 S104 OH Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 108 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 2.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 21.6 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 8.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.18 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 473 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.80 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.68 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-13 S104 AHG Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 1.40 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 1.4 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| CEC and Exchangeable Cations (BaCl2 extn) | | | | | | | |
| Cation Exchange Capacity (BaCl2 Extn) | | | | | | | |
| Cation Exchange Capacity | 8.4 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122023 |
| Exchangeable Cations - Water Leach BaCl2 | | | | | | | |
| Sodium (Na) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Potassium (K) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Calcium (Ca) | 8.4 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Magnesium (Mg) | 1.3 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Exchangeable Sodium Percentage | | | | | | | |
| ESP | N/A; Na<DL | | 0.10 | % | | 05-JAN-10 | |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 0.108 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 84.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 8.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 7.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Loamy sand | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 71.9 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | <2.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 14.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 7.3 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.21 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 25.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 7.08 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.46 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-14 S104 CG Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|--|------------|---|---|--|---|--|
| L849968-14 S104 CG Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Particle Size Analysis: Hydrometer % Sand (2.0mm - 0.05mm) % Silt (0.05mm - 2um) % Clay (<2um) Texture Basic Salinity SAR and Cations in saturated soil Calcium (Ca) Potassium (K) Magnesium (Mg) Sodium (Na) SAR Saturated Paste pH and EC % Saturation pH in Saturated Paste Conductivity Sat. Paste | <0.10 0.30 <0.70 0.3 93.0 1.0 6.0 Sand 50.6 2.1 10.6 10.2 0.34 27.0 7.55 0.35 | | 0.10 0.10 0.70 0.1 1.0 1.0 1.0 1.0 2.0 1.0 4.0 0.10 1.0 0.10 0.10 | % % % % % % % mg/L mg/L mg/L mg/L SAR % pH dS m-1 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | R1116753 R1116753 R1116753 R1117865 R1117871 R1117871 R1117871 R1117871 R1117629 R1117629 R1117629 R1117629 R1117629 R1117586 R1117586 R1117586 |
| L849968-15 S101 LH Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon Total Organic Carbon CaCO3 Equivalent Total Carbon by combustion method Total Carbon by Combustion Miscellaneous Parameters Total Nitrogen by LECO Basic Salinity SAR and Cations in saturated soil Calcium (Ca) Potassium (K) Magnesium (Mg) Sodium (Na) SAR Saturated Paste pH and EC % Saturation pH in Saturated Paste Conductivity Sat. Paste | <0.10 4.43 <0.70 4.4 0.228 63.5 31.6 18.0 <4.0 <0.10 75.0 6.23 0.68 | | 0.10 0.10 0.70 0.1 0.020 1.0 2.0 1.0 4.0 0.10 1.0 0.10 0.10 | % % % % % mg/L mg/L mg/L mg/L SAR % pH dS m-1 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 23-DEC-09 22-DEC-09 22-DEC-09 22-DEC-09 | R1116753 R1116753 R1116753 R1117865 R1117865 R1117629 R1117629 R1117629 R1117629 R1117629 R1117586 R1117586 R1117586 |
| L849968-16 S101 AEJ Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|----------|-----------|-----------|----------|
| L849968-16 S101 AEJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.47 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 0.5 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| CEC and Exchangeable Cations (BaCl2 extn) | | | | | | | |
| Cation Exchange Capacity (BaCl2 Extn) | | | | | | | |
| Cation Exchange Capacity | 3.5 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122023 |
| Exchangeable Cations - Water Leach BaCl2 | | | | | | | |
| Sodium (Na) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Potassium (K) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Calcium (Ca) | 2.3 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Magnesium (Mg) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Exchangeable Sodium Percentage | | | | | | | |
| ESP | N/A; Na<DL | | 0.10 | % | | 05-JAN-10 | |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 0.056 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 84.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 9.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 8.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Loamy sand | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 27.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 10.9 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 7.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | <0.20 | SAR:DL | 0.20 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 34.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 5.91 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.28 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-17 S101 BC Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 15.6 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 3.6 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 4.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 5.4 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.31 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 29.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.23 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.16 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-18 S101 C1 Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|----------|-----------|-----------|----------|
| L849968-18 S101 C1 | | | | | | | |
| Sampled By: NOT PROVIDED | | | | | | | |
| Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 0.1 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 83.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 7.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 10.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Loamy sand | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 5.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 2.1 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 2.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 5.6 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.51 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 30.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.27 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-19 S92 AHJEJ | | | | | | | |
