

**Table 3-6
Jar-Shake Test Results
Groundwater Remedial Investigation Report
Garfield Avenue Group of Sites
PPG, Jersey City, New Jersey**



Well ID	Depth (ft bgs)	USCS Code	Material Description Based on Field Observation	Jar Shake Test Result (% Fines) ¹	Estimated Hydraulic Conductivity (cm/sec) ²
114-MW48C	20	ML	Gray (7.5YR 5/1) clayey SILT, grades into greenish-gray (10Y 5/1) clayey silt, fine sand, damp.	20	10 ⁻³ to 10 ⁻⁶
114-MW48C	25	SP-SM	Dark greyish brown (10YR 4/2) to brown (7.5YR 4/4), poorly graded SAND with silt, fine sand, little medium sand, silt, loose, wet.	5-10	> 10 ⁻³ to 10 ⁻⁶
114-MW48C	35	SP-SM	Reddish brown (7.5YR 5/6) to yellowish red (5YR 4/6), poorly graded SAND with silt, fine sand, little medium sand, trace coarse sand, little subrounded fine to coarse gravel, loose, wet.	10-15	> 10 ⁻³ to 10 ⁻⁶
114-MW48C	49	SW-SC	Reddish brown (5YR 5/3) clayey SAND, fine to coarse sand, little angular fine to coarse gravel, clay, dense, compacted, damp (Basal Till).	30	> 10 ⁻³ to 10 ⁻⁸
114-MW48C	50	SW-SC	Reddish brown (5YR 5/3) clayey SAND, fine to coarse sand, little subrounded to subangular fine to coarse gravel, clay, damp (becomes dry to damp at 57.5' to 58') (Basal Till). Boulder at 52 ft bgs.	20	> 10 ⁻³ to 10 ⁻⁸
114-MW49C	22.5	SM	Red (2.5YR 4/6) silty SAND, fine sand, loose, wet.	15-20	10 ⁻³ to 10 ⁻⁶
114-MW49C	30	SP-SM	Red (2.5YR 4/6) poorly graded SAND with silt, fine sand, few silt, loose, wet.	15	> 10 ⁻³ to 10 ⁻⁶
114-MW49C	37	SP	Red (2.5YR 4/6) poorly graded SAND, fine sand, trace silt, loose, sharp contact with underlying clay, wet.	5	> 10 ⁻³
114-MW49C	55	SW-SC	Reddish brown (2.5YR 4/3) clayey SAND, fine to coarse sand, little subangular fine to coarse gravel (up to 2.5 inch across), very hard, dense and compacted, damp (Basal Till).	25	> 10 ⁻³ to 10 ⁻⁸
114-MW49C	65	SP	Interbedded SAND, poorly graded sand, fine to medium sand (Basal Basal Till).	10	> 10 ⁻³
114-MW50C	23.3	SP	Reddish brown (5YR 5/3) poorly graded SAND, fine SAND, trace SILT, wet.	5	> 10 ⁻³
114-MW50C	33	CL/ML	Reddish brown (5YR 4/3) laminated SILT and CLAY, medium dense, wet. Pale yellow groundwater.	80	10 ⁻³ to 10 ⁻⁸
114-MW50C	39	SM	Reddish brown (5YR 4/3) silty SAND with few GRAVEL, medium SAND, little fine SAND, trace coarse SAND, few sub-angular fine to coarse GRAVEL, moist.	20	10 ⁻³ to 10 ⁻⁶
114-MW50C	43	SM	Dark reddish brown (2.5YR 3/3) silty SAND, few sub-angular fine to coarse GRAVEL. Color changes to light olive gray (5Y 6/2) from 44.5' to 44.6'.	20	10 ⁻³ to 10 ⁻⁶
114-MW50C	49	SC-SM	Light brown (7.5YR 6/4) clayey SAND or silty SAND, fine to coarse SAND, SILT, few to little sub-angular to sub-rounded fine to coarse GRAVEL, coarse GRAVEL (up to 2" across), moist, firm, (Basal Till).	20	10 ⁻³ to 10 ⁻⁸
