

lb/A

# BROOKSIDE LABORATORIES, INC.

## SOIL AUDIT AND INVENTORY REPORT

47327-9

 Name Boulder Creek Golf Club City Boulder City State NV

 Independent Consultant Soil and Water Consulting Date 11/12/2013

|                                    |                          |                                                              |             |  |  |  |  |
|------------------------------------|--------------------------|--------------------------------------------------------------|-------------|--|--|--|--|
| Sample Location                    |                          | COYOTE RUN                                                   | GREEN 9     |  |  |  |  |
| Sample Identification              |                          |                                                              | 0-4"        |  |  |  |  |
| Lab Number                         |                          |                                                              | 0503-1      |  |  |  |  |
| Total Exchange Capacity (ME/100 g) |                          |                                                              | 10.65       |  |  |  |  |
| pH (H <sub>2</sub> O 1:1)          |                          |                                                              | 7.2         |  |  |  |  |
| Organic Matter (360°C LOI) %       |                          |                                                              | 3.28        |  |  |  |  |
| Estimated Nitrogen Release lb/A    |                          |                                                              | 83          |  |  |  |  |
| <b>ANIONS</b>                      | SOLUBLE SULFUR* ppm      |                                                              | 32          |  |  |  |  |
|                                    | <b>PHOSPHORUS</b>        | MEHLICH III lb/A P as P <sub>2</sub> O <sub>5</sub> ppm of P |             |  |  |  |  |
|                                    |                          | BRAY II lb/A P as P <sub>2</sub> O <sub>5</sub> ppm of P     |             |  |  |  |  |
|                                    |                          | OLSEN lb/A P as P <sub>2</sub> O <sub>5</sub> ppm of P       | 64<br>14    |  |  |  |  |
| <b>EXCHANGEABLE CATIONS</b>        | CALCIUM* lb/A ppm        |                                                              | 1994<br>997 |  |  |  |  |
|                                    | MAGNESIUM* lb/A ppm      |                                                              | 264<br>132  |  |  |  |  |
|                                    | POTASSIUM* lb/A ppm      |                                                              | 1912<br>956 |  |  |  |  |
|                                    | SODIUM* lb/A ppm         |                                                              | 768<br>384  |  |  |  |  |
|                                    |                          |                                                              |             |  |  |  |  |
| <b>BASE SATURATION PERCENT</b>     |                          |                                                              |             |  |  |  |  |
| Calcium %                          |                          |                                                              | 46.81       |  |  |  |  |
| Magnesium %                        |                          |                                                              | 10.33       |  |  |  |  |
| Potassium %                        |                          |                                                              | 23.02       |  |  |  |  |
| Sodium %                           |                          |                                                              | 15.68       |  |  |  |  |
| Other Bases %                      |                          |                                                              | 4.20        |  |  |  |  |
| Hydrogen %                         |                          |                                                              | 0.00        |  |  |  |  |
| <b>EXTRACTABLE MINORS</b>          |                          |                                                              |             |  |  |  |  |
| Boron M3 (ppm)                     |                          |                                                              |             |  |  |  |  |
| Iron** (ppm)                       |                          |                                                              | 12          |  |  |  |  |
| Manganese** (ppm)                  |                          |                                                              | 3           |  |  |  |  |
| Copper** (ppm)                     |                          |                                                              | 1.42        |  |  |  |  |
| Zinc** (ppm)                       |                          |                                                              | 4.16        |  |  |  |  |
| Aluminum (ppm)                     |                          |                                                              |             |  |  |  |  |
| <b>OTHER TESTS</b>                 | Soluble Salts (mmhos/cm) |                                                              |             |  |  |  |  |
|                                    | Chlorides (ppm)          |                                                              |             |  |  |  |  |
|                                    |                          |                                                              |             |  |  |  |  |

\* Ammonium Acetate Extractable (pH of 8.1)

\*\* DTPA Extractable

lb/A

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|------------------------------------|--------------------------|--------------------------------------------------------------|----------|--|--|--|--|
| Sample Location                    |                          | COYOTE RUN                                                   | GREEN 9  |  |  |  |  |
| Sample Identification              |                          |                                                              | BELOW 4" |  |  |  |  |
| Lab Number                         |                          |                                                              | 0504-1   |  |  |  |  |
| Total Exchange Capacity (ME/100 g) |                          |                                                              | 9.51     |  |  |  |  |
| pH (H <sub>2</sub> O 1:1)          |                          |                                                              | a<br>7.8 |  |  |  |  |
| Organic Matter (360°C LOI) %       |                          |                                                              | 2.13     |  |  |  |  |
| Estimated Nitrogen Release lb/A    |                          |                                                              | 63       |  |  |  |  |
| <b>ANIONS</b>                      | SOLUBLE SULFUR* ppm      |                                                              | 14       |  |  |  |  |
|                                    | <b>PHOSPHORUS</b>        | MEHLICH III lb/A P as P <sub>2</sub> O <sub>5</sub> ppm of P |          |  |  |  |  |
|                                    |                          | BRAY II lb/A P as P <sub>2</sub> O <sub>5</sub> ppm of P     |          |  |  |  |  |
|                                    |                          | OLSEN lb/A P as P <sub>2</sub> O <sub>5</sub> ppm of P       | 32<br>7  |  |  |  |  |
| <b>EXCHANGEABLE CATIONS</b>        | CALCIUM* lb/A            |                                                              | 1136     |  |  |  |  |
|                                    |                          |                                                              | 568      |  |  |  |  |
|                                    | MAGNESIUM* lb/A          |                                                              | 156      |  |  |  |  |
|                                    |                          |                                                              | 78       |  |  |  |  |
|                                    | POTASSIUM* lb/A          |                                                              | 2602     |  |  |  |  |
|                                    |                          | 1301                                                         |          |  |  |  |  |
| SODIUM* lb/A                       |                          | 1078                                                         |          |  |  |  |  |
|                                    |                          | 539                                                          |          |  |  |  |  |
| <b>BASE SATURATION PERCENT</b>     |                          |                                                              |          |  |  |  |  |
| Calcium %                          |                          |                                                              | 29.86    |  |  |  |  |
| Magnesium %                        |                          |                                                              | 6.83     |  |  |  |  |
| Potassium %                        |                          |                                                              | 35.08    |  |  |  |  |
| Sodium %                           |                          |                                                              | 24.64    |  |  |  |  |
| Other Bases %                      |                          |                                                              | 3.60     |  |  |  |  |
| Hydrogen %                         |                          |                                                              | 0.00     |  |  |  |  |
| <b>EXTRACTABLE MINORS</b>          |                          |                                                              |          |  |  |  |  |
| Boron M3 (ppm)                     |                          |                                                              |          |  |  |  |  |
| Iron** (ppm)                       |                          |                                                              | 1        |  |  |  |  |
| Manganese** (ppm)                  |                          |                                                              | < 1      |  |  |  |  |
| Copper** (ppm)                     |                          |                                                              | < 0.2    |  |  |  |  |
| Zinc** (ppm)                       |                          |                                                              | < 0.4    |  |  |  |  |
| Aluminum (ppm)                     |                          |                                                              |          |  |  |  |  |
| <b>OTHER TESTS</b>                 | Soluble Salts (mmhos/cm) |                                                              |          |  |  |  |  |
|                                    | Chlorides (ppm)          |                                                              |          |  |  |  |  |
|                                    |                          |                                                              |          |  |  |  |  |
|                                    |                          |                                                              |          |  |  |  |  |

a - alkaline soil

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\*\* DTPA Extractable