

## SPECIFIC GRAVITY

ASTM D 854-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-013	Visual Description:	<b>BROWN SILTY CLAY</b>

(Minus No.4 sieve material, oven dried)

<b>Replicate Number</b>	<b>1</b>	<b>2</b>
Pycnometer ID	G 1255	G 1403
Weight of Pycnometer + Soil + Water (g)	694.8	685.52
Temperature (°C)	25.7	24.8
Weight of Pycnometer + Water (g)	685.02	675.42
Tare Number	516	2333
Weight of Tare + Dry Soil (g)	109.57	115.52
Weight of Tare (g)	92.4	97.81
Weight of Dry Soil (g)	17.17	17.71
Specific Gravity of Soil @ Measured Temperature	2.324	2.326
Specific Gravity of Water @ Measured Temperature	0.99687	0.99710
Conversion Factor for Measured Temperature	0.99866	0.99889
Specific Gravity @ 20° Celsius	2.327	2.329

Average Specific Gravity @ 20° Celsius	2.33
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Tested By TO Date 11/26/13 Checked By KC Date 11/27/13

DCN: CT-S5 Date: 9/22/13 Revision: 19

Gravity.xls

## SPECIFIC GRAVITY

ASTM D 854-10

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-013		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
#4 Sieve	G025	8/20/14
Pycnometer	G1255	Initial Only
Pycnometer	G1403	Initial Only
Thermometer	G1412	6/12/14
Vacuum Pump	G824	10/11/14

## SPECIFIC GRAVITY

ASTM D 854-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3b
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	4.000-4.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-014	Visual Description:	<b>DARK BROWN PEAT</b>

(Minus No.4 sieve material, oven dried)

<b>Replicate Number</b>	<b>1</b>	<b>2</b>
Pycnometer ID	G 1255	G 1403
Weight of Pycnometer + Soil + Water (g)	689.77	680.13
Temperature (°C)	25.6	24.7
Weight of Pycnometer + Water (g)	685.03	675.44
Tare Number	924	1678
Weight of Tare + Dry Soil (g)	111.8	100.45
Weight of Tare (g)	100.75	89.12
Weight of Dry Soil (g)	11.05	11.33
Specific Gravity of Soil @ Measured Temperature	1.751	1.707
Specific Gravity of Water @ Measured Temperature	0.99690	0.99713
Conversion Factor for Measured Temperature	0.99869	0.99892
Specific Gravity @ 20° Celsius	1.753	1.709

Average Specific Gravity @ 20° Celsius 1.73

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Tested By	TO	Date	11/25/13	Checked By	KC	Date	11/26/13
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DCN: CT-S5 Date: 9/22/13 Revision: 19

Gravity.xls

## SPECIFIC GRAVITY

ASTM D 854-10

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3b
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	4.000-4.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-014		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
#4 Sieve	G025	8/20/14
Pycnometer	G1255	Initial Only
Pycnometer	G1403	Initial Only
Thermometer	G1412	6/12/14
Vacuum Pump	G824	10/11/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	1.075-1.475
Project No.:	2013-465-002	Sample No.:	ST-1
Lab ID:	2013-465-002-001	Soil Color:	BROWN

Moisture Content of Passing 3/4" Sample		Water Content of Retained 3/4" Sample	
Tare No.	64	Tare No.	NA
Wt. of Tare & Wet Sample (g)	239.72	Weight of Tare & Wet Sample (g)	NA
Wt. of Tare & Dry Sample (g)	239.72	Weight of Tare & Dry Sample (g)	NA
Weight of Tare (g)	200.95	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Sample (g)	38.77	Weight of Dry Sample (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Sample (g)	38.77
Dry Weight of - 3/4" Sample (g)	23.4	Weight of - #200 Sample (g)	15.34
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 Sample (g)	23.43
Dry Weight of + 3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

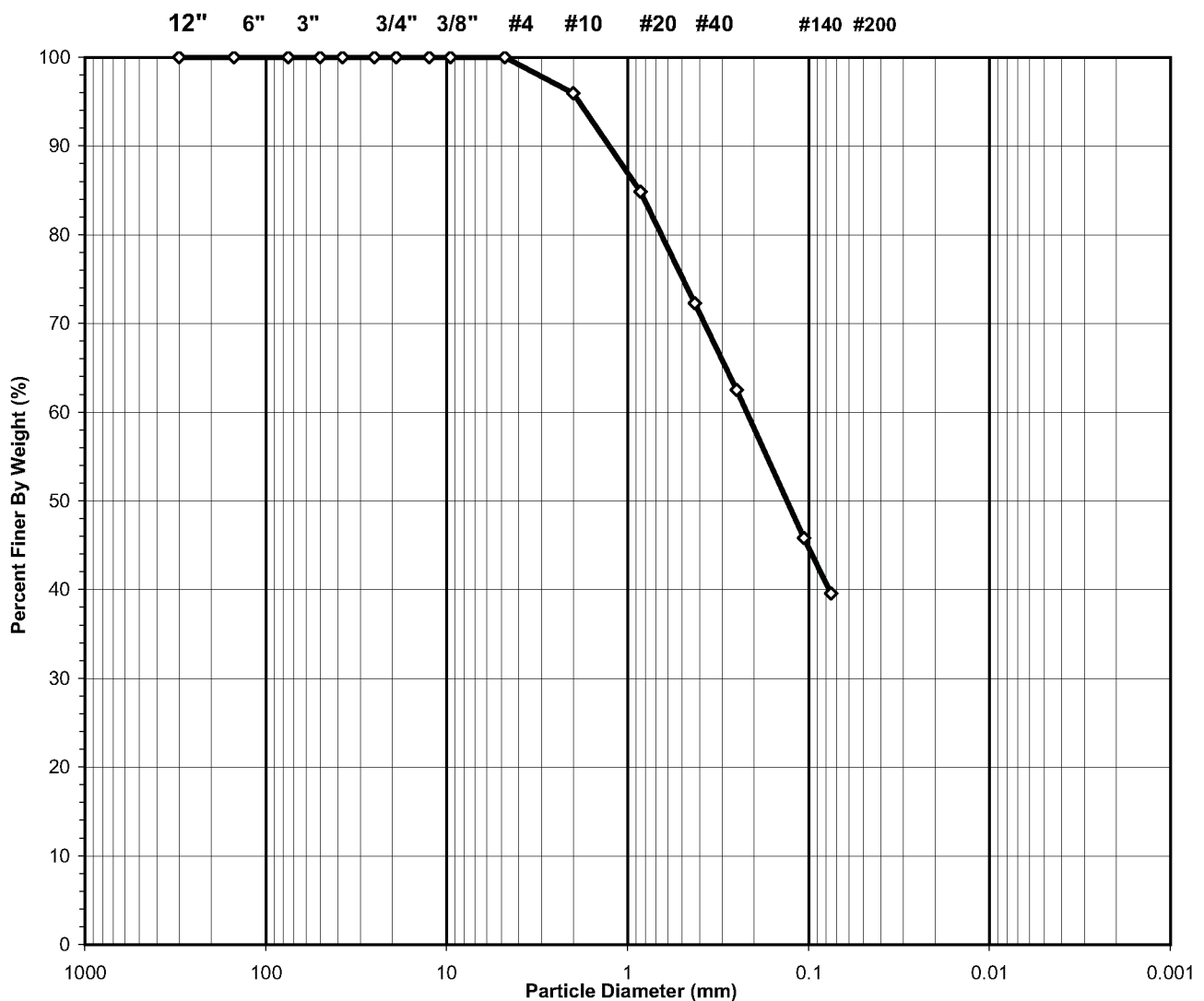
Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.50	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	1.56	4.02	4.02	95.98	<b>95.98</b>
#20	0.850	4.32	11.14	15.17	84.83	<b>84.83</b>
#40	0.425	4.88	12.59	27.75	72.25	<b>72.25</b>
#60	0.250	3.79	9.78	37.53	62.47	<b>62.47</b>
#140	0.106	6.45	16.64	54.17	45.83	<b>45.83</b>
#200	0.075	2.43	6.27	60.43	39.57	<b>39.57</b>
Pan	-	15.34	39.57	100.00	-	-

Tested By **BK**    Date **11/26/13**    Checked By **KC**    Date **11/27/13**

**SIEVE ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	1.075-1.475
Project No.:	2013-465-002	Sample No.:	ST-1
Lab ID:	2013-465-002-001	Soil Color:	BROWN

<b>USCS</b>	<b>SIEVE ANALYSIS</b>		<b>HYDROMETER</b>
	gravel	sand	silt and clay



**USCS Symbol:** SM, TESTED

**USCS Classification:** SILTY SAND (NON-PLASTIC FINES)

**UNABLE TO RUN HYDROMETER**

Tested By BK Date 11/26/13 Checked By KC Date 11/27/13

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.075-1.475
Project No.	2013-465-002	Sample No.	ST-1
Lab ID #	2013-465-002-001		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.075-1.475
Project No.	2013-465-002	Sample No.	ST-1
Lab ID #	2013-465-002-001		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G367	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14



## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.175-1.675
Project No.	2013-465-002	Sample No.	ST-1
Lab ID	2013-465-002-002	Soil Color	<b>BROWN</b>

Minus #10 for Hygroscopic Moisture Content		Hydrometer Specimen Data	
Tare No.	2776	Air Dried - #10 Hydrometer Material (g)	51.88
Wgt. Tare + Wet Soil (g)	20.19	Corrected Dry Wt. of - #10 Material (g)	38.71
Wgt. Tare + Dry Soil (g)	16.76		
Weight of Tare (g)	6.68	Weight of - #200 Material (g)	37.13
Weight of Water (g)	3.43	Weight of - #10 ; + #200 Material (g)	1.58
Weight of Dry Soil (g)	10.08		
<b>Moisture Content (%)</b>	<b>34.0</b>	<b>J-FACTOR (%FINER THAN #10)</b>	<b>1.0000</b>
Soil Specimen Data			
Tare No.	43		
Wgt. Tare + Air Dry Soil (g)	280.23		
Weight of Tare (g)	202.95		
Air Dried Wgt. Total Sample (g)	77.28	Dry Weight of Material Retained on #10 (g)	0.00
Total Dry Sample Weight (g)	57.66	Corrected Dry Sample Wt - #10 (g)	57.66

Sieve Size	Sieve Opening (mm)	Wgt. of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.0	0.0	100.0	100.0
6"	150	0.00	0.0	0.0	100.0	100.0
3"	75	0.00	0.0	0.0	100.0	100.0
2"	50	0.00	0.0	0.0	100.0	100.0
1 1/2"	37.5	0.00	0.0	0.0	100.0	100.0
1"	25.0	0.00	0.0	0.0	100.0	100.0
3/4"	19.0	0.00	0.0	0.0	100.0	100.0
1/2"	12.5	0.00	0.0	0.0	100.0	100.0
3/8"	9.50	0.00	0.0	0.0	100.0	100.0
#4	4.75	0.00	0.0	0.0	100.0	100.0
#10	2.00	0.00	0.0	0.0	100.0	100.0
#20	0.85	0.11	0.3	0.3	99.7	99.7
#40	0.425	0.18	0.5	0.7	99.3	99.3
#60	0.250	0.27	0.7	1.4	98.6	98.6
#140	0.106	0.69	1.8	3.2	96.8	96.8
#200	0.075	0.33	0.9	4.1	95.9	95.9
Pan	-	37.13	95.9	100.0	-	-

**Notes :**

Tested By **DB** Date **12/5/13** Checked By **KC** Date **12/9/13**

**HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.175-1.675
Project No.	2013-465-002	Sample No.	ST-1
Lab ID	2013-465-002-002	Soil Color	<b>BROWN</b>

Elapsed Time (min)	R Measured	Temp. (°C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA
15	38.5	22.2	4.77	33.7	90.3	0.01408	0.0115	<b>90.3</b>
30	31.0	22.2	4.77	26.2	70.2	0.01408	0.0086	<b>70.2</b>
65	21.0	22.2	4.77	16.2	43.4	0.01408	0.0063	<b>43.4</b>
250	14.5	21.9	4.87	9.6	25.8	0.01413	0.0033	<b>25.8</b>
1790	12.0	19.7	5.56	6.4	17.2	0.01451	0.0013	<b>17.2</b>

Soil Specimen Data		Other Corrections	
Wgt. of Dry Material (g)	38.71	Hygroscopic Moisture Factor	0.746
Weight of Deflocculant (g)	5.0	a - Factor	1.036
		Percent Finer than # 10	100.00
		Specific Gravity	2.47 Measured

**Notes:**

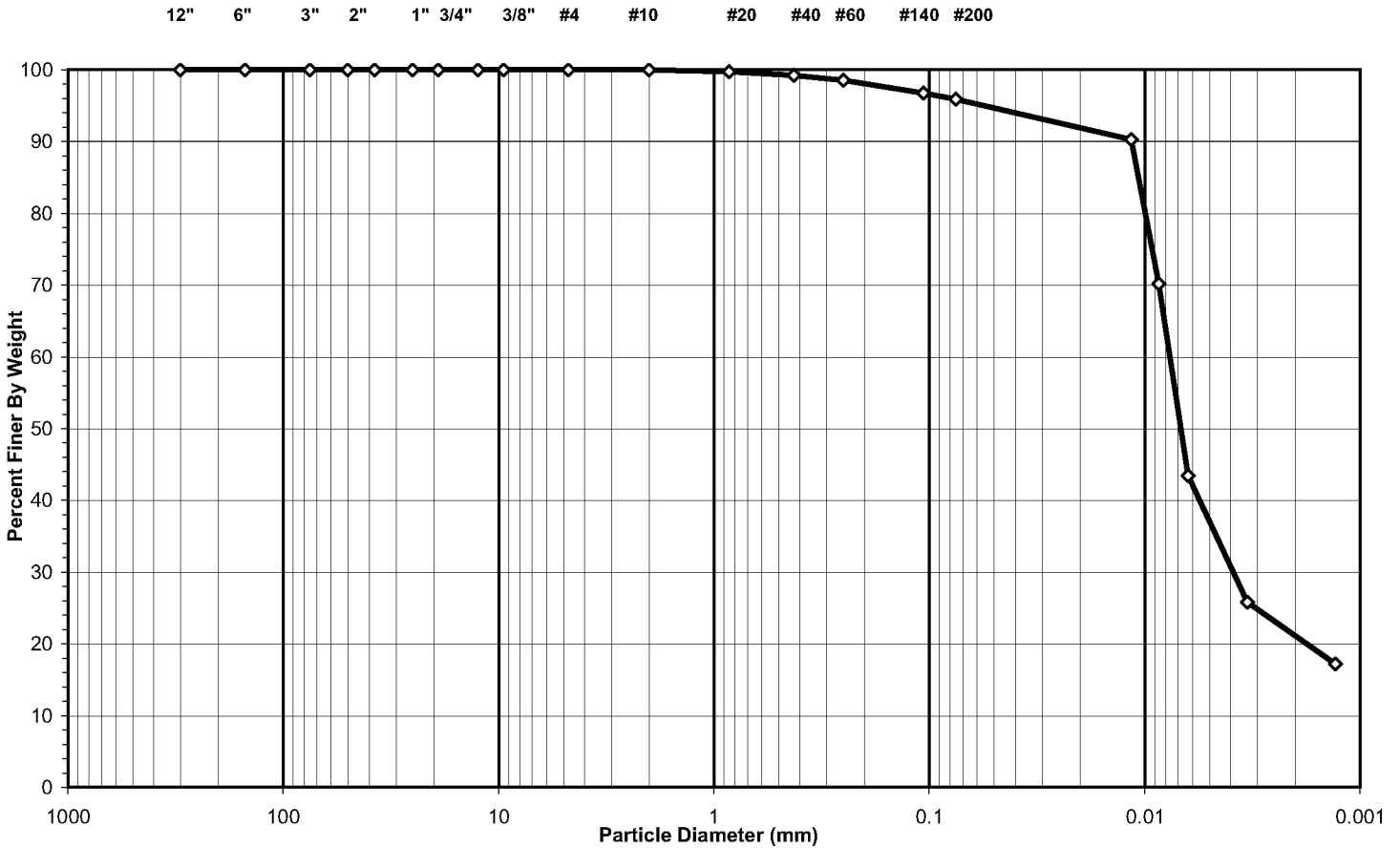
Tested By TO Date 12/6/13 Checked By KC Date 12/9/13

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client Paul C. Rizzo & Associates  
 Client Reference Turkey Point NPP Units 6 and 7 13-5054  
 Project No. 2013-465-002  
 Lab ID 2013-465-002-002

Boring No. M-7-2c  
 Depth (ft) 1.175-1.675  
 Sample No. ST-1  
 Soil Color **BROWN**

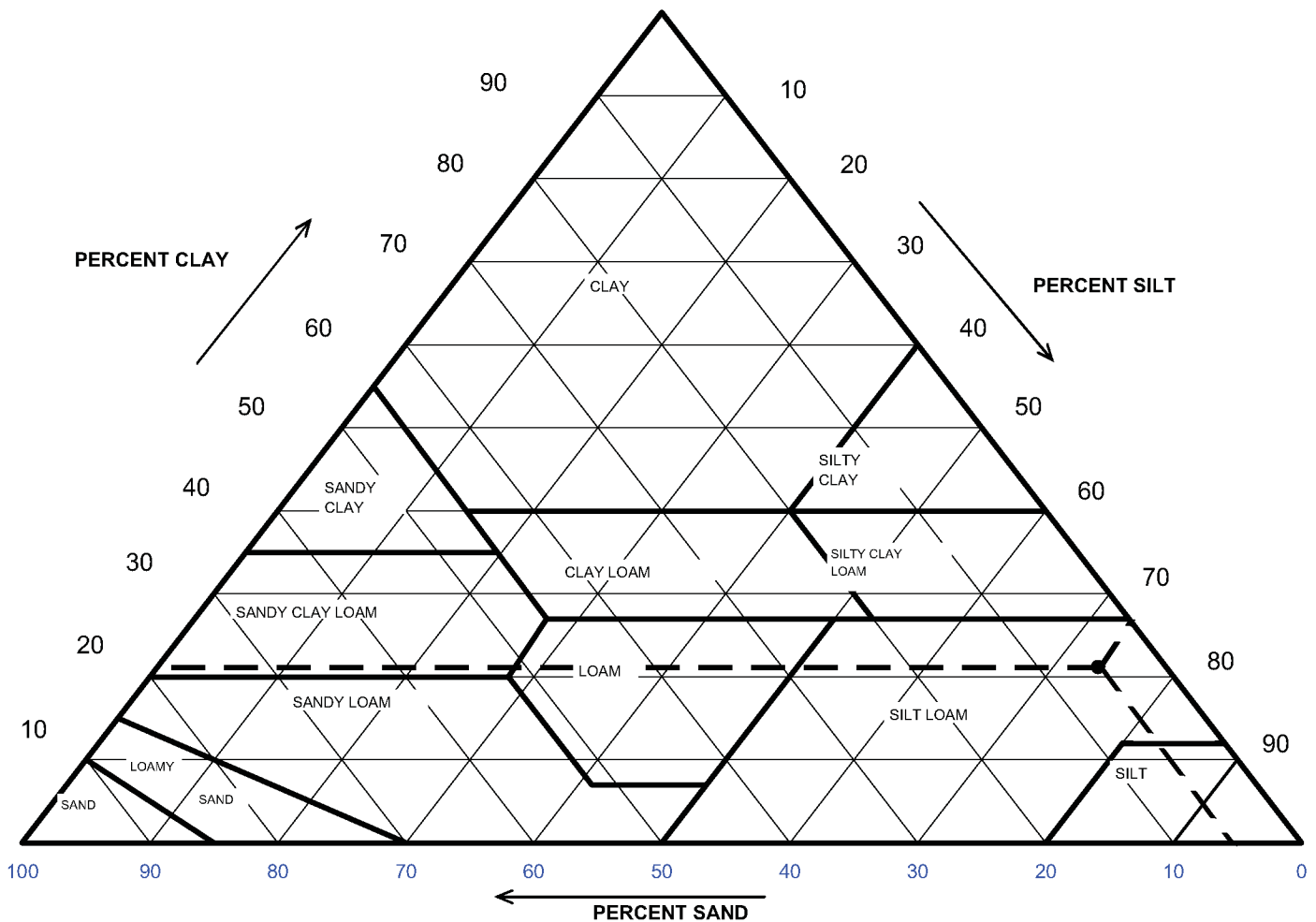
<b>USCS</b> <b>USDA</b>	<b>SIEVE ANALYSIS</b>				<b>HYDROMETER</b>		
	cobble	gravel	sand		silt and clay fraction		
	cobble	gravel	sand		silt	clay	



