



**Specific Gravity & Absorption of Coarse
Aggregates ASTM C 127-88**

| | | |
|---|-----------------------------------|-------------------------|
| CTL Job No.: _____ | Boring: <u>TP-6</u> | Date: <u>12/15/2014</u> |
| Client: _____ | Sample: <u>3+4</u> | By: <u>RU</u> |
| Project Name: _____ | Depth: <u>from 16,000, KSF TX</u> | Checked: <u>DC</u> |
| Project No.: _____ | Visual Classification: _____ | |
| Remarks: <u>Brown Poorly Graded GRAVEL w/ Silt & Sand</u> | | |

Test Results

| | | | |
|---|---------------|-------|-----|
| Wt of Oven Dry Rock in Air | <u>7176</u> | grams | (A) |
| Wt of Saturated Surface Dry Rock in Air | <u>7388.9</u> | grams | (B) |
| Wt of Saturated Rock in Water | <u>4728.7</u> | grams | (C) |

Calculations

| | | | |
|--|-------------|---|-----------------------------|
| Bulk Specific Gravity (Oven Dry) | <u>2.70</u> | | =A/(B-C) |
| Bulk Specific Gravity (Sat. Surface Dry) | <u>2.78</u> | | =B/(B-C); (G ₁) |
| Apparent Specific Gravity | <u>2.93</u> | | =A/(A-C) |
| Absorption | <u>2.97</u> | % | =[(B-A)/A] x 100 |

Weighted Average of (+) & (-) #4 Sieve Material

| | | | |
|-------------------------------------|--------------------|---|--|
| % Retained on #4 Sieve | <u>33</u> | % | (P ₁) |
| % Finer than #4 Sieve | <u>67</u> | % | (P ₂) |
| Gs of Material Finer than #4 Sieve* | <u>2.889</u> | | (G ₂) |
| Average Specific Gravity** | <u><u>2.85</u></u> | | =1/[(P ₁ /100G ₁)+(P ₂ /100G ₂)] |

* The specific gravity on the portion passing the #4 sieve was determined by ASTM D-854 (pycnometer method).

** Bulk Specific Gravity (SSD) is used to calculate weighted average assuming that the aggregate is in a moist state.