114-MW51C	30	SP-SM	Reddish brown (2.5YR 4/4) poorly graded SAND with SILT, fine SAND, sheen on groundwater, loose, wet.	5-10	> 10 ⁻³ to 10 ⁻⁶
114-MW51C	35	SP-SM	Reddish brown (2.5YR 4/4) poorly graded SAND with SILT, fine SAND.	15	> 10 ⁻³ to 10 ⁻⁶
114-MW51C	38	CL/ML	Weak red (10YR 4/3) SILT, CLAY, fine SAND, laminated.	80	10 ⁻³ to 10 ⁻⁸
114-MW51C	60	SC	Reddish brown (2YR 4/3) clayey SAND, fine to medium SAND, trace coarse SAND, few to little sub-rounded to sub-angular fine to coarse GRAVEL, medium hardness, wet.	25	10 ⁻⁶ to 10 ⁻⁸
114-MW51C	68	CL	Dark reddish gray (2.5YR 4/1) sandy CLAY, angular, fine to coarse SAND, little fine to coarse GRAVEL, hard, very dense, dry (Basal Till).	50-60	10 ⁻⁶ to 10 ⁻⁸
114-MW52C	25	SM	Reddish brown poorly graded sand, fine sand, some silt, loose, wet. Yellow groundwater observed at 25 ft.	30	10 ⁻³ to 10 ⁻⁶
114-MW52C	40	SP	Reddish brown poorly graded SAND, fine sand, little medium sand, wet.	10	> 10 ⁻³
114-MW52C	48	SW	Reddish brown well graded SAND, with little silt, fine to coarse sand, little subrounded to subangular fine to coarse gravel, several large pieces of gravel (up to 2.5 inch in diameter), wet. Bright yellow groundwater observed at 48 ft.	25	> 10 ⁻³
114-MW52C	54	SW-SC	Reddish brown well graded SAND with few clay, fine to coarse sand, wet.	10	> 10 ⁻³ to 10 ⁻⁸
114-MW52C	61.5	SC	Reddish brown well graded SAND with some clay, little subrounded to subangular fine to coarse gravel, very dense, damp (Basal Till).	30	10 ⁻⁶ to 10 ⁻⁸
114-MW52C	66	SC/GC	Reddish brown well graded SAND, fine to coarse sand, some clay, fine to coarse subangular gravel, dry to damp (Basal Till). Seam of well graded fine to coarse gravel from 65-65.2.	30	10 ⁻⁶ to 10 ⁻⁸
114-MW52C	72.5	SW-SC	Well graded SAND, fine to coarse sand with some clay, fine to coarse gravel embedded in sandy clay, very dense, dry to damp (Basal Till).	40	> 10 ⁻³ to 10 ⁻⁸
114-MW53C	22.5	SW	Reddish brown well graded SAND, little silt, little fine to coarse subrounded GRAVEL, medium dense, damp to wet.	25	> 10 ⁻³
114-MW53C	28	SM	Reddish brown poorly graded SAND with some silt, little fine to subrounded coarse gravel, wet.	30	10 ⁻³ to 10 ⁻⁶
114-MW53C	31	SP	Reddish brown poorly graded SAND with little silt, loose, wet.	25	> 10 ⁻³
114-MW53C	37	ML	Reddish brown sandy SILT, medium dense, wet.	60	10 ⁻³ to 10 ⁻⁶
114-MW53C	39	ML	Reddish brown sandy SILT, wet.	75	10 ⁻³ to 10 ⁻⁶
114-MW53C	40	SW	Reddish brown well graded SAND, few silt, fine to medium sand, few coarse sand, loose, wet.	10-15	> 10 ⁻³
114-MW53C	43	SC	Reddish brown well graded SAND with some clay, fine to coarse sand, few to fine to coarse gravel, medium dense, damp to wet (Basal Till).	30	10 ⁻⁶ to 10 ⁻⁸
