

APPENDIX H

**GEOTECHNICAL TEST RESULTS
FOR TOOELE ARMY DEPOT SITE**

EBASCO SERVICES INCORPORATED
LAKEWOOD, COLORADO

GEOTECHNICAL TEST RESULTS FOR
TOOELE ARMY DEPOT SITE

VOLUME I: TABULATED RESULTS

28 August 1990

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EBASCO SERVICES INCORPORATED
LAKEWOOD, COLORADO

GEOTECHNICAL SAMPLE SUMMARY FOR TOOELE ARMY DEPOT SITE

WESTON ETL JOB # 9007X003

SAMPLES RECEIVED 28 AUGUST 1990

EBASCO SAMPLE ID	BORING DEPTH (FEET)	SAMPLE COLLECTION DATE	ETL # SAMPLE NUMBER	TEST PARAMETER		
				GRAIN SIZE	LIQUID AND PLASTIC LIMITS	USCS CLASS
S-34-90	15	7/27/90	001	X	NR	X
S-66-90	75-76.5	7/27/90	002	X	X	X
S-33-90	240	7/27/90	003	X	X	X
S-71-90	45-46.5	7/27/90	004	X	X	X
S-71-90	15-16.5	7/27/90	005	X	X	X
S-70-90	45-46.5	7/27/90	006	X	X	X
S-71-90	65-66.5	7/27/90	007	X	X	X
S-70-90	30-31.5	7/27/90	008	X	X	X
S-33-90	130	7/27/90	009	X	IS	X
S-66-90	80-81.5	7/27/90	010	X	X	X
S-66-90	40-41.5	7/27/90	011	X	X	X
S-66-90	88	7/27/90	012	X	IS	X
S-49-90	90-92	7/27/90	013	X	IS	X
S-32-90	200	7/27/90	014	X	IS	X
S-51-90	30-32	7/27/90	015	X	NR	X
S-48-90	80-82	7/27/90	016	X	IS	X
S-43-90	81-82	7/27/90	017	X	IS	X
S-34-90	230	7/27/90	018	X	IS	X
S-53-90	60-6	7/27/90	019	X	IS	X
S-69-90	94.5-96	7/27/90	020	X	X	X
S-69-90	109.5-111	7/27/90	021	X	X	X
S-69-90	119.5-121	7/27/90	022	X	X	X
S-44-90	45-46	7/27/90	023	X	X	X
S-41-90	310-311	7/27/90	024	X	IS	X
S-64-90	14.5-16	7/27/90	025	X	X	X
S-64-90	34.5-36	7/27/90	026	X	X	X
S-65-90	25-27	7/27/90	027	X	IS	X
S-62-90	59.5-61	7/27/90	028	X	IS	X
S-62-90	79.5-81	7/27/90	029	X	X	X
S-62-90	89.5-91	7/27/90	030	X	X	X
S-62-90	94.5-96	7/27/90	031	X	X	X
S-62-90	104.5-106	7/27/90	032	X	X	X
S-65-90	15-17	7/27/90	033	X	X	X
S-69-90	9.5-11	7/27/90	034	X	X	X

NOTES

X = analysis performed
 IS = analysis not performed due to insufficient sample quantity
 NR = analysis not required for soil classification
 SB = analysis not performed due to broken sample container

EBASCO SERVICES INCORPORATED
LAKEWOOD, COLORADO

GEOTECHNICAL SAMPLE SUMMARY FOR TOOELE ARMY DEPOT SITE

WESTON ETL JOB # 9007X003

SAMPLES RECEIVED 28 AUGUST 1990

EBASCO SAMPLE ID	BORING DEPTH (FEET)	SAMPLE COLLECTION DATE	ETL # SAMPLE NUMBER	TEST PARAMETER		
				GRAIN SIZE	LIQUID AND PLASTIC LIMITS	USCS CLASS
S-69-90	24.5-26	7/27/90	035	X	X	X
S-69-90	54.5-56	7/27/90	036	X	X	X
S-69-90	84.5-86	7/27/90	037	X	X	X
S-62-90	29.5-31	7/27/90	038	SB	SB	SB

NOTES

X = analysis performed
IS = analysis not performed due to insufficient sample quantity
NR = analysis not required for soil classification
SB = analysis not performed due to broken sample container

EBASCO SERVICES INCORPORATED
LAKEWOOD, COLORADO

GEOTECHNICAL TEST METHOD SUMMARY FOR TOOELE ARMY DEPOT SITE

WESTON ETL JOB # 9007X003

TEST PARAMETER	ASTM REFERENCE METHOD	COMMENTS
SAMPLE PREPARATION FOR GRAIN SIZE	D 421-85	
GRAIN SIZE DISTRIBUTION	D 422-63	used 3", 2", 1", 3/4", #4, #10, #40, #140, and #200 sieves
LIQUID AND PLASTIC LIMITS	D 4318-84	minimum 3 points for liquid limit
USCS CLASSIFICATION	D 2487-69	Unified Soil Classification System (USCS)

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-34-90 (15')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	001
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

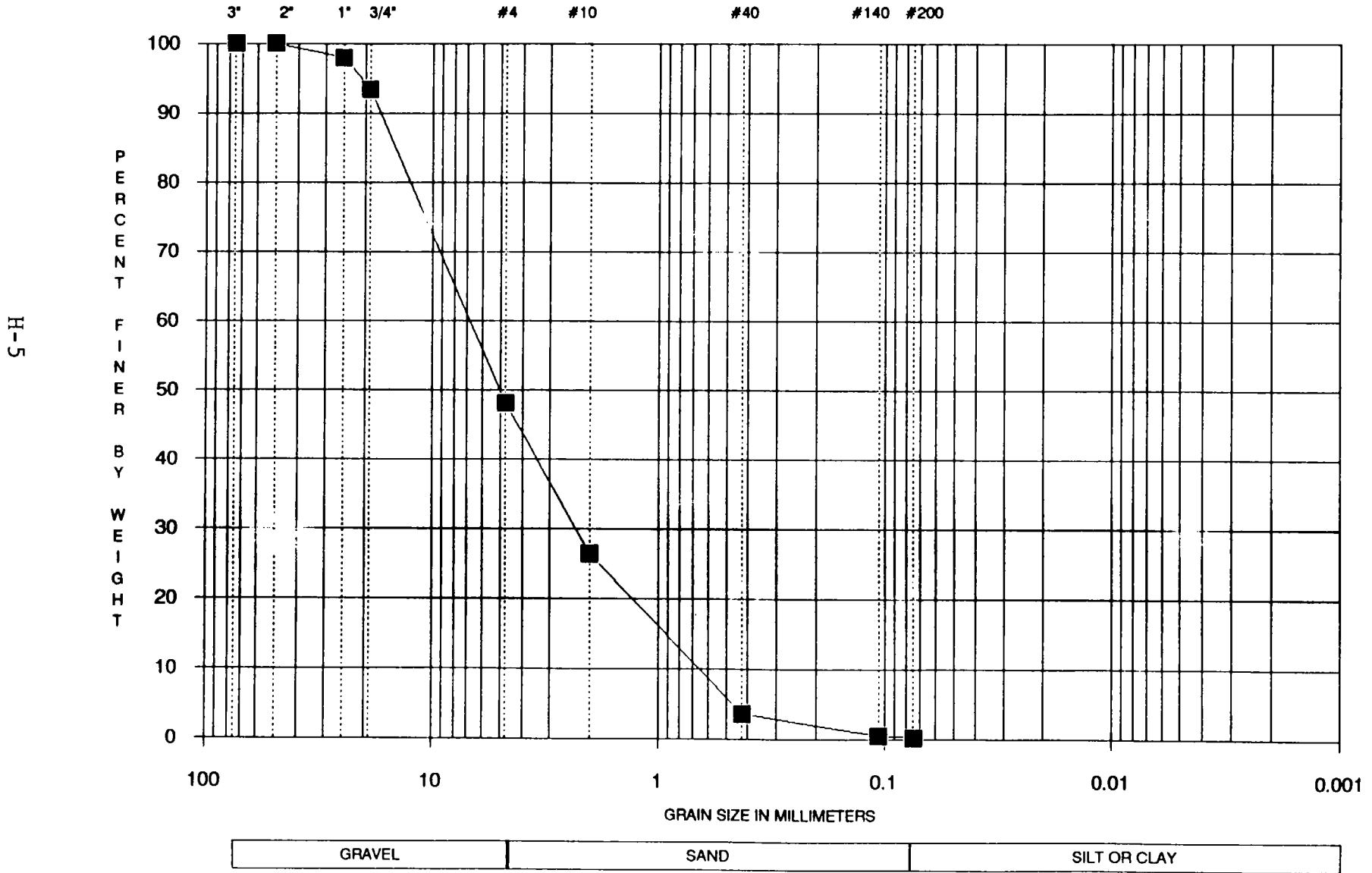
DRY SOIL DESCRIPTION	USCS SOIL CLASS
brown grey poorly graded gravel with 48% sand	GP

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	97.9
3/4"	19.000	93.4
#4	4.750	48.1
#10	2.000	26.4
#40	0.425	3.7
#140	0.106	0.5
#200	0.075	0.3

EFFECTIVE SIZES	
% Finer	Diameter mm
60	8.485
30	2.458
10	0.864
Uniformity Coefficient	Gradation Coefficient
9.8	0.8

NOTES

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-34-90 (15'), ETL SAMPLE # 9007X003-001
U. S. STANDARD SIEVE SIZES



WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-66-90 (75-76.5')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	002
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
grey sandy silt of high plasticity with 7% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.6
#40	0.425	95.8
#140	0.106	93.6
#200	0.075	93.4
HYDROMETER	0.0230	90.8
	0.0163	90.8
	0.0118	87.7
	0.0087	86.1
	0.0063	83.0
	0.0046	78.2
	0.0034	73.5
	0.0025	64.1
	0.0019	56.2
0.0012	31.0	
0.0009	26.3	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

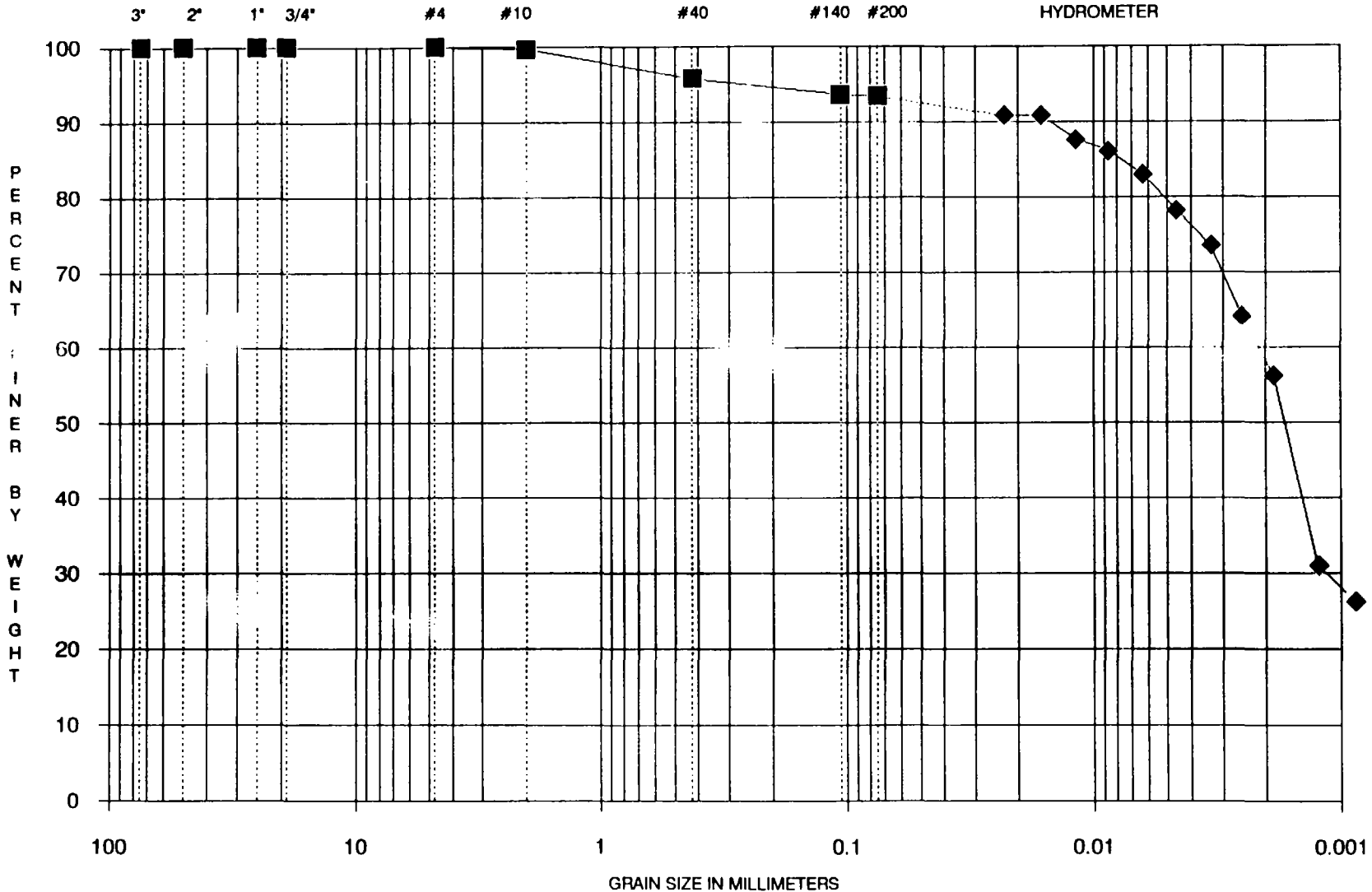
SPECIFIC GRAVITY
2.71

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
61.8	45.5	16.3

NOTES
NA=NOT APPLICABLE

**GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-66-90 (75-76.5'), ETL SAMPLE # 9007X003-002**

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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H-7

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-33-90 (240')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	003
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown gravelly clayey sand with 15% gravel and 50% clay of low plasticity	SC

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	85.3
#10	2.000	68.0
#40	0.425	55.7
#140	0.106	53.4
#200	0.075	49.8
HYDROMETER	0.0254	36.3
	0.0185	32.5
	0.0135	28.7
	0.0100	26.8
	0.0073	23.0
	0.0052	22.0
	0.0037	20.1
	0.0027	18.2
	0.0019	16.3
0.0011	13.1	
0.0008	12.1	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	0.979
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

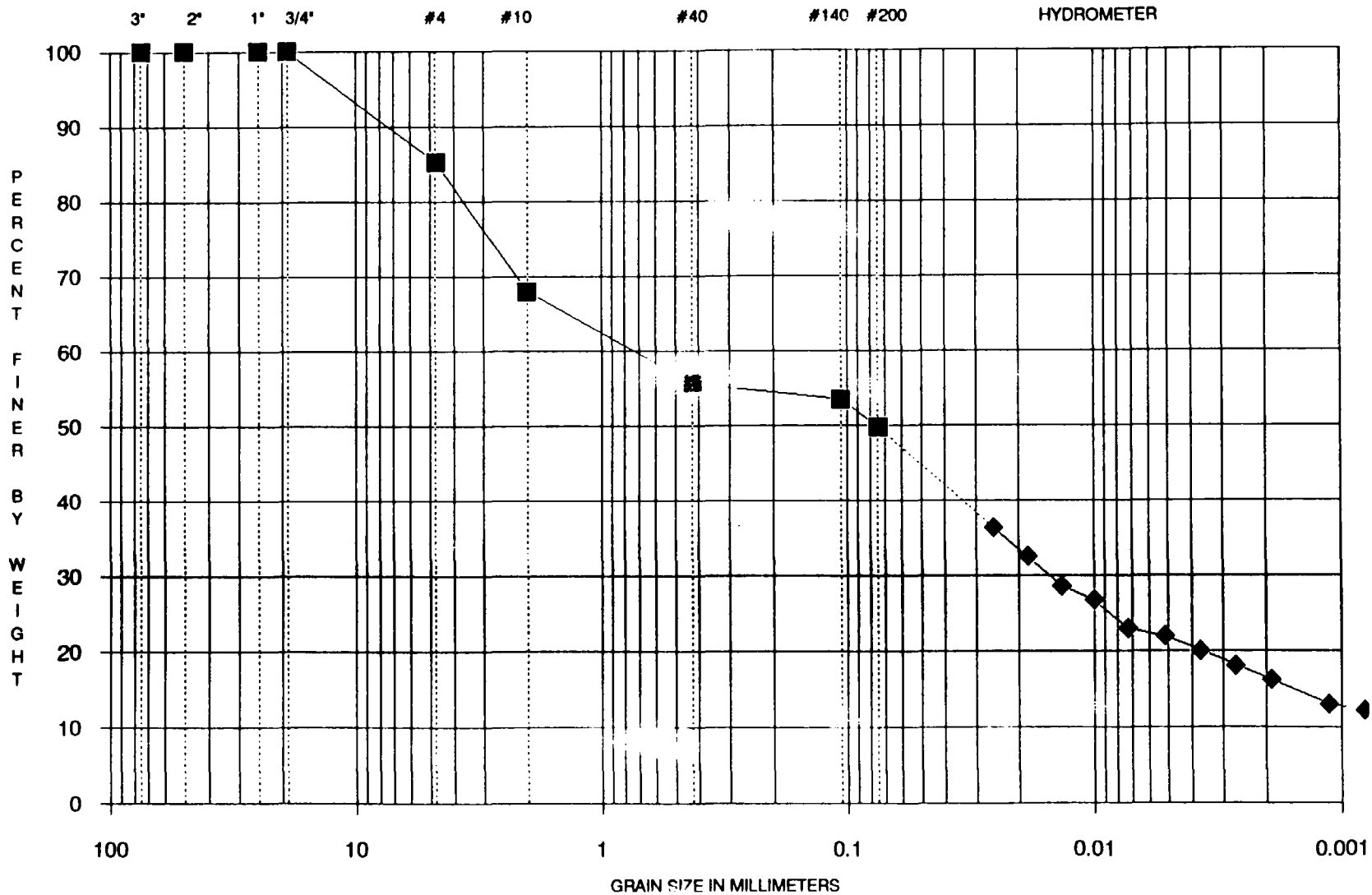
SPECIFIC GRAVITY
3.08

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
33.5	21.5	12.0

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-33-90 (240), ETL SAMPLE # 9007X003-003

