



**ASTM D6938 In-Place Density and Water Content of Soil and  
Soil-Aggregate by Nuclear Methods (Shallow Depth)**

**Project: FTW484 Access Control Lighting & Generators  
Fort Wainwright , AK  
Client: Eklutna Construction & Maintenance**

**Project #: 2026-001  
Date: June 8, 2026  
Area Tested: Conduit Trench**

**Material / Source:**

Silty sand w/ gravel/ Exist   Exist   120.9  
gravel/ exist                   143.3

**Gauge: Instron 3500**

**Ser: # 1748**

**Operator: John Trush**

| Test # | Soil Type            | Test Depth(in) | Lift Elev | Location                          | Wet Density | % Moist. | Dry Density | Max Density | Percent Density | Required Density |
|--------|----------------------|----------------|-----------|-----------------------------------|-------------|----------|-------------|-------------|-----------------|------------------|
| 1      | silty sand w/ gravel | 6"             | 1         | Conduit Trench backfill (see map) | 127.3       | 15.1     | 110.6       | 120.9       | 91.5%           | 90%              |
| 2      | silty sand w/ gravel | 6"             | 1         | Conduit Trench backfill (see map) | 122.2       | 12.0     | 109.1       | 120.9       | 90.2%           | 90%              |
| 3      | silty sand w/ gravel | 6"             | 1         | Conduit Trench backfill (see map) | 126.8       | 13.6     | 111.6       | 120.9       | 92.3%           | 90%              |
| 4      | silty sand w/ gravel | 6"             | 2         | Conduit Trench backfill (see map) | 127.2       | 12.4     | 113.2       | 120.9       | 93.6%           | 90%              |
| 5      | silty sand w/ gravel | 6"             | 2         | Conduit Trench backfill (see map) | 126.0       | 8.5      | 116.1       | 120.9       | 96.1%           | 90%              |
| 6      | silty sand w/ gravel | 6"             | 2         | Conduit Trench backfill (see map) | 126.0       | 10.5     | 114.0       | 120.9       | 94.3%           | 90%              |
| 7      | exist gravel         | 6"             | 1         | Conduit Trench backfill (see map) | 142.3       | 4.5      | 136.2       | 120.9       | 112.6%          | 90%              |
| 8      | exist gravel         | 6"             | 1         | Conduit Trench backfill (see map) | 143.1       | 4.8      | 136.5       | 143.3       | 95.3%           | 95%              |
| 9      | exist gravel         | 6"             | 1         | Conduit Trench backfill (see map) | 142.5       | 4.0      | 137.0       | 143.3       | 95.6%           | 95%              |

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|--------|--------------|----------------|-----------|-----------------------------------|-------------|----------|-------------|-------------|-----------------|------------------|
| 10     | exist gravel | 6"             | 2         | Conduit Trench backfill (see map) | 146.1       | 4.8      | 139.4       | 143.3       | 97.3%           | 95%              |
| 11     | exist gravel | 6"             | 2         | Conduit Trench backfill (see map) | 147.1       | 5.9      | 138.9       | 143.3       | 96.9%           | 95%              |
| 12     | exist gravel | 6"             | 2         | Conduit Trench backfill (see map) | 146.3       | 6.2      | 137.8       | 143.3       | 96.1%           | 95%              |
| 13     | exist gravel | 6"             | 3         | Conduit Trench backfill (see map) | 141.7       | 4.0      | 136.3       | 143.3       | 95.1%           | 95%              |
| 14     | exist gravel | 6"             | 3         | Conduit Trench backfill (see map) | 143.9       | 4.8      | 137.3       | 143.3       | 95.8%           | 95%              |
| 15     | exist gravel | 6"             | 3         | Conduit Trench backfill (see map) | 146.6       | 4.7      | 140.0       | 143.3       | 97.7%           | 95%              |