114-MW53C	44	CL/GC	Gray sandy CLAY, fine to coarse sand, some fine to coarse gravel (up to 3 inches in diameter), very dense, damp to wet (Basal Till).	60	10 ⁻⁶ to 10 ⁻⁸
114-MW53C	45	SP	Brown (7.5YR 4/3) poorly graded SAND, few silt, wet (Basal Till).	5-10	> 10 ⁻³

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Well ID	Depth (ft bgs)	USCS Code	Material Description Based on Field Observation	Jar Shake Test Result (% Fines) ¹	Estimated Hydraulic Conductivity (cm/sec) ²
114-MW54C	20	SM	Dusky red (10YR 3/2) silty SAND, some medium sand, little fine sand, trace coarse sand, little fine to sub-rounded coarse gravel, MGP sheen, wet.	25	10 ⁻³ to 10 ⁻⁶
114-MW54C	23	SM	Yellowish red (5YR 4/6) silty SAND, fine sand, loose, MGP sheen (up to 28'), wet.	20	10 ⁻³ to 10 ⁻⁶
114-MW54C	30	SP-SM	Weak red (10YR 4/4) poorly graded SAND with silt, loose, wet.	15	> 10 ⁻³ to 10 ⁻⁶
114-MW54C	35	SM	Weak red (10YR 4/4) silty SAND, fine sand, loose, wet.	30	10 ⁻³ to 10 ⁻⁶
114-MW54C	37.5	ML	Light reddish brown (5YR 5/4) SILT, wet.	80	10 ⁻³ to 10 ⁻⁶
114-MW54C	43.5	SM	Weak red (10YR 5/4) silty SAND, fine sand, silt, loose, moist.	25	10 ⁻³ to 10 ⁻⁶
114-MW54C	50	SP-SM	Reddish brown (2.5YR 4/3) poorly graded SAND with silt, fine sand, SILT, loose, wet.	15-20	> 10 ⁻³ to 10 ⁻⁶
114-MW54C	60	SM	Reddish brown (5YR 4/3) silty SAND, fine sand, moist.	20	10 ⁻³ to 10 ⁻⁶
114-MW54C	69	SC-SM	Light brownish gray (10YR 6/2) clayey SAND or silty sand, fine to sand, little fine to coarse gravel (up to 2.5" across), very firm, dry (Basal Till).	30	10 ⁻³ to 10 ⁻⁸
114-MW54C	70	SM	Dark gray (7.5YR 4/1) silty SAND, fine to coarse sand, few gravel, dry (Basal Till).	25	10 ⁻³ to 10 ⁻⁶
114-MW54C	75	SM	Dark gray (7.5YR 4/1) silty SAND, fine to coarse sand, few gravel, dry (Basal Till).	25	10 ⁻³ to 10 ⁻⁶
114-MW55C	31	ML	Yellowish red (5YR 4/6) sandy SILT, yellowish groundwater, loose, wet.	55	10 ⁻³ to 10 ⁻⁶
114-MW55C	41	SM	Yellowish red (5YR 4/6) silty SAND, fine sand, loose, wet, yellowish groundwater.	20	10 ⁻³ to 10 ⁻⁶
114-MW55C	45	ML	Reddish brown (5YR 5/4) SILT, loose, wet.	90	10 ⁻³ to 10 ⁻⁶
114-MW55C	50	SM	Reddish brown (2.5YR 4/4) silty SAND, fine sand, wet, yellow groundwater.	15-20	10 ⁻³ to 10 ⁻⁶
114-MW55C	54	SM	Reddish brown (2.5YR 4/4) silty SAND, fine sand, wet, yellow groundwater.	20	10 ⁻³ to 10 ⁻⁶
114-MW55C	55	ML/CL	Reddish brown (2.5YR 4/4) sandy SILT, fine SAND and CLAY laminae, yellow groundwater.	70	10 ⁻³ to 10 ⁻⁸
114-MW55C	61	SP-SM	Reddish brown poorly graded SAND with silt, fine to medium sand, trace coarse sand.	10	> 10 ⁻³ to 10 ⁻⁶
114-MW55C	62.5	CL/ML	Yellowish red (5YR 4/6) sandy CLAY and sandy silt, silt and clay laminae.	70	10 ⁻³ to 10 ⁻⁸
