

## GEOLABS, INC.

Geotechnical Engineering

## Soil Log Legend

## UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

| MAJOR DIVISIONS  |   |                              | USCS                                   |    | TYPICAL<br>DESCRIPTIONS  |
|--|---|------------------------------|--|----|--|
| COARSE-<br>GRAINED<br>SOILS                                    | GRAVELS  MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE | CLEAN<br>GRAVELS             | 0000                                   | GW | WELL-GRADED GRAVELS, GRAVEL-SAND<br>MIXTURES, LITTLE OR NO FINES   |
|  |   | LESS THAN 5%<br>FINES        | 000                                    | GP | POORLY-GRADED GRAVELS, GRAVEL-SAND<br>MIXTURES, LITTLE OR NO FINES   |
|  |   | GRAVELS WITH<br>FINES        |  | GM | SILTY GRAVELS, GRAVEL-SAND-SILT<br>MIXTURES  |
|  |   | MORE THAN 12%<br>FINES       |  | GC | CLAYEY GRAVELS, GRAVEL-SAND-CLAY<br>MIXTURES   |
| MORE THAN 50%<br>OF MATERIAL<br>RETAINED ON NO.<br>200 SIEVE   | SANDS  50% OR MORE OF COARSE FRACTION PASSING THROUGH NO. 4 SIEVE | CLEAN SANDS                  | 0                                      | SW | WELL-GRADED SANDS, GRAVELLY SANDS,<br>LITTLE OR NO FINES   |
|  |   | LESS THAN 5%<br>FINES        |  | SP | POORLY-GRADED SANDS, GRAVELLY<br>SANDS, LITTLE OR NO FINES   |
|  |   | SANDS WITH<br>FINES          |  | SM | SILTY SANDS, SAND-SILT MIXTURES  |
|  |   | MORE THAN 12%<br>FINES       |  | sc | CLAYEY SANDS, SAND-CLAY MIXTURES   |
| FINE-<br>GRAINED<br>SOILS                                      | SILTS<br>AND<br>CLAYS   | LIQUID LIMIT<br>LESS THAN 50 |  | ML | INORGANIC SILTS AND VERY FINE SANDS,<br>ROCK FLOUR, SILTY OR CLAYEY FINE SANDS<br>OR CLAYEY SILTS WITH SLIGHT PLASTICITY |
|  |   |                              |  | CL | INORGANIC CLAYS OF LOW TO MEDIUM<br>PLASTICITY, GRAVELLY CLAYS, SANDY<br>CLAYS, SILTY CLAYS, LEAN CLAYS                  |
|  |   |                              | ************************************** | OL | ORGANIC SILTS AND ORGANIC SILTY<br>CLAYS OF LOW PLASTICITY   |
| 50% OR MORE OF<br>MATERIAL PASSING<br>THROUGH NO. 200<br>SIEVE | SILTS<br>AND<br>CLAYS   | LIQUID LIMIT<br>50 OR MORE   |  | МН | INORGANIC SILT, MICACEOUS OR<br>DIATOMACEOUS FINE SAND OR SILTY<br>SOILS   |
|  |   |                              |  | СН | INORGANIC CLAYS OF HIGH PLASTICITY   |
|  |   |                              |  | ОН | ORGANIC CLAYS OF MEDIUM TO HIGH<br>PLASTICITY, ORGANIC SILTS   |
| HIGHLY ORGANIC SOILS   |   |                              | <u> </u>                               | PT | PEAT, HUMUS, SWAMP SOILS WITH HIGH<br>ORGANIC CONTENTS   |

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS **LEGEND** 

(2-INCH) O.D. STANDARD PENETRATION TEST LL LIQUID LIMIT (NP=NON-PLASTIC) (3-INCH) O.D. MODIFIED CALIFORNIA SAMPLE PLASTICITY INDEX (NP=NON-PLASTIC) Ы SHELBY TUBE SAMPLE  $\mathsf{TV}$ TORVANE SHEAR (tsf) **GRAB SAMPLE** PEN POCKET PENETROMETER (tsf) **CORE SAMPLE** UC UNCONFINED COMPRESSION (ksf)  $\nabla$ WATER LEVEL OBSERVED IN BORING AT TIME OF TXUU UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (ksf)

DRILLING Ţ

WATER LEVEL OBSERVED IN BORING AFTER DRILLING

WATER LEVEL OBSERVED IN BORING OVERNIGHT

Plate

A - 0.1

 $ar{m{\Lambda}}$