

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 5 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 313 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/13/84 DATE COMP. 2/13/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 13.75 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/13/84 | | 13'4" | 13' | 13' | 300.3 | Encountered during drilling |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|-------|----------|--|--------|------------|--|
| | S1 | 0-2' | 2.3 | | Firm brown clayey silt, little f. sand, trace roots (ML) | TS | | |
| | S2 | 2-4' | 6.10 | | Hard red brown silty clay, trace f. gravel, trace c-f sand (CL) | RS | | S2-S4 pocket penetrometer readings = 4.0+ tsf |
| | S3 | 5-7' | 7.18 | | "DO S2" | RS | | |
| | S4 | 10-12' | 8.16 | | "DO S2" | DR | | |
| | S5 | 15-16' | 10.6 | | Yellow tan and gray c-f sand, some f. gravel, little clayey silt (SM) (Decomposed Shale) | DR | | |
| | S6 | 20-22' | 10.5 | | Yellow tan and reddish gray sandy f-c gravel, little to trace clay (GM) (Decomposed Shale) | DR | | |
| | C1 | 25-30' | 60" | | Reddish gray moderately weathered shale, fractured | R | | C1 is laminated, contains occasional calcite lenses and clay seams |
| | | | | | Completion Depth: 30.0' | | | |

1281 PLATE 3.1

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 2 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 316 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/16/84 DATE COMP. 2/16/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 14.9 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/16/84 | | 12' | 12' | 12' | 304.2 | Encountered during drilling |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|-------|----------|--|--------|------------|---|
| 0930 | S1 | 0-2' | 2.2 | | Firm brown clayey silt, trace f. gravel, trace f-c sand (ML) | TS | | |
| | S2 | 2-4' | 4.12 | | Hard red brown silty clay, trace f. gravel, trace f-c sand (CL) | RS | | S2S3 pocket penetrometer readings = 3.5 tsf |
| | S3 | 5-7' | 10.14 | | "DO S2" | RS | | |
| | S4 | 10-12' | 13.13 | | Red brown silty f-c sand, little f-c gravel, little clay (SM) (Decomposed Shale) | DR | | |
| | S5 | 13-20' | 20.21 | | Red brown silty c-f gravel, little f-c sand, trace clay (GM) (Decomposed Shale) | DR | | |
| 1030 | | | | | Completion Depth: 14'11" | | | |

1281 PLATE 3.2

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 3 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 311 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/16/84 DATE COMP. 2/16/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 14.8 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/16/84 | | 5' | 5' | 5' | 306.8 | Encountered during drilling |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|--------|----------|---|--------|------------|--|
| 1045 | S1 | 0-2' | 2.2 | | Topsoil becoming brown clayey silt, little f-m sand, trace f. gravel with roots (ML) | TS | | S1 sample wet |
| | S2 | 2-4' | 6.13 | | S2: Hard red brown silty clay, trace f. gravel, trace f-c sand (CL) | RS | | S2S3 pocket penetrometer readings = 3.5+ tsf |
| | S3 | 5-7' | 10.10 | | S3: Hard red brown and yellow clayey silt, trace f. gravel, trace f-c sand (ML) becoming decomposed shale | RS | | |
| | S4 | 10-11' | 20.38 | | Gray and yellow tan sandy f-c gravel, little silt (GM) (Decomposed Shale) | DR | | |
| | S5 | 13-28' | 100/4" | | Gray clayey c-m sand, little f. gravel, little silt, trace f. sand (SC) (Decomposed Shale) | DR | | Completion Depth: 13'10" |
| 1115 | | | | | | | | |

1281 PLATE 3.3

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 4 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 311 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/16/84 DATE COMP. 2/16/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 13.75 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/16/84 | | 7'6" | 7'6" | 7'6" | 304.8 | Encountered during drilling |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|--------|----------|--|--------|------------|--|
| 1125 | S1 | 0-2' | 1.2 | | Firm red brown silty clay, trace f. gravel, trace f-m sand (CL) | TS | | |
| | S2 | 2-4' | 7.23 | | Hard red brown silty clay, little f. gravel, trace f-m sand (CL) | RS | | S2S3 pocket penetrometer reading = 3.5-4.5 tsf |
| | S3 | 5-7' | 8.14 | | Hard red brown and yellowish gray silty clay, trace f. gravel, trace f. sand (CL) | RS | | |
| | S4 | 10-11' | 37 | | Brown and gray silty f-c gravel, little f-c sand, trace clay (GM) (Decomposed Shale) | DR | | |
| | S5 | 13-30' | 100/2" | | Dark gray gravelly c-f sand, little silt, trace clay (SM) (Decomposed Shale) | DR | | Completion Depth: 13'9" |
| 1200 | | | | | | | | |

1281 PLATE 3.4

- NOTES
- FOR BORING AND TEST PIT LOCATIONS, SEE DWG. 135-B1.
 - (CML), (CL), ETC INDICATES ASTM D2487 GROUP SYMBOLS, SEE SOIL CLASSIFICATION CHART ON DWG. 135-B4. (PLATE 2)
 - FOR DESCRIPTION OF ROCK CLASSIFICATION SYSTEM, SEE DWG. 135-B4 (PLATE 3).
 - TS, RS, ETC INDICATES STRATA DESIGNATION, SEE SUB-SURFACE LEGEND ON PLATE 6, DWG. 135-B4.