114-MW55C	63	ML	Reddish brown SILT with fine sand.	80	10 ⁻³ to 10 ⁻⁶
114-MW56C	24	SP	Reddish brown poorly graded SAND, medium sand with few silt, damp to wet.	10-15	> 10 ⁻³
114-MW56C	28	SP	Reddish brown poorly graded SAND, trace silt, fine to medium sand, damp to wet. Yellow tinged soils (strong brown, 7.5YR 5/6) observed between 29-30 ft bgs.	5	> 10 ⁻³
114-MW56C	39	SM	Reddish brown poorly graded SAND with some silt, mostly fine sand, wet. Very pale yellow water observed between 38-40 ft bgs.	35	10 ⁻³ to 10 ⁻⁶
114-MW56C	48	SM	Poorly graded fine SAND, some silt, wet.	30	10 ⁻³ to 10 ⁻⁶
114-MW56C	50.5	SP	Reddish brown poorly graded SAND with few silt, fine to medium sand, wet. Green-yellow water observed from 50-52 ft bgs.	10	> 10 ⁻³
114-MW56C	57	SC	Reddish brown well graded SAND with some clay, embedded with fine to coarse gravel, medium dense, damp (Basal Till). Yellow water from 57-58 ft bgs.	35	10 ⁻⁶ to 10 ⁻⁸
114-MW56C	60	SP	Reddish brown poorly graded SAND, loose, wet.	1-5	> 10 ⁻³
114-MW56C	64	SC	Well graded sand with some clay, fine to coarse sand, embedded fine gravel, dense, dry to damp (Basal Till).	30	10 ⁻⁶ to 10 ⁻⁸
114-MW57C	11.5	SP	Strong brown (7.5YR 4/6) fine SAND with little silt, dried plant roots, dense.	25	> 10 ⁻³
114-MW57C	21	SP	Grayish brown (10YR 5/2) poorly graded medium SAND, little fine sand, trace coarse sand and silt, loose, wet.	1-5	> 10 ⁻³
114-MW57C	22.5	SP	Reddish brown (5YR 5/4) poorly graded SAND with few silt, fine sand, loose to medium dense, wet. Yellow-tinged soils noted in the middle of the core after drying.	10	> 10 ⁻³
114-MW57C	23	ML	Reddish brown sandy SILT, wet.	60	10 ⁻³ to 10 ⁻⁶
114-MW57C	25.5	SP	Dark reddish brown (5YR 3/4) with gray to black mottling, poorly graded fine SAND, loose to medium dense, wet.	5	> 10 ⁻³
114-MW57C	31	SP	Black and brown (7.5YR 4/2) and dark reddish brown (5YR 3/2) poorly graded SAND with trace silt, wet.	5	> 10 ⁻³
114-MW57C	53	SP	Dark reddish brown with black mottling, poorly graded SAND with little silt, fine sand, trace coarse sand, wet to damp.	25	> 10 ⁻³
114-MW57C	61.5	SP	Reddish brown poorly graded SAND with little silt, few medium grained sand, loose, wet.	10	> 10 ⁻³

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114-MW58C	20.5	SW	Reddish brown (5YR 5/3) well graded SAND with little silt, fine to coarse sand, little to some fine to coarse gravel, loose, wet. MGP sheen and odor.	25	> 10 ⁻³
114-MW58C	23	SP	Light reddish brown (2.5YR 3/3) poorly graded SAND with few silt, medium sand, trace coarse sand, loose, wet.	10	> 10 ⁻³
114-MW58C	28	SP	Reddish brown (5YR 4/4) poorly graded SAND with little silt, mostly medium sand, trace coarse sand, loose, wet.	20	> 10 ⁻³
114-MW58C	30	SP	Reddish brown poorly graded SAND with few silt, fine to medium sand, loose, wet.	10	> 10 ⁻³