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	4.08
Finer Than #200	Silt & Clay	95.92
<b>USCS Symbol</b>	<b>MH, TESTED</b>	
<b>USCS Classification</b>	<b>ELASTIC SILT</b>	

## USDA CLASSIFICATION CHART

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.175-1.675
Project No.	2013-465-002	Sample No.	ST-1
Lab ID	2013-465-002-002	Soil Color	BROWN



Particle Size (mm)	Percent Finer	USDA SUMMARY	Actual Percentage	Corrected % of Minus 2.0 mm material for USDA Classificat.
		<i>Gravel</i>	0.00	0.00
2	100.00	<i>Sand</i>	5.30	5.30
0.05	94.70	<i>Silt</i>	73.54	73.54
0.002	21.15	<i>Clay</i>	21.15	21.15
<b>USDA Classification:</b>		<b>SILT LOAM</b>		

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.175-1.675
Project No.	2013-465-002	Sample No.	ST-1
Lab ID #	2013-465-002-002		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1387	8/16/14
Balance	G1047	3/25/14
Platform Scale		
3" Sieve		
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve		
3/8" Sieve		
#4 Sieve		
#10 Sieve		
Sieve Shaker		
Additional Balance	G1394	5/15/14
#10 Sieve	G884	8/20/14
#10 Wash Sieve	G415	11/4/14
Oven	G1118	11/23/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.175-1.675
Project No.	2013-465-002	Sample No.	ST-1
Lab ID #	2013-465-002-002		

Equipment / Hydrometer	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G771	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14
Equipment / -#10 Sieves	Equipment ID#	Calibration Due Date
Balance	G1394	5/15/14
#10 Sieve		
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-003

Boring No.: M-6-1a  
 Depth (ft): 2.600-3.350  
 Sample No.: MP-1  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	1437	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	184.81	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	184.81	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	144.73	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	40.08	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	40.08
Dry Weight of -3/4" Sample (g)	3.98	Weight of - #200 material (g)	36.10
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	3.98
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained		Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)		(%)	(%)
12"	300	0.00	0.00	0.00		100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00		100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00		100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00		100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00		100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00		100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00		100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00		100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00		100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00		100.00	<b>100.00</b>
#10	2.00	0.01	0.02	0.02		99.98	<b>99.98</b>
#20	0.85	0.19	0.47	0.50		99.50	<b>99.50</b>
#40	0.425	0.48	1.20	1.70		98.30	<b>98.30</b>
#60	0.250	0.76	1.90	3.59		96.41	<b>96.41</b>
#140	0.106	1.87	4.67	8.26		91.74	<b>91.74</b>
#200	0.075	0.67	1.67	9.93		90.07	<b>90.07</b>
Pan	-	36.10	90.07	100.00		-	-

Tested By **BK**      Date **12/2/13**      Checked By **KC**      Date **12/4/13**

**HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.600-3.350
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-003	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
17	22.5	21.7	4.93	17.6	95.5	0.01500	0.0129	<b>86.0</b>
30	20.0	21.7	4.93	15.1	81.9	0.01500	0.0099	<b>73.8</b>
69	15.0	22.0	4.83	10.2	55.3	0.01495	0.0067	<b>49.8</b>
250	10.0	21.7	4.93	5.1	27.6	0.01500	0.0036	<b>24.8</b>
1440	9.5	22.1	4.80	4.7	25.5	0.01493	0.0015	<b>23.0</b>

Soil Specimen Data		Other Corrections	
Tare No.	692	a - Factor	1.068
Weight of Tare & Dry Material (g)	119.62	Percent Finer than # 200	90.07
Weight of Tare (g)	94.97	Specific Gravity	2.31 Measured
Weight of Deflocculant (g)	5.0		
Weight of Dry Material (g)	19.65		

**Note:** Hydrometer test is performed on - # 200 sieve material.

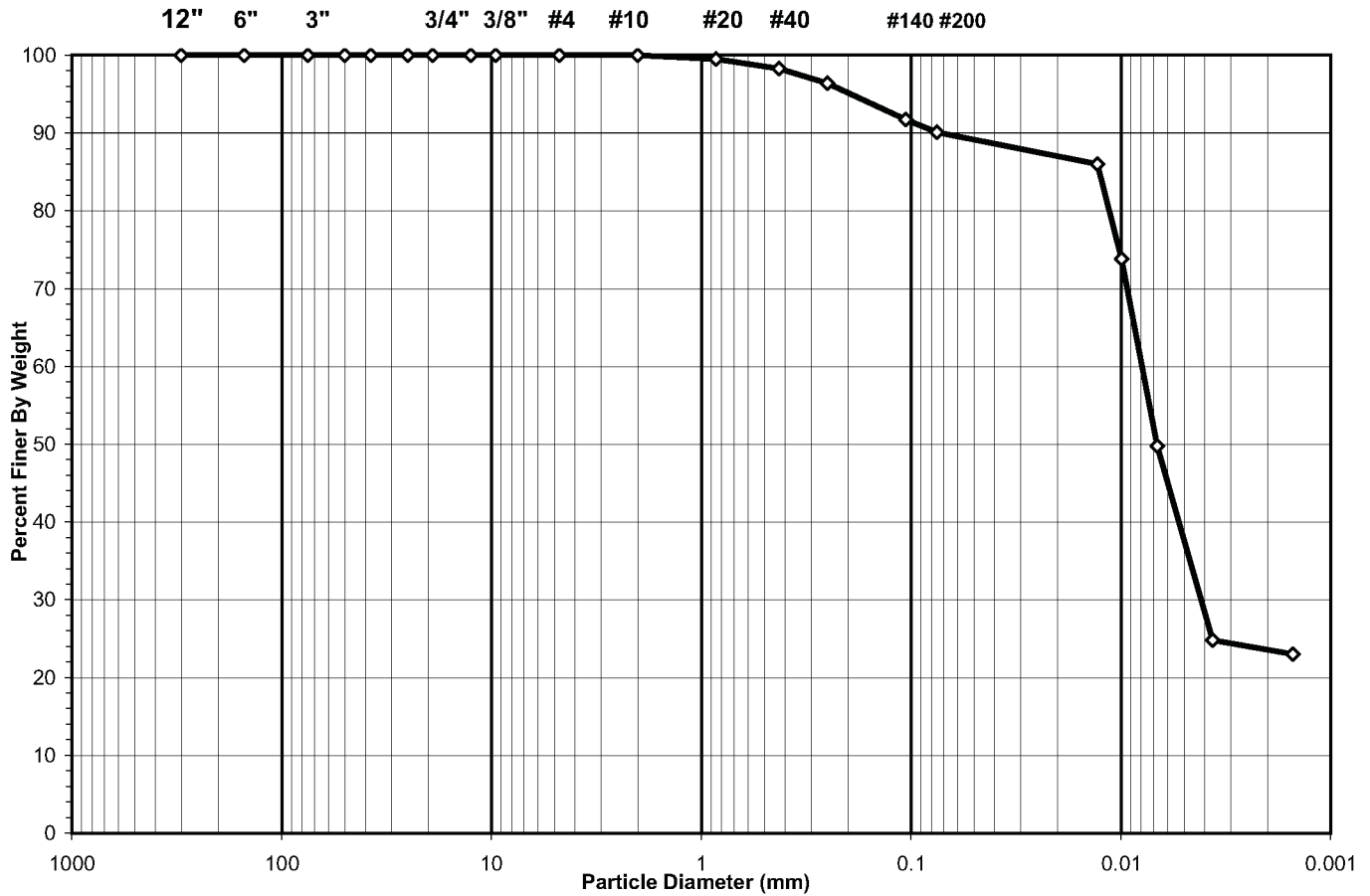
Tested By TO Date 12/2/13 Checked By KC Date 12/4/13



**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.600-3.350
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-003	Soil Color:	BROWN

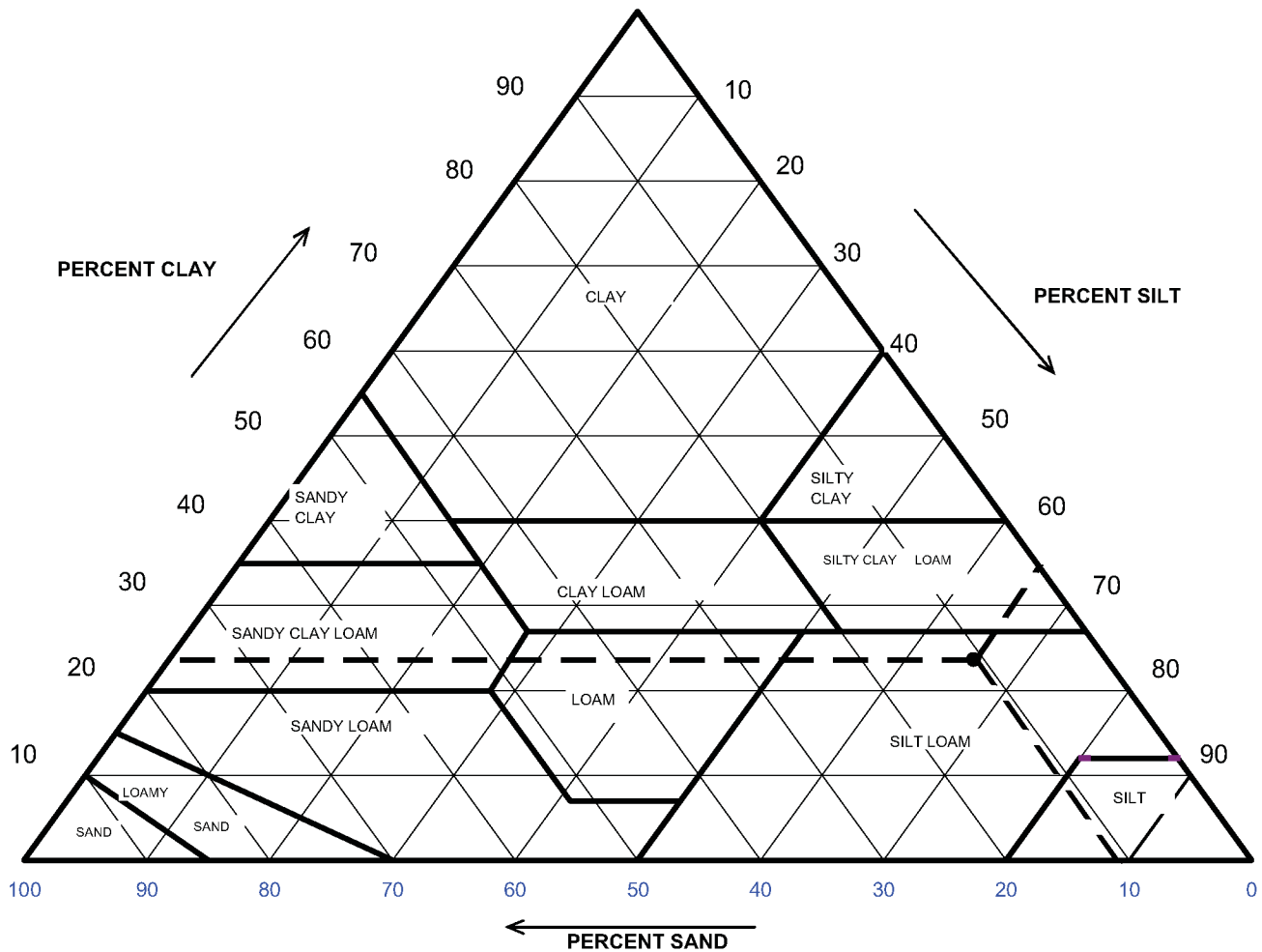
USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	9.93
Finer Than #200	Silt & Clay	90.07
<b>USCS Symbol</b> <i>MH, TESTED</i>		
<b>USCS Classification</b> <i>ELASTIC SILT</i>		

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.600-3.350
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-003	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	0.02	<b>0.00</b>
2	99.98	<i>Sand</i>	10.84	<b>10.84</b>
0.05	89.14	<i>Silt</i>	65.55	<b>65.57</b>
0.002	23.58	<i>Clay</i>	23.58	<b>23.59</b>
<b>USDA Classification:</b>		<b><i>SILT LOAM</i></b>		

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-1a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.600-3.350
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-003		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-1a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.600-3.350
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-003		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G771	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	2.250-2.900
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-004	Soil Color:	DARK BROWN

Moisture Content of Passing 3/4" Sample		Water Content of Retained 3/4" Sample	
Tare No.	1441	Tare No.	NA
Wt. of Tare & Wet Sample (g)	161.15	Weight of Tare & Wet Sample (g)	NA
Wt. of Tare & Dry Sample (g)	161.15	Weight of Tare & Dry Sample (g)	NA
Weight of Tare (g)	143.86	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Sample (g)	17.29	Weight of Dry Sample (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Sample (g)	17.29
Dry Weight of - 3/4" Sample (g)	9.9	Weight of - #200 Sample (g)	7.42
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 Sample (g)	9.87
Dry Weight of + 3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

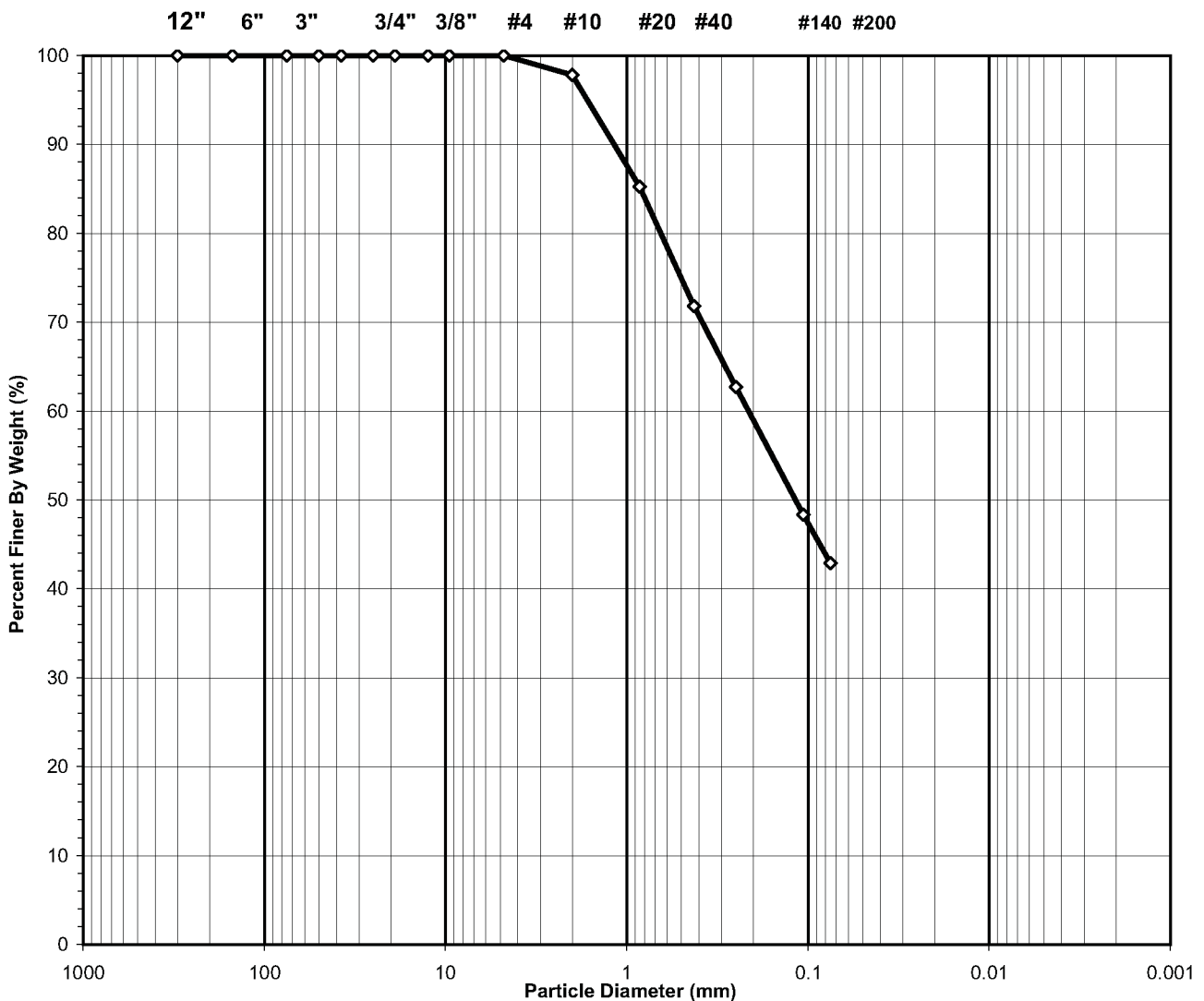
Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.50	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	0.38	2.20	2.20	97.80	<b>97.80</b>
#20	0.850	2.17	12.55	14.75	85.25	<b>85.25</b>
#40	0.425	2.33	13.48	28.22	71.78	<b>71.78</b>
#60	0.250	1.57	9.08	37.30	62.70	<b>62.70</b>
#140	0.106	2.48	14.34	51.65	48.35	<b>48.35</b>
#200	0.075	0.94	5.44	57.09	42.91	<b>42.91</b>
Pan	-	7.42	42.91	100.00	-	-

Tested By **BK**    Date **12/2/13**    Checked By **KC**    Date **12/3/13**

**SIEVE ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	2.250-2.900
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-004	Soil Color:	DARK BROWN