| Sampled By: NOT PROVIDED | | | | | | | |
| Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.67 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 0.7 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| CEC and Exchangeable Cations (BaCl2 extrn) | | | | | | | |
| Cation Exchange Capacity (BaCl2 Extn) | | | | | | | |
| Cation Exchange Capacity | 4.4 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122023 |
| Exchangeable Cations - Water Leach BaCl2 | | | | | | | |
| Sodium (Na) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Potassium (K) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Calcium (Ca) | 3.1 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Magnesium (Mg) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Exchangeable Sodium Percentage | | | | | | | |
| ESP | N/A; Na<DL | | 0.10 | % | | 05-JAN-10 | |
| Metals in Soil - CCME List | | | | | | | |
| Mercury in Soil by CVAAS | | | | | | | |
| Mercury (Hg) | <0.050 | | 0.050 | mg/kg | 31-DEC-09 | 31-DEC-09 | R1120792 |
| Metals in Soil by ICPMS | | | | | | | |
| Antimony (Sb) | <0.20 | | 0.20 | mg/kg | | 04-JAN-10 | R1121273 |
| Arsenic (As) | 2.35 | | 0.20 | mg/kg | | 04-JAN-10 | R1121273 |
| Barium (Ba) | 33.6 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Beryllium (Be) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Cadmium (Cd) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|------------|------------|-------|--------|-----------|-----------|----------|
| L849968-19 S92 AHJEJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Metals in Soil by ICPMS | | | | | | | |
| Chromium (Cr) | 3.98 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Cobalt (Co) | 2.1 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Copper (Cu) | <2.0 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Lead (Pb) | <5.0 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Molybdenum (Mo) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Nickel (Ni) | 4.7 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Selenium (Se) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Silver (Ag) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Thallium (Tl) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Tin (Sn) | <5.0 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Uranium (U) | <2.0 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Vanadium (V) | 7.8 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Zinc (Zn) | 15 | | 10 | mg/kg | | 04-JAN-10 | R1121273 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 0.068 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 89.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 4.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 7.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Loamy sand | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 15.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 6.3 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 4.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | <0.20 | SAR:DL | 0.20 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 36.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 6.04 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.16 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-20 S92 BM Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 7.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Potassium (K) | 3.8 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Magnesium (Mg) | 2.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Sodium (Na) | 5.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1117629 |
| SAR | 0.41 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1117629 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 31.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117586 |
| pH in Saturated Paste | 5.95 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117586 |
| Conductivity Sat. Paste | 0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117586 |
| L849968-21 S92 BC Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|--------|------------|-------|--------|-----------|-----------|----------|
| L849968-21 S92 BC Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 4.4 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 2.3 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 1.9 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 4.3 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.43 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 28.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 5.96 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-22 S92 C Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | <0.1 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 91.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 3.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 6.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Sand | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 2.9 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 2.1 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 1.7 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 6.3 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.72 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 29.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.18 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-23 TEP114 LF Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 20.3 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 0.97 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 20.3 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 1.08 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 94.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|----------|-----------|-----------|----------|
| L849968-23 TEP114 LF Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Potassium (K) | 88.4 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 21.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 289 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.22 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.98 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-24 TEP114 AHJEJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.72 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 0.7 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| CEC and Exchangeable Cations (BaCl2 extn) | | | | | | | |
| Cation Exchange Capacity (BaCl2 Extn) | | | | | | | |
| Cation Exchange Capacity | 5.5 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122023 |