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-71-90 (45-46.5)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	004
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy silt of high plasticity with 30% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.8
#40	0.425	88.4
#140	0.106	80.2
#200	0.075	70.1
HYDROMETER	0.0300	61.3
	0.0217	56.2
	0.0157	51.1
	0.0117	46.0
	0.0085	40.9
	0.0061	37.5
	0.0044	32.4
	0.0032	27.3
	0.0023	20.4
	0.0014	11.4
	0.0010	8.0

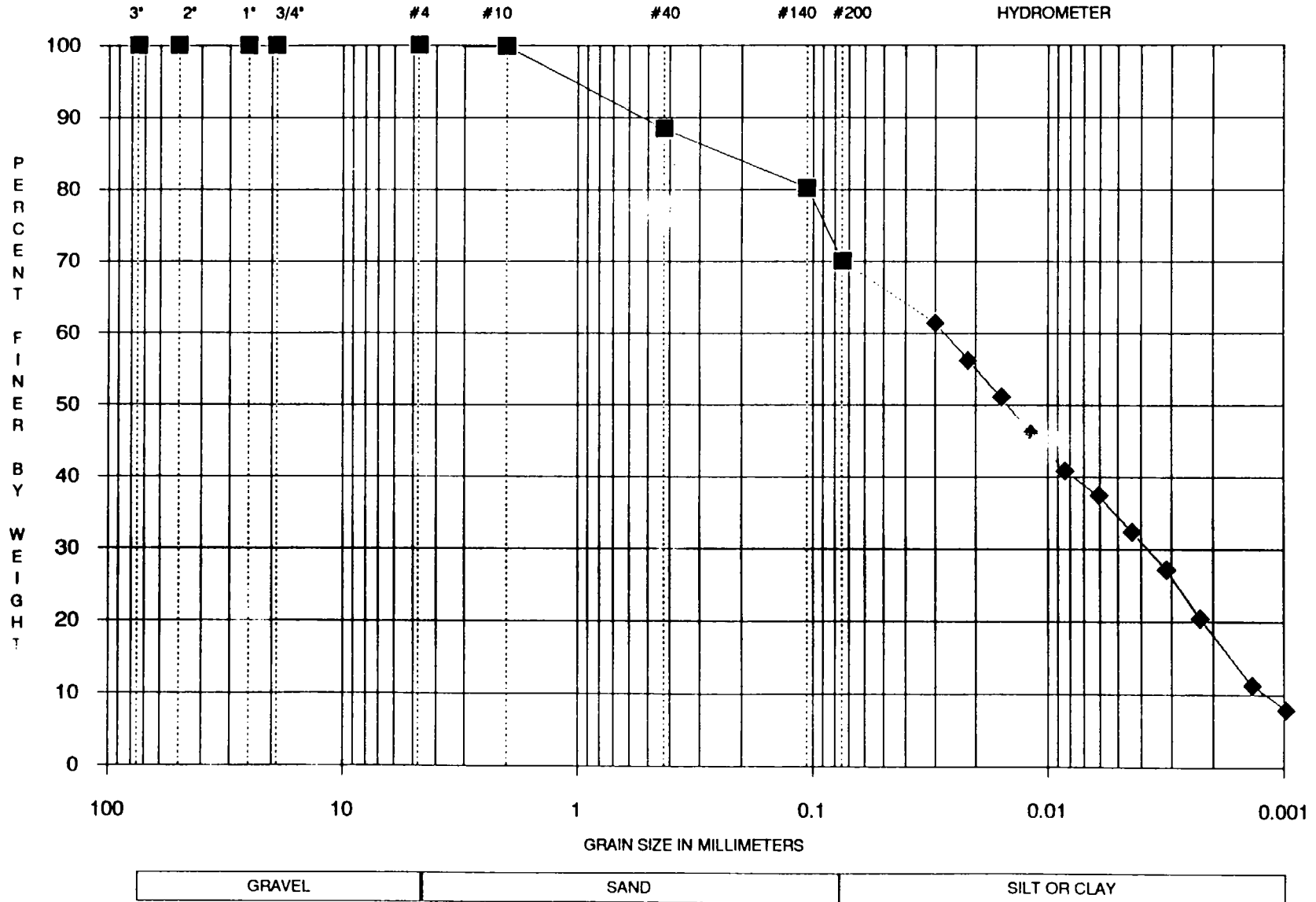
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.54

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
66.4	58.1	8.3

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-71-90 (45-46.5), ETL SAMPLE # 9007X003-004
U. S. STANDARD SIEVE SIZES



H-11

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-71-90 (15-16.5)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	005
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy silt of high plasticity with 11% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	98.9
#40	0.425	93.8
#140	0.106	91.7
#200	0.075	89.2
HYDROMETER	0.0260	79.9
	0.0188	76.7
	0.0134	75.1
	0.0101	70.3
	0.0074	63.9
	0.0054	57.5
	0.0041	44.7
	0.0031	24.0
	0.0023	9.6
	0.0014	4.3
0.0010	4.3	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

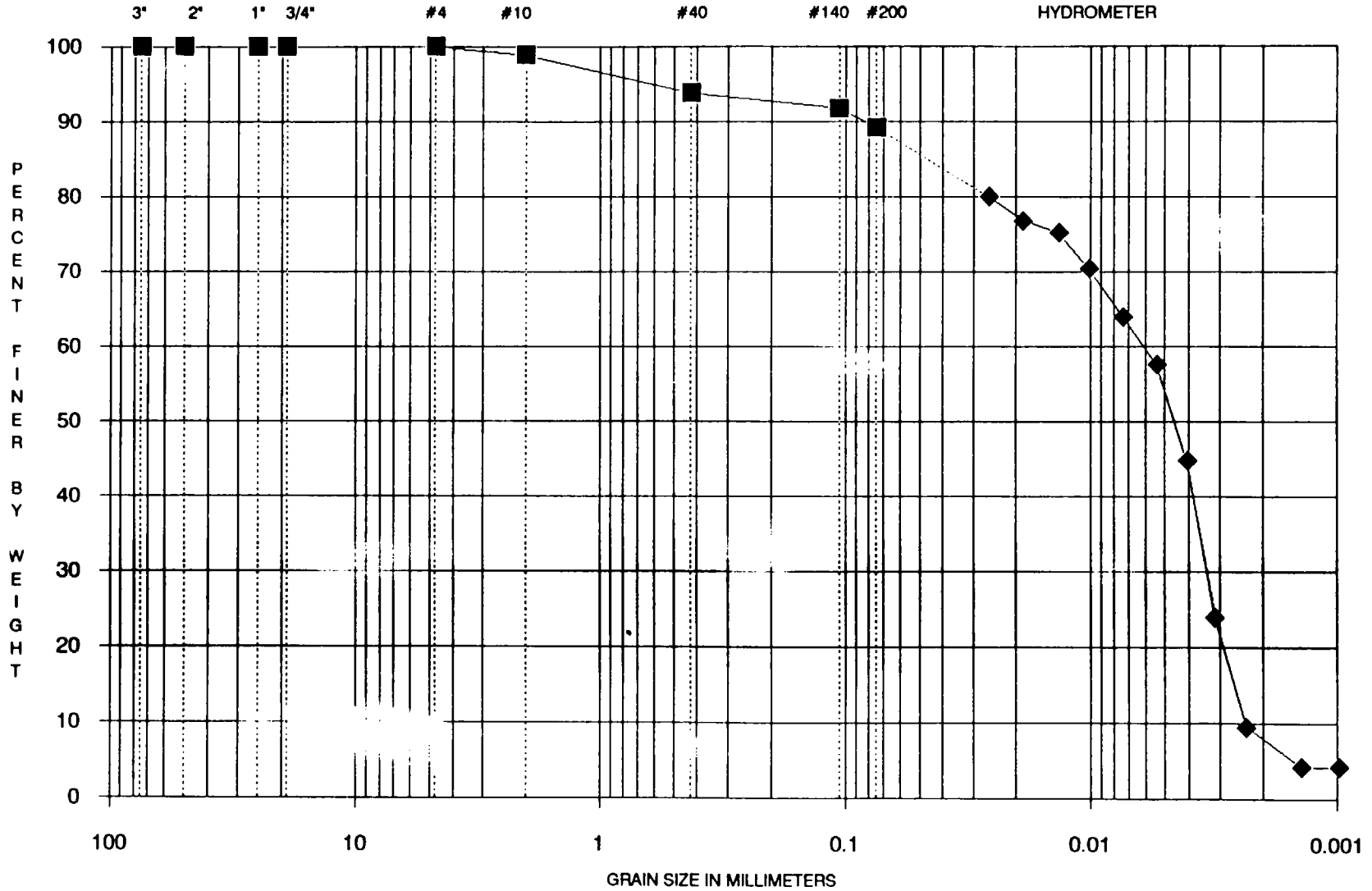
SPECIFIC GRAVITY
2.57

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
50.9	41.8	9.1

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-71-90 (15-16.5), ETL SAMPLE # 9007X003-005

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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H-13

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-70-90 (45-46.5)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	006
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy silt or clay of low plasticity with 17% sand	ML / CL

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.4
#40	0.425	95.6
#140	0.106	91.8
#200	0.075	83.0
HYDROMETER	0.0264	73.5
	0.0195	67.3
	0.0162	64.3
	0.0113	59.7
	0.0076	55.1
	0.0055	50.5
	0.0041	41.3
	0.0030	32.1
	0.0022	26.0
	0.0013	16.4
0.0010	11.8	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

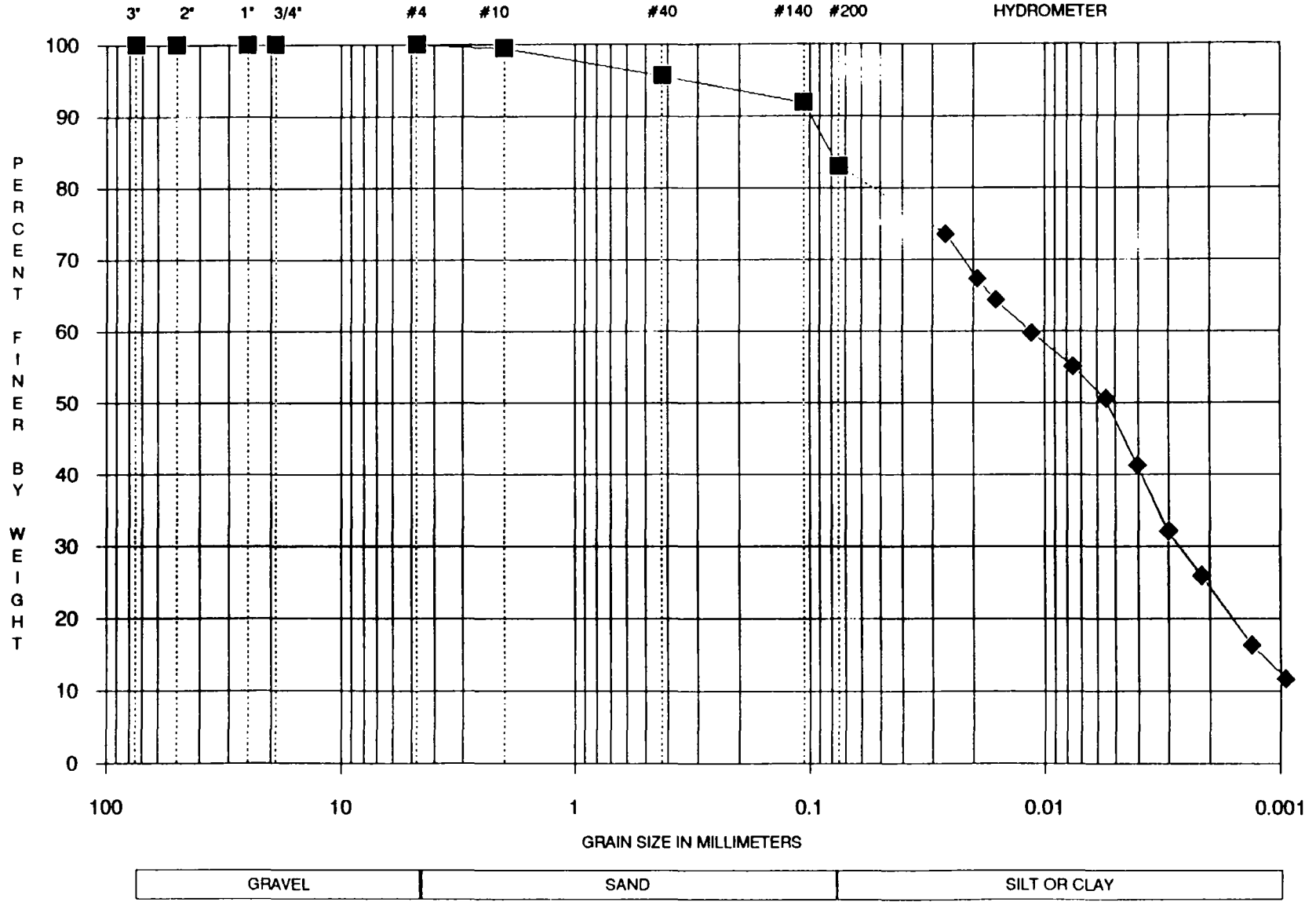
SPECIFIC GRAVITY
2.59

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
38.7	34.1	4.5

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-70-90 (45-46.5), ETL SAMPLE # 9007X003-006
U. S. STANDARD SIEVE SIZES

H-15



WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-71-90 (65-66.5)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	007
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy gravelly silt or clay of high plasticity with 27% sand and 8% gravel	MH/CH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	91.5
#10	2.000	83.9
#40	0.425	75.4
#140	0.106	71.0
#200	0.075	65.2
HYDROMETER	0.0285	58.0
	0.0204	56.5
	0.0146	53.4
	0.0109	50.3
	0.0079	45.8
	0.0058	38.1
	0.0043	27.5
	0.0031	18.3
	0.0023	13.7
	0.0014	8.7
	0.0010	7.2

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

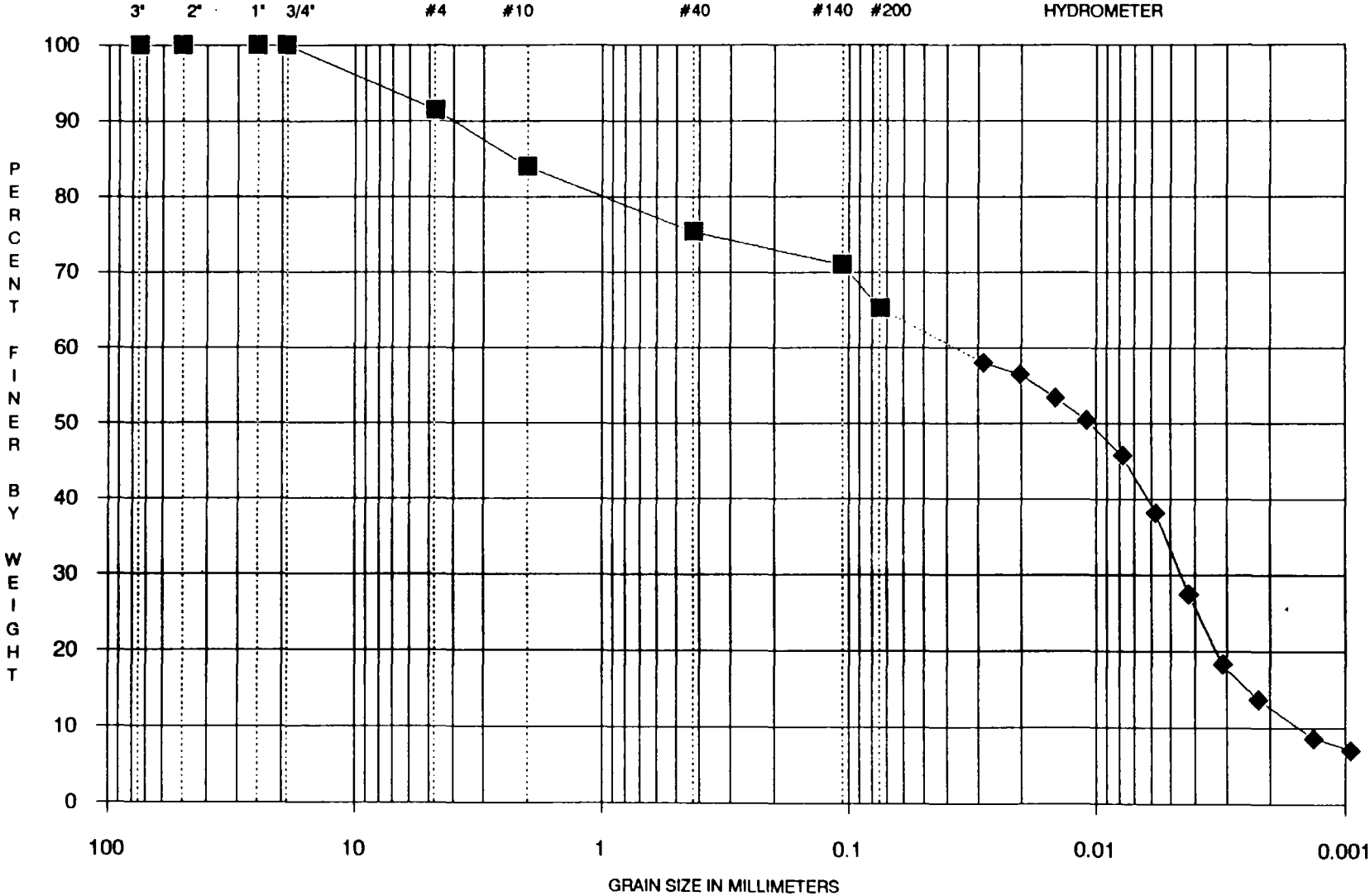
SPECIFIC GRAVITY
2.64

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
52.9	48.0	4.9

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-71-90 (65-66.5), ETL SAMPLE # 9007X003-007

U. S. STANDARD SIEVE SIZES



H-17

GRAVEL	SAND	SILT OR CLAY
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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-70-90 (30-31.5)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	008
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy silt of low plasticity with 22% sand	ML

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.3
#40	0.425	87.3
#140	0.106	82.4
#200	0.075	77.9
HYDROMETER	0.0271	61.7
	0.0199	56.0
	0.0143	53.1
	0.0106	50.2
	0.0078	44.5
	0.0056	38.8
	0.0042	30.1
	0.0030	23.0
	0.0022	17.2
	0.0013	9.6
0.0010	6.7	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