<b>USCS</b>	<b>SIEVE ANALYSIS</b>		<b>HYDROMETER</b>
	gravel	sand	silt and clay



**USCS Symbol:** SM, TESTED

**USCS Classification:** SILTY SAND (NON-PLASTIC FINES)

**UNABLE TO RUN HYDROMETER**

Tested By	BK	Date	12/2/13	Checked By	KC	Date	12/3/13
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## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-1b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.250-2.900
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-004		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance	G1394	5/15/14
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-1b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.250-2.900
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-004		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G771	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14



## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-005

Boring No.: M-6-2a  
 Depth (ft): 0.700-1.200  
 Sample No.: MP-1  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	1446	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	177.01	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	177.01	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	145.15	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	31.86	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	31.86
Dry Weight of -3/4" Sample (g)	1.68	Weight of - #200 material (g)	30.18
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	1.68
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained		Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)		(%)	(%)
12"	300	0.00	0.00	0.00		100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00		100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00		100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00		100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00		100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00		100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00		100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00		100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00		100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00		100.00	<b>100.00</b>
#10	2.00	0.09	0.28	0.28		99.72	<b>99.72</b>
#20	0.85	0.38	1.19	1.48		98.52	<b>98.52</b>
#40	0.425	0.34	1.07	2.54		97.46	<b>97.46</b>
#60	0.250	0.28	0.88	3.42		96.58	<b>96.58</b>
#140	0.106	0.38	1.19	4.61		95.39	<b>95.39</b>
#200	0.075	0.21	0.66	5.27		94.73	<b>94.73</b>
Pan	-	30.18	94.73	100.00		-	-

Tested By BK Date 12/2/13 Checked By KC Date 12/4/13

### HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	0.700-1.200
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-005	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
30	26.0	21.7	4.93	21.1	97.8	0.01462	0.0093	<b>92.6</b>
60	21.5	22.0	4.83	16.7	77.3	0.01457	0.0067	<b>73.3</b>
250	13.5	21.7	4.93	8.6	39.8	0.01462	0.0035	<b>37.7</b>
1440	10.5	22.1	4.80	5.7	26.4	0.01455	0.0015	<b>25.0</b>

Soil Specimen Data		Other Corrections	
Tare No.	1092		
Weight of Tare & Dry Material (g)	127.87	a - Factor	1.054
Weight of Tare (g)	100.16		
Weight of Deflocculant (g)	5.0	Percent Finer than # 200	94.73
Weight of Dry Material (g)	22.71	Specific Gravity	2.38 Measured

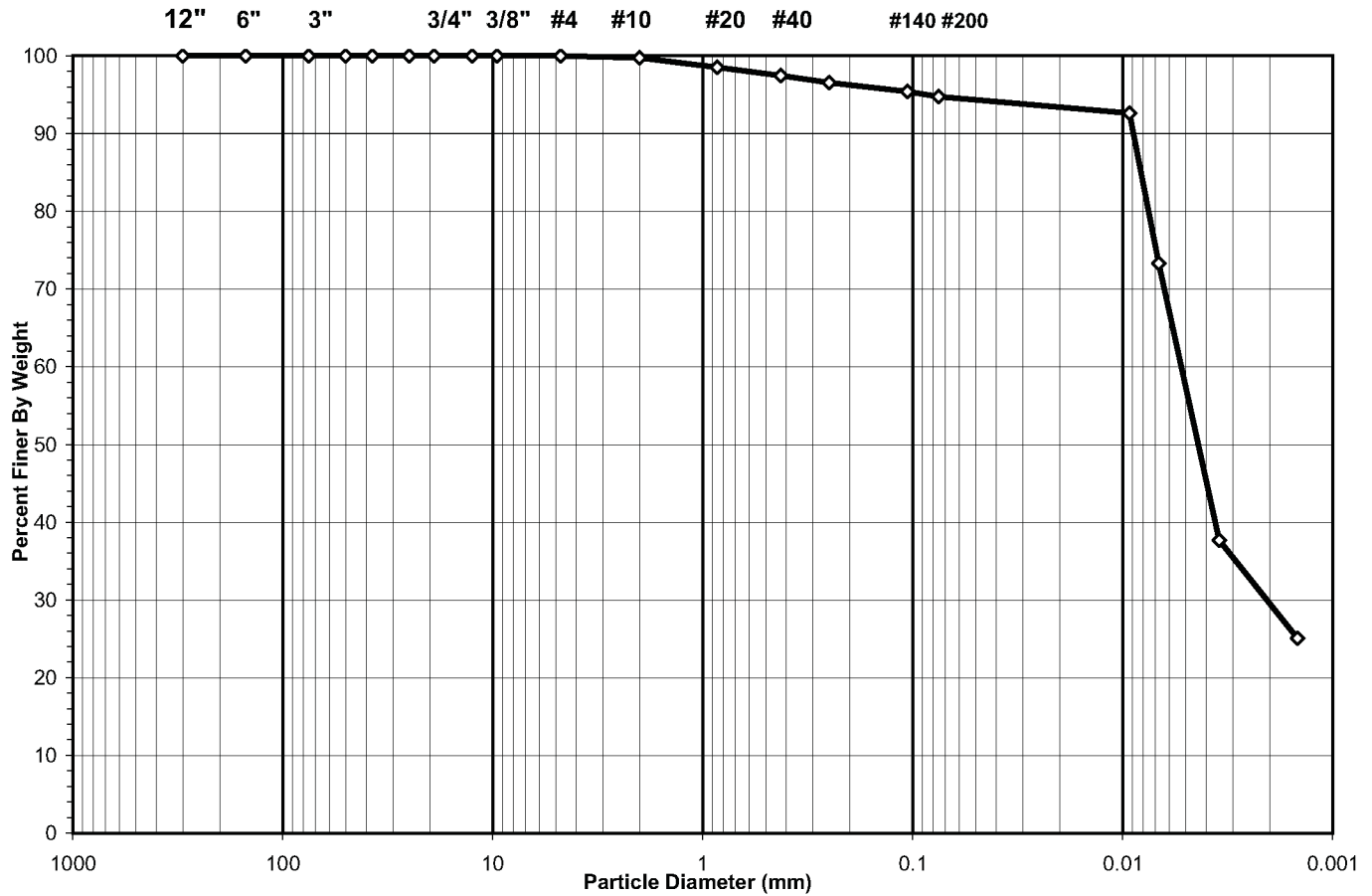
**Note:** Hydrometer test is performed on - # 200 sieve material.

Tested By TO Date 12/2/13 Checked By KC Date 12/4/13

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	0.700-1.200
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-005	Soil Color:	BROWN

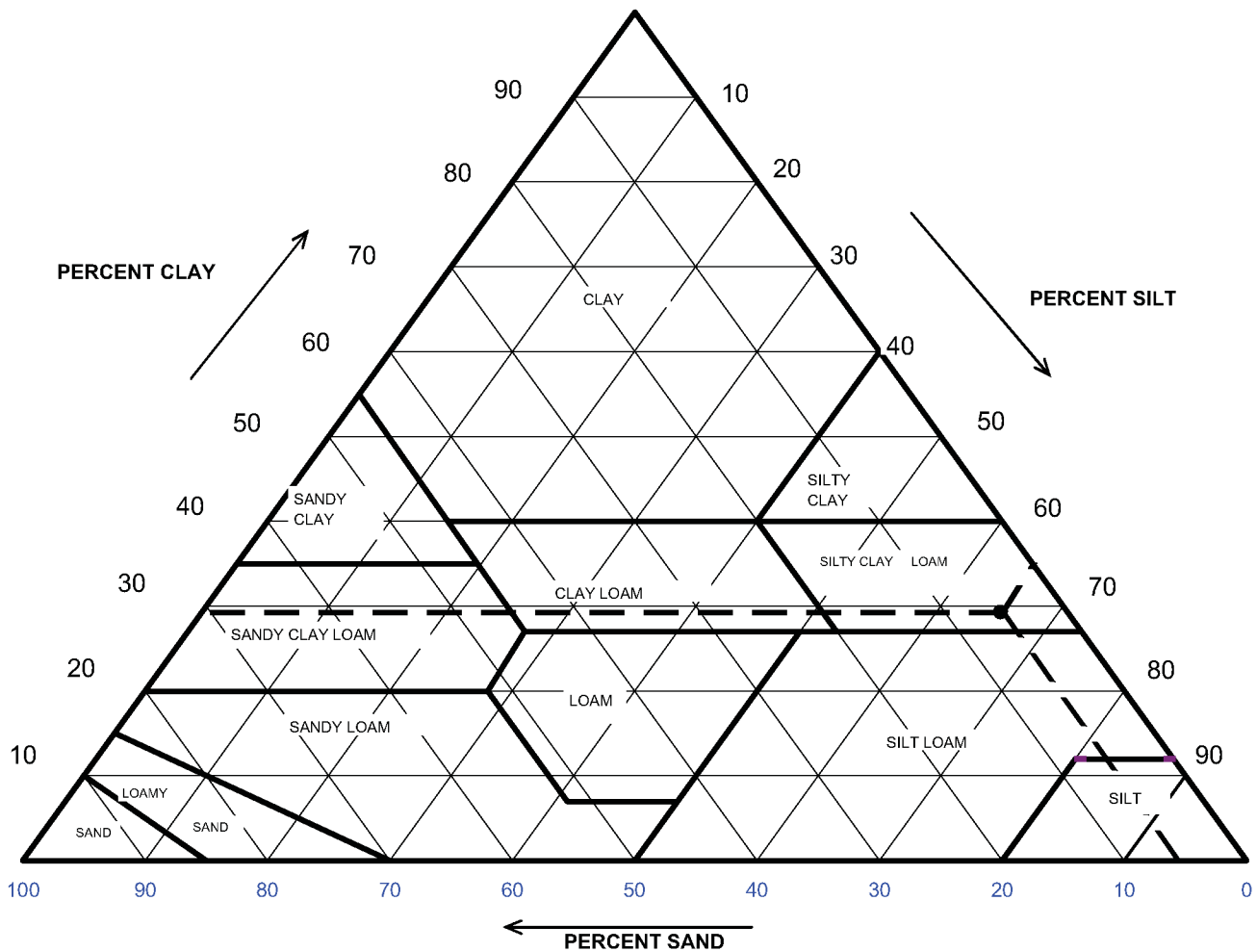
<b>USCS</b> <b>USDA</b>	<b>SIEVE ANALYSIS</b>				<b>HYDROMETER</b>	
	cobbles	gravel	sand	sand	silt and clay fraction	
	cobbles	gravel	sand	sand	silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	5.27
Finer Than #200	Silt & Clay	94.73
<b>USCS Symbol</b>	<b>UNABLE TO DETERMINE CLASSIFICATION, INSUFFICIENT MINUS #40 MATERIAL TO PERFORM LIMITS.</b>	
<b>USCS Classification</b>		

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	0.700-1.200
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-005	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	0.28	<b>0.00</b>
2	99.72	<i>Sand</i>	5.40	<b>5.41</b>
0.05	94.32	<i>Silt</i>	65.11	<b>65.29</b>
0.002	29.22	<i>Clay</i>	29.22	<b>29.30</b>
<b>USDA Classification:</b>		<b>SILTY CLAY LOAM</b>		

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-2a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	0.700-1.200
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-005		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-2a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	0.700-1.200
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-005		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G357	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-006

Boring No.: M-6-2a  
 Depth (ft): 2.150-2.800  
 Sample No.: MP-2  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	1451	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	199.37	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	199.37	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	144.79	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	54.58	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	54.58
Dry Weight of -3/4" Sample (g)	1.89	Weight of - #200 material (g)	52.69
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	1.89
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained		Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)		(%)	(%)
12"	300	0.00	0.00	0.00		100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00		100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00		100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00		100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00		100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00		100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00		100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00		100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00		100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00		100.00	<b>100.00</b>
#10	2.00	0.00	0.00	0.00		100.00	<b>100.00</b>
#20	0.85	0.16	0.29	0.29		99.71	<b>99.71</b>
#40	0.425	0.23	0.42	0.71		99.29	<b>99.29</b>
#60	0.250	0.35	0.64	1.36		98.64	<b>98.64</b>
#140	0.106	0.85	1.56	2.91		97.09	<b>97.09</b>
#200	0.075	0.30	0.55	3.46		96.54	<b>96.54</b>
Pan	-	52.69	96.54	100.00		-	-

Tested By **BK**      Date **12/3/13**      Checked By **KC**      Date **12/5/13**

**HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.150-2.800
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-006	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
2	40.0	22.0	4.83	35.2	98.8	0.01446	0.0319	<b>95.4</b>
5	39.5	22.0	4.83	34.7	97.4	0.01446	0.0203	<b>94.1</b>
15	35.5	22.0	4.83	30.7	86.2	0.01446	0.0121	<b>83.2</b>
30	29.5	22.0	4.83	24.7	69.3	0.01446	0.0089	<b>66.9</b>
62	23.0	22.1	4.80	18.2	51.1	0.01445	0.0065	<b>49.4</b>
250	13.0	21.8	4.90	8.1	22.8	0.01450	0.0035	<b>22.0</b>
1440	10.0	22.9	4.55	5.4	15.3	0.01431	0.0014	<b>14.8</b>

Soil Specimen Data		Other Corrections	
Tare No.	708		
Weight of Tare & Dry Material (g)	140.47	a - Factor	1.05
Weight of Tare (g)	98.11		
Weight of Deflocculant (g)	5.0	Percent Finer than # 200	96.54
Weight of Dry Material (g)	37.36		
		Specific Gravity	2.4 Measured

**Note:** Hydrometer test is performed on - # 200 sieve material.

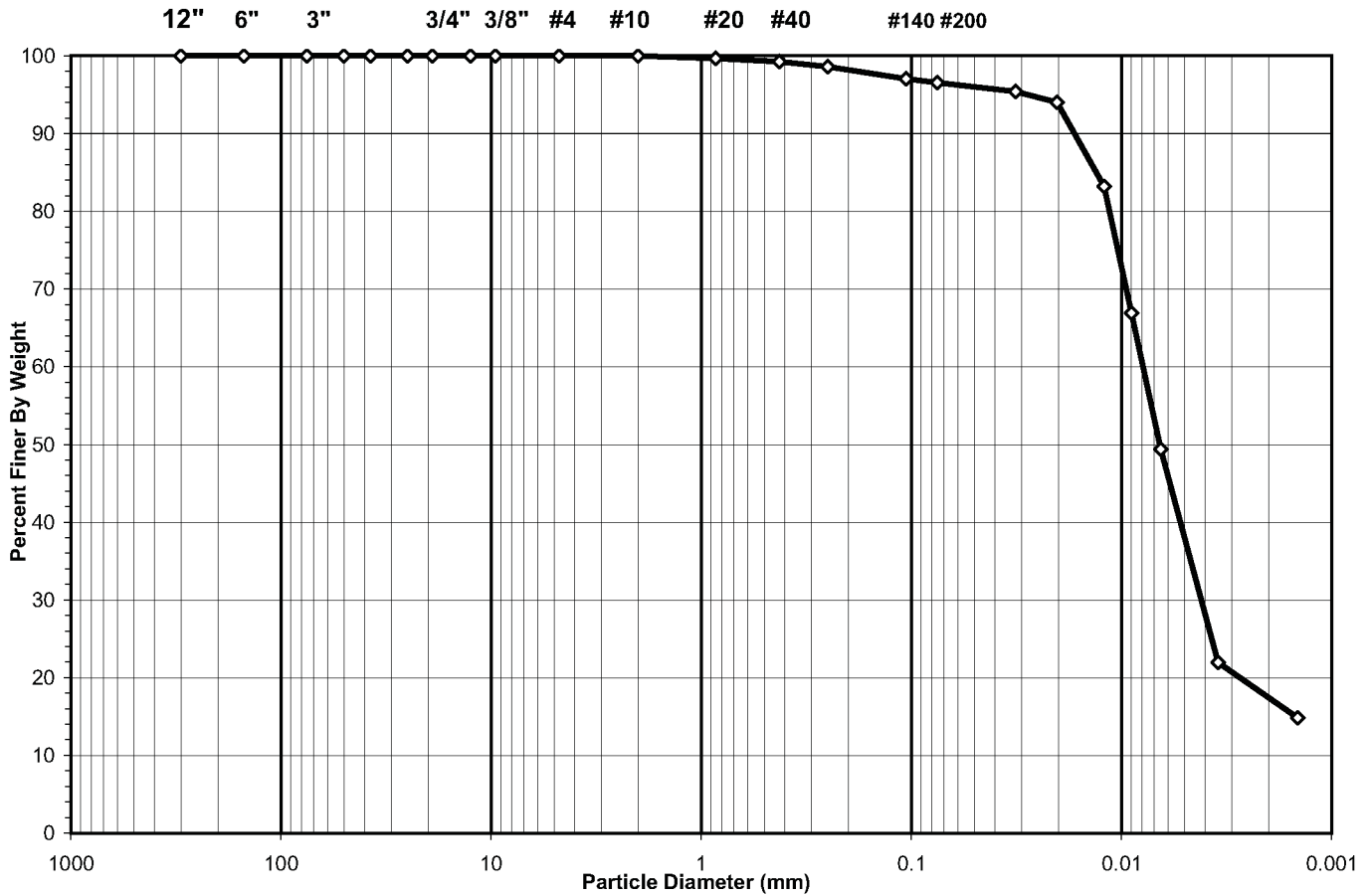
Tested By TO Date 12/3/13 Checked By KC Date 12/5/13



**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.150-2.800
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-006	Soil Color:	BROWN