114-MW58C	38	SP	Reddish brown poorly graded SAND with few silt, mostly fine sand, loose, wet.	10	> 10 ⁻³
114-MW58C	45.5	SP	Reddish brown poorly graded SAND, mostly fine sand, trace silt, loose, wet.	5	> 10 ⁻³
114-MW58C	50	SP	Reddish brown (5YR 4/4) poorly graded SAND with little silt, mostly fine sand, wet.	25	> 10 ⁻³
114-MW58C	55	SM-SC	Reddish brown (5YR 4/4) poorly graded SAND with some silt/clay and fine gravel embedded, dense, wet.	30	10 ⁻³ to 10 ⁻⁸
114-MW58C	61	SP	Reddish brown (5YR 4/1) poorly graded SAND with few silt, fine sand, loose, wet.	5-10	> 10 ⁻³
114-MW58C	62.5	SW	Reddish brown (5YR 4/4) well graded SAND with little silt, mostly fine sand, some subangular to subrounded coarse gravel (up to 2 inches in diameter), medium dense to loose, wet.	20	> 10 ⁻³
114-MW58C	65	SM	Reddish brown well graded SAND with some silt, fine to coarse sand, few embedded gravel, dense, damp to wet (Basal Till).	35	10 ⁻³ to 10 ⁻⁶
114-MW58C	70	SM	Reddish brown (5YR 4/4) poorly graded SAND with some silt, fine sand, loose, damp (Basal Till).	70	10 ⁻³ to 10 ⁻⁶
114-MW59C	20	SP	Reddish brown poorly graded SAND with little silt, little subrounded fine to coarse gravel. Strong MGP odor and sheen. PID = 6 ppm.	25	> 10 ⁻³
114-MW59C	25	SP	Dark reddish brown poorly graded SAND with few silt, mostly medium sand, little fine sand, loose, wet. Strong MGP odor and sheen.	5-10	> 10 ⁻³
114-MW59C	29	SP	Dark reddish brown (black staining from MGP) poorly graded SAND with little silt, mostly medium sand, little fine sand, trace fine subrounded gravel, wet. Strong MGP odor and sheen. PID = 65 ppm.	10	> 10 ⁻³
114-MW59C	30	SP	Reddish brown (2.5YR 4/3) poorly graded SAND, fine to medium sand, few medium sand, wet. PID = 39 ppm.	15-20	> 10 ⁻³
114-MW59C	35	SP	Dark reddish brown (5YR 3/2) poorly graded SAND with few silt, fine sand, wet. PID = 63 ppm.	10-15	> 10 ⁻³
114-MW59C	39.5	SP	Poorly graded SAND with little silt, mostly fine sand, wet.	20-25	> 10 ⁻³
114-MW59C	40	SP	Reddish brown (5YR 4/3) poorly graded SAND with few silt, loose, wet. MGP odor and sheen. PID = decreases from 50 ppm to 0.8 ppm.	10-15	> 10 ⁻³
114-MW59C	72.5	CL	Reddish brown CLAY with little sand, soft, wet.	75	10 ⁻⁶ to 10 ⁻⁸
114-MW59C	89.5	CL	Reddish brown CLAY with few sand and angular rock pieces, several cobbles (up to 2 inches in diameter), very dense, damp (Basal Till).	90	10 ⁻⁶ to 10 ⁻⁸
114-MW60C	21.5	SP	Reddish brown poorly graded SAND, medium sand, few coarse sand, few silt, few fine to coarse subrounded to subangular gravel, 1-inch thick clay lens at 21.8 ft bgs, wet.	5-10	> 10 ⁻³
114-MW60C	23	SP	Reddish brown poorly graded SAND, medium sand, trace coarse sand, trace silt, wet.	1-5	> 10 ⁻³