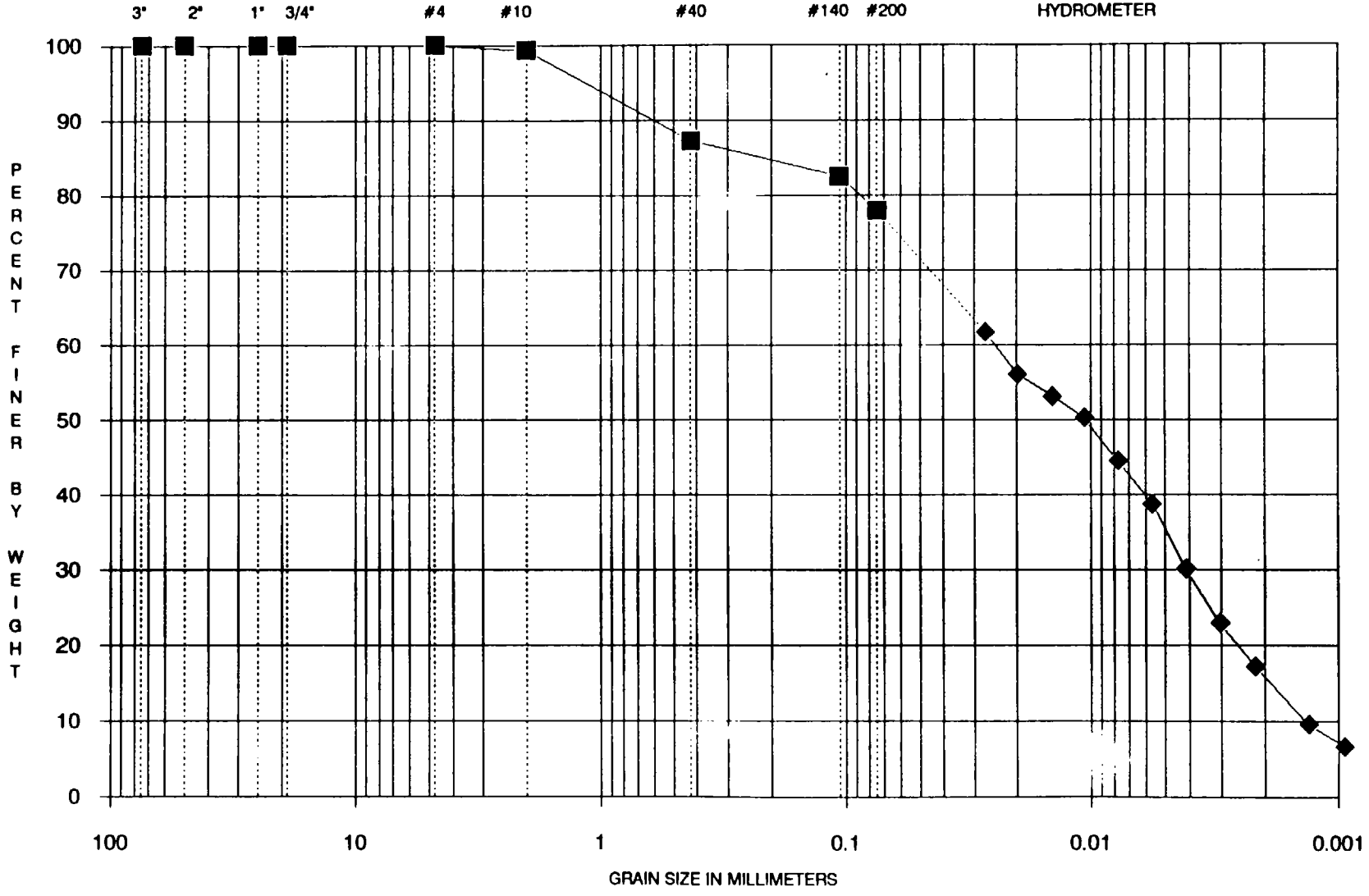
SPECIFIC GRAVITY
2.66

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
40.5	32.7	7.8

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-70-90 (30-31.5), ETL SAMPLE # 9007X003-008

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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61-H

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-33-90 (130')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	009
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown and grey gravelly and silty or clayey sand with 38% gravel and 16% silt or clay	SM or SC

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	61.9
#10	2.000	25.2
#40	0.425	18.0
#140	0.106	16.7
#200	0.075	15.5
HYDROMETER	0.0351	7.5
	0.0248	7.5
	0.0176	6.8
	0.0129	6.8
	0.0092	6.0
	0.0065	5.2
	0.0046	4.4
	0.0033	4.4
	0.0023	3.7
	0.0013	3.7
	0.0010	3.7

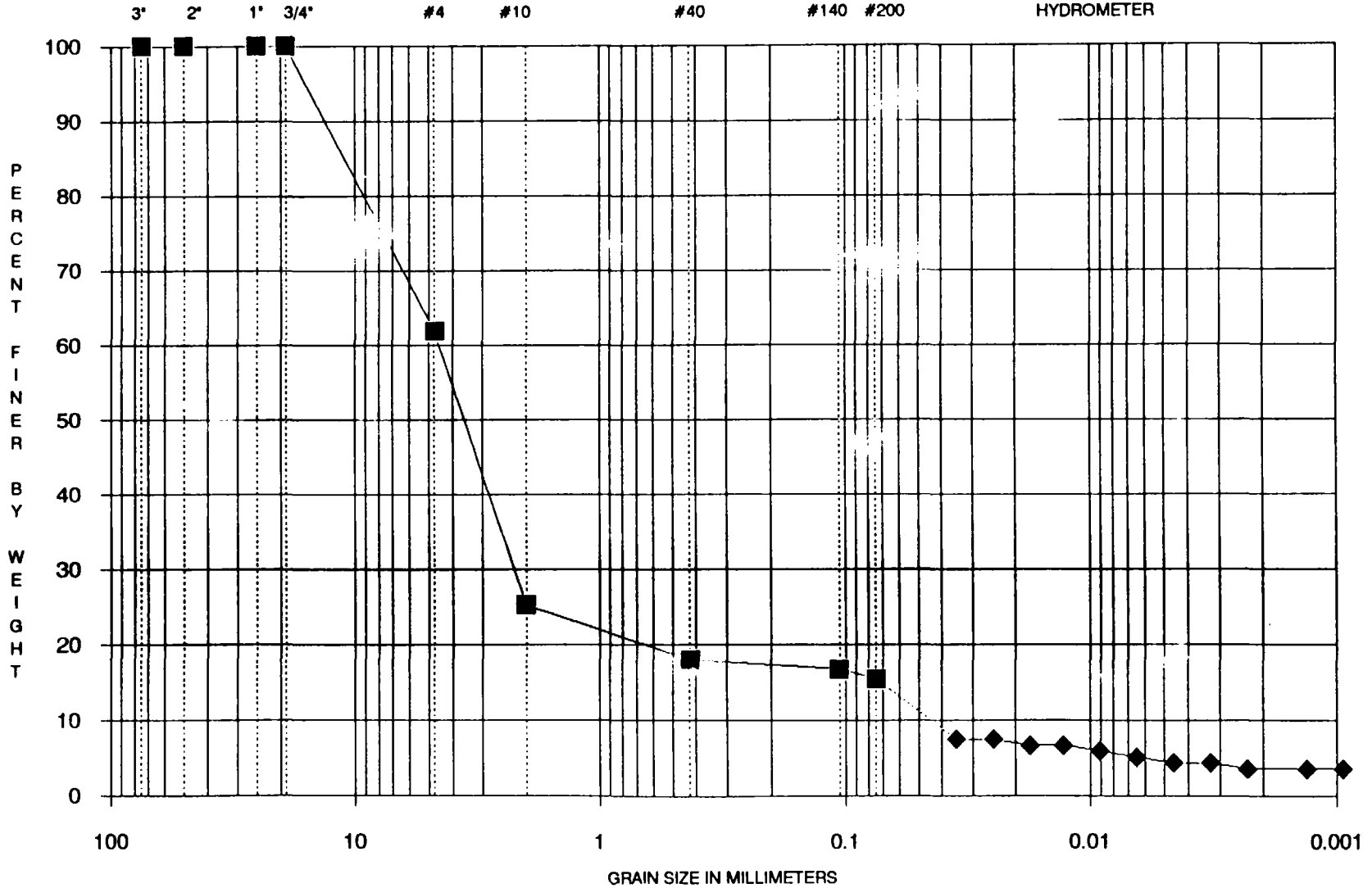
EFFECTIVE SIZES	
% Finer	Diameter mm
60	4.604
30	2.357
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY (estimated)
2.65

NOTES
<p>NA=NOT APPLICABLE</p> <p>Liquid and plastic limit determination was not performed due to insufficient sample quantity.</p> <p>Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for the calculation of hydrometer results.</p>

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-33-90 (130), ETL SAMPLE # 9007X003-009

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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H-21

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-66-90 (80-81.5')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	010
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
grey sandy silt of high plasticity with 5% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.8
#40	0.425	98.2
#140	0.106	95.7
#200	0.075	95.4
HYDROMETER	0.0221	96.0
	0.0163	91.3
	0.0117	89.7
	0.0085	89.7
	0.0062	86.5
	0.0045	83.4
	0.0033	77.0
	0.0025	67.5
	0.0019	58.1
	0.0011	53.3
	0.0008	51.7

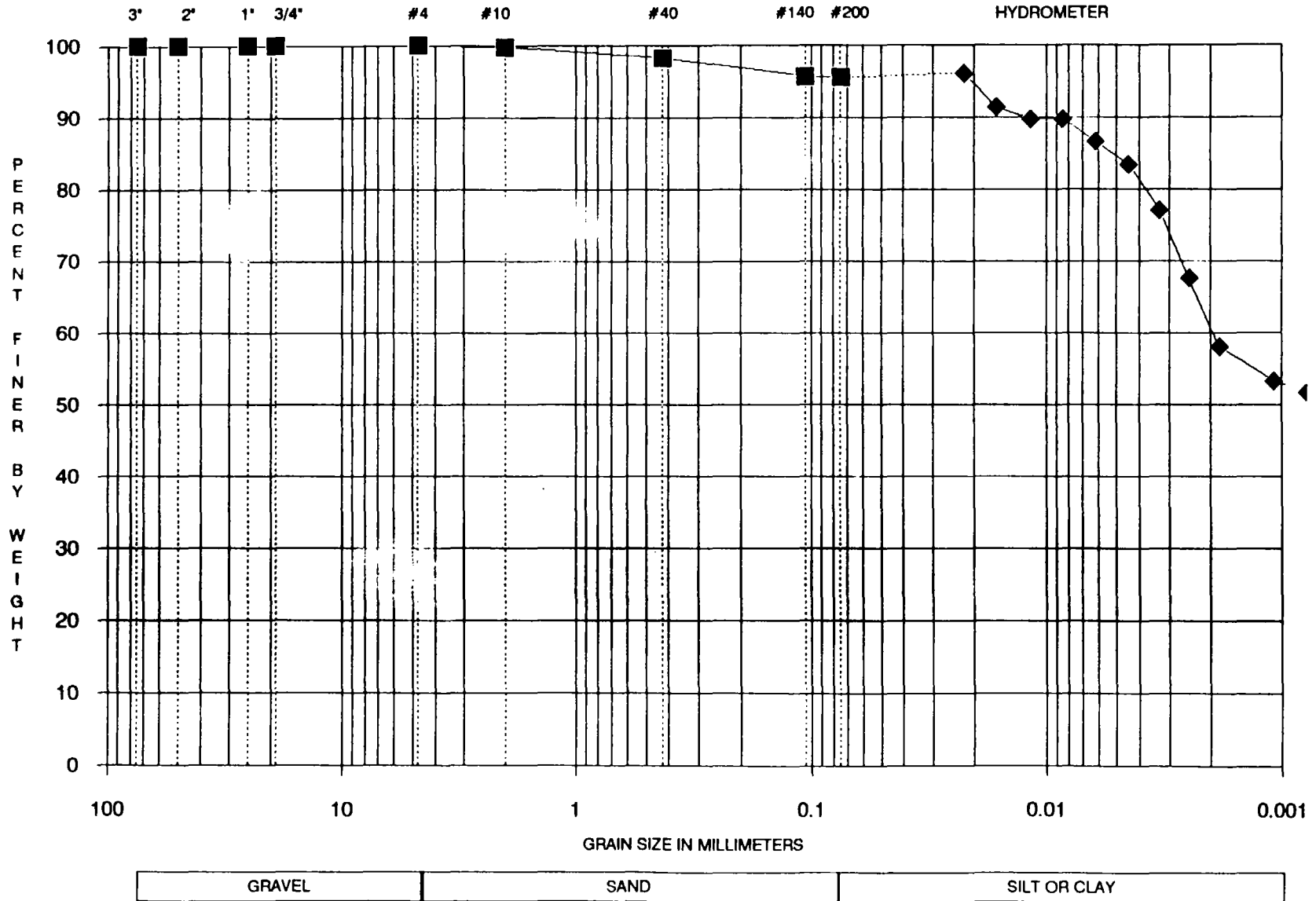
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.70

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
83.0	63.4	19.6

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-66-90 (80-81.5), ETL SAMPLE # 9007X003-010
U. S. STANDARD SIEVE SIZES



H-23

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-66-90 (40-41.5')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	011
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy silt of high plasticity with 1% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.8
#40	0.425	99.7
#140	0.106	99.2
#200	0.075	98.5
HYDROMETER	0.0208	85.7
	0.0149	84.2
	0.0107	82.7
	0.0079	81.2
	0.0057	78.3
	0.0042	73.8
	0.0031	64.9
	0.0024	53.0
	0.0017	47.1
	0.0011	24.8
0.0009	4.0	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

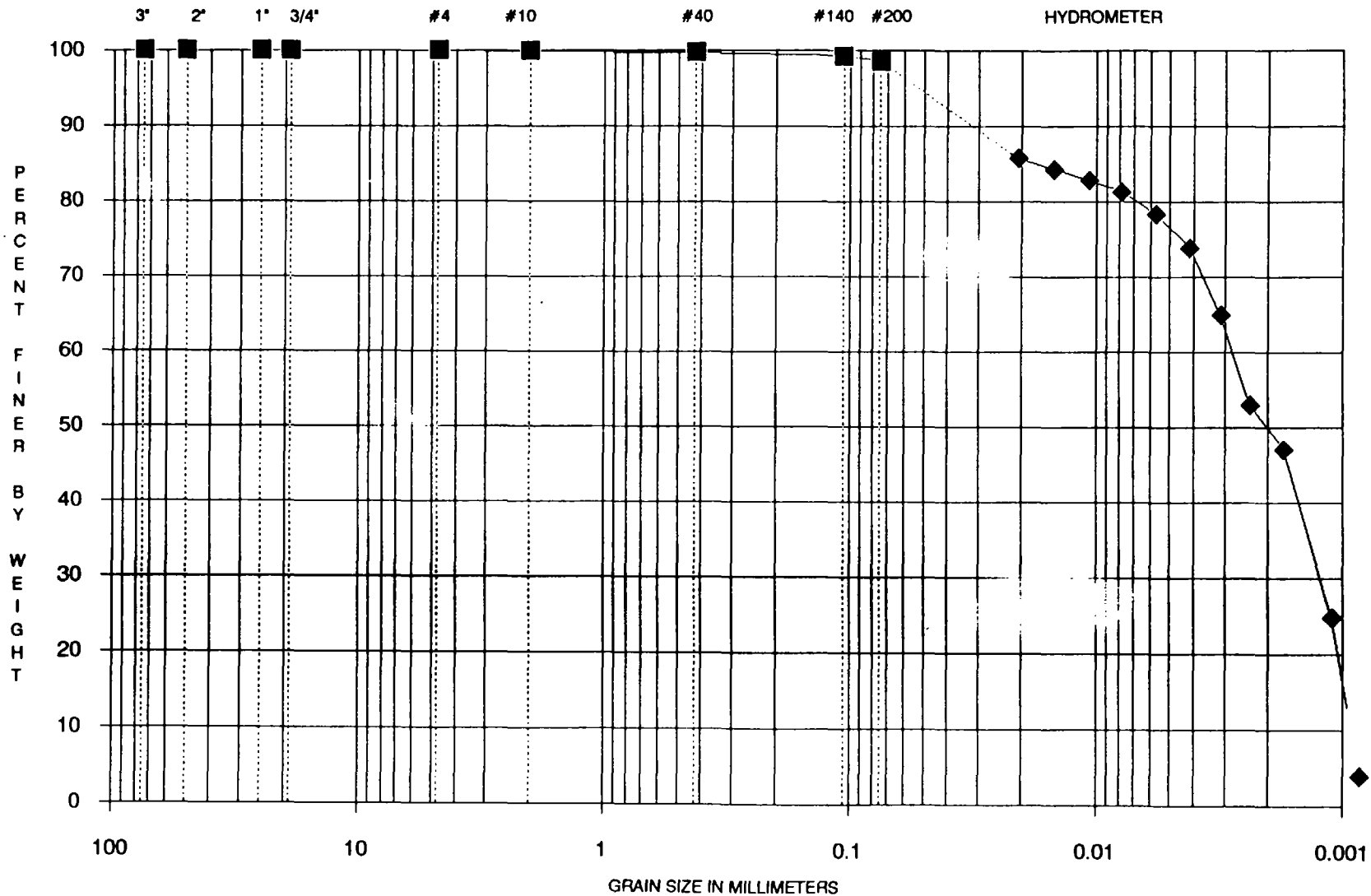
SPECIFIC GRAVITY
3.08

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
78.9	54.5	24.4

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-66-90 (40-41.5'), ETL SAMPLE # 9007X003-011

U. S. STANDARD SIEVE SIZES



H-25

GRAVEL	SAND	SILT OR CLAY
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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-66-90 (88')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	012
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey sandy silt or clay with 9% sand	ML, CL, MH, or CH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.5
#40	0.425	95.1
#140	0.106	91.5
#200	0.075	90.8
HYDROMETER	0.0244	85.3
	0.0176	82.1
	0.0126	80.5
	0.0094	77.2
	0.0068	74.0
	0.0048	72.4
	0.0036	64.3
	0.0026	62.7
	0.0019	57.8
	0.0012	41.6
	0.0008	41.6