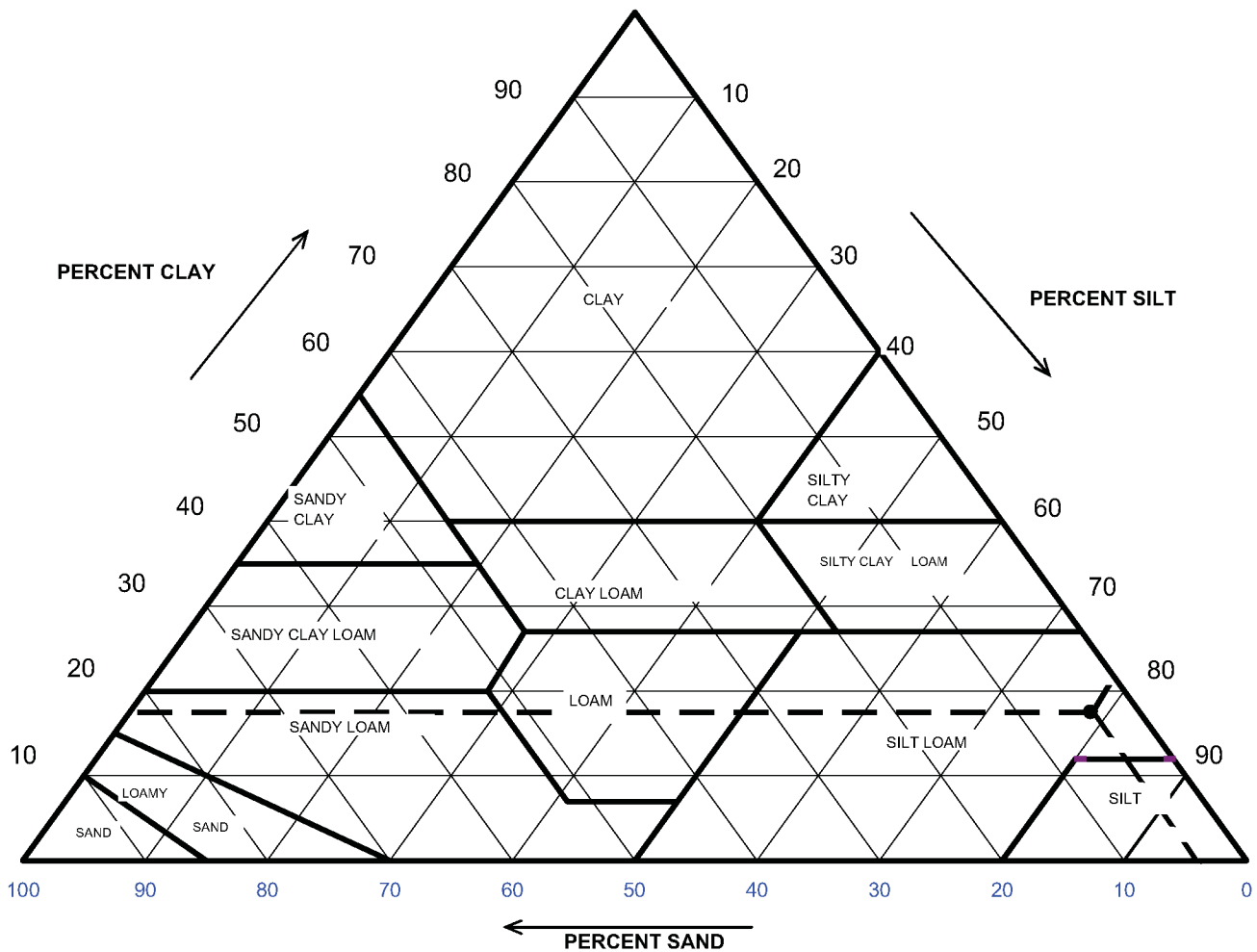
USCS USDA	SIEVE ANALYSIS				HYDROMETER	
	cobbles	gravel	sand		silt and clay fraction	
	cobbles	gravel	sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	3.46
Finer Than #200	Silt & Clay	96.54
<b>USCS Symbol</b> <i>MH, TESTED</i>		
<b>USCS Classification</b> <i>ELASTIC SILT</i>		

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.150-2.800
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-006	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	0.00	<b>0.00</b>
2	100.00	<i>Sand</i>	4.00	<b>4.00</b>
0.05	96.00	<i>Silt</i>	78.52	<b>78.52</b>
0.002	17.48	<i>Clay</i>	17.48	<b>17.48</b>
<b>USDA Classification:</b>		<b><i>SILT LOAM</i></b>		

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-2a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.150-2.800
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-006		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-2a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.150-2.800
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-006		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G772	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-007

Boring No.: M-7-1a  
 Depth (ft): 1.000-1.550  
 Sample No.: MP-1  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	1438	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	186.61	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	186.61	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	144.56	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	42.05	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	42.05
Dry Weight of -3/4" Sample (g)	1.50	Weight of - #200 material (g)	40.55
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	1.50
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained		Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)		(%)	(%)
12"	300	0.00	0.00	0.00		100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00		100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00		100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00		100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00		100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00		100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00		100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00		100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00		100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00		100.00	<b>100.00</b>
#10	2.00	0.00	0.00	0.00		100.00	<b>100.00</b>
#20	0.85	0.14	0.33	0.33		99.67	<b>99.67</b>
#40	0.425	0.23	0.55	0.88		99.12	<b>99.12</b>
#60	0.250	0.30	0.71	1.59		98.41	<b>98.41</b>
#140	0.106	0.53	1.26	2.85		97.15	<b>97.15</b>
#200	0.075	0.30	0.71	3.57		96.43	<b>96.43</b>
Pan	-	40.55	96.43	100.00		-	-

Tested By BK Date 11/27/13 Checked By KC Date 12/4/13

### HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-007	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
15	32.0	21.7	4.93	27.1	99.3	0.01462	0.0125	<b>95.8</b>
30	27.5	21.7	4.93	22.6	82.8	0.01462	0.0092	<b>79.9</b>
62	22.5	22.0	4.83	17.7	64.8	0.01457	0.0066	<b>62.5</b>
250	13.0	21.7	4.93	8.1	29.6	0.01462	0.0035	<b>28.6</b>
1440	9.5	22.1	4.80	4.7	17.2	0.01455	0.0015	<b>16.6</b>

Soil Specimen Data		Other Corrections	
Tare No.	659		
Weight of Tare & Dry Material (g)	129.6	a - Factor	1.054
Weight of Tare (g)	95.87		
Weight of Deflocculant (g)	5.0	Percent Finer than # 200	96.43
Weight of Dry Material (g)	28.73	Specific Gravity	2.38 Measured

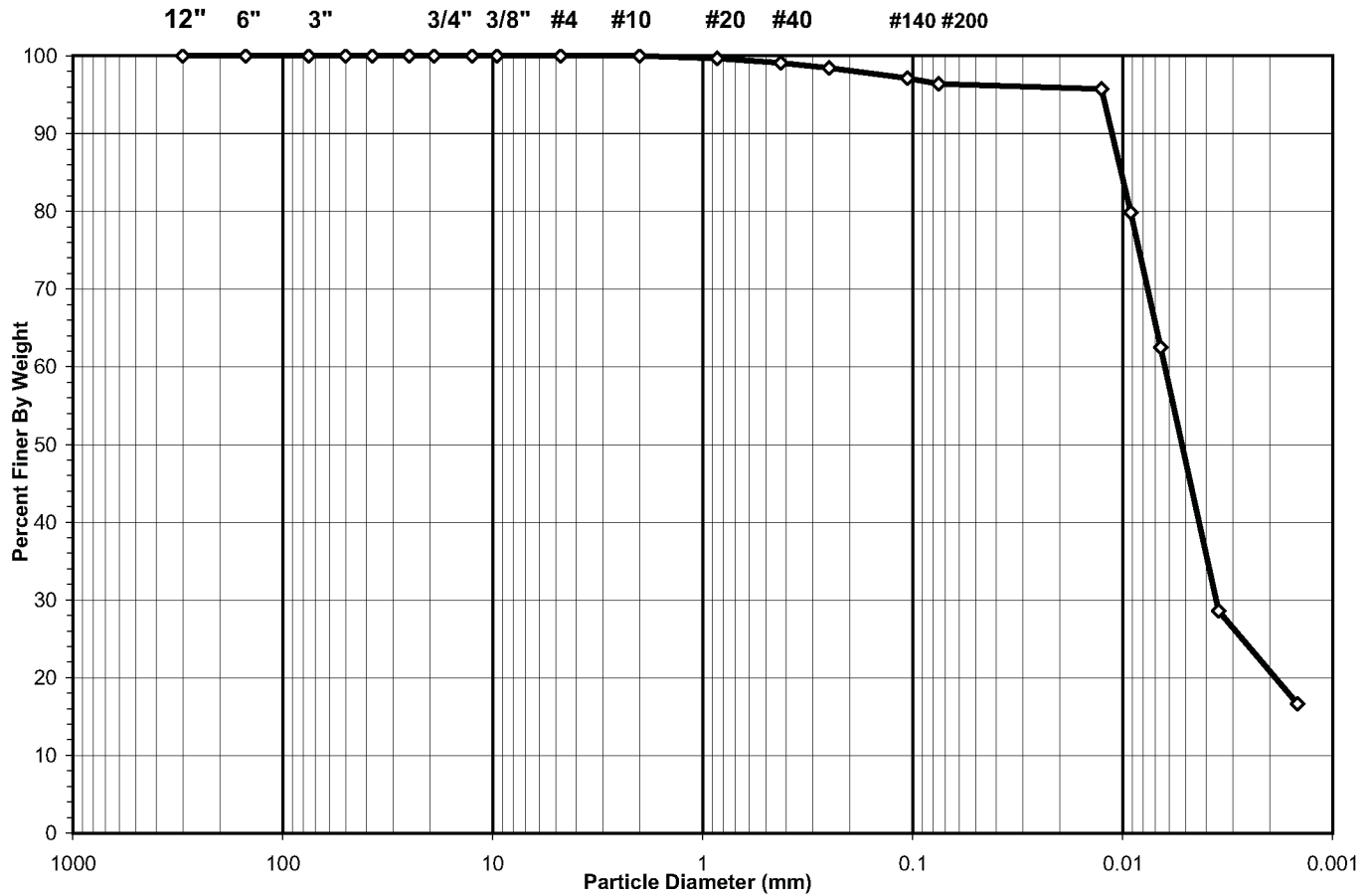
**Note:** Hydrometer test is performed on - # 200 sieve material.

Tested By TO Date 12/2/13 Checked By KC Date 12/4/13

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-007	Soil Color:	BROWN

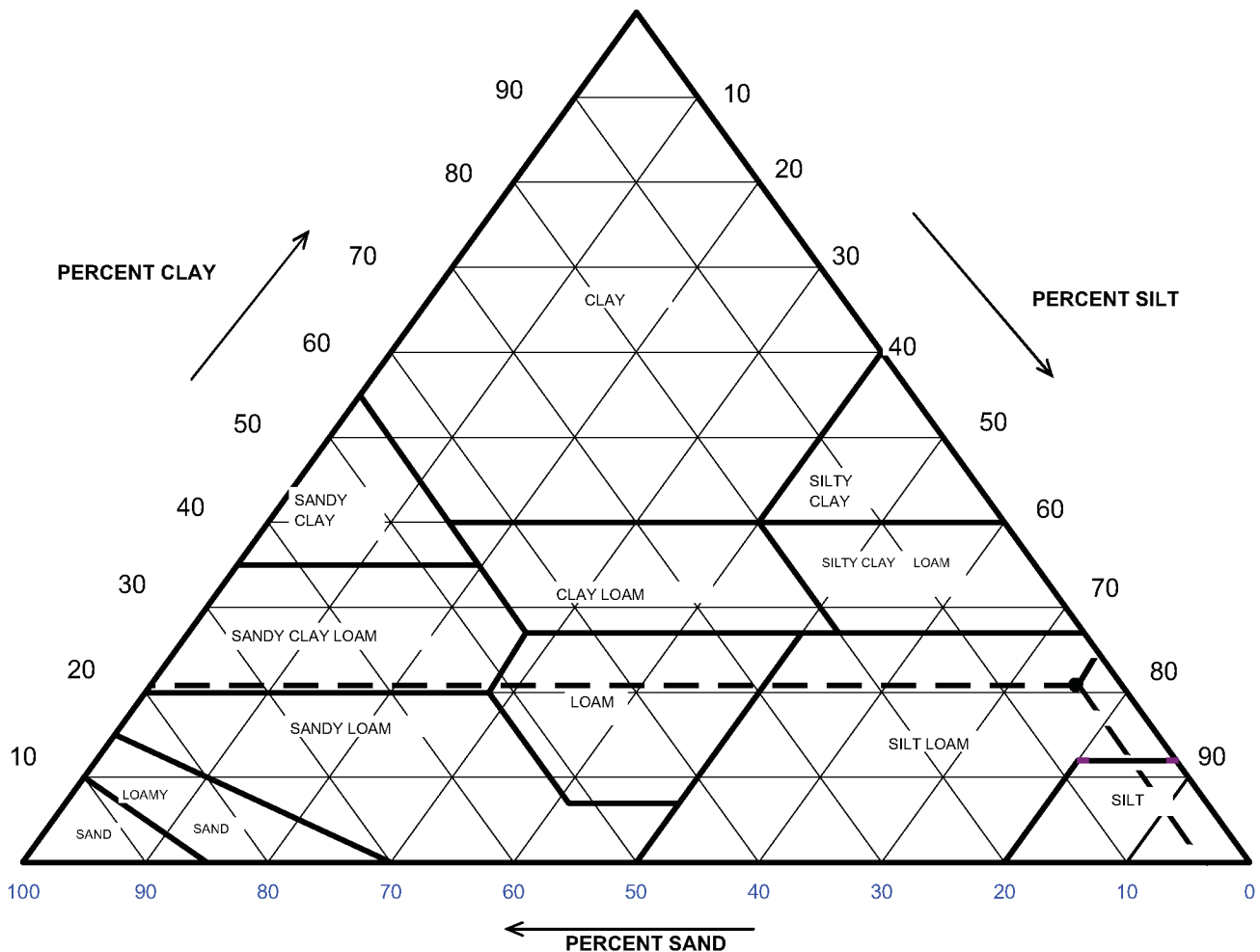
<b>USCS</b> <b>USDA</b>	<b>SIEVE ANALYSIS</b>				<b>HYDROMETER</b>	
	cobbles	gravel	sand	sand	silt and clay fraction	
	cobbles	gravel	sand	silt	clay	



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	3.57
Finer Than #200	Silt & Clay	96.43
<b>USCS Symbol</b>	<b>UNABLE TO DETERMINE CLASSIFICATION, INSUFFICIENT MINUS #40 MATERIAL TO PERFORM LIMITS.</b>	
<b>USCS Classification</b>		

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-007	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	0.00	<b>0.00</b>
2	100.00	<i>Sand</i>	3.72	<b>3.72</b>
0.05	96.28	<i>Silt</i>	75.41	<b>75.41</b>
0.002	20.87	<i>Clay</i>	20.87	<b>20.87</b>
<b>USDA Classification:</b>		<b>SILT LOAM</b>		



## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-1a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-007		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-1a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-007		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G362	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-008

Boring No.: M-7-1a  
 Depth (ft): 4.100-4.625  
 Sample No.: MP-2  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	1416	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	193.03	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	193.03	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	145.71	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	47.32	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	47.32
Dry Weight of -3/4" Sample (g)	28.26	Weight of - #200 material (g)	19.06
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	28.26
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained	Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)	(%)	(%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	2.03	4.29	4.29	95.71	<b>95.71</b>
#20	0.85	3.91	8.26	12.55	87.45	<b>87.45</b>
#40	0.425	4.76	10.06	22.61	77.39	<b>77.39</b>
#60	0.250	7.16	15.13	37.74	62.26	<b>62.26</b>
#140	0.106	8.57	18.11	55.85	44.15	<b>44.15</b>
#200	0.075	1.83	3.87	59.72	40.28	<b>40.28</b>
Pan	-	19.06	40.28	100.00	-	-

Tested By **BK** Date **12/2/13** Checked By **KC** Date **12/4/13**

### HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	4.100-4.625
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-008	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
5	15.5	21.7	4.93	10.6	86.1	0.01366	0.0227	<b>34.7</b>
15	14.5	21.7	4.93	9.6	78.0	0.01366	0.0132	<b>31.4</b>
30	13.0	21.7	4.93	8.1	65.7	0.01366	0.0094	<b>26.5</b>
66	12.0	22.0	4.83	7.2	58.4	0.01362	0.0063	<b>23.5</b>
250	11.0	21.7	4.93	6.1	49.4	0.01366	0.0033	<b>19.9</b>
1440	10.0	22.1	4.80	5.2	42.3	0.01360	0.0014	<b>17.1</b>

Soil Specimen Data		Other Corrections	
Tare No.	694	a - Factor	1.014
Weight of Tare & Dry Material (g)	112.59	Percent Finer than # 200	40.28
Weight of Tare (g)	95.14	Specific Gravity	2.58 Measured
Weight of Deflocculant (g)	5.0		
Weight of Dry Material (g)	12.45		

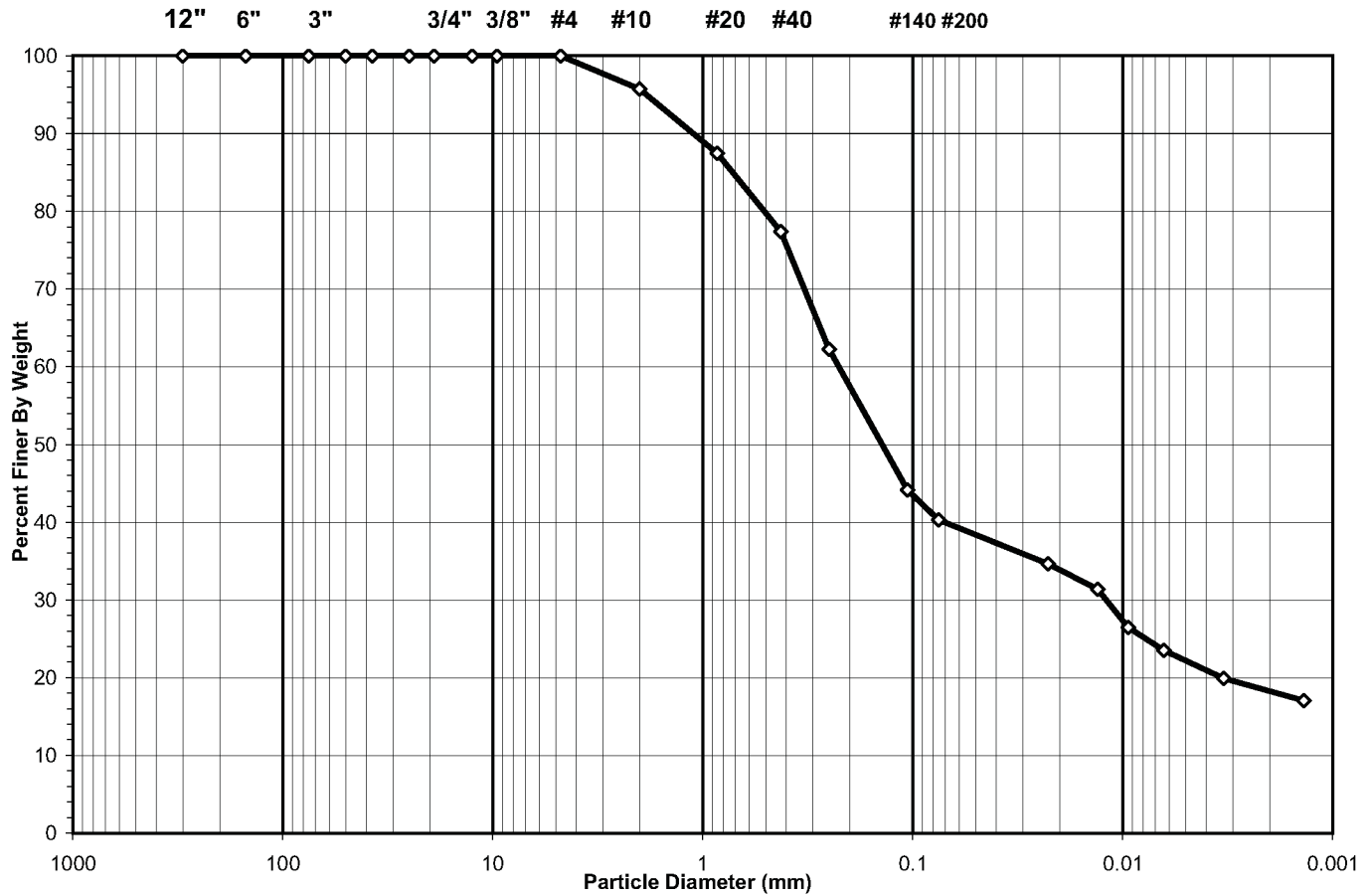
**Note:** Hydrometer test is performed on - # 200 sieve material.