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 5 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 320 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/16/84 DATE COMP. 2/16/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 13.2 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/16/84 | | 12'6" | 12'6" | 12'6" | 307.4 | Encountered during drilling |
| 2/27/84 | | 13'2" | 13'2" | 7'10" | 312.2 | |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|--------|----------|---|--------|------------|---|
| 1425 | S1 | 0-2' | 2.3 | | Soft brown clayey silt, little c. gravel, little f-m sand and roots (ML) | TS | | |
| | S2 | 2-4' | 4.4 | | S2: Red brown clayey c-f sand, little f. gravel, trace silt (SC) | RS | | S3 pocket penetrometer reading = 4.0+ tsf |
| | S3 | 5-7' | 20.47 | | S3: Hard red brown silty clay, little f. gravel, trace c-f sand (CL) | RS | | |
| | S4 | 10-10' | 100/3" | | Light red brown sandy f. gravel, trace c. gravel, little silt (GM) (Decomposed Shale) | DR | | |
| | S5 | 13-20' | 100/2" | | Red brown silty f-c gravel, little silt, trace clay (GM) (Decomposed Shale) | DR | | Completion Depth: 13'2" |
| 1520 | | | | | | | | |

1281 PLATE 3.5

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 6 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 308 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/16/84 DATE COMP. 2/16/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 13.3 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/16/84 | | 4'6" | 4'6" | 4'6" | 304.5 | Encountered during drilling |
| 2/27/84 | | 13'4" | 13'4" | 7'6" | 300.5 | |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|--------|----------|---|--------|------------|---|
| 1210 | S1 | 0-2' | 1.3 | | Very stiff red brown silty clay, little f-m sand, trace f. gravel (CL) | TS | | S1-S2B pocket penetrometer reading = 3.5+ tsf |
| | S2A | 2-4' | 20.28 | | S2A: Hard red brown silty clay, trace f. gravel, trace f-m sand (CL) | RS | | |
| | S2B | 4-6' | 62.71 | | S2B: Hard red brown and yellowish gray silty clay, trace f-m sand (CL) | RS | | |
| | S3 | 5-6'5" | 21.38 | | S3: Gray sandy f. gravel, trace c. gravel, trace silt (GP-GM) (Decomposed Shale) | DR | | |
| | S4 | 10-10' | 100/6" | | S4: Red brown and gray sandy f-c gravel, little silt (GM) (Decomposed Shale) | DR | | |
| | S5 | 13-20' | 100/4" | | S5: Red brown sandy f. gravel, trace c. gravel, trace silt (GP-GM) (Decomposed Shale) | DR | | Completion Depth: 13'4" |
| 11250 | | | | | | | | |

1281 PLATE 3.6

PAULUS, SOKOLOWSKI & SARTOR CONSULTING ENGINEERS BORING LOG SHEET 1 of 1 BORING NO. 7 JOB NO. 001-3046 PROJECT 240 Bed Nursing Care Unit, Lyons V.A. Hospital ELEVATION 310 DATUM NSL BORING LOCATION Lyons, New Jersey DATE STARTED 2/16/84 DATE COMP. 2/16/84 CONTRACTOR Testwell Craig DRILLER J. Freck HELPER C. Gray TYPE OF RIG TRUCK SKID BARGE MOUNTED TRIPOD OTHER CME & ATV CASING DIA. 4 IN. FROM 0 TO 13.75 FT. DIA. IN. FROM TO FT. AUGER'S DRILLING MUD UTILIZED MUD TYPE SPOON SAMPLER 2" O.D. Split Spoon SAMPLING EQUIPMENT TUBE SAMPLER DIA. IN. TYPE CORE BIT NX FEED DURING CORING MECHANICAL HYDRAULIC OTHER CORE BIT NX SAMPLER HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN. CASING HAMMER WEIGHT (LBS) 140 AVG. FALL 30 IN.

| DATE | TIME | DEPTH OF HOLE | DEPTH OF CASING | DEPTH TO WATER | SURFACE WATER ELEV. | REMARKS |
|---------|------|---------------|-----------------|----------------|---------------------|-----------------------------|
| 2/16/84 | | 13' | 13' | 13' | 297.0 | Encountered during drilling |
| 2/27/84 | | 13'9" | 13'9" | 10' | 300.0 | |

| DAILY PROGRESS | CASING BLOWS | NO. | DEPTH | BLOWS/FT | SAMPLE DESCRIPTION | STRATA | DEPTH (FT) | REMARKS |
|----------------|--------------|--------|--------|----------|---|--------|------------|--|
| 1335 | S1 | 0-2' | 1.3 | | Hard red brown silty clay, trace f. gravel, trace f-m sand (CL) | TS | | S1-S3 pocket penetrometer reading = 3.5+ tsf |
| | S2 | 2-4' | 19.20 | | Hard red brown silty clay, little f. gravel, trace f-c sand (CL) | RS | | |
| | S3 | 5-7' | 20.23 | | Hard red brown silty clay (CL) becoming hard reddish gray silty clay with f-c gravel (CL/GC) (Decomposed Shale) | RS | | |
| | S4 | 10-11' | 14 | | Reddish gray silty c-f sand, some f. gravel, trace clay (SM) (Decomposed Shale) | DR | | |
| | S5 | 13-20' | 100/3" | | Gray brown f-c gravel, some c-f sand, trace clayey silt (GP-GM) (Decomposed Shale) | DR | | Completion Depth: 13'9" |
| 1415 | | | | | | | | |

1281 PLATE 3.7