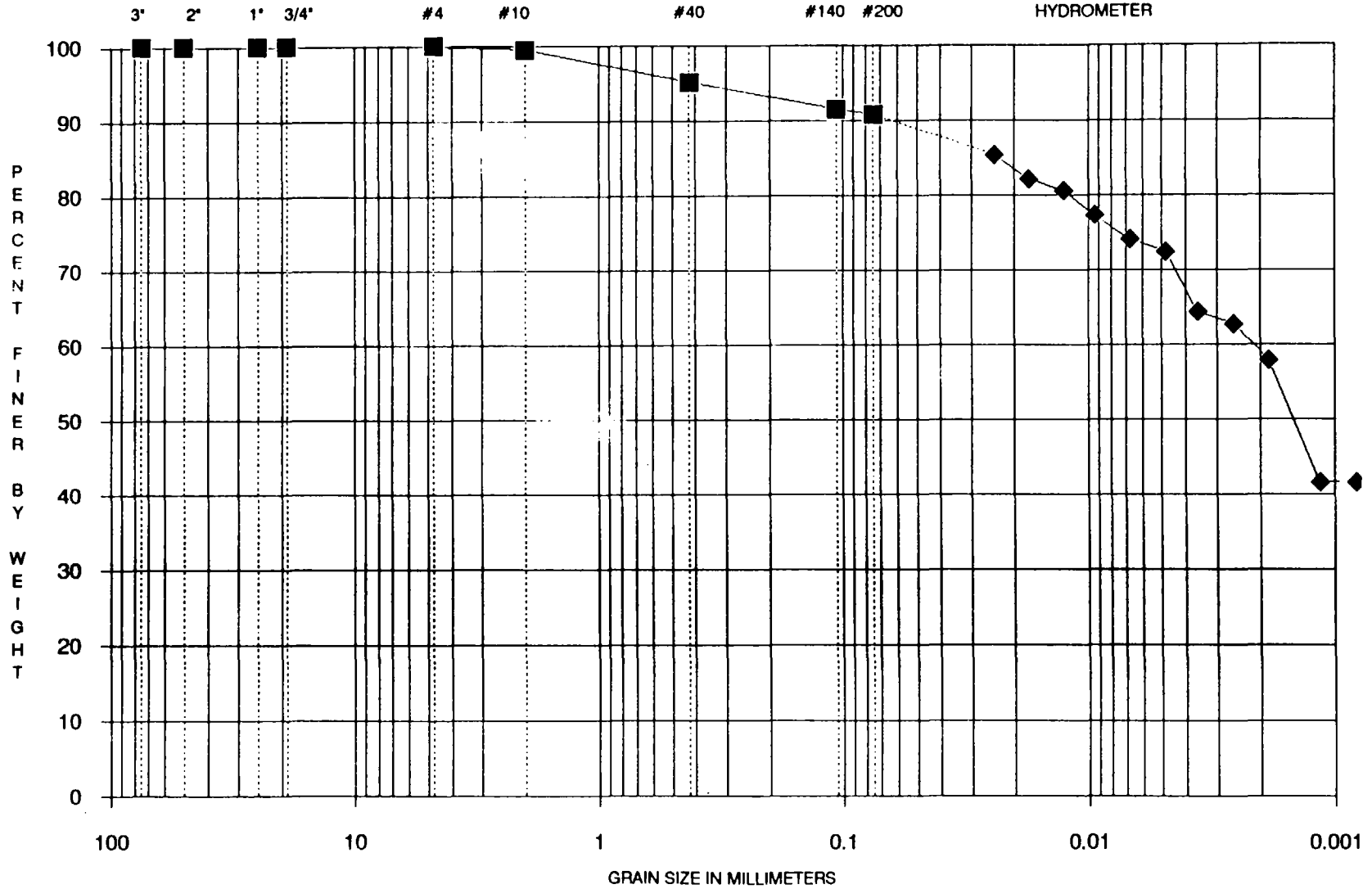
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.71

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determination was not performed due to insufficient sample quantity.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-66-90 (88), ETL SAMPLE # 9007X003-012

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-49-90 (90-92')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	013
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white silty or clayey and gravelly sand with 50% silt or clay and 1% gravel	SM or SC

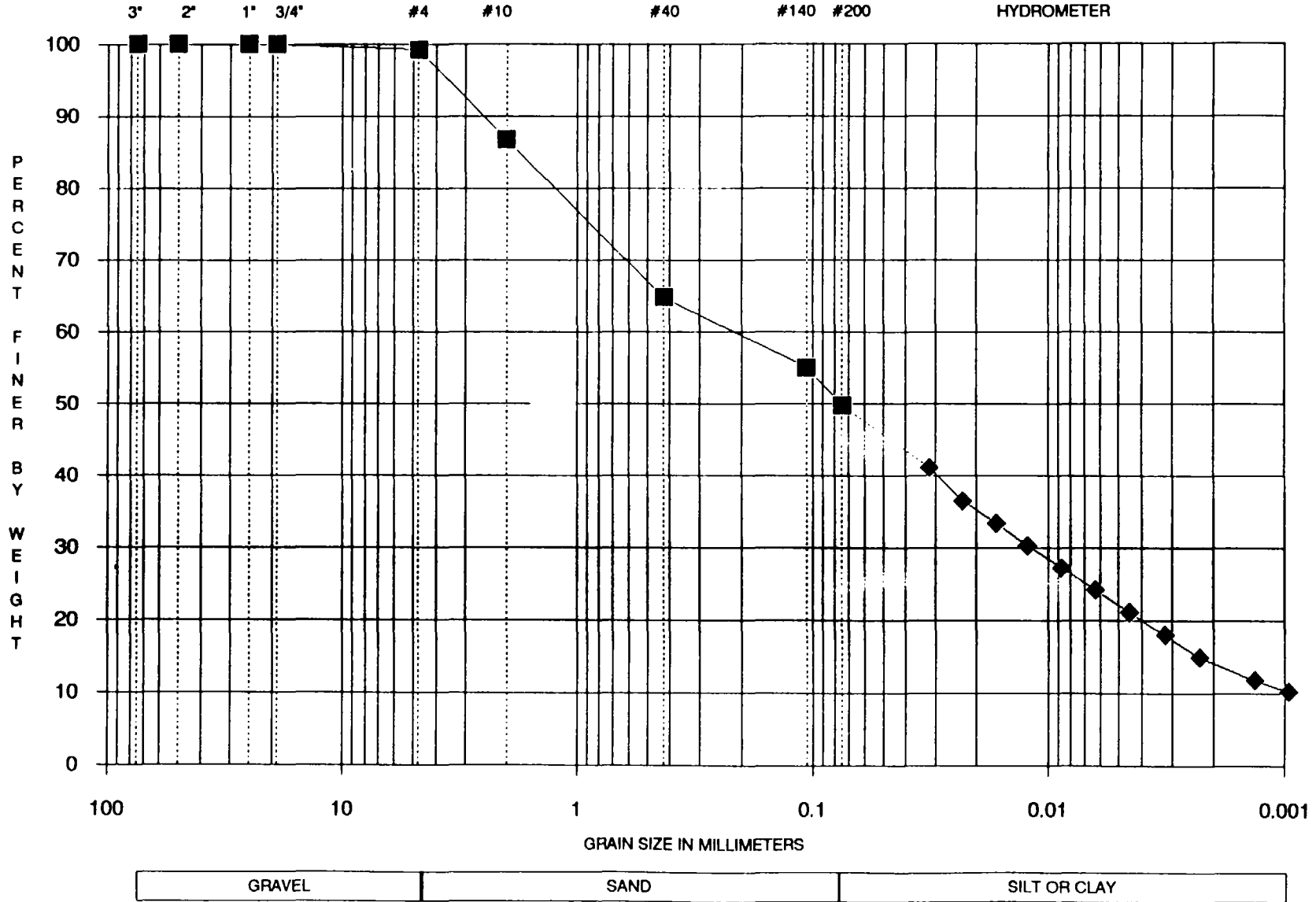
GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	99.2
#10	2.000	86.8
#40	0.425	64.8
#140	0.106	55.0
#200	0.075	49.8
HYDROMETER	0.0321	41.2
	0.0232	36.6
	0.0166	33.5
	0.0123	30.4
	0.0088	27.3
	0.0063	24.2
	0.0045	21.1
	0.0032	18.0
	0.0023	15.0
	0.0014	11.9
	0.0010	10.3

EFFECTIVE SIZES	
% Finer	Diameter mm
60	0.268
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.58

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determination was not performed due to insufficient sample quantity.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-49-90 (90-92'), ETL SAMPLE # 9007X003-013
U. S. STANDARD SIEVE SIZES



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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-32-90 (200')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	014
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown grey gravelly and silty or clayey sand with 27% gravel and 18% silt or clay	SM or SC

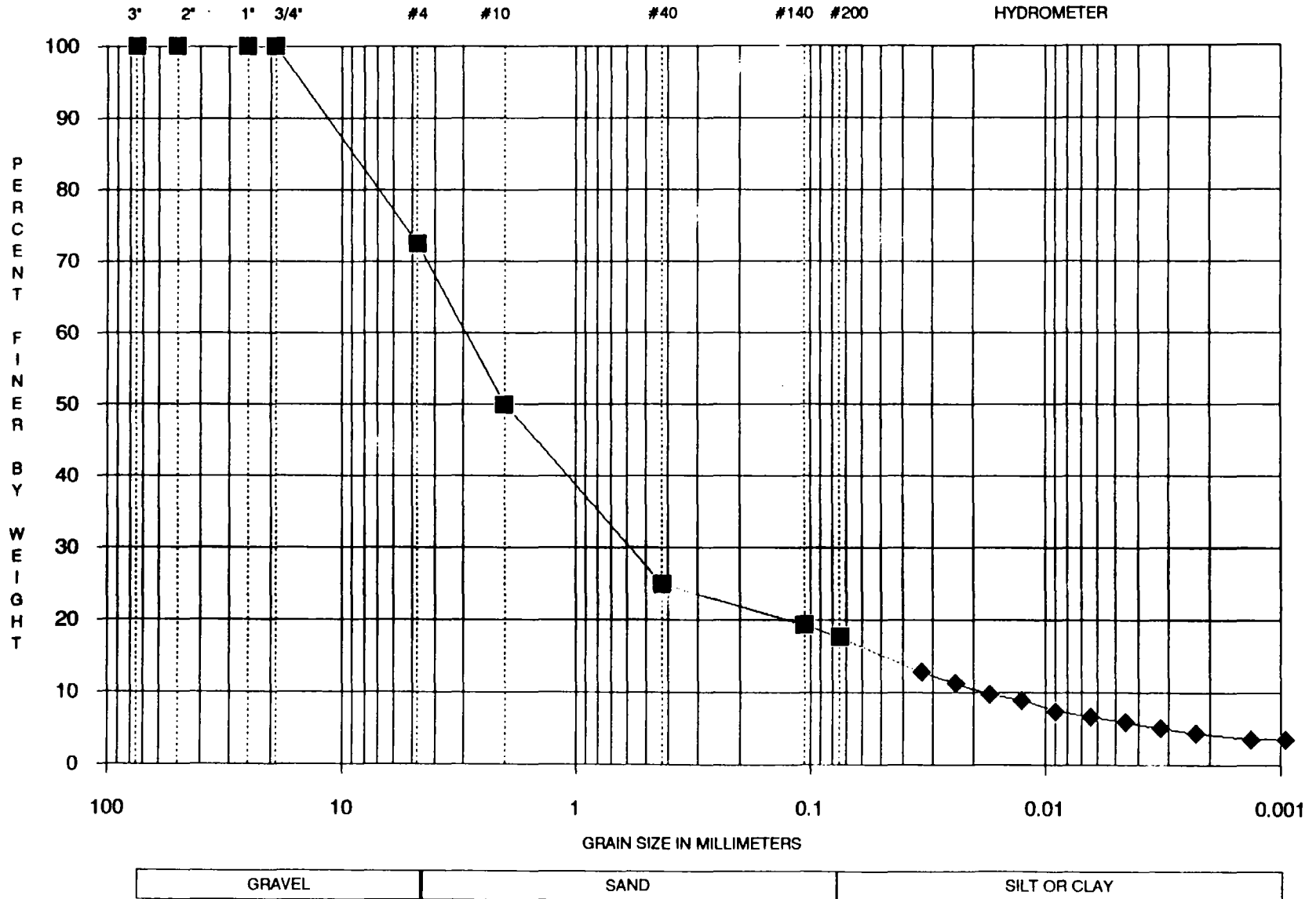
GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	72.5
#10	2.000	50.0
#40	0.425	24.9
#140	0.106	19.3
#200	0.075	17.7
HYDROMETER	0.0336	12.9
	0.0241	11.3
	0.0172	9.8
	0.0127	9.0
	0.0091	7.5
	0.0064	6.7
	0.0046	5.9
	0.0033	5.2
	0.0023	4.4
	0.0014	3.6
0.0010	3.6	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	3.224
30	0.744
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY (estimated)
2.65

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determination was not performed due to insufficient sample quantity. Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for the calculation of hydrometer results.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-32-90 (200'), ETL SAMPLE # 9007X003-014
U. S. STANDARD SIEVE SIZES



H-31

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-51-90 (30-32')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	015
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown grey well graded gravel with 35% sand and 5% silt or clay	GW

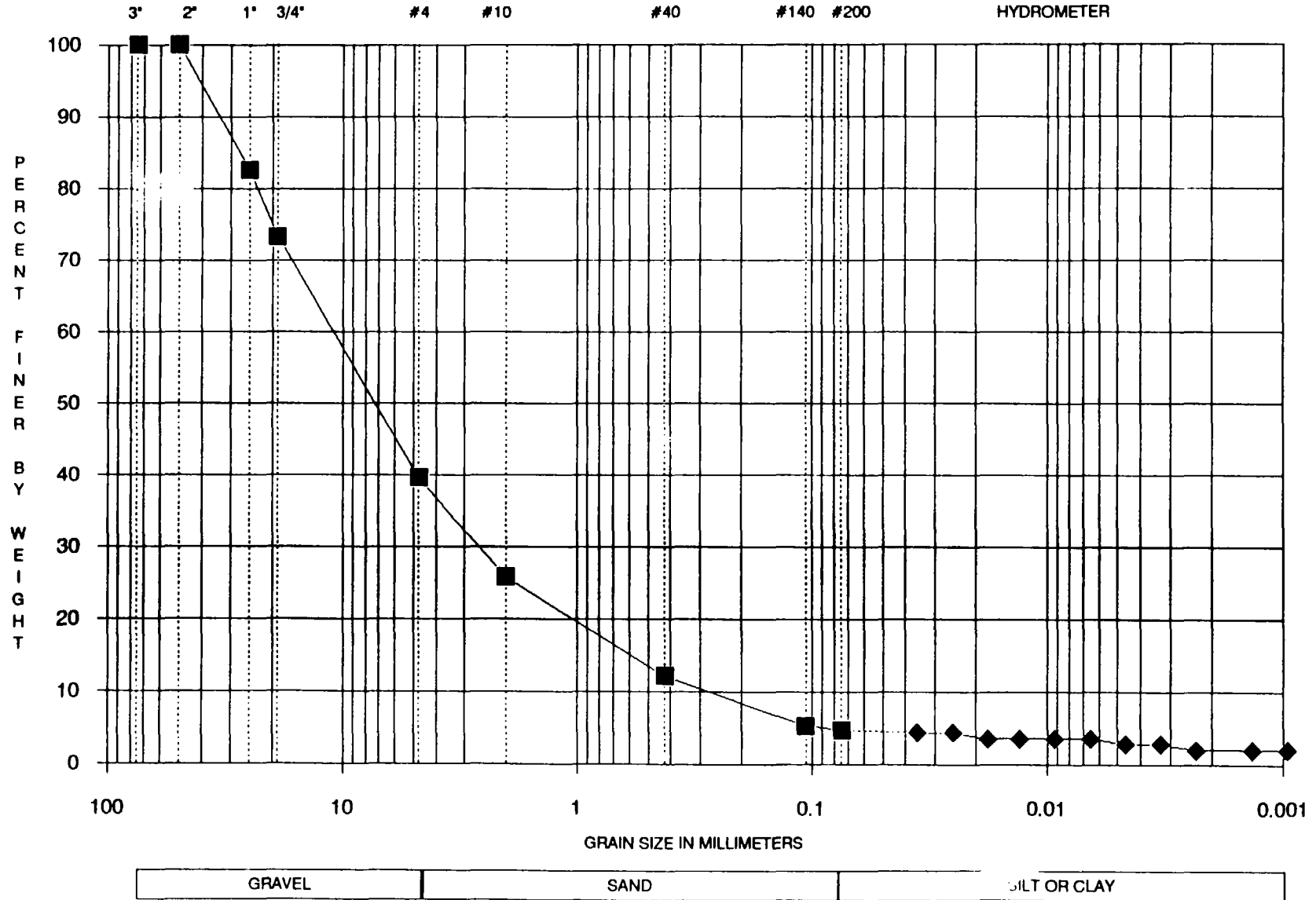
GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	82.5
3/4"	19.000	73.3
#4	4.750	39.6
#10	2.000	25.8
#40	0.425	12.2
#140	0.106	5.4
#200	0.075	4.8
HYDROMETER	0.0359	4.4
	0.0254	4.4
	0.0180	3.6
	0.0132	3.6
	0.0093	3.6
	0.0066	3.6
	0.0047	2.9
	0.0033	2.9
	0.0024	2.1
	0.0014	2.1
	0.0010	2.1

EFFECTIVE SIZES	
% Finer	Diameter mm
60	13.361
30	2.830
10	0.322
Uniformity Coefficient	Gradation Coefficient
41.5	1.9

SPECIFIC GRAVITY (estimated)
2.65

NOTES
Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for the calculation of hydrometer results.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-51-90 (30-32), ETL SAMPLE # 9007X003-015
U. S. STANDARD SIEVE SIZES



H-33

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-48-90 (80-82')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	016
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy gravelly silt or clay with 9% sand and 2% gravel	ML, CL, MH, or CH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	97.6
#10	2.000	96.8
#40	0.425	94.9
#140	0.106	90.8
#200	0.075	89.2
HYDROMETER	0.0270	80.5
	0.0195	77.3
	0.0139	75.7
	0.0104	72.5
	0.0075	69.4
	0.0054	64.6
	0.0039	59.8
	0.0029	53.5
	0.0023	20.6
	0.0014	10.6
	0.0010	9.0