Tested By TO Date 12/2/13 Checked By KC Date 12/4/13

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	4.100-4.625
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-008	Soil Color:	BROWN

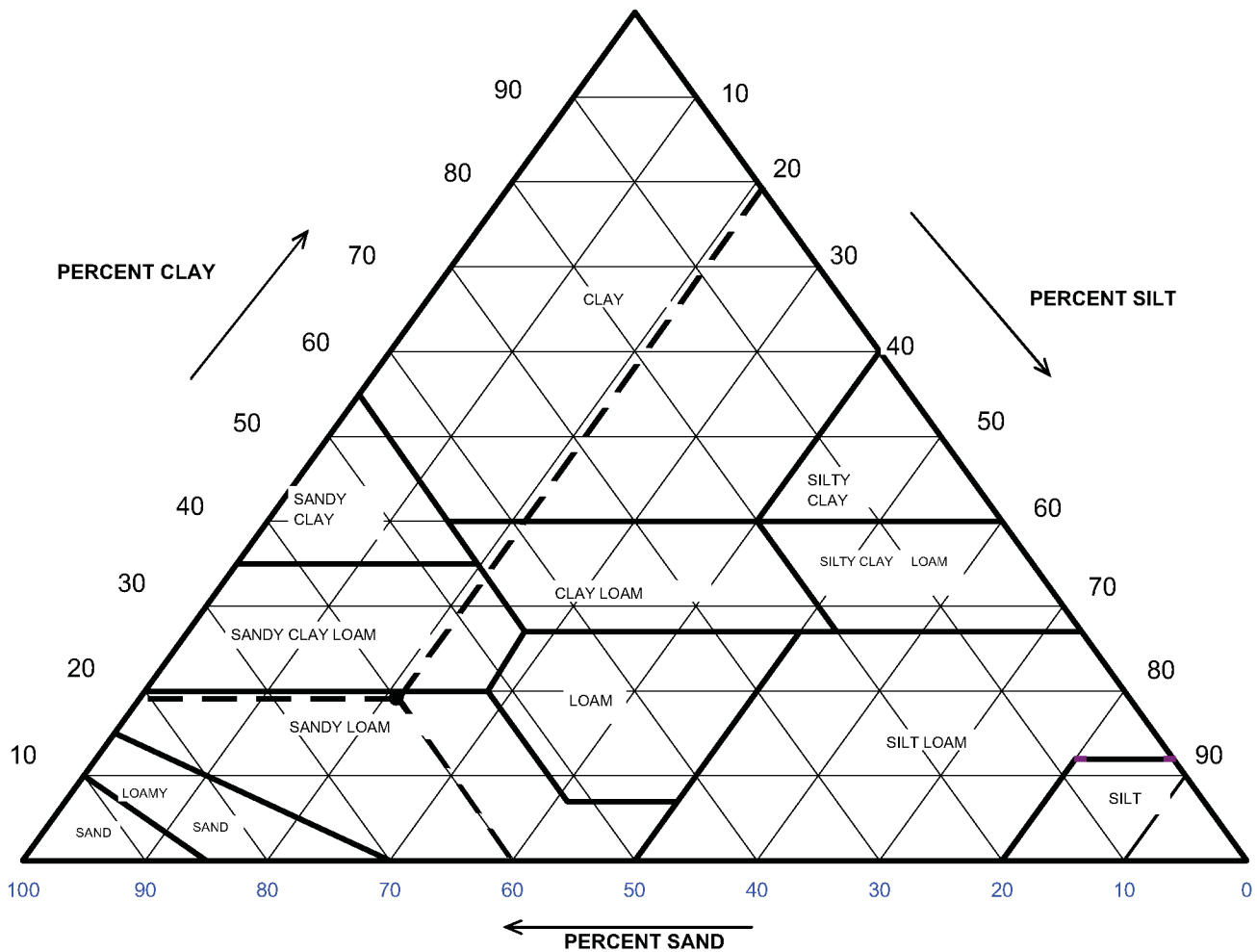
USCS USDA	SIEVE ANALYSIS					HYDROMETER	
	cobbles	gravel		sand		silt and clay fraction	
	cobbles	gravel		sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	59.72
Finer Than #200	Silt & Clay	40.28
<b>USCS Symbol</b>	<b>SM, TESTED (NON-PLASTIC FINES)</b>	
<b>USCS Classification</b>	<b>SILTY SAND</b>	

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	4.100-4.625
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-008	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	4.29	0.00
2	95.71	<i>Sand</i>	57.33	59.90
0.05	38.38	<i>Silt</i>	20.10	21.00
0.002	18.29	<i>Clay</i>	18.29	19.11
<b>USDA Classification:</b>		<b>SANDY LOAM</b>		

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-1a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	4.100-4.625
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-008		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-1a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	4.100-4.625
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-008		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G364	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14



## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2a
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	6.000-6.600
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-009	Soil Color:	DARK BROWN

Moisture Content of Passing 3/4" Sample		Water Content of Retained 3/4" Sample	
Tare No.	1418	Tare No.	NA
Wt. of Tare & Wet Sample (g)	175.57	Weight of Tare & Wet Sample (g)	NA
Wt. of Tare & Dry Sample (g)	175.57	Weight of Tare & Dry Sample (g)	NA
Weight of Tare (g)	145.89	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Sample (g)	29.68	Weight of Dry Sample (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Sample (g)	29.68
Dry Weight of - 3/4" Sample (g)	21.1	Weight of - #200 Sample (g)	8.59
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 Sample (g)	21.09
Dry Weight of + 3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

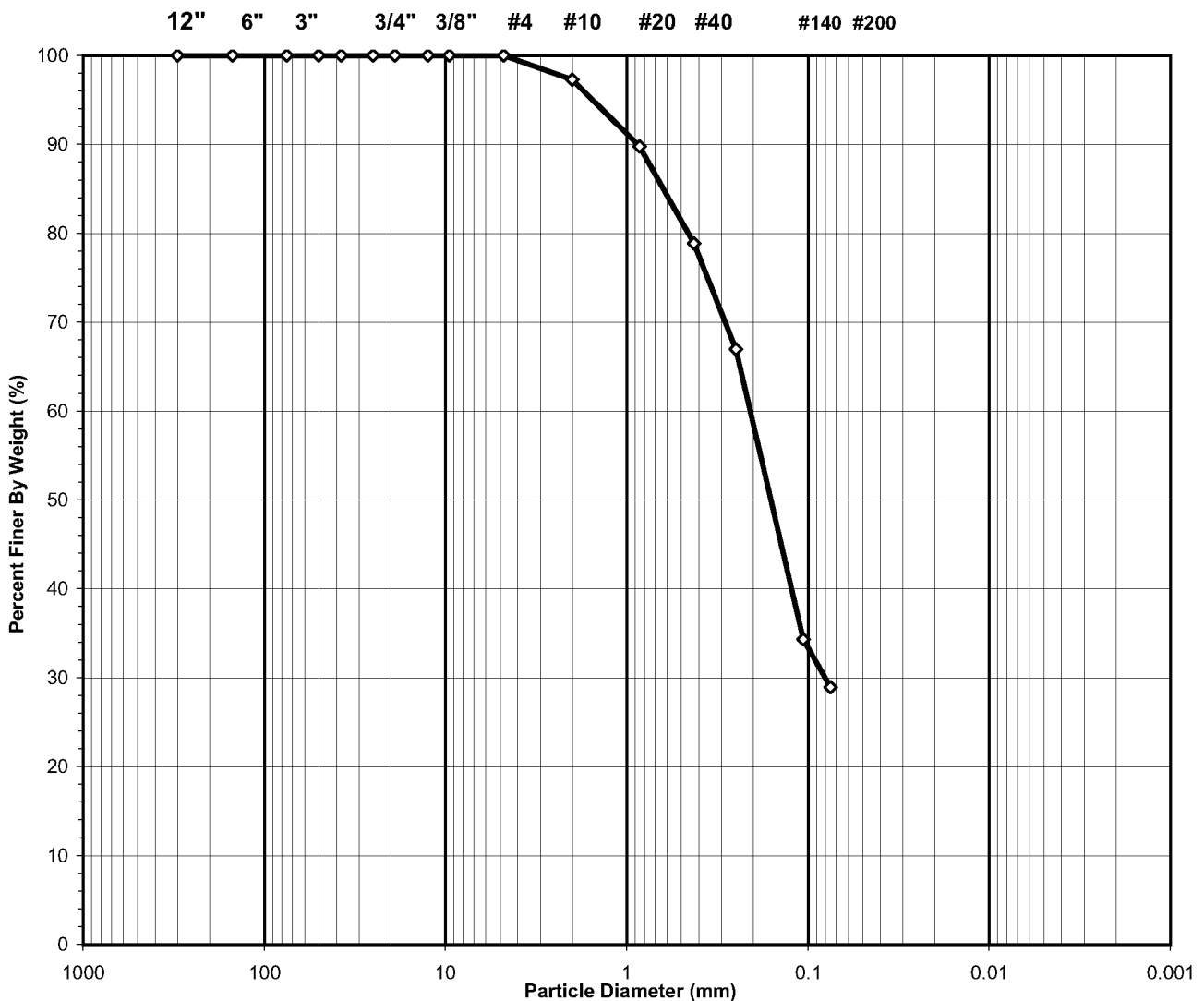
Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.50	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	0.81	2.73	2.73	97.27	<b>97.27</b>
#20	0.850	2.22	7.48	10.21	89.79	<b>89.79</b>
#40	0.425	3.24	10.92	21.13	78.87	<b>78.87</b>
#60	0.250	3.54	11.93	33.05	66.95	<b>66.95</b>
#140	0.106	9.68	32.61	65.67	34.33	<b>34.33</b>
#200	0.075	1.60	5.39	71.06	28.94	<b>28.94</b>
Pan	-	8.59	28.94	100.00	-	-

Tested By **BK**    Date **11/26/13**    Checked By **KC**    Date **11/27/13**

**SIEVE ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2a
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	6.000-6.600
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-009	Soil Color:	DARK BROWN

<b>USCS</b>	<b>SIEVE ANALYSIS</b>		<b>HYDROMETER</b>
	gravel	sand	silt and clay



**USCS Symbol:** SM, TESTED

**USCS Classification:** SILTY SAND (NON-PLASTIC FINES)

**UNABLE TO RUN HYDROMETER**

Tested By BK Date 11/26/13 Checked By KC Date 11/27/13

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	6.000-6.600
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-009		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	6.000-6.600
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-009		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G202	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	1.625-2.300
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-010	Soil Color:	DARK BROWN

Moisture Content of Passing 3/4" Sample		Water Content of Retained 3/4" Sample	
Tare No.	2326	Tare No.	NA
Wt. of Tare & Wet Sample (g)	113.18	Weight of Tare & Wet Sample (g)	NA
Wt. of Tare & Dry Sample (g)	113.18	Weight of Tare & Dry Sample (g)	NA
Weight of Tare (g)	97.09	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Sample (g)	16.09	Weight of Dry Sample (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Sample (g)	16.09
Dry Weight of - 3/4" Sample (g)	9.8	Weight of - #200 Sample (g)	6.32
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 Sample (g)	9.77
Dry Weight of + 3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

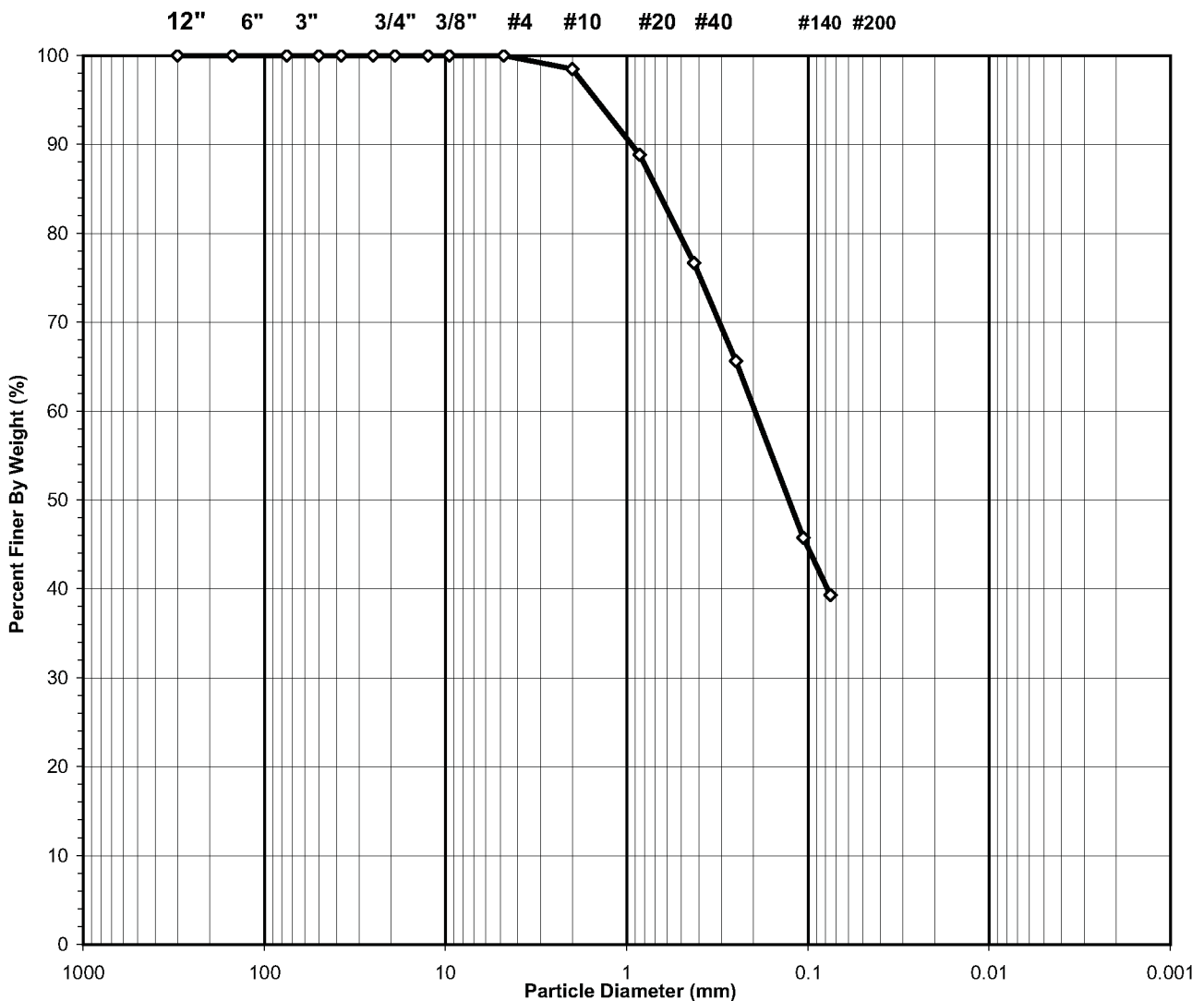
Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.50	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	0.25	1.55	1.55	98.45	<b>98.45</b>
#20	0.850	1.55	9.63	11.19	88.81	<b>88.81</b>
#40	0.425	1.95	12.12	23.31	76.69	<b>76.69</b>
#60	0.250	1.78	11.06	34.37	65.63	<b>65.63</b>
#140	0.106	3.20	19.89	54.26	45.74	<b>45.74</b>
#200	0.075	1.04	6.46	60.72	39.28	<b>39.28</b>
Pan	-	6.32	39.28	100.00	-	-

Tested By **BK**    Date **11/26/13**    Checked By **KC**    Date **11/27/13**

**SIEVE ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	1.625-2.300
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-010	Soil Color:	DARK BROWN

<b>USCS</b>	<b>SIEVE ANALYSIS</b>		<b>HYDROMETER</b>
	gravel	sand	silt and clay



**USCS Symbol:** SM, TESTED

**USCS Classification:** SILTY SAND (NON-PLASTIC FINES)

**UNABLE TO RUN HYDROMETER**

Tested By BK Date 11/26/13 Checked By KC Date 11/27/13

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.625-2.300
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-010		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.625-2.300
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-010		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G366	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14



## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	3.350-4.100
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-011	Soil Color:	DARK BROWN

Moisture Content of Passing 3/4" Sample		Water Content of Retained 3/4" Sample	
Tare No.	506	Tare No.	NA
Wt. of Tare & Wet Sample (g)	117.96	Weight of Tare & Wet Sample (g)	NA
Wt. of Tare & Dry Sample (g)	117.96	Weight of Tare & Dry Sample (g)	NA
Weight of Tare (g)	99.65	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Sample (g)	18.31	Weight of Dry Sample (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Sample (g)	18.31
Dry Weight of - 3/4" Sample (g)	11.9	Weight of - #200 Sample (g)	6.46
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 Sample (g)	11.85
Dry Weight of + 3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