| Exchangeable Cations - Water Leach BaCl2 | | | | | | | |
| Sodium (Na) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Potassium (K) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Calcium (Ca) | 2.8 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Magnesium (Mg) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Exchangeable Sodium Percentage | | | | | | | |
| ESP | N/A; Na<DL | | 0.10 | % | | 05-JAN-10 | |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 0.073 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 77.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 14.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 9.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Sandy loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 12.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 7.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 3.3 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.30 | SAR:DL | 0.30 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 33.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 5.33 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.13 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-25 TEP114 AE Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|--------|------------|------|--------|-----------|-----------|----------|
| L849968-25 TEP114 AE Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 4.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 2.2 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 1.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.40 | SAR:DL | 0.40 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 30.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 5.46 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-26 TEP114 BMGJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 6.0 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 2.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 1.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 6.1 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.58 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 31.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 5.76 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-27 TEP114 BCGJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 6.7 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | <2.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 1.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 5.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.45 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 30.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.13 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-28 TEP114 CGJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 5.3 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | <2.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 1.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.40 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|------------|------------|-------|--------|-----------|-----------|----------|
| L849968-28 TEP114 CGJ Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 30.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.39 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | <0.10 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-29 TEP114 CG Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.11 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 0.1 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 84.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 8.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 7.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Loamy sand | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 25.4 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 2.7 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 5.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 6.8 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.32 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 30.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 5.96 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.26 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-30 TEP95 LFH Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 0.16 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 30.4 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 1.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 30.6 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 1.98 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 216 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 98.1 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 57.0 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 526 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|------------------|------------|-------|----------|-----------|-----------|----------|
| L849968-30 TEP95 LFH Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Saturated Paste pH and EC | | | | | | | |
| pH in Saturated Paste | 6.33 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 1.82 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-31 TEP95 AHE Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | <0.10 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 2.71 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | <0.70 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 2.7 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| CEC and Exchangeable Cations (BaCl2 extn) | | | | | | | |
| Cation Exchange Capacity (BaCl2 Extn) | | | | | | | |
| Cation Exchange Capacity | 21.9 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122023 |
| Exchangeable Cations - Water Leach BaCl2 | | | | | | | |
| Sodium (Na) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Potassium (K) | <1.0 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Calcium (Ca) | 17.5 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Magnesium (Mg) | 4.9 | | 1.0 | meq/100g | 05-JAN-10 | 05-JAN-10 | R1122945 |
| Exchangeable Sodium Percentage | | | | | | | |
| ESP | N/A; Na<DL | | 0.10 | % | | 05-JAN-10 | |
| Metals in Soil - CCME List | | | | | | | |
| Mercury in Soil by CVAAS | | | | | | | |
| Mercury (Hg) | <0.050 | | 0.050 | mg/kg | 31-DEC-09 | 31-DEC-09 | R1120792 |
| Metals in Soil by ICPMS | | | | | | | |
| Antimony (Sb) | 0.26 | | 0.20 | mg/kg | | 04-JAN-10 | R1121273 |
| Arsenic (As) | 5.18 | | 0.20 | mg/kg | | 04-JAN-10 | R1121273 |