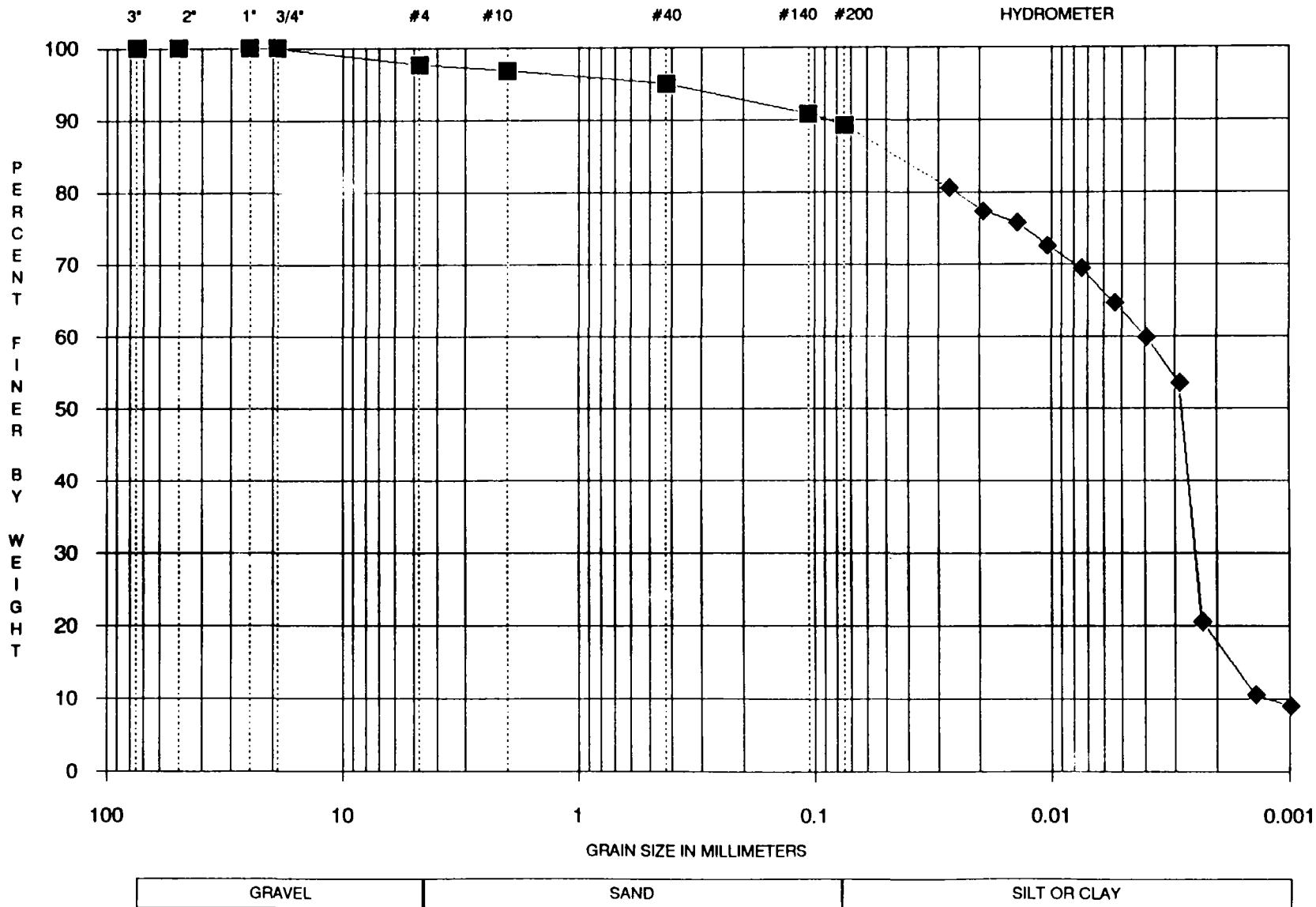
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.50

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determination was not performed due to insufficient sample quantity.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-48-90 (80-82'), ETL SAMPLE # 9007X003-016
U. S. STANDARD SIEVE SIZES

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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-43-90 (81-82')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	017
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown grey gravelly and silty or clayey sand with 11% gravel and 18% silt or clay	SM or SC

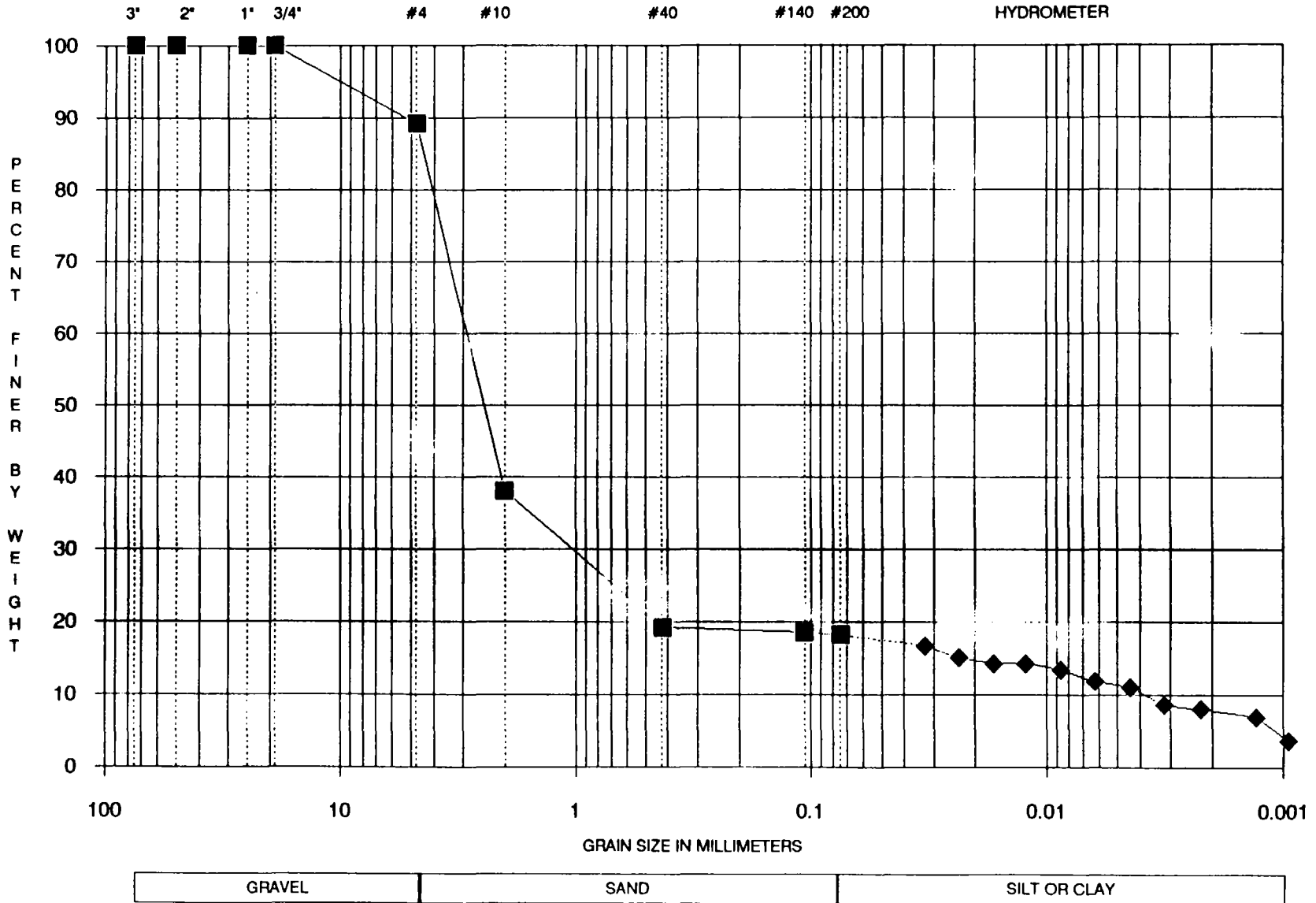
GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	89.2
#10	2.000	38.1
#40	0.425	19.3
#140	0.106	18.6
#200	0.075	18.2
HYDROMETER	0.0330	16.8
	0.0236	15.1
	0.0168	14.3
	0.0123	14.3
	0.0087	13.5
	0.0063	11.9
	0.0044	11.1
	0.0032	8.7
	0.0022	8.1
	0.0013	7.0
	0.0010	3.8

EFFECTIVE SIZES	
% Finer	Diameter mm
60	3.178
30	1.323
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY (estimated)
2.65

NOTES
<p>NA=NOT APPLICABLE</p> <p>Liquid and plastic limit determination was not performed due to insufficient sample quantity.</p> <p>Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for the calculation of hydrometer results.</p>

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-43-90 (81-82), ETL SAMPLE # 9007X003-017
U. S. STANDARD SIEVE SIZES



H-37

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-34-90 (230')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	018
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown gravelly and sandy silt or clay with 18% gravel and 14% sand	ML, CL, MH, or CH

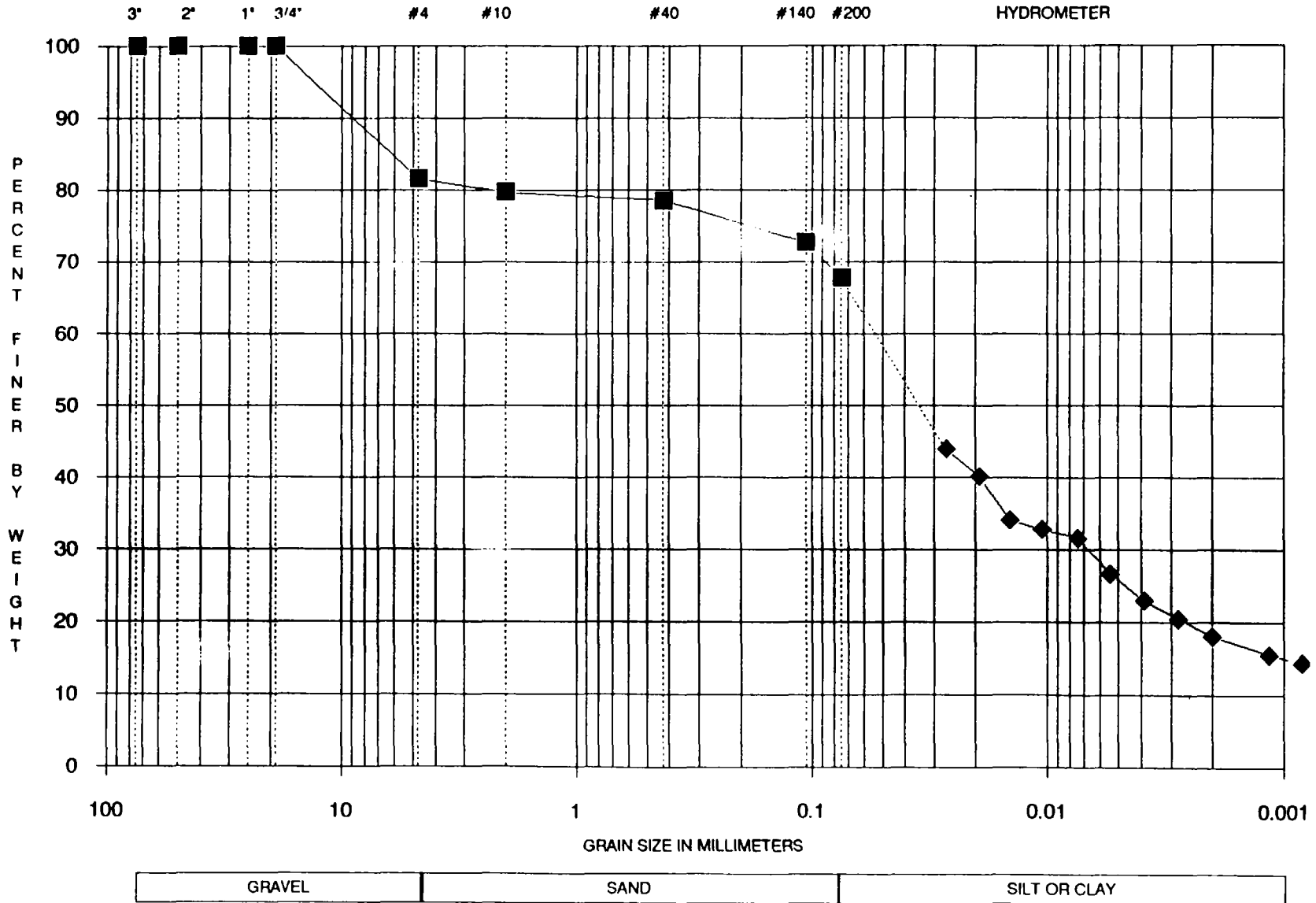
GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	81.6
#10	2.000	79.7
#40	0.425	78.5
#140	0.106	72.7
#200	0.075	67.7
HYDROMETER	0.0269	43.9
	0.0195	40.2
	0.0143	34.1
	0.0105	32.8
	0.0075	31.6
	0.0054	26.7
	0.0039	23.0
	0.0028	20.5
	0.0020	18.1
	0.0012	15.6
0.0008	14.4	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
3.00

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determination was not performed due to insufficient sample quantity.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-34-90 (230'), ETL SAMPLE # 9007X003-018
U. S. STANDARD SIEVE SIZES



H-39

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-53-90 (60-61')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	019
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy gravelly silt or clay with 14% sand and 10% gravel	ML, CL, MH, or CH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	90.4
#10	2.000	85.3
#40	0.425	80.5
#140	0.106	78.0
#200	0.075	76.2
HYDROMETER	0.0282	65.8
	0.0201	64.3
	0.0145	61.2
	0.0115	58.1
	0.0084	52.0
	0.0057	47.3
	0.0041	41.2
	0.0030	35.0
	0.0021	30.8
	0.0013	15.0
0.0010	11.9	

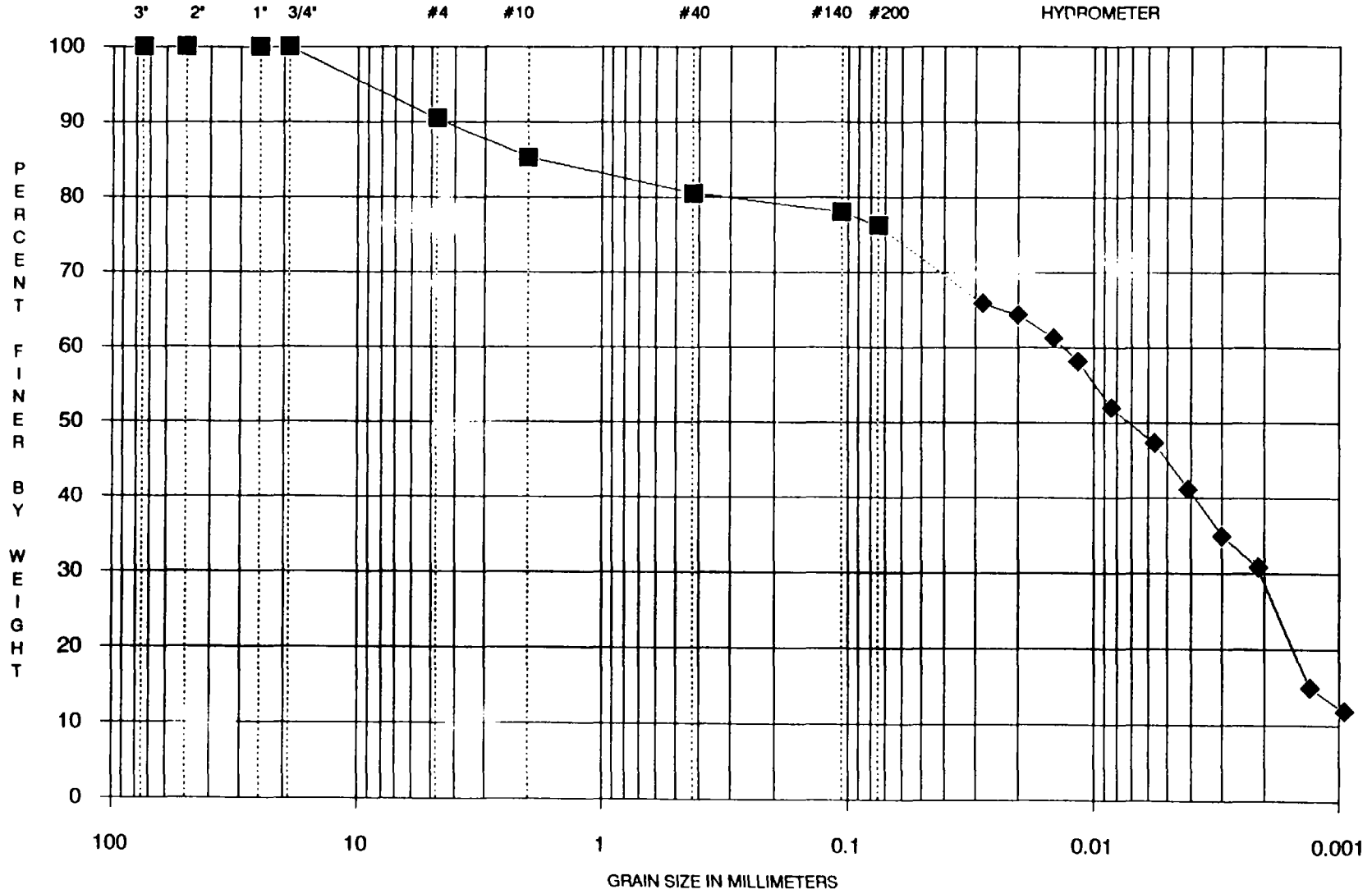
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.61

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determination was not performed due to insufficient sample quantity.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-53-90 (60-61), ETL SAMPLE # 9007X003-019

U. S. STANDARD SIEVE SIZES



GRAVEL | SAND | SILT OR CLAY

H-41

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90 (94.5-96')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	020
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
medium grey sandy silt of high plasticity with 3% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	100.0
#40	0.425	99.8
#140	0.106	98.4
#200	0.075	97.4
HYDROMETER	0.0250	86.9
	0.0179	85.3
	0.0128	83.7
	0.0096	78.8
	0.0071	72.3
	0.0050	65.9
	0.0037	64.2
	0.0026	64.2
	0.0019	64.2
	0.0011	64.2
0.0008	64.7	