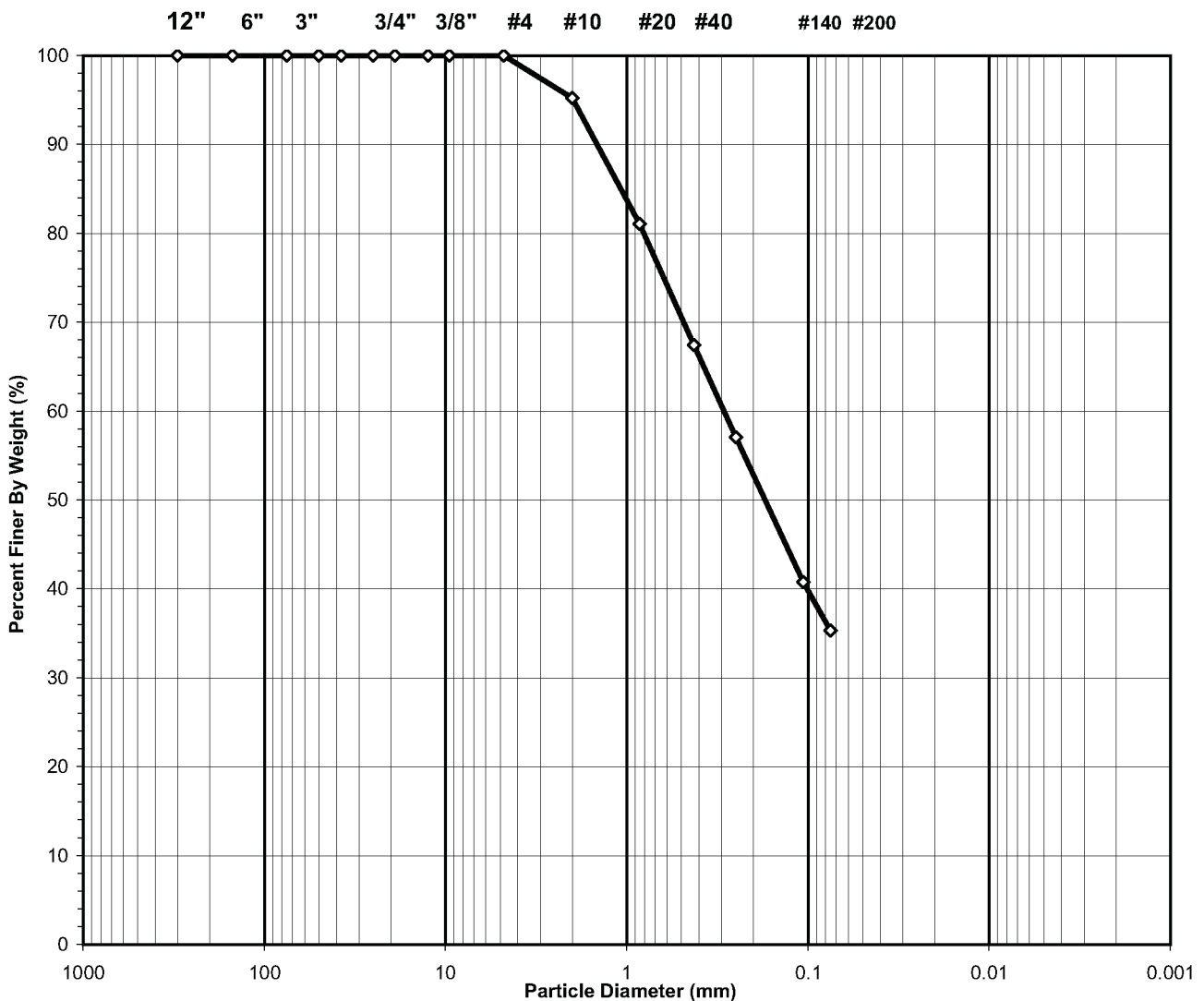
Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.50	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	0.88	4.81	4.81	95.19	<b>95.19</b>
#20	0.850	2.59	14.15	18.95	81.05	<b>81.05</b>
#40	0.425	2.49	13.60	32.55	67.45	<b>67.45</b>
#60	0.250	1.91	10.43	42.98	57.02	<b>57.02</b>
#140	0.106	2.98	16.28	59.26	40.74	<b>40.74</b>
#200	0.075	1.00	5.46	64.72	35.28	<b>35.28</b>
Pan	-	6.46	35.28	100.00	-	-

Tested By BK Date 11/27/13 Checked By KC Date 12/2/13

**SIEVE ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	3.350-4.100
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-011	Soil Color:	DARK BROWN

<b>USCS</b>	<b>SIEVE ANALYSIS</b>		<b>HYDROMETER</b>
	gravel	sand	silt and clay



**USCS Symbol:** SM, TESTED

**USCS Classification:** SILTY SAND (NON-PLASTIC FINES)

**UNABLE TO RUN HYDROMETER**

Tested By BK Date 11/27/13 Checked By KC Date 12/2/13

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	3.350-4.100
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-011		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	3.350-4.100
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-011		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G202	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-012

Boring No.: M-7-2c  
 Depth (ft): 2.100-2.800  
 Sample No.: MP-1  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	927	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	159.06	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	159.06	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	100.06	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	59.00	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	59.00
Dry Weight of -3/4" Sample (g)	3.85	Weight of - #200 material (g)	55.15
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	3.85
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained	Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)	(%)	(%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	0.02	0.03	0.03	99.97	<b>99.97</b>
#20	0.85	0.26	0.44	0.47	99.53	<b>99.53</b>
#40	0.425	0.54	0.92	1.39	98.61	<b>98.61</b>
#60	0.250	0.64	1.08	2.47	97.53	<b>97.53</b>
#140	0.106	1.53	2.59	5.07	94.93	<b>94.93</b>
#200	0.075	0.86	1.46	6.53	93.47	<b>93.47</b>
Pan	-	55.15	93.47	100.00	-	-

Tested By BK Date 12/3/13 Checked By KC Date 12/5/13

**HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2c
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.100-2.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-012	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
5	39.5	22.0	4.83	34.7	99.9	0.01452	0.0203	<b>93.3</b>
18	33.0	22.0	4.83	28.2	81.1	0.01452	0.0113	<b>75.8</b>
32	26.0	22.0	4.83	21.2	61.0	0.01452	0.0089	<b>57.0</b>
60	20.5	22.1	4.80	15.7	45.2	0.01450	0.0067	<b>42.3</b>
250	13.0	21.8	4.90	8.1	23.3	0.01455	0.0035	<b>21.8</b>
1440	10.5	22.9	4.55	5.9	17.1	0.01436	0.0014	<b>16.0</b>

Soil Specimen Data		Other Corrections	
Tare No.	672		
Weight of Tare & Dry Material (g)	138.8	a - Factor	1.052
Weight of Tare (g)	97.28		
Weight of Deflocculant (g)	5.0	Percent Finer than # 200	93.47
Weight of Dry Material (g)	36.52		
		Specific Gravity	2.39 Measured

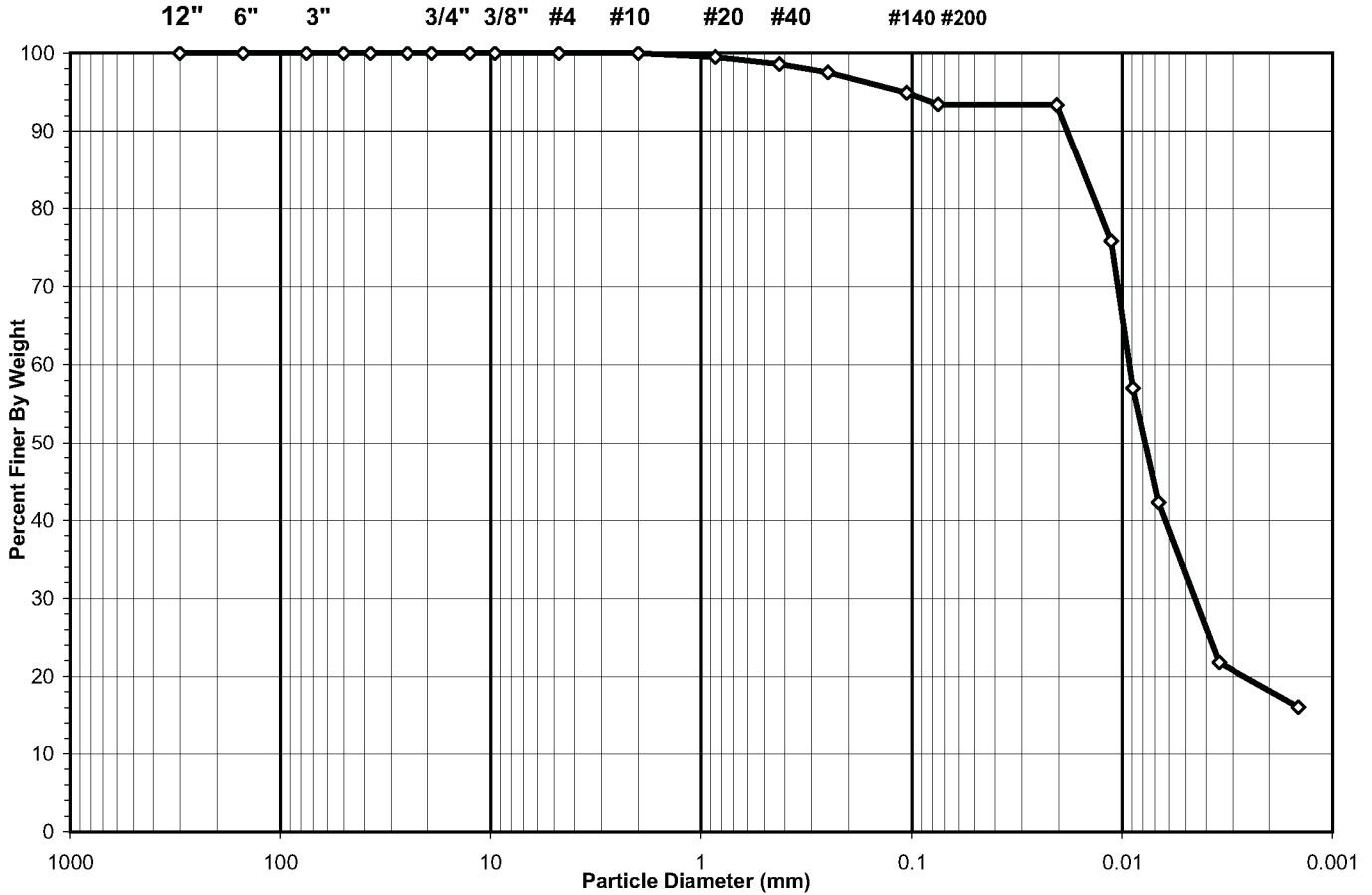
**Note:** Hydrometer test is performed on - # 200 sieve material.

Tested By TO Date 12/3/13 Checked By KC Date 12/5/13

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2c
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.100-2.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-012	Soil Color:	BROWN

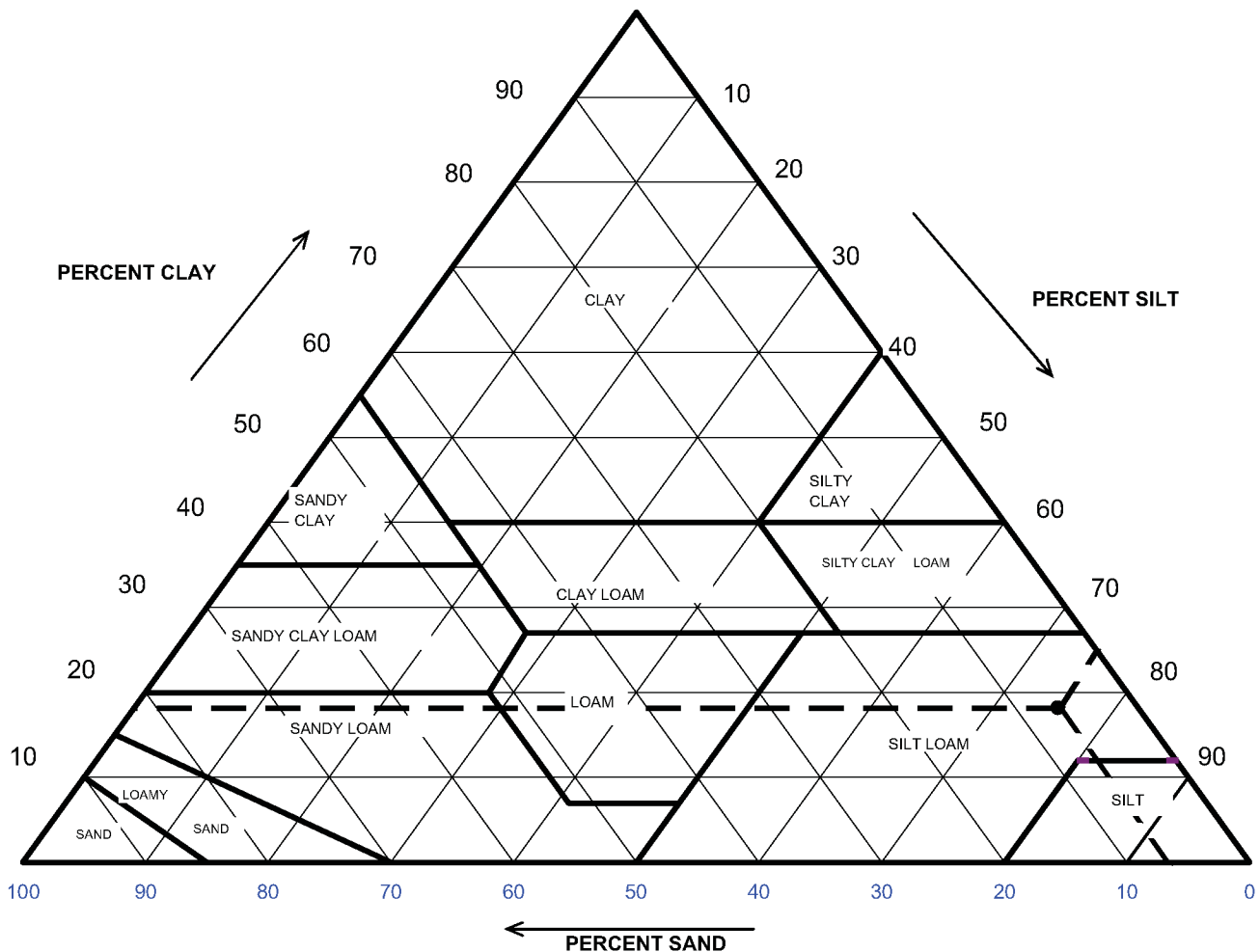
USCS USDA	SIEVE ANALYSIS					HYDROMETER	
	cobbles	gravel		sand		silt and clay fraction	
	cobbles	gravel		sand		silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	6.53
Finer Than #200	Silt & Clay	93.47
USCS Symbol	<b>MH, TESTED</b>	
USCS Classification	<b>ELASTIC SILT</b>	

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2c
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.100-2.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-012	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	0.03	<b>0.00</b>
2	99.97	<i>Sand</i>	6.53	<b>6.53</b>
0.05	93.43	<i>Silt</i>	75.26	<b>75.28</b>
0.002	18.18	<i>Clay</i>	18.18	<b>18.18</b>
<b>USDA Classification:</b>		<b><i>SILT LOAM</i></b>		



## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.100-2.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-012		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	2.100-2.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-012		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G1401	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14

## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client: Paul C. Rizzo & Associates  
 Client Reference: Turkey Point NPP Units 6 and 7 13-5054  
 Project No.: 2013-465-002  
 Lab ID: 2013-465-002-013

Boring No.: M-7-3a  
 Depth (ft): 1.000-1.550  
 Sample No.: MP-1  
 Soil Color: BROWN

Moisture Content of Passing 3/4" Material		Water Content of Retained 3/4" Material	
Tare No.	975	Tare No.	NA
Wt. of Tare & Wet Specimen (g)	123.95	Wt. of Tare & Wet Specimen (g)	NA
Wt. of Tare & Dry Specimen (g)	123.95	Wt. of Tare & Dry Specimen (g)	NA
Weight of Tare (g)	97.57	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Specimen (g)	26.38	Weight of Dry Specimen (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Specimen (g)	26.38
Dry Weight of -3/4" Sample (g)	3.92	Weight of - #200 material (g)	22.46
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 material (g)	3.92
Dry Weight of +3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

Sieve Size	Sieve Opening	Weight of Soil Retained	Percent Retained	Accumulated Percent Retained		Percent Finer	Accumulated Percent Finer
	(mm)	(g)	(%)	(%)		(%)	(%)
12"	300	0.00	0.00	0.00		100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00		100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00		100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00		100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00		100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00		100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00		100.00	<b>100.00</b>
1/2"	12.5	0.00	0.00	0.00		100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00		100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00		100.00	<b>100.00</b>
#10	2.00	0.16	0.61	0.61		99.39	<b>99.39</b>
#20	0.85	0.34	1.29	1.90		98.10	<b>98.10</b>
#40	0.425	0.35	1.33	3.22		96.78	<b>96.78</b>
#60	0.250	0.70	2.65	5.88		94.12	<b>94.12</b>
#140	0.106	1.67	6.33	12.21		87.79	<b>87.79</b>
#200	0.075	0.70	2.65	14.86		85.14	<b>85.14</b>
Pan	-	22.46	85.14	100.00		-	-

Tested By **BK** Date **12/2/13** Checked By **KC** Date **12/4/13**

**HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-013	Soil Color:	BROWN

Elapsed Time	R Measured	Temp.	Composite Correction	R Corrected	N	K Factor	Diameter	N'
(min)		(°C)			(%)		(mm)	(%)
0	NA	NA	NA	NA	NA	NA	NA	NA
30	18.0	21.7	4.93	13.1	97.5	0.01489	0.0099	<b>83.0</b>
63	15.5	22.0	4.83	10.7	79.5	0.01484	0.0069	<b>67.7</b>
250	11.5	21.7	4.93	6.6	49.0	0.01489	0.0036	<b>41.7</b>
1440	9.5	22.1	4.80	4.7	35.0	0.01482	0.0015	<b>29.8</b>

Soil Specimen Data		Other Corrections	
Tare No.	889	a - Factor	1.064
Weight of Tare & Dry Material (g)	121.52	Percent Finer than # 200	85.14
Weight of Tare (g)	102.25	Specific Gravity	2.33 Measured
Weight of Deflocculant (g)	5.0		
Weight of Dry Material (g)	14.27		

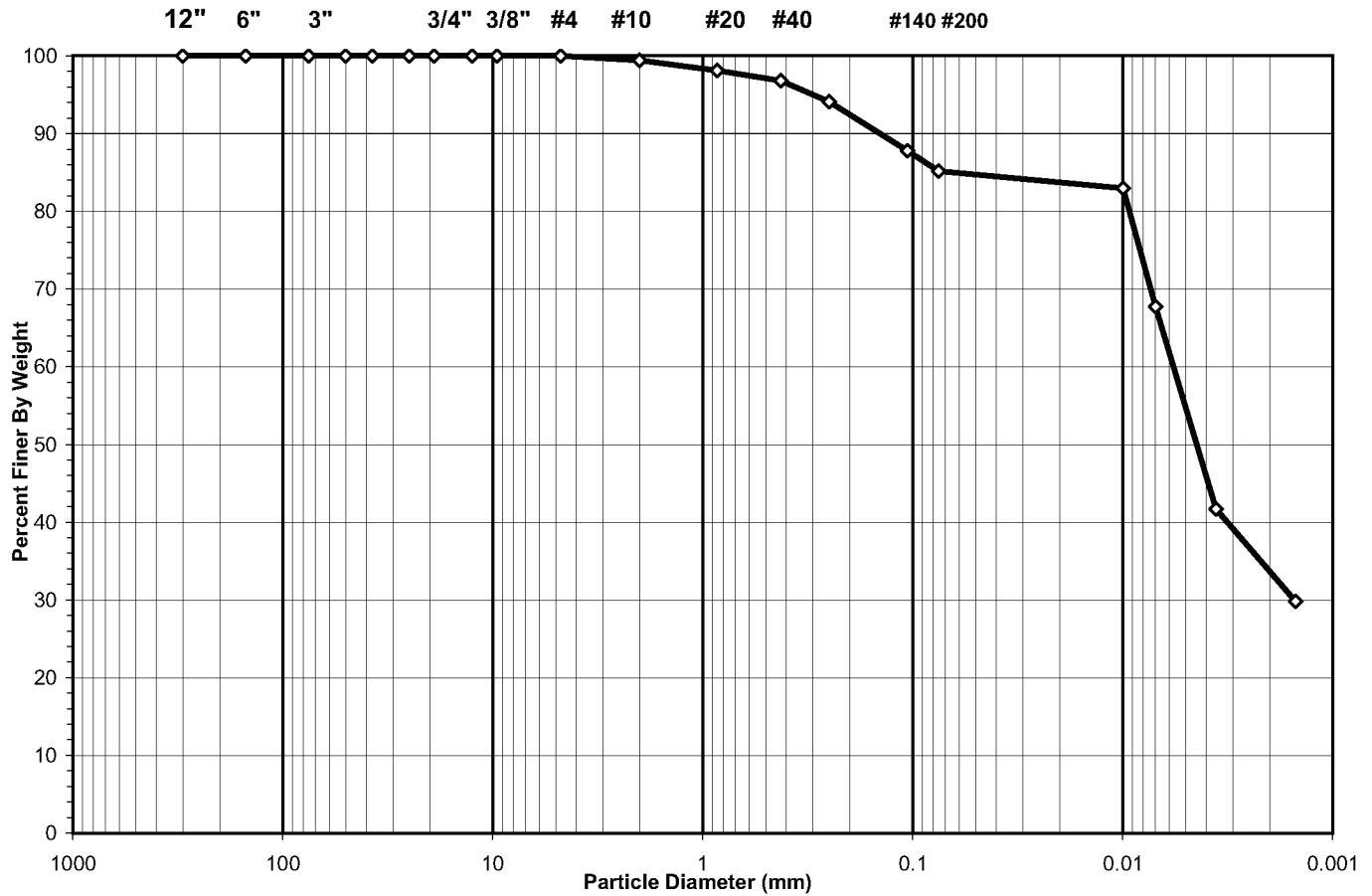
**Note:** Hydrometer test is performed on - # 200 sieve material.