| Barium (Ba) | 121 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Beryllium (Be) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Cadmium (Cd) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Chromium (Cr) | 13.6 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Cobalt (Co) | 7.2 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Copper (Cu) | 10.5 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Lead (Pb) | 8.1 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Molybdenum (Mo) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Nickel (Ni) | 16.2 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Selenium (Se) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Silver (Ag) | <1.0 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Thallium (Tl) | <0.50 | | 0.50 | mg/kg | | 04-JAN-10 | R1121273 |
| Tin (Sn) | <5.0 | | 5.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Uranium (U) | <2.0 | | 2.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Vanadium (V) | 23.2 | | 1.0 | mg/kg | | 04-JAN-10 | R1121273 |
| Zinc (Zn) | 38 | | 10 | mg/kg | | 04-JAN-10 | R1121273 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 0.231 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 30.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 49.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 21.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Silt loam / Loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|-----------------|------------|------|--------|-----------|-----------|----------|
| L849968-31 TEP95 AHE Sampled By: NOT PROVIDED Matrix: SOIL Basic Salinity SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 79.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 17.5 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 23.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 59.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.30 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.62 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-32 TEP95 AE Sampled By: NOT PROVIDED Matrix: SOIL Basic Salinity SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 93.1 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 11.5 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 24.0 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 46.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.05 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.61 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-33 TEP95 BT Sampled By: NOT PROVIDED Matrix: SOIL Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 15.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 55.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 30.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Silty clay loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 43.9 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 7.7 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 13.2 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | <4.0 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | <0.10 | SAR:DL | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 49.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.69 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.32 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-34 TEP95 BC Sampled By: NOT PROVIDED Matrix: SOIL Basic Salinity SAR and Cations in saturated soil | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|------|--------|-----------|-----------|----------|
| L849968-34 TEP95 BC Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 43.1 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 3.6 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 13.6 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 5.4 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.18 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 49.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.00 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.32 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-35 TEP95 CK Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 1.16 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.77 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 9.86 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 1.9 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 19.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 62.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 20.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Texture | Silt loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Basic Salinity | | | | | | | |
| SAR and Cations in saturated soil | | | | | | | |
| Calcium (Ca) | 59.7 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 5.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 30.4 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 6.1 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.16 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 57.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.64 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.51 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-36 TEP93 111CK1,2,3 Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 0.93 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 0.22 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 7.91 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 1.1 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Particle Size Analysis: Hydrometer | | | | | | | |
| % Sand (2.0mm - 0.05mm) | 67.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Silt (0.05mm - 2um) | 17.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |
| % Clay (<2um) | 16.0 | | 1.0 | % | 22-DEC-09 | 23-DEC-09 | R1117871 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|------------|------------|-------|--------|-----------|-----------|----------|
| L849968-36 TEP93 111CK1,2,3 Sampled By: NOT PROVIDED Matrix: SOIL Particle Size Analysis: Hydrometer Texture | Sandy loam | | | | 22-DEC-09 | 23-DEC-09 | R1117871 |
| Detailed Salinity Chloride (Cl) (Saturated Paste) Chloride (Cl) | 8.4 | | 3.0 | mg/L | 24-DEC-09 | 24-DEC-09 | R1118492 |
| SAR, Cations and SO4 in saturated soil Calcium (Ca) | 47.8 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 4.6 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 12.9 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 22.2 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.73 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sulfur (as SO4) | 20.0 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC % Saturation | 26.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.77 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.44 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-37 TEB116 OF1/OF2/OF3 Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon | 0.27 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 41.6 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 2.91 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method Total Carbon by Combustion | 41.9 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Miscellaneous Parameters Total Nitrogen by LECO | 1.46 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Detailed Salinity Chloride (Cl) (Saturated Paste) Chloride (Cl) | 14.5 | | 3.0 | mg/L | 24-DEC-09 | 24-DEC-09 | R1118492 |