114-MW60C	25	SP	Reddish brown poorly graded SAND with few silt, medium sand, trace coarse sand, loose to medium density, wet.	10	> 10 ⁻³
114-MW60C	31	SP	Reddish brown poorly graded SAND with few silt, fine sand, few medium sand, wet. MGP odor and sheen on soils from 31.5 ft bgs, soil stained to dark brown (7.5YR 3/2).	10	> 10 ⁻³
114-MW60C	39	SP	Reddish brown (5YR 4/4) SAND with little silt, wet. Yellow tinge on soil surface after drying.	20	> 10 ⁻³
114-MW60C	41	SP	Reddish brown poorly graded SAND with little silt, fine sand, few medium sand, trace coarse sand, loose, wet. Yellow groundwater observed at 40 ft bgs.	20	> 10 ⁻³
114-MW60C	53.5	ML	Reddish brown sandy SILT, yellow groundwater, wet.	30	10 ⁻³ to 10 ⁻⁶
114-MW60C	92	SP	Reddish brown poorly graded SAND with few silt, fine sand, trace coarse sand, trace gravel, wet.	10	> 10 ⁻³
114-MW60C	116	SM	Fine SAND with some silt, few medium to coarse rock pieces, loose, soft, wet (Basal Till).	35	10 ⁻³ to 10 ⁻⁶
114-MW60C	118	ML	Reddish brown (5YR 5/3) sandy SILT, trace coarse sand, trace gravel, medium stiff, wet (Basal Till).	75	10 ⁻³ to 10 ⁻⁶
114-MW61C	22.5	SP	Reddish brown poorly graded SAND with little silt, mostly fine sand, little medium sand, black staining from 24-25 ft bgs, loose, wet.	25	> 10 ⁻³
114-MW61C	30	SP	Dark reddish brown (5YR 3/3) poorly graded fine SAND, trace silt, wet.	5	> 10 ⁻³
114-MW61C	32.5	SP	Reddish brown poorly graded SAND with little silt, mostly fine sand, wet.	25	> 10 ⁻³
114-MW61C	35	CL	Reddish brown CLAY with some interbedded fine sand laminae, medium stiff, wet.	30	10 ⁻⁶ to 10 ⁻⁸
114-MW61C	42.5	SP	Reddish brown poorly graded SAND, fine to medium sand, loose, wet.	5	> 10 ⁻³
114-MW61C	47	SP	Reddish brown poorly graded SAND with trace silt, loose, wet.	5	> 10 ⁻³
114-MW61C	50	SP	Poorly graded SAND, wet. Faint yellow staining on sand after drying.	10-15	> 10 ⁻³
114-MW61C	50.5	SW-SC	Well graded SAND with some clay, fine to coarse sand, little fine to coarse gravel, damp to wet (Basal Till).	5	> 10 ⁻³ to 10 ⁻⁸
114-MW61C	54	SW-SC	Well graded SAND with some clay, fine to coarse sand, little fine to coarse gravel, damp to wet (Basal Till).	35	> 10 ⁻³ to 10 ⁻⁸
114-MW61C	57.5	SW-SC	Reddish brown well graded SAND with some clay, fine to coarse sand, little subrounded to subangular gravel, medium dense to very dense, damp (Basal Till).	30	> 10 ⁻³ to 10 ⁻⁸
114-MW61C	60.5	SW	Reddish brown well graded SAND with few silt, loose, damp to wet (Basal Till).	10	> 10 ⁻³

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114-MW62C	20	SP	Dark reddish brown (2.5YR 3/3) poorly graded SAND with little silt, subangular medium sand, trace coarse sand, loose, wet. Pale yellow groundwater observed.	15	> 10 ⁻³