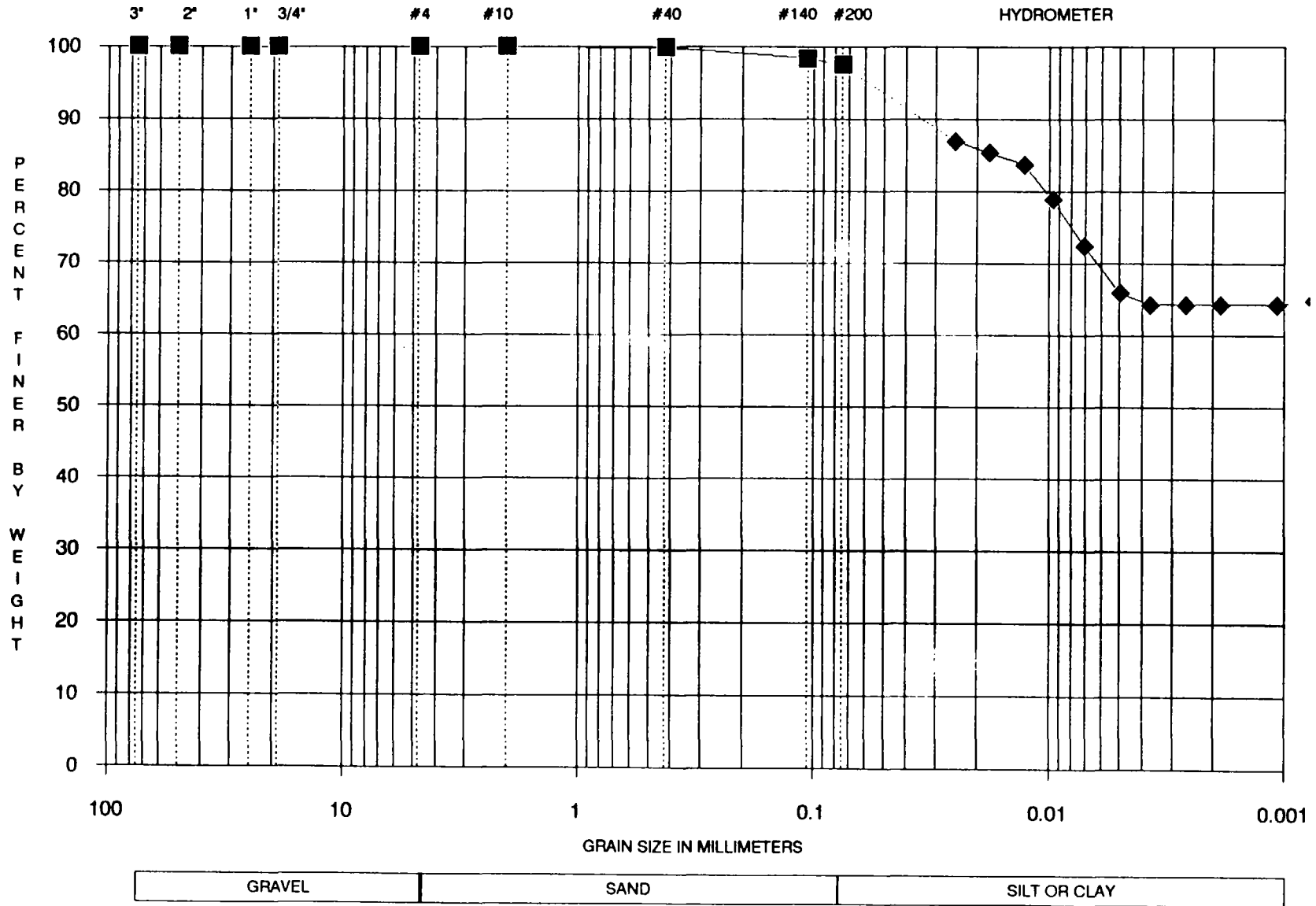
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.63

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
63.3	42.4	20.9

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-69-90 (94.5-96), ETL SAMPLE # 9007X003-020
U. S. STANDARD SIEVE SIZES



H-43

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90 (109.5-111')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	021
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey sandy silt of high plasticity with 2% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.9
#40	0.425	99.6
#140	0.106	98.6
#200	0.075	97.8
HYDROMETER	0.0215	80.3
	0.0154	78.8
	0.0112	75.9
	0.0082	74.5
	0.0060	70.2
	0.0042	65.8
	0.0032	61.5
	0.0023	60.1
	0.0017	51.4
	0.0011	31.3
0.0008	23.1	

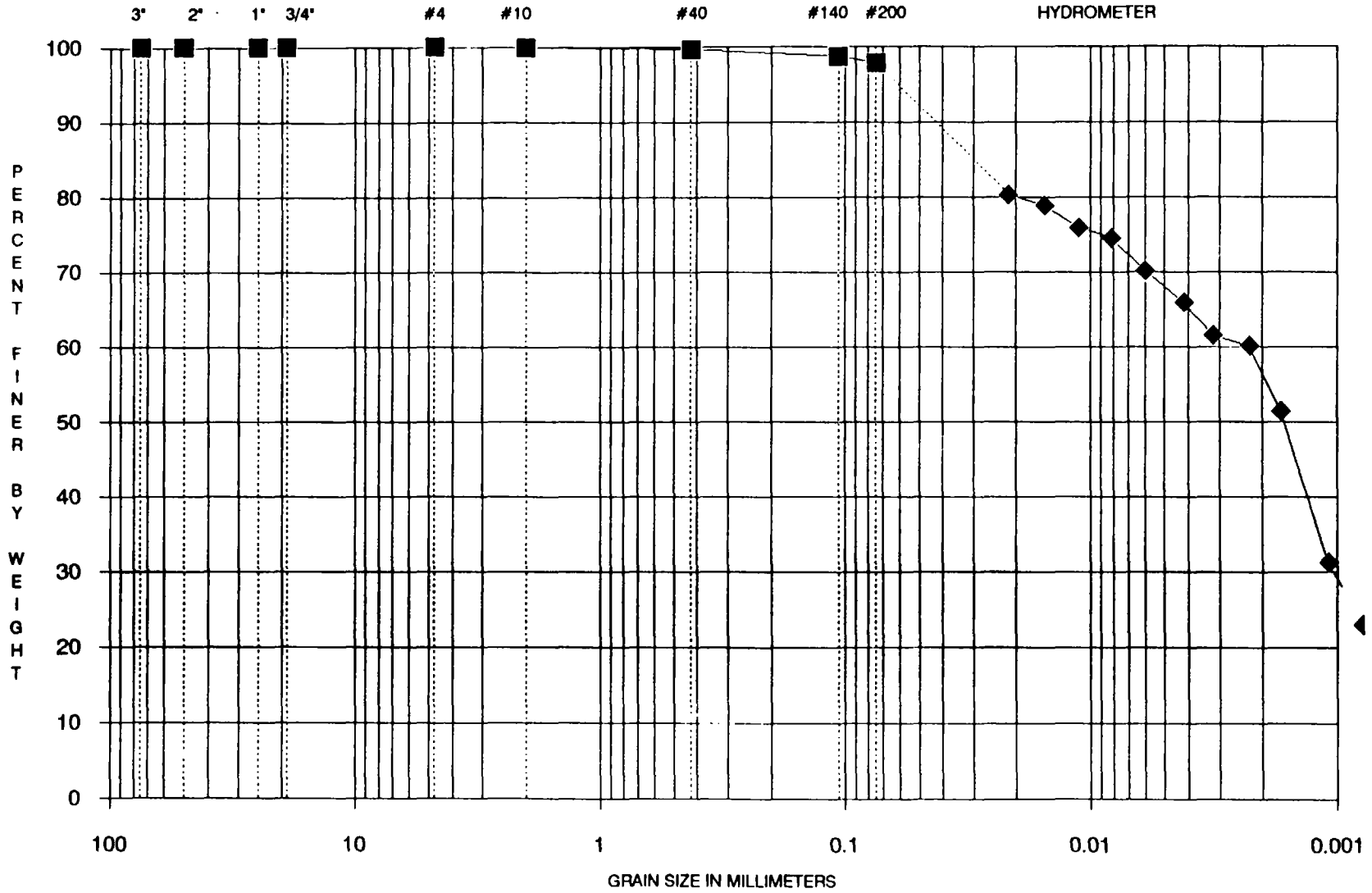
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
3.10

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
70.2	38.2	32.0

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-69-90 (109.5-111), ETL SAMPLE # 9007X003-021
U. S. STANDARD SIEVE SIZES



GRAVEL SAND SILT OR CLAY

H-45

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90 (119.5-121)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	022
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey brown sandy silt of high plasticity with 14% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	99.6
#10	2.000	97.2
#40	0.425	90.4
#140	0.106	87.1
#200	0.075	86.4
HYDROMETER	0.0281	73.1
	0.0210	63.3
	0.0155	55.1
	0.0116	50.2
	0.0084	45.3
	0.0058	40.4
	0.0043	37.1
	0.0031	30.6
	0.0023	27.3
	0.0013	22.4
0.0010	9.8	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

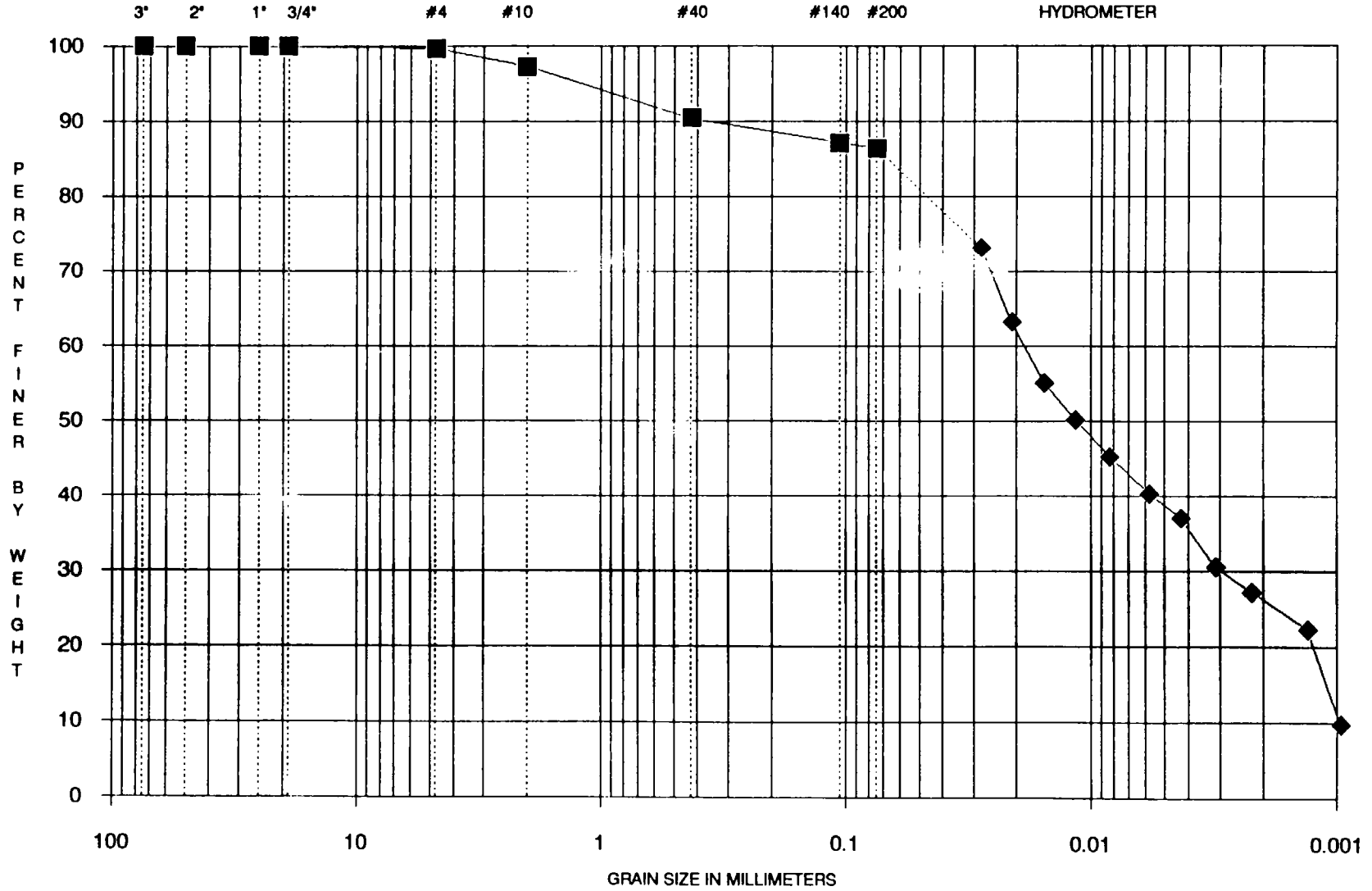
SPECIFIC GRAVITY
2.55

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
53.3	42.5	10.7

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-69-90 (119.5-121), ETL SAMPLE # 9007X003-022

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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L7-H

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-44-90 (45-46')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	023
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy and gravelly silt of high plasticity with 15% sand and 10% gravel	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	90.2
#10	2.000	87.0
#40	0.425	85.4
#140	0.106	80.2
#200	0.075	75.3
HYDROMETER	0.0222	55.4
	0.0170	50.1
	0.0125	47.5
	0.0094	44.8
	0.0069	42.2
	0.0048	39.5
	0.0036	38.6
	0.0026	37.8
	0.0018	37.8
	0.0011	37.8
0.0007	38.0	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

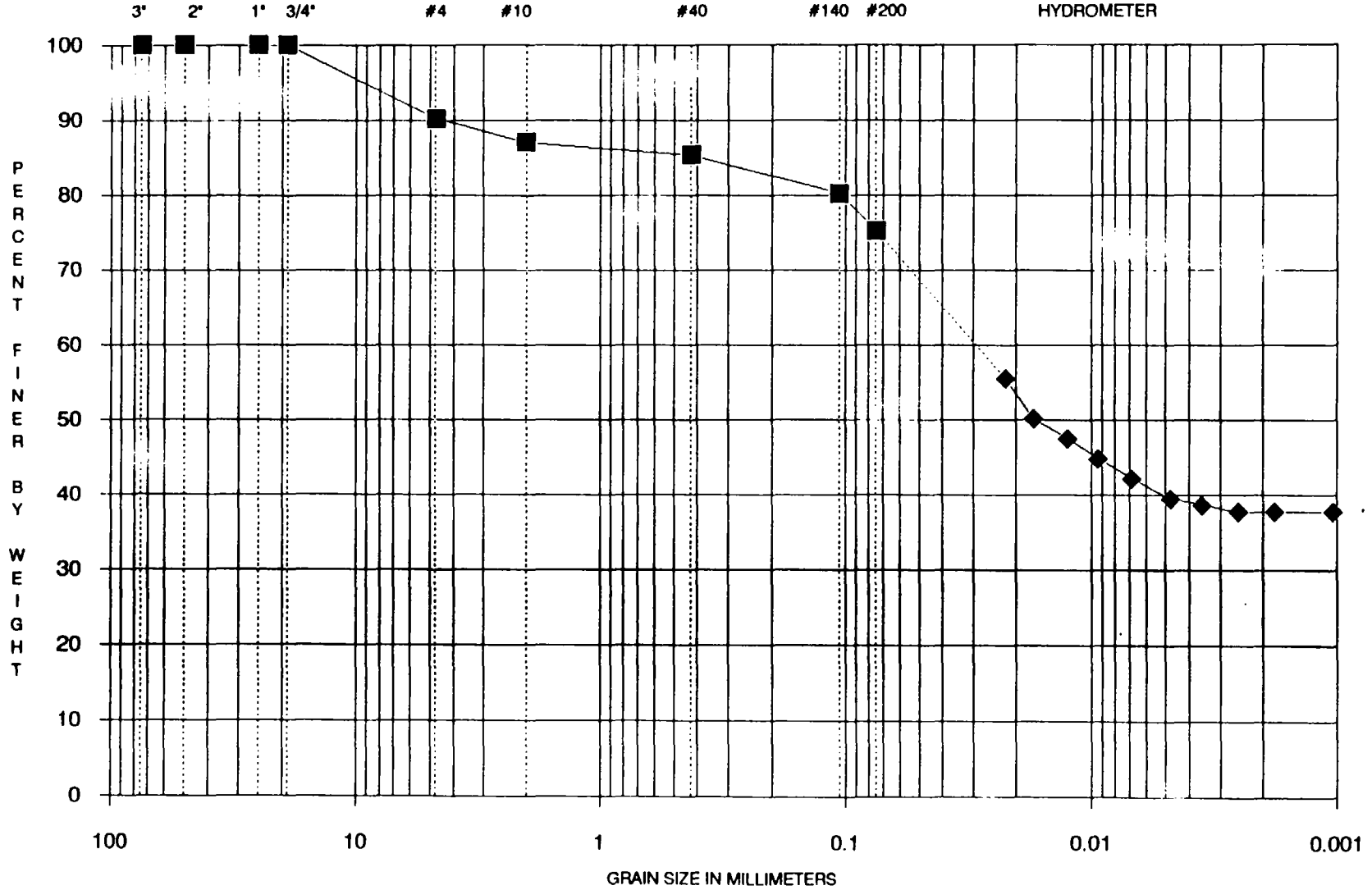
SPECIFIC GRAVITY
2.64

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
51.0	29.5	21.6

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-44-90 (45-46), ETL SAMPLE # 9007X003-023

U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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67-H

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-41-90 (310-311)
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	024
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy and silty or clayey gravel with 43% silt or clay and 12% sand	GM or GC

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	54.8
#10	2.000	53.1
#40	0.425	52.5
#140	0.106	47.2
#200	0.075	43.0
HYDROMETER	0.0305	24.8
	0.0224	20.9
	0.0162	18.6
	0.0120	17.0
	0.0086	15.4
	0.0059	13.1
	0.0044	12.3
	0.0031	10.7
	0.0022	10.0
	0.0013	9.2
	0.0009	7.8