Tested By TO Date 12/2/13 Checked By KC Date 12/4/13

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-013	Soil Color:	BROWN

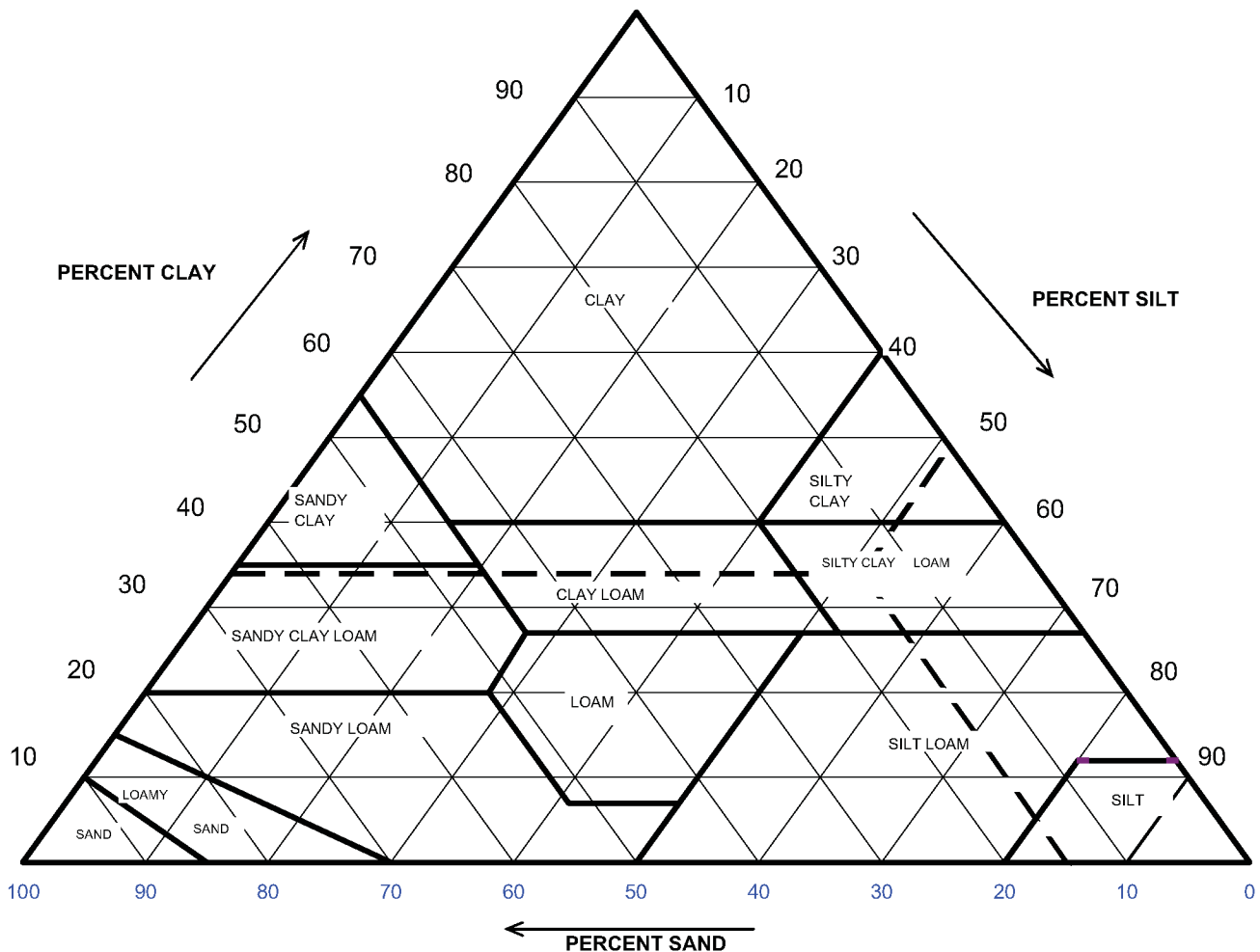
<b>USCS</b> <b>USDA</b>	<b>SIEVE ANALYSIS</b>				<b>HYDROMETER</b>	
	cobbles	gravel	sand	sand	silt and clay fraction	
	cobbles	gravel	sand	sand	silt	clay



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	Gravel	0.00
#4 To #200	Sand	14.86
Finer Than #200	Silt & Clay	85.14
<b>USCS Symbol</b>	<b>UNABLE TO DETERMINE CLASSIFICATION, INSUFFICIENT MINUS #40 MATERIAL TO PERFORM LIMITS.</b>	
<b>USCS Classification</b>		

## USDA CLASSIFICATION CHART

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-013	Soil Color:	BROWN



Particle Size (mm)	Percent Finer (%)	USDA SUMMARY	Actual Percentage (%)	Corrected % of Minus 2.0 mm material for USDA Classificat. (%)
		<i>Gravel</i>	0.61	<b>0.00</b>
2	99.39	<i>Sand</i>	14.69	<b>14.78</b>
0.05	84.71	<i>Silt</i>	50.94	<b>51.25</b>
0.002	33.76	<i>Clay</i>	33.76	<b>33.97</b>
<b>USDA Classification:</b>		<b>SILTY CLAY LOAM</b>		

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-013		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance		
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3a
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-013		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G773	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14



## WASH SIEVE ANALYSIS

ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	4.000-4.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-014	Soil Color:	DARK BROWN

Moisture Content of Passing 3/4" Sample		Water Content of Retained 3/4" Sample	
Tare No.	68	Tare No.	NA
Wt. of Tare & Wet Sample (g)	182.64	Weight of Tare & Wet Sample (g)	NA
Wt. of Tare & Dry Sample (g)	182.64	Weight of Tare & Dry Sample (g)	NA
Weight of Tare (g)	165.65	Weight of Tare (g)	NA
Weight of Water (g)	0.00	Weight of Water (g)	NA
Weight of Dry Sample (g)	16.99	Weight of Dry Sample (g)	NA
<b>Moisture Content (%)</b>	<b>0.0</b>	<b>Moisture Content (%)</b>	<b>NA</b>

Wet Weight of -3/4" Sample (g)	NA	Weight of the Dry Sample (g)	16.99
Dry Weight of - 3/4" Sample (g)	12.1	Weight of - #200 Sample (g)	4.85
Wet Weight of +3/4" Sample (g)	NA	Weight of + #200 Sample (g)	12.14
Dry Weight of + 3/4" Sample (g)	0.00		
Total Dry Weight of Sample (g)	NA		

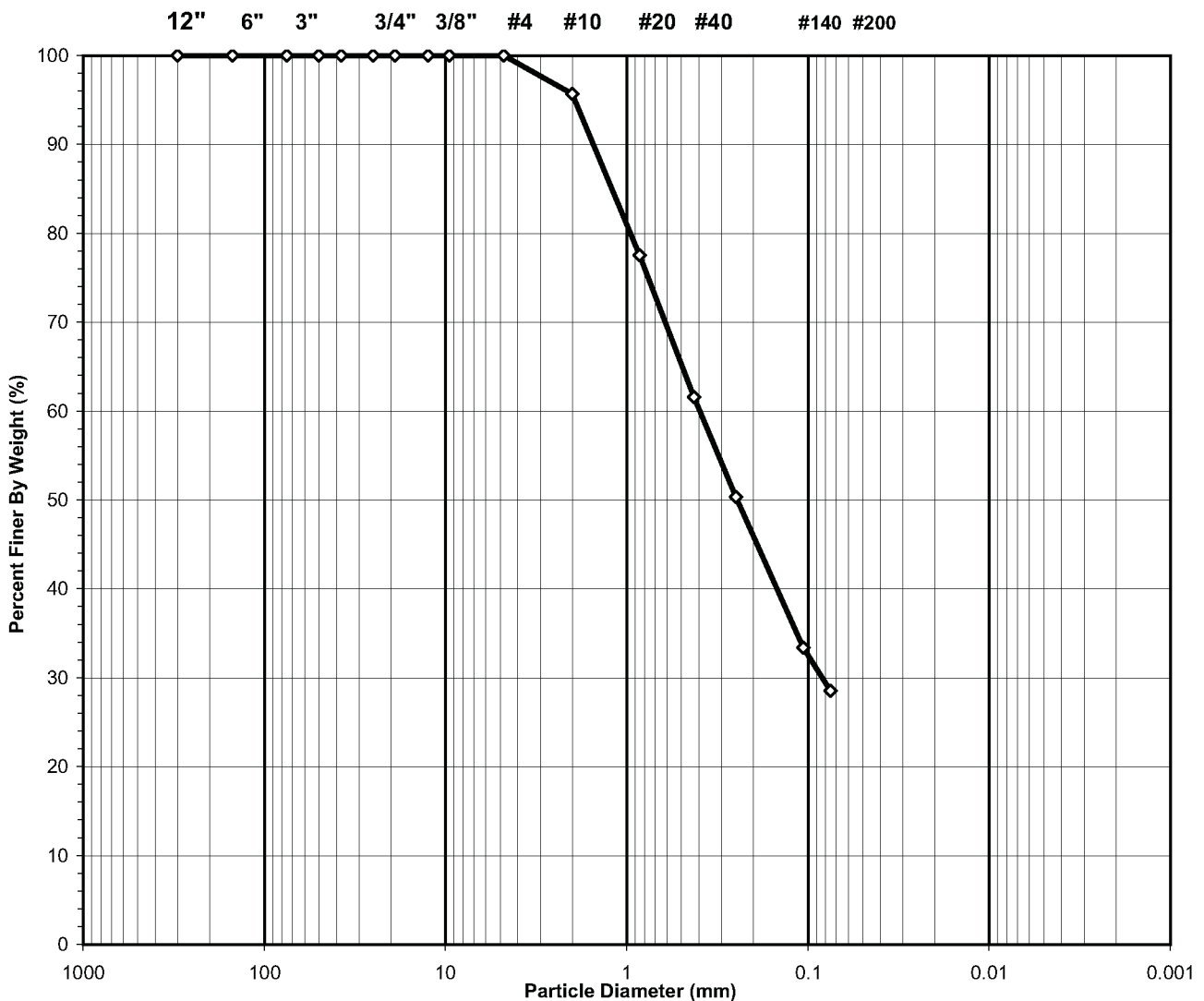
Sieve Size	Sieve Opening (mm)	Weight of Soil Retained (g)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated Percent Finer (%)
12"	300	0.00	0.00	0.00	100.00	<b>100.00</b>
6"	150	0.00	0.00	0.00	100.00	<b>100.00</b>
3"	75	0.00	0.00	0.00	100.00	<b>100.00</b>
2"	50	0.00	0.00	0.00	100.00	<b>100.00</b>
1 1/2"	37.5	0.00	0.00	0.00	100.00	<b>100.00</b>
1"	25.0	0.00	0.00	0.00	100.00	<b>100.00</b>
3/4"	19.0	0.00	0.00	0.00	100.00	<b>100.00</b>
1/2"	12.50	0.00	0.00	0.00	100.00	<b>100.00</b>
3/8"	9.50	0.00	0.00	0.00	100.00	<b>100.00</b>
#4	4.75	0.00	0.00	0.00	100.00	<b>100.00</b>
#10	2.00	0.73	4.30	4.30	95.70	<b>95.70</b>
#20	0.850	3.09	18.19	22.48	77.52	<b>77.52</b>
#40	0.425	2.71	15.95	38.43	61.57	<b>61.57</b>
#60	0.250	1.91	11.24	49.68	50.32	<b>50.32</b>
#140	0.106	2.88	16.95	66.63	33.37	<b>33.37</b>
#200	0.075	0.82	4.83	71.45	28.55	<b>28.55</b>
Pan	-	4.85	28.55	100.00	-	-

Tested By BK Date 11/27/13 Checked By KC Date 12/2/13

**SIEVE ANALYSIS**  
ASTM D 422-63 (2007)

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3b
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	4.000-4.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-014	Soil Color:	DARK BROWN

<b>USCS</b>	<b>SIEVE ANALYSIS</b>		<b>HYDROMETER</b>
	gravel	sand	silt and clay



**USCS Symbol:** SM, TESTED

**USCS Classification:** SILTY SAND (NON-PLASTIC FINES)

**UNABLE TO RUN HYDROMETER**

Tested By BK Date 11/27/13 Checked By KC Date 12/2/13

## SIEVE ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	4.000-4.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-014		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1395	6/4/14
2" Sieve		
1 1/2 " Sieve		
1" Sieve		
3/4" Sieve		
1/2" Sieve	G009	9/13/14
3/8" Sieve	G1251	9/13/14
#4 Sieve	G802	9/16/14
#10 Sieve	G894	8/9/14
#20 Sieve	G1497	4/22/14
#40 Sieve	G1413	12/26/13
#60 Sieve	G1384	9/13/14
#140 Sieve	G1407	11/22/14
#200 Sieve	G1334	12/31/13
Sieve Shaker	G1067	9/20/14
Additional Balance	G1394	5/15/14
#200 Wash Sieve	G1507	10/22/14

## HYDROMETER ANALYSIS

ASTM D 422-63 (2007)

### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3b
Client Reference	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft)	4.000-4.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-014		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Hydrometer Bulb	G599	7/25/14
Hydrometer Bulb	G1159	1/27/14
Hydrometer Bulb	G1160	1/27/14
Thermometer	G1412	6/12/14
Sedimentation Cylinder	G212	NA
#200 Wash Sieve	G1507	10/22/14
Timing Device	G487	5/13/14



## ATTERBERG LIMIT

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.075-1.475
Project No.:	2013-465-002	Sample No.:	ST-1
Lab ID:	2013-465-002-001	Visual:	BROWN SILT (Minus No. 40 sieve material, Airdried)

# NON - PLASTIC MATERIAL

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>11/21/13</i>
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*page 1 of 1*

DCN: CT-S4C DATE: 3/20/13 REVISION : 3

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**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.075-1.475
Project No.	2013-465-002	Sample No.	ST-1
Lab ID #	2013-465-002-001		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14

### ATTERBERG LIMITS

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2c
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.175-1.675
Project No.:	2013-465-002	Sample No.:	ST-1
Lab ID:	2013-465-002-002	Soil Description:	<b>BROWN ELASTIC SILT</b>

*Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.* (Minus No. 40 sieve material, Airdried)

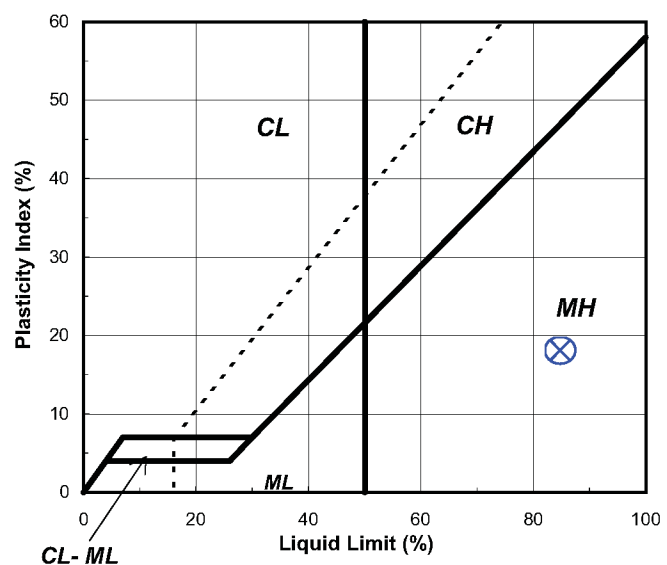
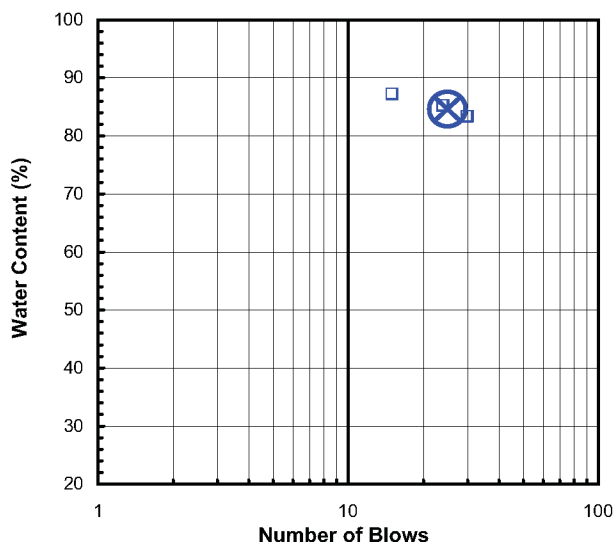
Liquid Limit Test	1	2	3	
				<b>M</b>
Tare Number	1276	444	1250	<b>U</b>
Wt. of Tare & Wet Sample (g)	34.02	37.83	36.87	<b>L</b>
Wt. of Tare & Dry Sample (g)	24.85	27.77	27.25	<b>T</b>
Wt. of Tare (g)	13.84	15.96	16.21	<b>I</b>
Wt. of Water (g)	9.2	10.1	9.6	<b>P</b>
Wt. of Dry Sample (g)	11.0	11.8	11.0	<b>O</b>
				<b>I</b>
<b>Moisture Content (%)</b>	<b>83.3</b>	<b>85.2</b>	<b>87.1</b>	<b>N</b>
<b>Number of Blows</b>	<b>30</b>	<b>24</b>	<b>15</b>	<b>T</b>