| SAR, Cations and SO4 in saturated soil Calcium (Ca) | 47.1 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 16.8 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 9.7 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 6.4 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.22 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sulfur (as SO4) | 19.5 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC % Saturation | 97.0 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.01 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.36 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-38 TEB116 OM1/OM2 Sampled By: NOT PROVIDED Matrix: SOIL Total Organic Carbon -Inorg & Total C Inorganic and Organic Carbon Inorganic Carbon | 0.26 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 39.9 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 2.63 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method Total Carbon by Combustion | 40.1 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|--------|------------|-------|--------|-----------|-----------|----------|
| L849968-38 TEB116 OM1/OM2 Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 1.55 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Detailed Salinity | | | | | | | |
| Chloride (Cl) (Saturated Paste) | | | | | | | |
| Chloride (Cl) | 4.8 | | 3.0 | mg/L | 24-DEC-09 | 24-DEC-09 | R1118492 |
| SAR, Cations and SO4 in saturated soil | | | | | | | |
| Calcium (Ca) | 75.1 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | <2.0 | | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 14.5 | | 1.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 5.4 | | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.15 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sulfur (as SO4) | 125 | | 6.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 559 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 6.32 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 0.48 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-39 S105 OMK Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 3.48 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 27.7 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 29.5 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 31.2 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 1.62 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Detailed Salinity | | | | | | | |
| Chloride (Cl) (Saturated Paste) | | | | | | | |
| Chloride (Cl) | 59.9 | | 3.0 | mg/L | 24-DEC-09 | 24-DEC-09 | R1118492 |
| SAR, Cations and SO4 in saturated soil | | | | | | | |
| Calcium (Ca) | 652 | DLA | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 5.0 | DLA | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 89.1 | DLA | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 14.2 | DLA | 8.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.14 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sulfur (as SO4) | 1690 | DLA | 12 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 610 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.22 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 2.77 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |
| L849968-40 S105 OHK Sampled By: NOT PROVIDED Matrix: SOIL | | | | | | | |
| Total Organic Carbon -Inorg & Total C | | | | | | | |
| Inorganic and Organic Carbon | | | | | | | |
| Inorganic Carbon | 5.15 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Organic Carbon | 22.3 | | 0.10 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| CaCO3 Equivalent | 43.4 | | 0.70 | % | 22-DEC-09 | 22-DEC-09 | R1116753 |
| Total Carbon by combustion method | | | | | | | |
| Total Carbon by Combustion | 27.5 | | 0.1 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS LABORATORY GROUP ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|--------|------------|-------|--------|-----------|-----------|----------|
| L849968-40 S105 OHK | | | | | | | |
| Sampled By: NOT PROVIDED | | | | | | | |
| Matrix: SOIL | | | | | | | |
| Miscellaneous Parameters | | | | | | | |
| Total Nitrogen by LECO | 1.45 | | 0.020 | % | 22-DEC-09 | 22-DEC-09 | R1117865 |
| Detailed Salinity | | | | | | | |
| Chloride (Cl) (Saturated Paste) | | | | | | | |
| Chloride (Cl) | 5.8 | | 3.0 | mg/L | 24-DEC-09 | 24-DEC-09 | R1118492 |
| SAR, Cations and SO4 in saturated soil | | | | | | | |
| Calcium (Ca) | 606 | DLA | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Potassium (K) | 7.8 | DLA | 4.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Magnesium (Mg) | 78.7 | DLA | 2.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sodium (Na) | 14.4 | DLA | 8.0 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| SAR | 0.15 | | 0.10 | SAR | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Sulfur (as SO4) | 1600 | DLA | 12 | mg/L | 23-DEC-09 | 23-DEC-09 | R1118206 |
| Saturated Paste pH and EC | | | | | | | |
| % Saturation | 504 | | 1.0 | % | 22-DEC-09 | 22-DEC-09 | R1117803 |
| pH in Saturated Paste | 7.23 | | 0.10 | pH | 22-DEC-09 | 22-DEC-09 | R1117803 |
| Conductivity Sat. Paste | 2.54 | | 0.10 | dS m-1 | 22-DEC-09 | 22-DEC-09 | R1117803 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|-----------------------------|-----------------|-----------|---|
| Internal Reference Material | Calcium (Ca) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Magnesium (Mg) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Potassium (K) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Sodium (Na) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Sulfur (as SO4) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Calcium (Ca) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Magnesium (Mg) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Potassium (K) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Sodium (Na) | DLA | L849968-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9 |
| Internal Reference Material | Calcium (Ca) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Magnesium (Mg) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Potassium (K) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Sodium (Na) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Sulfur (as SO4) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Calcium (Ca) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Magnesium (Mg) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Potassium (K) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |
| Internal Reference Material | Sodium (Na) | DLA | L849968-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40 |

