



Boring Crew: J. Wimet (GeoDesign), J. Leonhardt (TransTech)
Date Started: 8/14/12 Date Finished: 8/15/12
VTSPG NAD83: N 762609.00 ft E 1612324.00 ft
Station: 4+28 Offset: 15' L
Ground Elevation: 634.0 ft

Type: FJ SS
I.D.: 4 in 1.38 in
Hammer Wt: 140 lb. 140 lb.
Hammer Fall: 30 in. 30 in.
Hammer/Rod Type: Auto/NWJ
Rig: CME 75 TRACK CE - 1.43

| Casing | | | Sampler | | | Groundwater Observations | | |
|----------|------------|----------------------|---------|------------|-------|--------------------------|------------|-------|
| Date | Depth (ft) | Notes | Date | Depth (ft) | Notes | Date | Depth (ft) | Notes |
| 08/14/12 | 16.5 | Wet soil. | | | | | | |
| 08/15/12 | 24.5 | In casing overnight. | | | | | | |

| Depth (ft) | Strata (ft) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. z (ft) | Drill Rate (min/ft) | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % | LL % | PI % |
|------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|---------------------|--------------------------|--------------------|----------|--------|---------|------|------|
| | | | | | | | | | | | | |
| 0 | 0.0 | Asphalt, 0.0 ft - 0.2 ft | | | | | | | | | | |
| 5 | 0.2 - 1.08 | Visual Description (Burmister), S1 (0.5'-2'): Medium dense, brown fine to coarse SAND and fine to coarse GRAVEL, trace (+) Silt, dry, (AASHTO M145 Classification: A-1-a) Rec. - 1.08 ft | | | | 18-11-14 (25) | 2.8 | 42.1 | 37.2 | 8.2 | | |
| 10 | 1.08 - 2.4 | Visual Description (Burmister), S2 (2'-4'): Medium dense, light brown fine SAND, some Silt, trace fine Gravel, slightly moist, Rec. - 1.58 ft, (AASHTO M145 Classification: A-2-4) | | | | 2-2-2-3 (4) | 6.8 | 1.3 | 72.4 | 26.3 | | |
| 15 | 2.4 - 4.4 | Visual Description (Burmister), S3 (5'-7'): Very loose, light brown fine to medium SAND, some Silt, slightly moist, Rec. - 1.5 ft, (AASHTO M145 Classification: A-2-4) | | | | 1-1-2-3 (3) | 5.2 | 0.4 | 74.0 | 25.6 | 31 | 3 |
| 20 | 4.4 - 7.9 | Visual Description (Burmister), S4 (7'-9'): Very loose, S4A - Top 7": similar to S3. (AASHTO M145 Classification A-2-4) S4B - Bottom 8": Soft, gray Clayey SILT, trace Clay & Silt partings, moist, (AASHTO M145 Classification A-4), Rec. - 1.25 ft | | | | 1-2-2-5 (4) | 29.1 | | 4.5 | 95.5 | 30 | 5 |
| 25 | 7.9 - 10.5 | Visual Description (Burmister), S5 (10'-12'): Very loose, gray SILT, little (-) Clayey Silt, very moist, Rec. - 1.5 ft, (AASHTO M145 Classification: A-4) | | | | 5-4-4-4 (8) | 8.4 | | | | | |
| 30 | 10.5 - 12.5 | Visual Description (Burmister), S6 (12'-14'): Loose, light brown fine SAND, some (-) Silt, slightly moist, Rec. - 1.75 ft | | | | 1-4-3-6 (7) | 28.8 | | 12.5 | 87.5 | | |
| 35 | 12.5 - 15.5 | Visual Description (Burmister), S7 (15'-17'): Loose, gray-brown to gray SILT, little Clayey Silt, trace fine Sand, very moist to wet at tip, Rec. - 1.58 ft, (AASHTO M145 Classification: A-4) | | | | 3-6-4-5 (10) | 28.7 | | 6.6 | 93.4 | 30 | 11 |
| 40 | 15.5 - 17.5 | Visual Description (Burmister), S8 (17'-19'): Medium dense gray with occasional brown mottling Clayey Silt, trace (+) fine Sand, trace Silty Clay seams up to 1/2" thick, wet, Rec. - 1.17 ft, (AASHTO M145 Classification: A-6) | | | | 9-16-14-50 (30) | 21.9 | | 13.0 | 87.0 | | |
| 45 | 17.5 - 20.0 | Visual Description (Burmister), S9 (20'-22'): Dense, S9A - Top 6": Grayish brown finely parted SILT, trace Clayey Silt, trace fine Sand, wet. S9B - Bottom 10": Light brown SILT and fine to medium SAND, little fine to coarse Gravel, wet. Coarse Gravel stuck in tip, Rec. - 1.33 ft, (AASHTO M145 Classification: A-4) | | | | 19-12-14-16 (26) | 12.6 | 18.6 | 32.6 | 37.8 | | |
| 50 | 20.0 - 22.0 | Visual Description (Burmister), S10 (22'-24'): Medium dense, grayish brown SILT, some fine to medium Sand, little fine Gravel, wet, Rec. - 1.25 ft | | | | 24-50/3" | 10.5 | 19.1 | 33.0 | 36.7 | | |
| 55 | 22.0 - 24.0 | Visual Description (Burmister), S11 (25'-25.75'): Refusal, gray SILT and fine to medium SAND, little fine Gravel, wet, Rec. - 0.5 ft, (AASHTO M145 Classification: A-4) | | | | 12-10-5-50/4" (45) | 10.4 | | 31.0 | 42.4 | 23.3 | |
| 60 | 24.0 - 25.75 | Visual Description (Burmister), S12 (30'-31.8') Medium dense, S12A - Top 11": Gray fine to medium SAND, some Silt, some fine Gravel, wet, Rec. - 1.25 ft, (AASHTO M145 Classification: A-2-4) S12B - Bottom 4": Gray | | | | Top of Bedrock @ 32.0 ft | | | | | | |