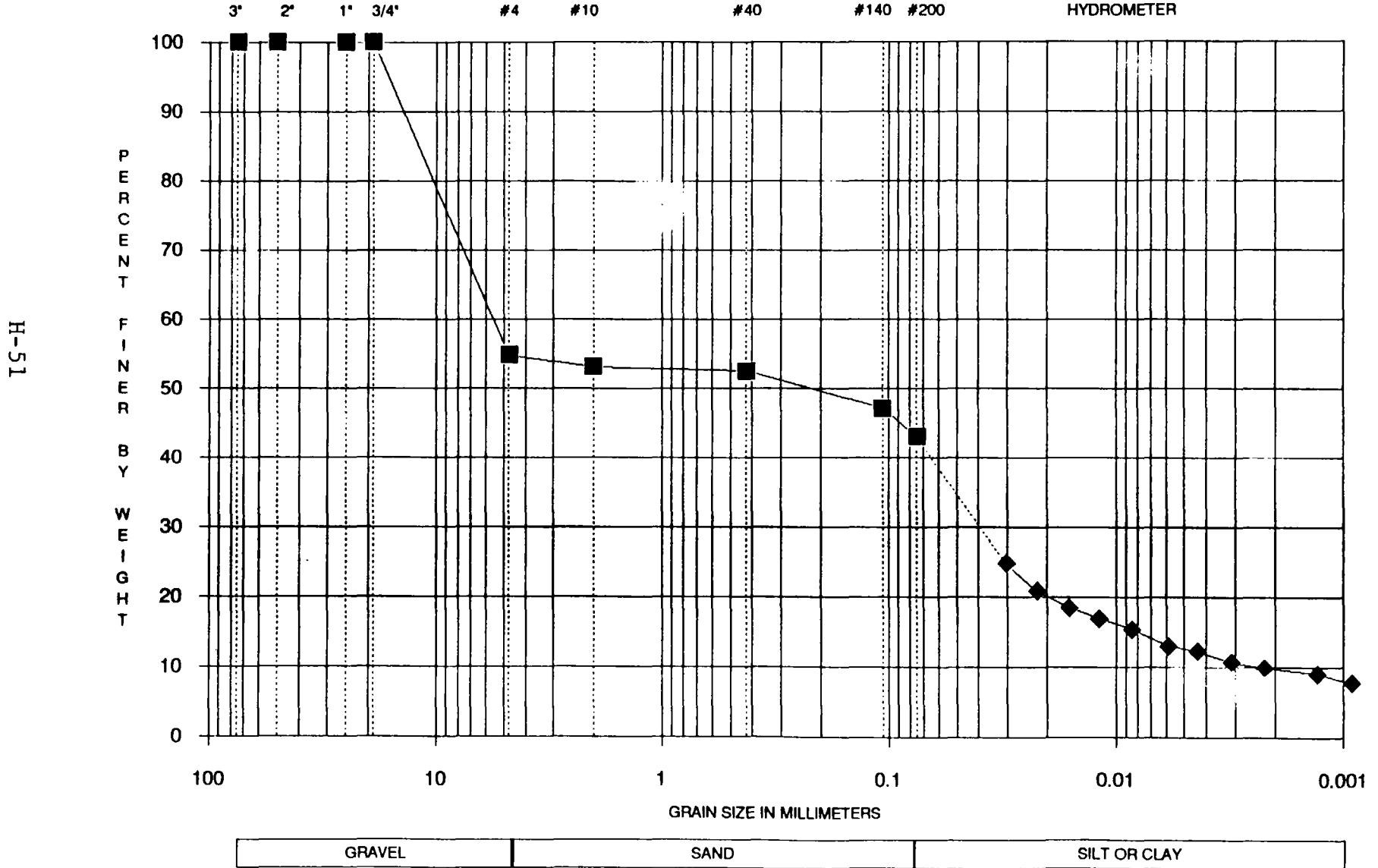
EFFECTIVE SIZES	
% Finer	Diameter mm
60	4.203
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY (estimated)
2.65

NOTES
<p>NA=NOT APPLICABLE</p> <p>Liquid and plastic limit determination was not performed due to insufficient sample quantity.</p> <p>Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for the calculation of hydrometer results.</p>

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-41-90 (310-311), ETL SAMPLE # 9007X003-024

U. S. STANDARD SIEVE SIZES



H-51

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-64-90 (14.5-16')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	025
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey brown sandy silt of high plasticity with 5% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	99.5
#10	2.000	99.3
#40	0.425	99.2
#140	0.106	98.1
#200	0.075	94.6
HYDROMETER	0.0264	79.3
	0.0190	76.0
	0.0137	72.7
	0.0102	69.5
	0.0074	66.2
	0.0052	58.1
	0.0039	53.2
	0.0028	50.0
0.0022	25.6	
0.0013	17.4	
0.0009	14.6	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.63

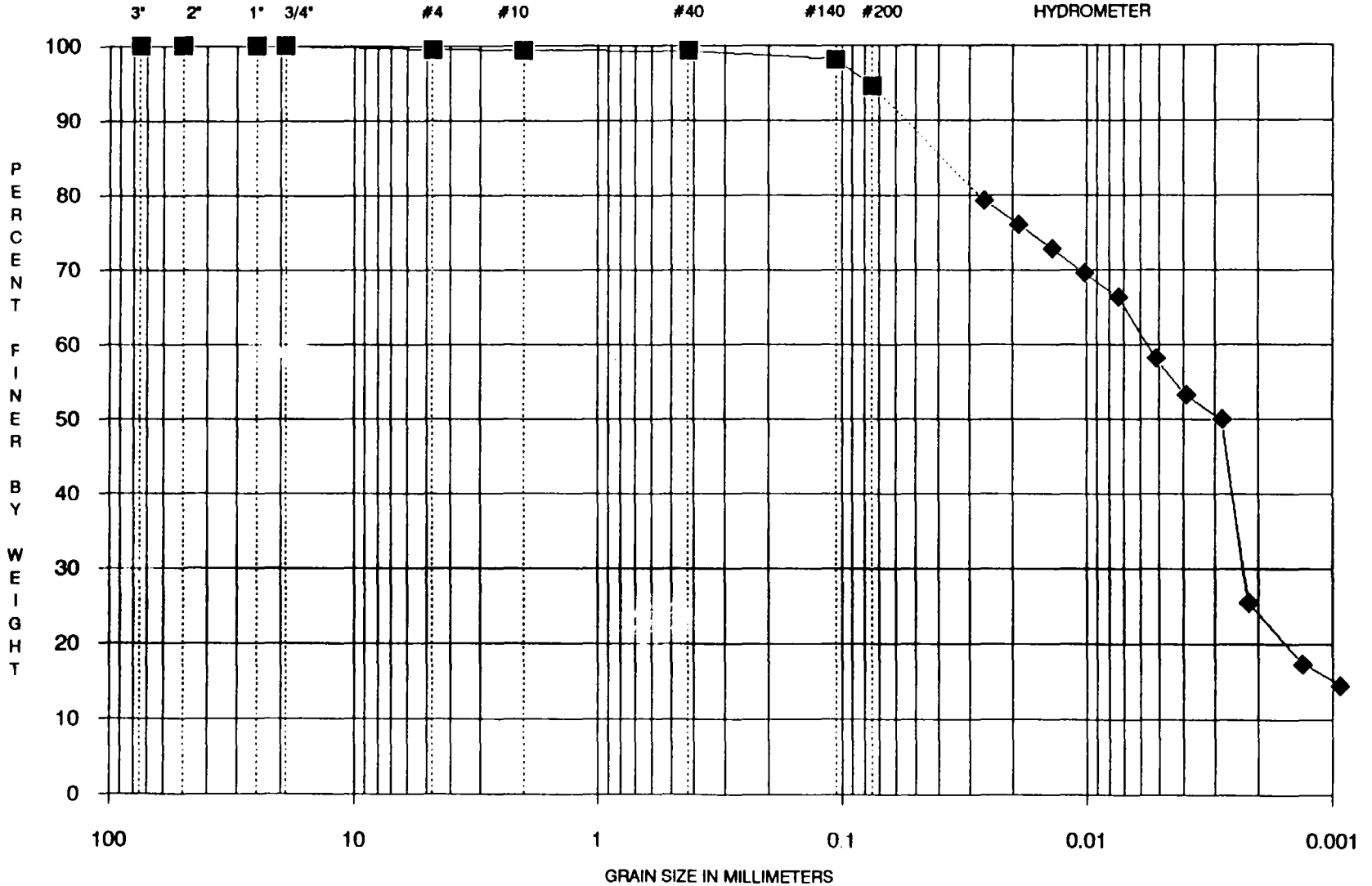
INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
57.8	33.2	24.6

NOTES
NA=NOT APPLICABLE

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-64-90 (14.5-16), ETL SAMPLE # 9007X003-025

U. S. STANDARD SIEVE SIZES



GRAVEL | SAND | SILT OR CLAY

H-53

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-64-90 (34.5-36')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	026
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown white sandy silt of low plasticity with 47% sand	ML

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.8
#40	0.425	96.3
#140	0.106	61.7
#200	0.075	52.9
HYDROMETER	0.0309	47.4
	0.0221	43.9
	0.0159	40.3
	0.0117	36.8
	0.0085	31.6
	0.0058	28.1
	0.0043	24.6
	0.0031	21.1
	0.0022	17.5
0.0013	12.3	
0.0009	10.5	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	0.100
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

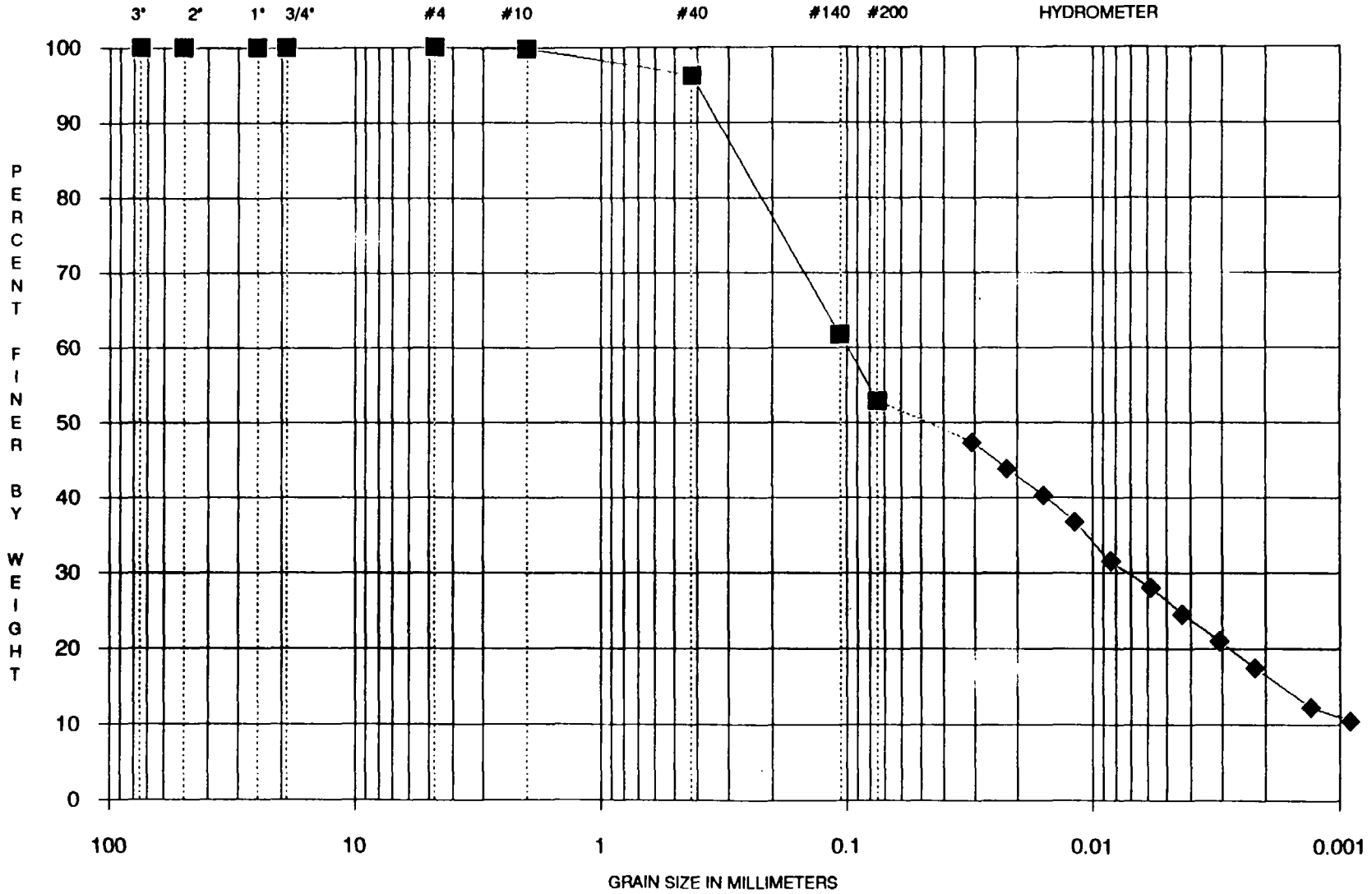
SPECIFIC GRAVITY
2.67

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
46.7	41.7	5.0

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-64-90 (34.5-36'), ETL SAMPLE # 9007X003-026

U. S. STANDARD SIEVE SIZES



H-55



WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-65-90 (25-27')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	027
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown and white sandy silt or clay with 1% fine sand	ML, CL, MH, or CH

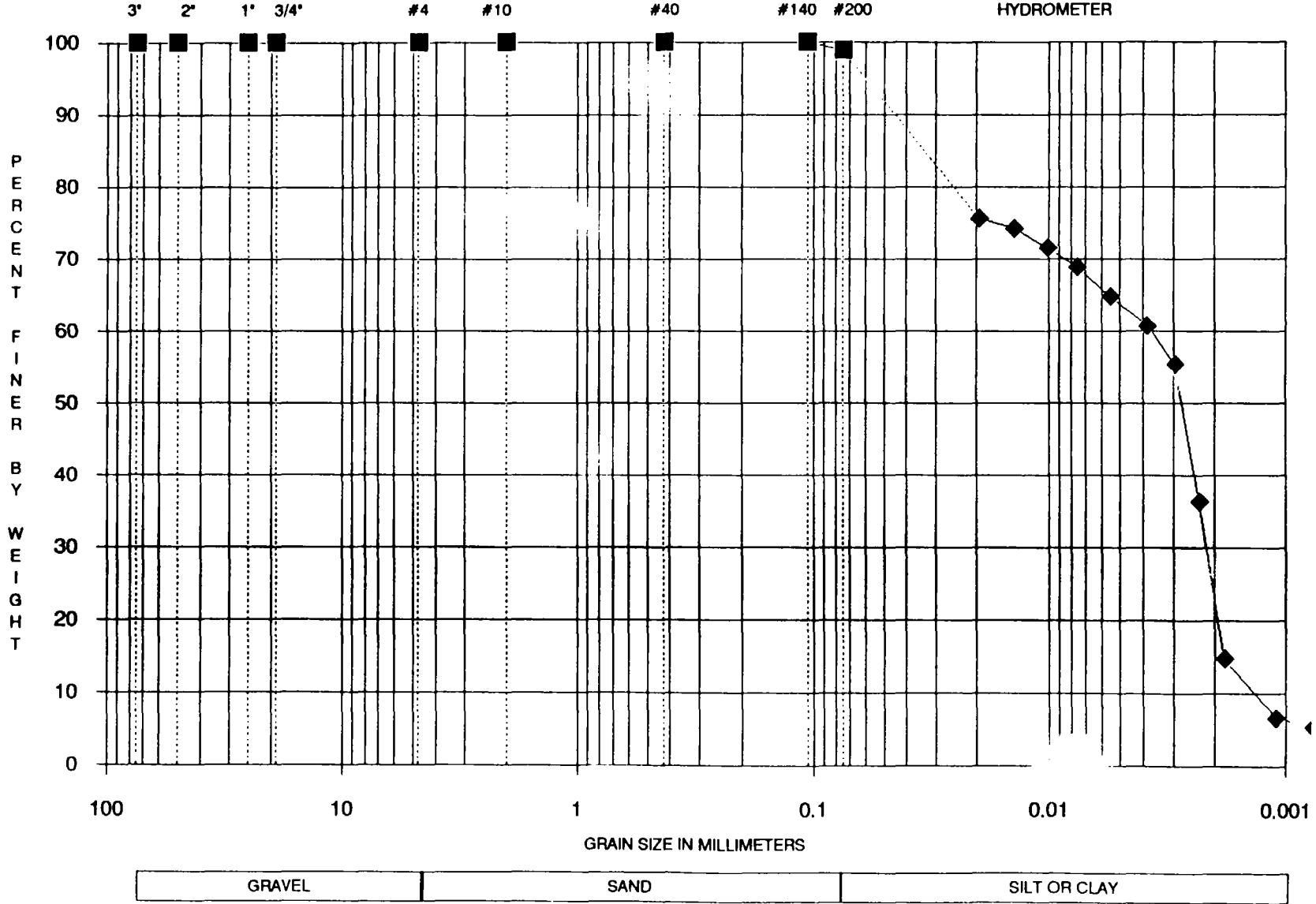
GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
2"	50.00	100.0
1"	25.00	100.0
3/4"	19.00	100.0
#4	4.750	100.0
#10	2.000	100.0
#40	0.425	100.0
#140	0.106	100.0
#200	0.075	98.9
HYDROMETER	0.0225	82.6
	0.0161	81.2
	0.0116	78.2
	0.0087	75.3
	0.0063	70.8
	0.0044	66.4
	0.0034	60.5
	0.0027	39.8
	0.0021	16.2
	0.0013	7.4
0.0009	5.9	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.84

NOTES
NA=NOT APPLICABLE Liquid and plastic limit determinations were not performed due to insufficient sample quantity.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-65-90 (25-27'), ETL SAMPLE # 9007X003-027
U. S. STANDARD SIEVE SIZES



H-57

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-62-90 (59.5-61')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	028
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
brown sandy silt or clay with 2% fine sand	ML, CL, MH, or CH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
2"	50.00	100.0
1"	25.00	100.0
3/4"	19.00	100.0
#4	4.750	100.0
#10	2.000	100.0
#40	0.425	100.0
#140	0.106	100.0
#200	0.075	97.9
HYDROMETER	0.0206	78.2
	0.0148	77.0
	0.0089	73.4
	0.0074	69.9
	0.0061	66.3
	0.0044	60.4
	0.0034	55.7
	0.0026	47.4
	0.0019	42.6
	0.0013	16.6
0.0009	11.8	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