Sample Parameter Qualifier Key:

| Qualifier | Description |
|-----------|---|
| DLA | Detection Limit Adjusted For required dilution |
| SAR:DL | SAR cannot be calculated due to undetectable Na. Detection Limit represents the maximum possible value. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|----------------|--------|------------------------------|----------------------|
| C-INORG-ORG-SK | Soil | Inorganic and Organic Carbon | SSSA (1996) P455-456 |

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO₂ loss is proportional to the carbonate content of the soil.

Reference:

Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

| | | | |
|---------------|------|-----------------------------------|------------------------|
| C-TOT-LECO-SK | Soil | Total Carbon by combustion method | SSSA (1996) P. 973-974 |
|---------------|------|-----------------------------------|------------------------|

The sample is introduced into a quartz tube where it undergoes combustion at 900 °C in the presence of oxygen.

Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen.

This mixture of N₂, CO₂, and H₂O is then passed through an absorber column containing magnesium perchlorate to remove water. N₂ and CO₂ gases are then separated in a gas chromatographic column and detected by thermal conductivity.

Reference:

Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil

Reference Information

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|--|--------|--|------------------------------------|
| analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5 | | | |
| CAT-XCH-BACL2-SK | Soil | Exchangeable Cations - Water Leach BaCl2 | BaCl2 Extraction after water leach |
| There are 2 extractions in this method as follows: | | | |
| 1. Water extraction to remove soluble cations that could be mistaken for exchangeable cations in saline soils. | | | |
| 2. Barium chloride extraction to remove cations from the soil exchange sites. The specific cations in extract are then analyzed by ICP-OES. | | | |
| CEC-BACL2-SK | Soil | Cation Exchange Capacity (BaCl2 Extn) | CSSS 19.2 - 0.1M BaCl2 Extraction |
| CL-SAR-SK | Soil | Chloride (Cl) (Saturated Paste) | APHA 4500 Cl E-Colorimetry |
| Deionized water is added to the soil until the soil is saturated, but not over saturated (ie. no free standing water). The paste is allowed to stand overnight or a minimum of four hours. | | | |
| Chloride in the extract is determined colorimetrically at 660 nm by complexation with mercury (II) thiocyanate. In the colorimetric method, chloride (Cl-) displaces thiocyanate which, in the presence of ferric iron, forms a highly colored ferric thiocyanate complex. | | | |
| Reference Greenberg, Arnold E., Cleseri, Lenore S., Eaton, Andrew D., Standard Methods For The Examination of Water and Wastewater, 18th Edition, 1992, Method 4500Cl-E. | | | |
| ETL-ESP-SK | Soil | Exchangeable Sodium Percentage | Calculation |
| HG-200.2-CVAA-ED | Soil | Mercury in Soil by CVAAS | EPA 200.2/245.1 |
| Test method is based on US EPA Method 200.2 "Sample Preparation Procedure for Spectrochemical Determination of Total Recoverable Elements", and meets all requirements of BC CSR Analytical Method 8 "Strong Acid Leachable Metals (SALM) in Soil", BC MOE, June 26, 2001. Soil is dried at <60°C and digested with nitric and hydrochloric acids, prior to analysis for mercury by cold vapour atomic absorption. | | | |
| MET-200.2-MS-ED | Soil | Metals in Soil by ICPMS | EPA 200.2/6020A |
| N-TOT-LECO-SK | Soil | Total Nitrogen by combustion method | SSSA (1996) p. 973-974 |
| The sample is introduced into a quartz tube where it undergoes combustion at 900 C in the presence of oxygen. | | | |
| Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen. | | | |
| This mixture of N2, CO2, and H2O is then passed through an absorber column containing magnesium perchlorate to remove water. N2 and CO2 gases are then separated in a gas chromatographic column and detected by thermal conductivity. | | | |
| Reference: Bremner, J.M. 1996. Nitrogen - Total (Dumas Methods). P. 1088 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5 | | | |
| PSA-1-SK | Soil | Particle Size Analysis: Hydrometer | CSSS (1993) P.508-509 |
| The hydrometer method is based on Stokes' Law which relates the radius of soil particles to the velocity of their sedimentation. | | | |
| Air-dried soil is wetted with a dispersing agent and then mixed with water in a sedimentation cylinder. The soil is allowed to settle and particle density readings(g/L) are taken after 40 seconds and 6 hours. These readings correspond to silt + clay and clay content respectively. Sand content is calculated by difference. | | | |
| Reference: Carter, M.R., 1993. Soil sampling and methods of analysis. Can. Soc. Soil Sci. Ottawa Ont. 508-509 | | | |
| Kalra, Y.P., Maynard, D.G. 1991. Methods manual for forest soil and plant analysis. Forestry Canada. p. 42-45. | | | |
| SAR-CALC-SK | Soil | SAR and Cations in saturated soil | CSSS 18.4-Calculation |
| SAR-CALC-SO4-SK | Soil | SAR, Cations and SO4 in saturated soil | APHA 3120B |
| Deionized water is added to the soil until the soil is saturated, but not over saturated (ie. no free standing water). The paste is allowed to stand overnight or a minimum of four hours. | | | |
| After equilibration, an extract is obtained by vacuum filtration. Individual cations in the extract are determined by ICP-OES. Reported results for sulfate | | | |