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.



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| | | | | | | | | | | | | |
| 55 | 55 - 58 | DECOMPOSED ROCK, foliated, (AASHTO M145 Classification: A-1-b) 32.0 ft - 34.8 ft, (C1) Fair quality, highly to moderately weathered, moderately hard to hard, fractured (top 10") to close jointed, gray with white intrusions PHYLLITE. Moderate reaction to dilute HCl in white intrusions, jointing near vertical with occasional horizontal beds. | | | | | | | | | | |
| 60 | 58 - 60 | 34.8 ft - 38.0 ft, (C2) Fair quality, slightly weathered with moderately weathered jointing, moderately hard to hard, close to moderately jointed, gray with white and occasional green PHYLLITE. With occasional white Quartzite intrusions. Moderate reaction to dilute HCl in white non-quartzite intrusions. Jointing at near vertical with occasional moderately weathered horizontal seams. | | | | | | | | | | |
| 65 | 60 - 65 | 38.0 ft - 40.3 ft, (C3) Good quality, slightly to moderately weathered with moderately weathered joints, moderately hard to hard, closely jointed, gray with white and occasional green PHYLLITE. With occasional white Quartzite intrusions. Moderate reaction to dilute HCl in occasional white non-quartzite intrusions. Jointing at near vertical with occasional near horizontal seams (possible driller breaks). | | | | | | | | | | |
| 70 | 65 - 70 | 40.3 ft - 42.0 ft, (C4) Poor quality, slightly to moderately weathered, moderately hard to hard, closely jointed, gray with green and white PHYLLITE. Occasional moderate reaction to dilute HCl in white intrusions. Jointing near vertical. | | | | | | | | | | |
| 75 | 70 - 75 | Hole stopped @ 42.0 ft | | | | | | | | | | |
| 80 | 75 - 80 | Remarks: 1) Ground surface elevation, coordinates, and stationing are estimated from an electronic site plan provided by TY Lin and taped measurements in the field. 2) Augered to 6" deep prior to sampling S1. 3) Auger grinding from 2' to 2.5' on inferred cobble or boulder. 4) Used 3.25" I.D. hollow stem augers (HSA) to 15' deep. Switch from HSA's to 4" O.D. flush joint casing after sampling S7 at 15' deep. 5) Driller attempted to advance boring open hole below 20' deep through dense silt. Noted approximately 12" of heave at 25' deep. Driller drove casing to 25' deep and cleared with the roller bit prior to taking sample S11. 6) Clean hole with roller bit and telescope 3" casing to 32' deep prior to coring. 7) Core run C1 was stopped after 33" of penetration at 34.8' deep due to core block. 8) Ended core run C2 at 38' due to core block. Recovered lost portion of C1 when coring C2 (39" penetration with 42" recovery). 9) Ended core run C3 at 40.3' deep due to core block. 10) SPT N-values were performed according to ASTM D1586. 11) Lab testing gradations reported are per AASHTO M145. | | | | | | | | | | |

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