114-MW62C	21	SP	Reddish brown (2.5YR 4/3) poorly graded SAND with little silt, fine sand, wet.	20	> 10 ⁻³
114-MW62C	22	SP	Reddish brown (2.5YR 4/3) poorly graded SAND with little silt, fine sand, wet.	15	> 10 ⁻³
114-MW62C	22.5	SP	Dark reddish brown (2.5YR 3/3) poorly graded SAND with little silt, wet. Pale yellow groundwater observed at 22.0 ft.	40	> 10 ⁻³
114-MW62C	24	ML	Reddish brown (5YR 4/4) sandy SILT, fine sand, wet.	60	10 ⁻³ to 10 ⁻⁶
114-MW62C	31	ML	Reddish brown (5YR 4/4) SILT with sand, fine sand, loose, wet.	55	10 ⁻³ to 10 ⁻⁶
114-MW62C	33	ML	Reddish brown (2.5YR 5/3) SILT with trace fine sand, wet.	55	10 ⁻³ to 10 ⁻⁶
114-MW62C	35	ML	Reddish brown (2.5YR 5/3) SILT with trace fine sand, wet.	95	10 ⁻³ to 10 ⁻⁶
114-MW62C	41	SW	Reddish brown (5YR 4/3) well graded SAND with few silt, medium sand, few fine sand, few coarse sand, little fine to coarse gravel (up to 2" across), grades into sand with little silt at 45 ft bgs, wet.	10	> 10 ⁻³
114-MW62C	45	SP	Reddish brown (5YR 4/3) poorly graded SAND with little silt, medium sand, few coarse sand, loose, wet.	20	> 10 ⁻³
114-MW62C	46.5	SM	Reddish brown (2.5YR 4/4) widely graded SAND with some silt, fine to angular coarse sand, few embedded fine to coarse gravel, very dense, dry to damp (Basal Till).	30	10 ⁻³ to 10 ⁻⁶
114-MW62C	50	SM	Reddish brown (5YR 4/4) SAND with some silt, trace coarse sand, few fine to coarse subrounded to subangular gravel embedded in matrix, compact (at 50 ft), dense to very dense, damp (Basal Till).	30	10 ⁻³ to 10 ⁻⁶
114-MW62C	60	SW	Reddish brown (5YR 4/4) well graded SAND with little silt, fine to coarse sand, little subangular to subrounded fine to coarse gravel, very dense, damp to dry (Basal Till).	25	> 10 ⁻³
114-MW62C	67	SM	Reddish brown (5YR 4/4) poorly graded SAND with little silt, fine to medium sand, trace gravel, loose, damp (Basal Till).	25	10 ⁻³ to 10 ⁻⁶
114-MW62C	69	SM	Reddish brown (5YR 4/3) widely graded SAND with some silt, fine to coarse sand, few fine to coarse gravel embedded, very dense, damp (Basal Till).	30	10 ⁻³ to 10 ⁻⁶
114-MW63C	19	SP-SM	Dark reddish brown (5YR 3/4) poorly graded SAND with silt, medium sand, few fine sand, trace coarse sand, little gravel.	10	> 10 ⁻³ to 10 ⁻⁶
114-MW63C	23	SP	Reddish brown, poorly graded SAND, trace silt, fine to medium sand, little sub-angular fine to coarse gravel, wet.	1-5	> 10 ⁻³
114-MW63C	40	ML	Reddish brown (2.5YR 4/3) sandy SILT with fine sand, wet.	70	10 ⁻³ to 10 ⁻⁶
114-MW63C	50	ML	Reddish brown SILT with fine SAND, wet, yellowish groundwater at 50 ft bgs.	90-95	10 ⁻³ to 10 ⁻⁶
114-MW63C	61	SP	Reddish brown poorly graded SAND, fine sand, wet.	4	> 10 ⁻³