Reference Information

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|---|----------------------|
| | | may be slightly elevated on highly organic samples. | |
| | | Reference: Carter, Martin R., Soil Sampling and Methods of Analysis, Can Soc. Soil Sci. p.162-164. | |
| SAT/PH/EC-SK | Soil | Saturated Paste pH and EC | CSSS(1978)3.14, 3.21 |
| | | Deionized water is added to the soil until the soil is saturated, but not over saturated (ie. no free standing water). The paste is allowed to stand overnight or a minimum of four hours. pH of the soil paste is then measured using a pH meter. After equilibration, an extract is obtained by vacuum filtration. Conductivity of the extract is measured by a conductivity meter. | |
| | | Conductivity Reference: Carter, Martin R., Soil Sampling and Methods of Analysis, Can Soc. Soil Sci. method 18.3.1 | |
| | | pH Reference: References: McKeague, J.A. 1978. pH of a Saturated Soil Paste method 3.14 In: Soil Sampling and Methods of Analysis. Can. Soc. Soil Sci. p. 68 | |
| | | Conductivity Reference: Carter, Martin R., Soil Sampling and Methods of Analysis, Can Soc. Soil Sci. method 18.3.1 | |

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|--|
| ED | ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA |
| SK | ALS LABORATORY GROUP - SASKATOON, SASKATCHEWAN, CANADA |

Chain of Custody Numbers:

L849968

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

*mg/kg - milligrams per kilogram based on dry weight of sample
mk/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.*

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



L849968 COC # _____

| | | |
|--|--|--|
| Report To | Report Format / Distribution | Service Requested (Rush for routine analysis subject to availability) |
| Company: EcoDynamics Consulting Inc. | <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other | <input checked="" type="radio"/> Regular (Default) |
| Contact: Jason Nelson | <input checked="" type="checkbox"/> PDF <input type="checkbox"/> Excel <input type="checkbox"/> Digital <input type="checkbox"/> Fax | <input type="radio"/> Priority (Specify Date Required → →) Surcharges apply |
| Address: 2-1304 Central Avenue, Prince Albert, SK S6V4W3 | Email 1: jnelson@ecodynamicsconsulting.com | <input type="radio"/> Emergency (1 Business Day) - 100% Surcharge |
| Phone: 306-953-8900 Fax: 306-922-4552 | Email 2: | <input type="radio"/> For Emergency < 1 Day, ASAP or Weekend - Contact ALS |

| | | |
|---|-------------------------------------|---|
| Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Client / Project Information | Analysis Request |
| Company: | Job #: | Please indicate below Filtered, Preserved or both (F, P, F/P) |
| Contact: | PO / AFE: | |
| Address: | LSD: | |
| Phone: Fax: | Quote #: Q23019 | |
| | | |

| | | |
|---|----------------------------------|------------------------------|
| Lab Work Order # (lab use only) | ALS Contact: Brian Morgan | Sampler: Jason Nelson |
|---|----------------------------------|------------------------------|

| Sample # | Sample Identification (This description will appear on the report) | Date (dd-mmm-yy) | Time (hh:mm) | Sample Type | Number of Containers |
|----------|---|---------------------|-----------------|-------------|----------------------|
| | *** Sample Identification and analysis request details attached. | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

COMPLETED OK

Special Instructions / Regulations / Hazardous Details

→ Request data in Excel format as well as PDF. All samples are clean (uncontaminated), natural soils.