Plastic Limit Test	1	2	Range	Test Results	
Tare Number	1268	409		Liquid Limit (%)	<b>85</b>
Wt. of Tare & Wet Sample (g)	18.63	21.04		Plastic Limit (%)	<b>67</b>
Wt. of Tare & Dry Sample (g)	16.13	18.55		Plasticity Index (%)	<b>18</b>
Wt. of Tare (g)	12.41	14.87		USCS Symbol	<b>MH</b>
Wt. of Water (g)	2.5	2.5			
Wt. of Dry Sample (g)	3.7	3.7			
<b>Moisture Content (%)</b>	<b>67.2</b>	<b>67.7</b>	<b>-0.5</b>		

*Note: The acceptable range of the two Moisture contents is  $\pm 2.6$*

Flow Curve

Plasticity Chart



Tested By TO Date 12/5/13 Checked By KC Date 12/6/13

**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.175-1.675
Project No.	2013-465-002	Sample No.	ST-1
Lab ID #	2013-465-002-002		

Equipment	Equipment ID#	Calibration Due Date
Oven	G1118	11/23/14
Balance	G1057	11/4/14
Liquid Limit Device	G265	10/24/14
#40 Sieve	G1413	12/26/13



## ATTERBERG LIMITS

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.600-3.350
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-003	Soil Description:	<b>BROWN ELASTIC SILT</b>

**Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. (Minus No. 40 sieve material, Airdried)**  
**See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

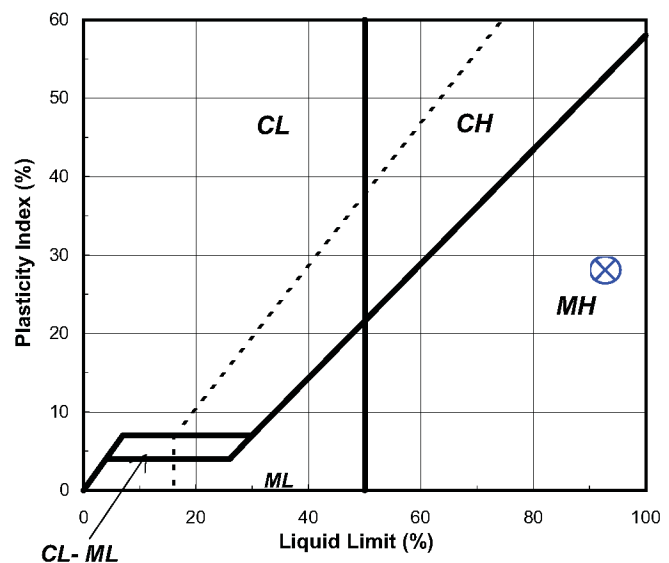
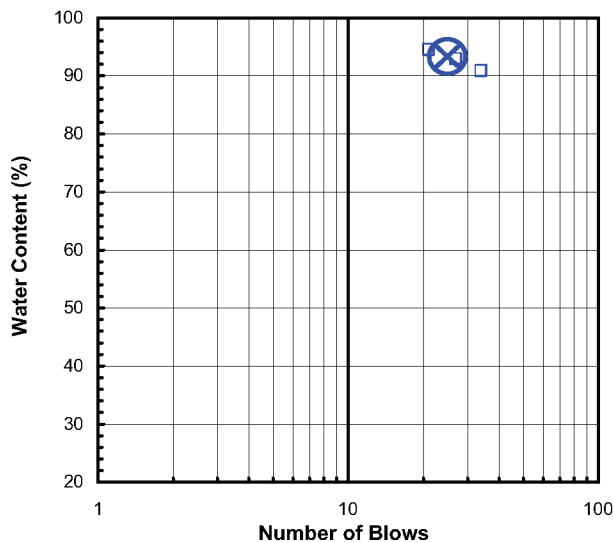
Liquid Limit Test	1	2	3	
				<b>M</b>
Tare Number	317	1261	1269	<b>U</b>
Wt. of Tare & Wet Sample (g)	37.08	43.20	35.51	<b>L</b>
Wt. of Tare & Dry Sample (g)	28.35	33.50	25.72	<b>T</b>
Wt. of Tare (g)	18.74	23.06	15.36	<b>I</b>
Wt. of Water (g)	8.7	9.7	9.8	<b>P</b>
Wt. of Dry Sample (g)	9.6	10.4	10.4	<b>O</b>
				<b>I</b>
<b>Moisture Content (%)</b>	<b>90.8</b>	<b>92.9</b>	<b>94.5</b>	<b>N</b>
<b>Number of Blows</b>	<b>34</b>	<b>27</b>	<b>21</b>	<b>T</b>

Plastic Limit Test	1	2	Range	Test Results	
Tare Number	1234	1286		Liquid Limit (%)	<b>93</b>
Wt. of Tare & Wet Sample (g)	17.88	26.78		Plastic Limit (%)	<b>65</b>
Wt. of Tare & Dry Sample (g)	15.44	24.36		Plasticity Index (%)	<b>28</b>
Wt. of Tare (g)	11.71	20.65		USCS Symbol	<b>MH</b>
Wt. of Water (g)	2.4	2.4			
Wt. of Dry Sample (g)	3.7	3.7			
<b>Moisture Content (%)</b>	<b>65.4</b>	<b>65.2</b>	<b>0.2</b>		

*Note: The acceptable range of the two Moisture contents is  $\pm 2.6$*

Flow Curve

Plasticity Chart



Tested By *JP* Date *11/22/13* Checked By *KC* Date *11/25/13*

**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-6-1a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	2.600-3.350
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-003		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G1394	5/15/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



## ATTERBERG LIMIT

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-1b
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.250-2.900
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-004	Visual:	DARK BROWN SILT ( Minus No. 40 sieve material, Airdried)

# NON - PLASTIC MATERIAL

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>11/21/13</i>
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DCN: CT-S4C DATE: 3/20/13 REVISION : 3

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**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-6-1b
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	2.250-2.900
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-004		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



## ATTERBERG LIMIT

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	0.700-1.200
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-005	Visual:	BROWN MATERIAL ( Minus No. 40 sieve material, Airdried)

# INSUFFICIENT MINUS #40 MATERIAL TO PERFORM TEST

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>12/4/13</i>
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DCN: CT-S4C DATE: 3/20/13 REVISION : 3

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### Atterberg Limits

ASTM D4318-10

#### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-2a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	0.700-1.200
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-005		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14

### ATTERBERG LIMITS

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-6-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.150-2.800
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-006	Soil Description:	<b>BROWN ELASTIC SILT</b>

**Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. (Minus No. 40 sieve material, Airdried)**  
**See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

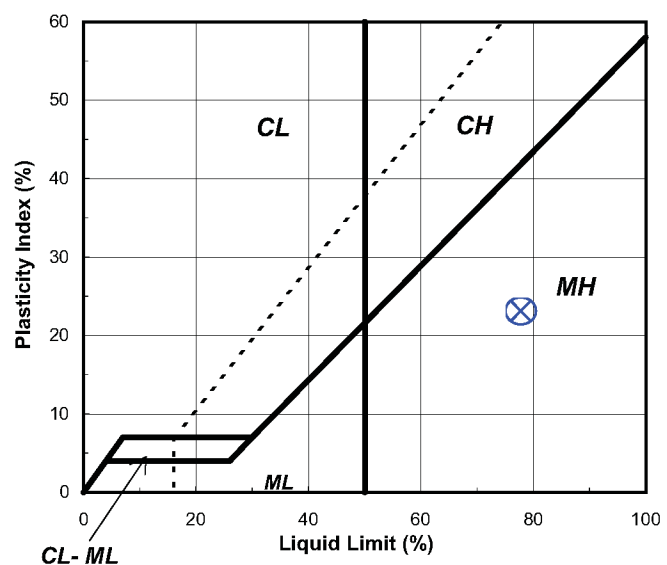
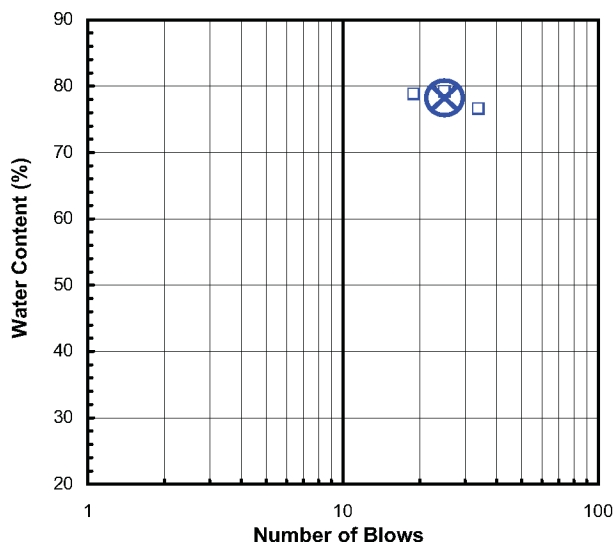
Liquid Limit Test	1	2	3	
Tare Number	1225	1223	1279	<b>M</b>
Wt. of Tare & Wet Sample (g)	35.56	31.63	36.06	<b>U</b>
Wt. of Tare & Dry Sample (g)	26.42	22.42	26.34	<b>L</b>
Wt. of Tare (g)	14.48	10.78	14.00	<b>T</b>
Wt. of Water (g)	9.1	9.2	9.7	<b>I</b>
Wt. of Dry Sample (g)	11.9	11.6	12.3	<b>P</b>
<b>Moisture Content (%)</b>	<b>76.5</b>	<b>79.1</b>	<b>78.8</b>	<b>O</b>
<b>Number of Blows</b>	<b>34</b>	<b>25</b>	<b>19</b>	<b>I</b>
				<b>N</b>
				<b>T</b>

Plastic Limit Test	1	2	Range	Test Results
Tare Number	1232	1234		<b>Liquid Limit (%)</b> <b>78</b>
Wt. of Tare & Wet Sample (g)	24.95	17.74		<b>Plastic Limit (%)</b> <b>55</b>
Wt. of Tare & Dry Sample (g)	22.81	15.58		<b>Plasticity Index (%)</b> <b>23</b>
Wt. of Tare (g)	18.87	11.69		<b>USCS Symbol</b> <b>MH</b>
Wt. of Water (g)	2.1	2.2		
Wt. of Dry Sample (g)	3.9	3.9		
<b>Moisture Content (%)</b>	<b>54.3</b>	<b>55.5</b>	<b>-1.2</b>	

*Note: The acceptable range of the two Moisture contents is ± 2.6*

Flow Curve

Plasticity Chart



Tested By JP Date 11/21/13 Checked By KC Date 11/22/13

### Atterberg Limits

ASTM D4318-10

#### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-6-2a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	2.150-2.800
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-006		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



**ATTERBERG LIMIT**  
ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-007	Visual:	BROWN MATERIAL ( Minus No. 40 sieve material, Airdried)

# INSUFFICIENT MINUS #40 MATERIAL TO PERFORM TEST

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>12/4/13</i>
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### Atterberg Limits

ASTM D4318-10

#### EQUIPMENT LIST

Client	Paul C. Rizzo & Associates	Boring No.	M-7-1a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-007		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



## ATTERBERG LIMIT

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-1a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	4.100-4.625
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-008	Visual:	BROWN SILT ( Minus No. 40 sieve material, Airdried)

# NON - PLASTIC MATERIAL

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>11/21/13</i>
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**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-1a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	4.100-4.625
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-008		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



**ATTERBERG LIMIT**  
ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2a
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	6.000-6.600
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-009	Visual:	DARK BROWN SILT ( Minus No. 40 sieve material, Airdried)

**NON - PLASTIC  
MATERIAL**

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>11/21/13</i>
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**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	6.000-6.600
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-009		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



## ATTERBERG LIMIT

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	1.625-2.300
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-010	Visual:	DARK BROWN SILT ( Minus No. 40 sieve material, Airdried)

# NON - PLASTIC MATERIAL

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>11/21/13</i>
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DCN: CT-S4C DATE: 3/20/13 REVISION : 3

**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.625-2.300
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-010		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



**ATTERBERG LIMIT**  
ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2b
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	3.350-4.100
Project No.:	2013-465-002	Sample No.:	MP-2
Lab ID:	2013-465-002-011	Visual:	DARK BROWN SILT ( Minus No. 40 sieve material, Airdried)

**NON - PLASTIC  
MATERIAL**

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<i>Tested By</i>	<i>JP</i>	<i>Date</i>	<i>11/21/13</i>	<i>Checked By</i>	<i>KC</i>	<i>Date</i>	<i>11/21/13</i>
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**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2b
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	3.350-4.100
Project No.	2013-465-002	Sample No.	MP-2
Lab ID #	2013-465-002-011		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14

### ATTERBERG LIMITS

ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-2c
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	2.100-2.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-012	Soil Description:	<b>BROWN ELASTIC SILT</b>

**Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. (Minus No. 40 sieve material, Airdried)**  
**see material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description .**

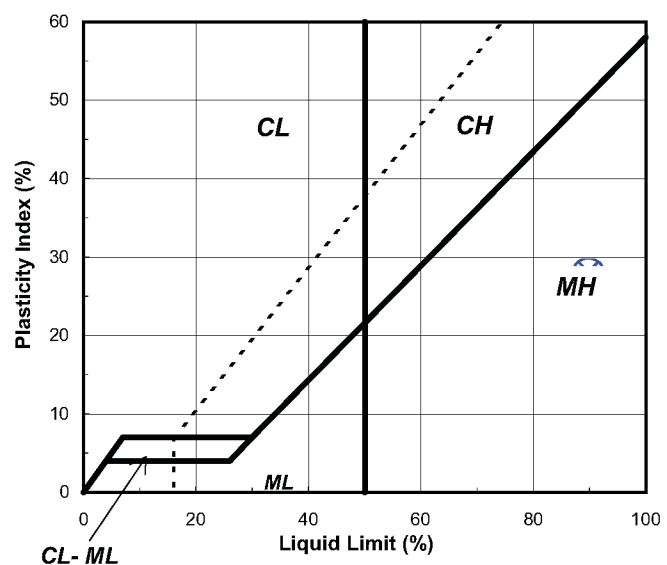
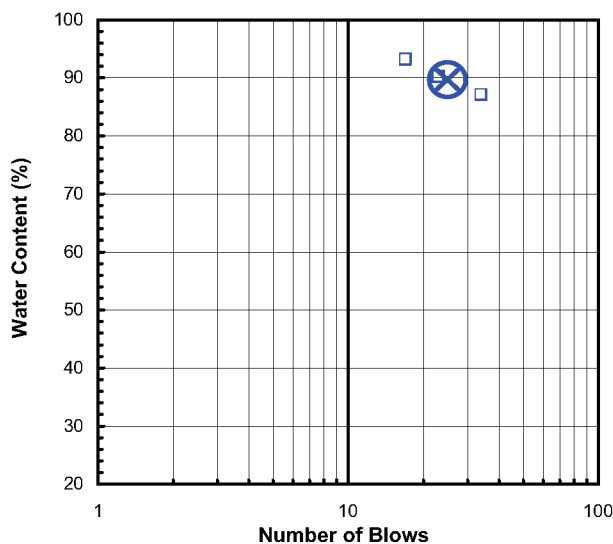
Liquid Limit Test	1	2	3	
Tare Number	301	1235	1257	<b>M</b>
Wt. of Tare & Wet Sample (g)	39.19	32.18	33.31	<b>U</b>
Wt. of Tare & Dry Sample (g)	29.66	22.44	23.10	<b>L</b>
Wt. of Tare (g)	18.71	11.64	12.14	<b>T</b>
Wt. of Water (g)	9.5	9.7	10.2	<b>I</b>
Wt. of Dry Sample (g)	11.0	10.8	11.0	<b>P</b>
<b>Moisture Content (%)</b>	<b>87.0</b>	<b>90.2</b>	<b>93.2</b>	<b>O</b>
<b>Number of Blows</b>	<b>34</b>	<b>23</b>	<b>17</b>	<b>N</b>
				<b>T</b>

Plastic Limit Test	1	2	Range	Test Results
Tare Number	366	1238		<b>Liquid Limit (%)</b> <b>90</b>
Wt. of Tare & Wet Sample (g)	23.43	17.86		<b>Plastic Limit (%)</b> <b>62</b>
Wt. of Tare & Dry Sample (g)	21.00	15.57		<b>Plasticity Index (%)</b> <b>28</b>
Wt. of Tare (g)	17.08	11.86		<b>USCS Symbol</b> <b>MH</b>
Wt. of Water (g)	2.4	2.3		
Wt. of Dry Sample (g)	3.9	3.7		
<b>Moisture Content (%)</b>	<b>62.0</b>	<b>61.7</b>	<b>0.3</b>	

*Note: The acceptable range of the two Moisture contents is ± 2.6*

Flow Curve

Plasticity Chart



Tested By JP Date 11/21/13 Checked By KC Date 11/22/13

**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-2c
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	2.100-2.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-012		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



**ATTERBERG LIMIT**  
ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3a
Client Reference:	Turkey Point NPP Units 6 & 7 13-5054	Depth (ft):	1.000-1.550
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-013	Visual:	BROWN MATERIAL ( Minus No. 40 sieve material, Airdried)

**INSUFFICIENT MINUS #40  
MATERIAL TO PERFORM TEST**

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*Tested By*    *JP*        *Date*    *11/22/13*        *Checked By*        *KC*        *Date*    *12/4/13*  
*page 1 of 1*                      DCN: CT-S4C DATE: 3/20/13 REVISION : 3

**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3a
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	1.000-1.550
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-013		

Equipment	Equipment ID#	Calibration Due Date
Oven	G006	10/10/14
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14



**ATTERBERG LIMIT**  
ASTM D 4318-10

Client:	Paul C. Rizzo & Associates	Boring No.:	M-7-3b
Client Reference:	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft):	4.000-4.800
Project No.:	2013-465-002	Sample No.:	MP-1
Lab ID:	2013-465-002-014	Visual:	DARK BROWN SILT ( Minus No. 40 sieve material, Airdried)

**NON - PLASTIC  
MATERIAL**

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*Tested By*    *JP*        *Date*    *11/21/13*        *Checked By*        *KC*        *Date*    *11/21/13*

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DCN: CT-S4C DATE: 3/20/13 REVISION : 3

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**Atterberg Limits**

ASTM D4318-10

**EQUIPMENT LIST**

Client	Paul C. Rizzo & Associates	Boring No.	M-7-3b
Client Reference	Turkey Point NPP Units 6 and 7 13-5054	Depth (ft)	4.000-4.800
Project No.	2013-465-002	Sample No.	MP-1
Lab ID #	2013-465-002-014		

Equipment	Equipment ID#	Calibration Due Date
Oven		
Balance	G447	3/29/14
Liquid Limit Device	G264	10/24/14
#40 Sieve	G1417	1/2/14