114-MW63C	63	SC	Reddish brown clayey SAND, little fine to coarse sand, little fine to coarse gravel, firm (Basal Till).	25	10 ⁻⁶ to 10 ⁻⁹
114-MW64C	23.5	SP	Brown (7.5YR 5/2) poorly graded SAND with few silt, loose between 22.5-24.2 ft bgs, medium dense between 24.2-25.2 ft bgs, wet. MGP sheen on soils between 20-22.5 ft bgs.	10-15	> 10 ⁻³
114-MW64C	24.5	SP	Brown (7.5YR 5/2) poorly graded SAND with little silt, fine sand, loose to medium dense, moist.	25	> 10 ⁻³
114-MW64C	30	SP	Reddish brown (5YR 4/4) poorly graded SAND with little silt, wet. Pale yellow groundwater observed in core.	25	> 10 ⁻³
114-MW64C	35	SP	Reddish brown (5YR 4/4) poorly graded SAND, fine to medium sand, wet.	10	> 10 ⁻³
114-MW64C	41	SP	Reddish brown (5YR 4/4) poorly graded SAND with few silt, medium sand, trace coarse sand, trace subrounded fine to coarse gravel, wet. MGP sheen observed on soils.	10	> 10 ⁻³
114-MW64C	51	SP	Reddish brown poorly graded SAND with few silt, medium sand, little fine sand, loose, wet. MGP sheen observed on soils.	10	> 10 ⁻³
114-MW64C	81	SP	Reddish brown poorly graded SAND, few silt, mostly fine sand, wet.	10	> 10 ⁻³
114-MW64C	83	SC	Reddish brown clayey SAND with little fine to coarse gravel, medium dense, wet.	40	10 ⁻⁶ to 10 ⁻⁸
114-MW64C	90.5	SP	Reddish brown poorly graded SAND with few silt, fine sand (Basal Till).	10	> 10 ⁻³
114-MW65C	26	SP-SM	Weak red (2.5YR 4/2) poorly graded SAND with silt, fine sand, loose.	5-10	> 10 ⁻³ to 10 ⁻⁶
114-MW65C	29.5	SP-SM	Weak red (2.5YR 4/2) poorly graded SAND with silt, fine sand, loose.	20	> 10 ⁻³ to 10 ⁻⁶
114-MW65C	35	SM	Strong brown (7.5YR 4/6) silty SAND, fine sand, loose, wet. Yellowish groundwater at 33' to 37'.	30	10 ⁻³ to 10 ⁻⁶
114-MW65C	52	SP-SM	Reddish brown (2.5YR 4/3) poorly graded SAND with silt, fine sand, little medium sand.	15	> 10 ⁻³ to 10 ⁻⁶
114-MW65C	53	SM	Reddish brown (5YR 5/4) silty SAND, little sub-angular fine to sub-rounded coarse gravel, hard, moist (Basal Till).	30	10 ⁻³ to 10 ⁻⁶
114-MW65C	64	SW-SC	Reddish brown (5YR 4/3) widely graded SAND with silt or clay, fine to coarse sand, little fine to coarse gravel, few large gravel (2" to 3" wide), hard, moist (Basal Till).	15	> 10 ⁻³ to 10 ⁻⁸
114-MW65C	65.5	SM	Reddish brown (5YR 4/3) silty SAND, fine to coarse sand, few fine gravel, few coarse sub-rounded gravel (Basal Till).	20	10 ⁻³ to 10 ⁻⁶

Notes:

¹Percentage of fines (silt/clay) is an estimated value based on a field-testing method

²Estimated hydraulic conductivity value is for USCS code assigned to soil sample, based on Table B-2 from *Materials Testing FM 5-472 NAVFAC MO 330 AFJMAN 32-1221(I)*, Department of the Army, July 1, 2001

cm - centimeters

ft bgs - feet below ground surface

sec - seconds

USCS - Unified Soil Classification System