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

| SHIPMENT RELEASE (client use) | | SHIPMENT RECEPTION (lab use only) | | | SHIPMENT VERIFICATION (lab use only) | | | | | |
|-------------------------------|-------------------------------|-----------------------------------|------------------|--------------------|--------------------------------------|---------------------|------------------|--------------------|-----------------|----------------------------|
| Released by: J. NELSON | Date (dd-mmm-yy): 18-12-09 | Time (hh-mm): 9:17 am | Received by: | Date: 21-Dec-09 | Time: 09:22am | Temperature: 16° | Verified by: | Date: 21-Dec-09 | Time: 9:22am | Observations: (Yes/No?) |

40 soils samples (with dif ID - TEP93 11CK1, 2, 3 (sample not received))

1 of 2

20

SOIL ANALYSIS REQUIREMENTS BY SAMPLE

Indicates sample site number
Indicates analysis required as per column heading

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|--------------|-------|-----------|------------|-----------|------------|
| ✓ LF-Of | | * | | * | * |
| ✓ Oh | | * | | * | * |
| ✓ Ckg1, 2, 3 | * | | * | * | * |
| ✓ Ckg4 | * | | * | * | * |

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|----------|-------|-----------|------------|-----------|------------|
| ✓ LFH | | * | | * | * |
| ✓ Ahe | * | * | | * | * |
| ✓ Ae | | * | | | |
| ✓ Bt | * | * | | | |
| ✓ Bck | | | * | * | |
| ✓ 11Ck | | | * | * | |
| ✓ 11Ckg1 | * | | * | * | |

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|-------|-------|-----------|------------|-----------|------------|
| ✓ Oh | | * | | * | * |
| ✓ Ahg | * | * | | * | * |
| ✓ Cg | * | * | | * | * |

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|-------|-------|-----------|------------|-----------|------------|
| ✓ LH | | * | | * | * |
| ✓ Ae1 | * | * | | * | * |
| ✓ BC | | * | | | |
| ✓ C1 | * | * | | * | |

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|---------|-------|-----------|------------|-----------|------------|
| ✓ Ah1e1 | * | * | | * | * |
| ✓ Bm | | * | | | |
| ✓ BC | | * | | | |
| ✓ C | * | * | | * | |

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|---------|-------|-----------|------------|-----------|------------|
| ✓ LF | | * | | * | * |
| ✓ Ah1e1 | * | * | | * | * |
| ✓ Ae | | * | | | |
| ✓ Bmg1 | | * | | | |
| ✓ BCg1 | | * | | | |
| ✓ Cg1 | | * | | | |
| ✓ Cg | * | * | | * | |

| | PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|-------|-------|-----------|------------|-----------|------------|
| ✓ LFH | | * | | * | * |
| ✓ Ahe | * | * | | * | * |
| ✓ Ae | | * | | | |
| ✓ Bt | * | * | | | |
| ✓ BC | | * | | | |
| ✓ Ck | * | * | | * | |

+ ~~Sample not received~~

~~Sample not received (see 2-3-2018) but the sample was~~

This is the original
 → Sample review
 98 8x3/10
 30x25 30x25
 (30x25 30x25)

| PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|-------|-----------|------------|-----------|------------|
| PSA-1 | * | * | * | * |

| PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|-------------|-----------|------------|-----------|------------|
| PSA-1 | | * | * | * |
| Om1/Om2/Om3 | | * | * | * |
| Om1/Om2 | | * | * | * |

| PSA-1 | SAL-Basic | SAL-Detail | C-TOT-ORG | N-TOT-LECO |
|-------|-----------|------------|-----------|------------|
| PSA-1 | | * | * | * |
| OmK | | * | * | * |
| Ohk | | * | * | * |

ALS Laboratory Group
Additional/Changes/Request Form

X Additional Analysis Analysis Change In house Analysis Change Other Lab

DATE 30-DEC-09 REQUESTED BY CLIENT/LAB CLIENT

Log In File #: L849968 (Q23019)

ADDITIONAL ANALYSIS CEC+CAT-XCH-BACL2-SK (6, 13, 16, 19, 24, 31); METAL-CCME+HG-ED
(6, 19, 31)
(CHANGE)

Sample ID #

REMOVE ANALYSIS

Sample ID #

PREP: (ADD) (REMOVE)

200 CODES: DONE TRANSIT

DUE DATE 07-JAN-10 EMERGENCY PRIORITY RUS H REG

Comments: AS PER CLIENT

Bill the Client:

Do Not Bill the Client:

Request Taken By: BEM

Changed By *AS*

Approved By: Receiving Lab JWK NLCR

File Unlocked By