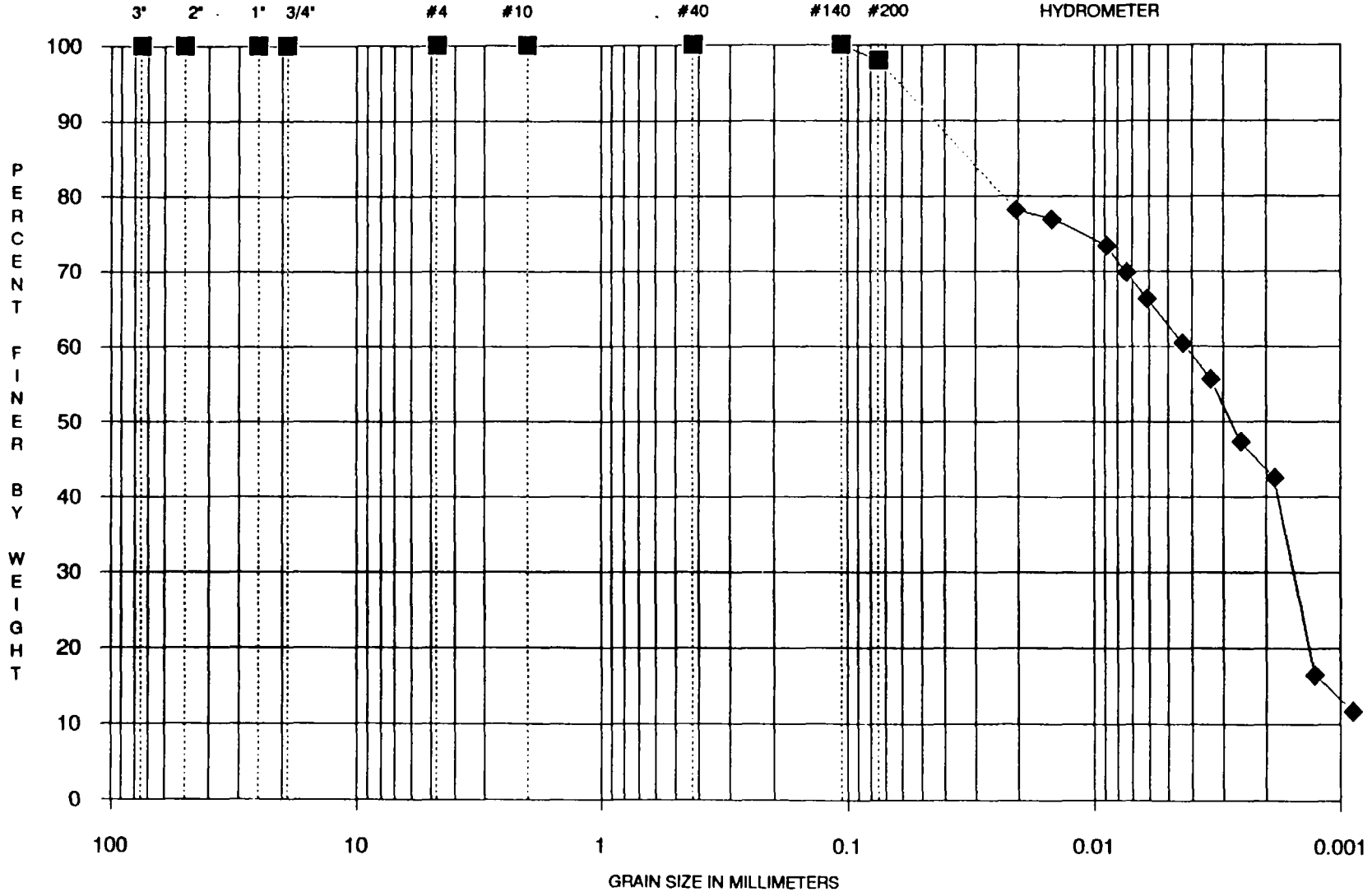
SPECIFIC GRAVITY (estimated)
2.65

NOTES
<p>NA=NOT APPLICABLE</p> <p>Liquid and plastic limit determinations were not performed due to insufficient sample quantity. Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for calculation of hydrometer results.</p>

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-62-90 (59.5-61), ETL SAMPLE # 9007X003-028

U. S. STANDARD SIEVE SIZES

H-59



GRAVEL	SAND	SILT OR CLAY
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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-62-90 (79.5-81')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	029
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy silt of low plasticity with 5% sand	ML

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	100.0
#40	0.425	100.0
#140	0.106	97.9
#200	0.075	95.2
HYDROMETER	0.0285	63.0
	0.0207	57.9
	0.0150	52.8
	0.0112	47.7
	0.0081	40.9
	0.0056	35.8
	0.0042	30.7
	0.0030	25.6
	0.0022	22.1
	0.0013	17.0
0.0009	13.6	

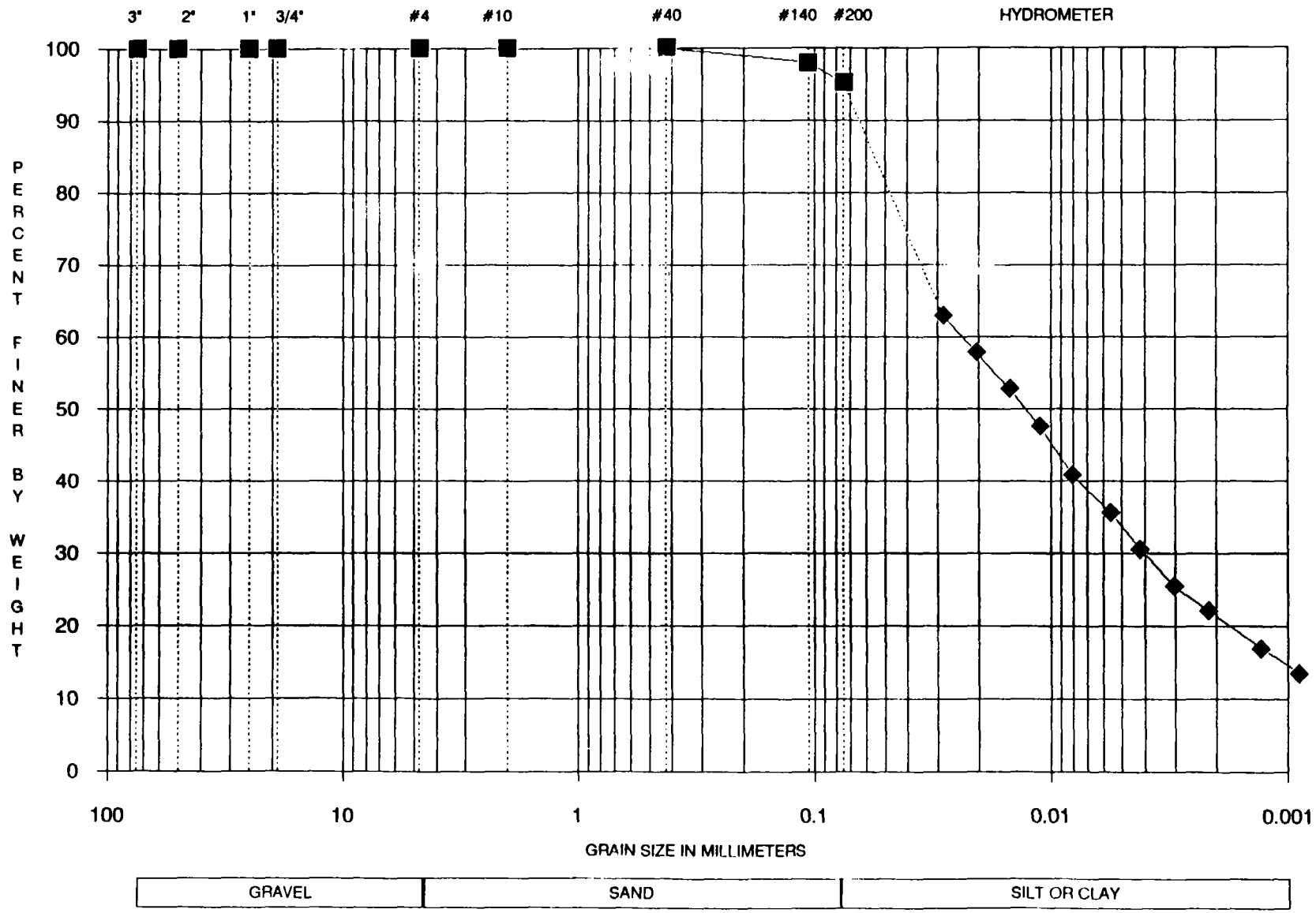
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.67

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
31.2	23.7	7.6

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-62-90 (79.5-81), ETL SAMPLE # 9007X003-029
U. S. STANDARD SIEVE SIZES



H-61

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-62-90 (89.5-91')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	030
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy silt of high plasticity with 1% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
2"	50.00	100.0
1"	25.00	100.0
3/4"	19.00	100.0
#4	4.750	100.0
#10	2.000	100.0
#40	0.425	100.0
#140	0.106	100.0
#200	0.075	98.9
HYDROMETER	0.0243	87.6
	0.0174	86.0
	0.0124	84.4
	0.0092	82.7
	0.0068	76.2
	0.0048	68.1
	0.0036	66.5
	0.0027	53.5
	0.0021	30.8
	0.0013	22.7
0.0009	17.8	

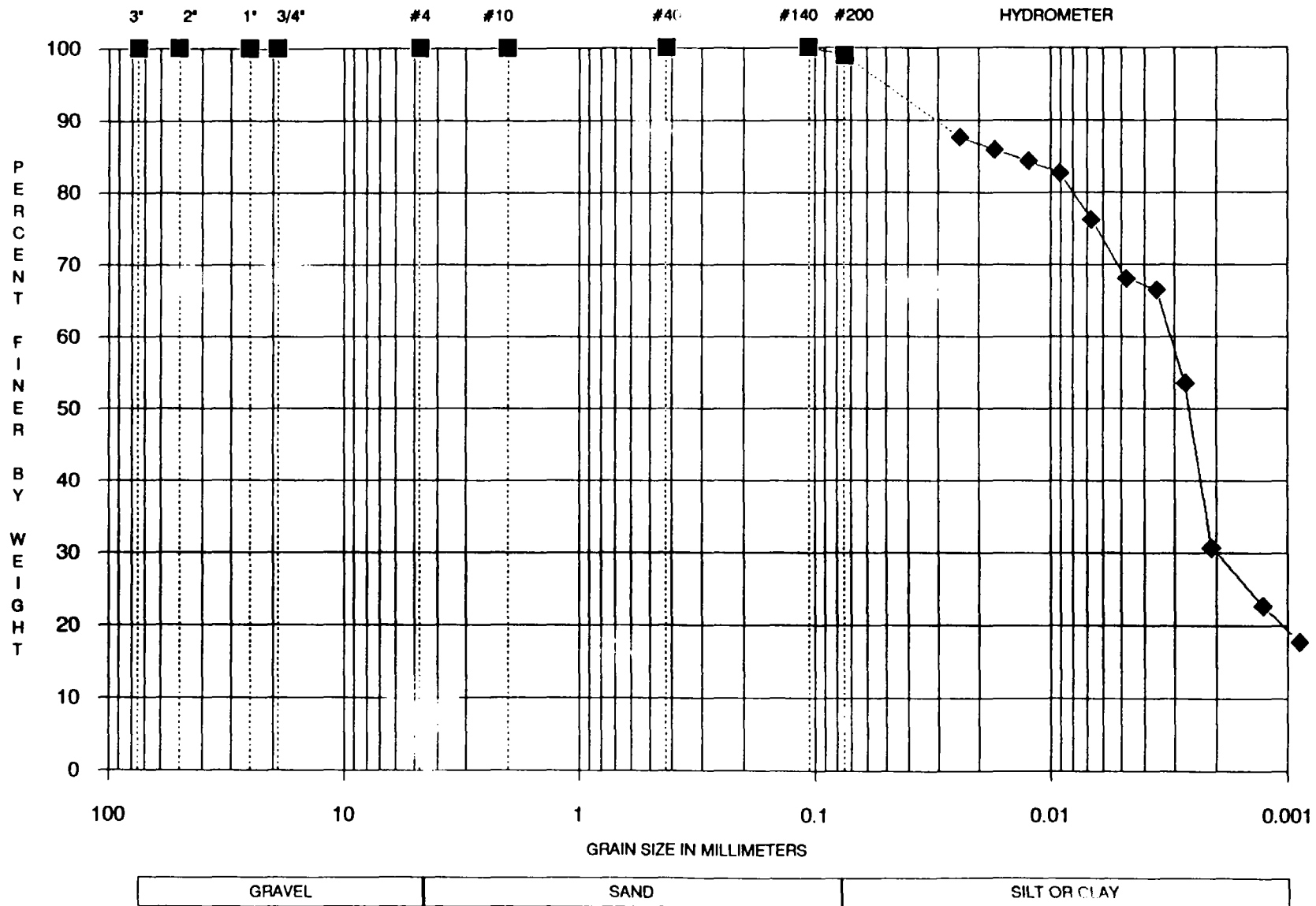
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.65

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
44.8	29.8	15.0

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-62-90 (89.5-91), ETL SAMPLE # 9007X003-030
U. S. STANDARD SIEVE SIZES



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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-62-90 (94.5-96')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	031
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy clay of low plasticity with 4% sand	CL

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	99.7
#10	2.000	98.6
#40	0.425	97.7
#140	0.106	97.1
#200	0.075	96.0
HYDROMETER	0.0247	80.7
	0.0181	76.1
	0.0134	68.5
	0.0103	60.9
	0.0076	53.3
	0.0054	44.2
	0.0041	36.5
	0.0030	30.5
	0.0021	27.4
	0.0013	22.8
0.0009	9.1	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

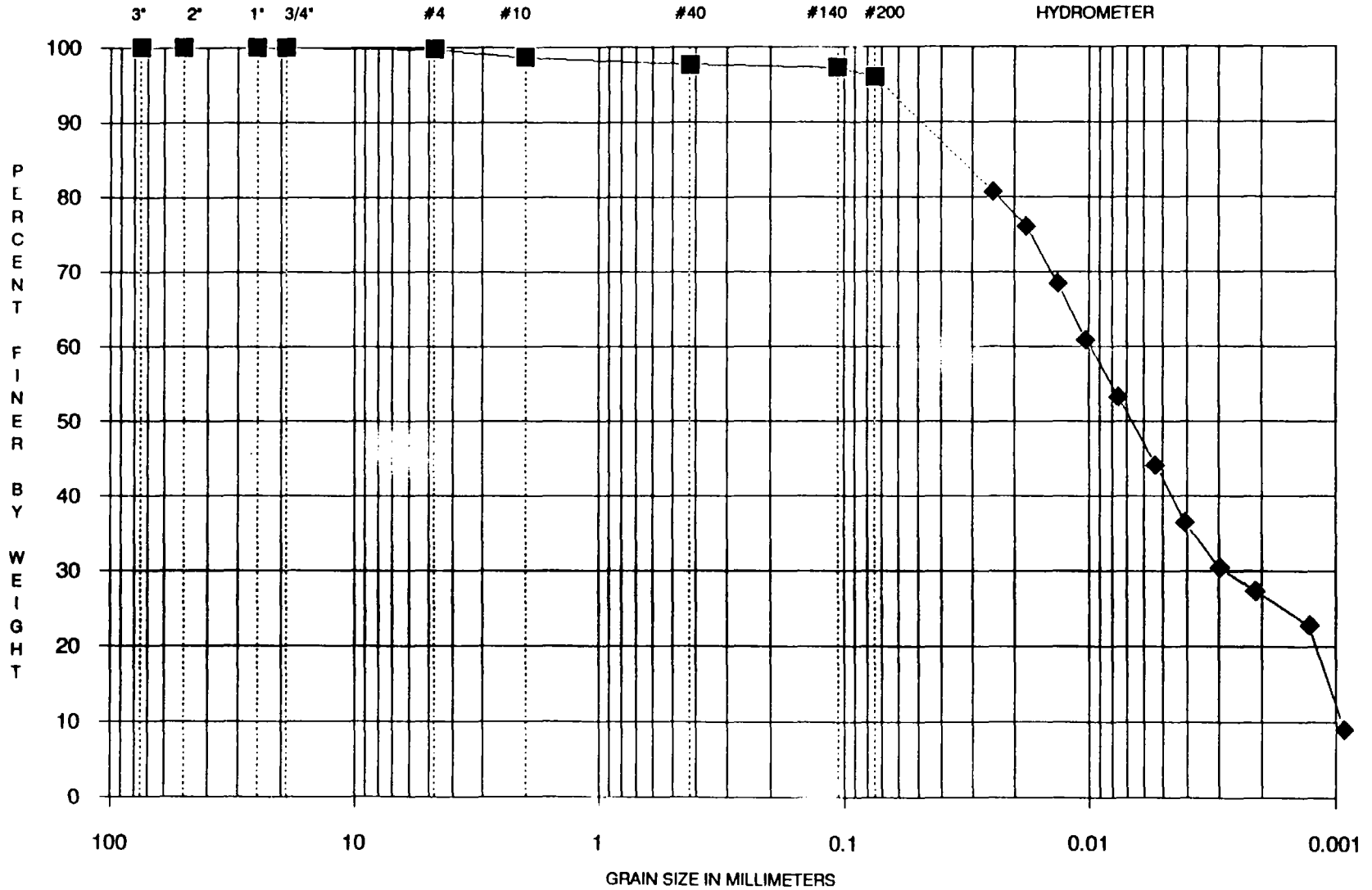
SPECIFIC GRAVITY
2.63

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
31.8	22.8	9.0

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-62-90 (94.5-96'), ETL SAMPLE # 9007X003-031
U. S. STANDARD SIEVE SIZES

H-65



GRAVEL | SAND | SILT OR CLAY

WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-62-90 (104.5-106')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	032
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy clay of low plasticity with 8% sand	CL

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	100.0
#40	0.425	99.9
#140	0.106	96.8
#200	0.075	92.0
HYDROMETER	0.0293	66.5
	0.0211	63.0
	0.0154	55.9
	0.0116	48.9
	0.0084	41.8
	0.0060	38.3
	0.0043	33.0
	0.0031	29.5
	0.0022	28.2
	0.0014	10.1
0.0010	8.3	

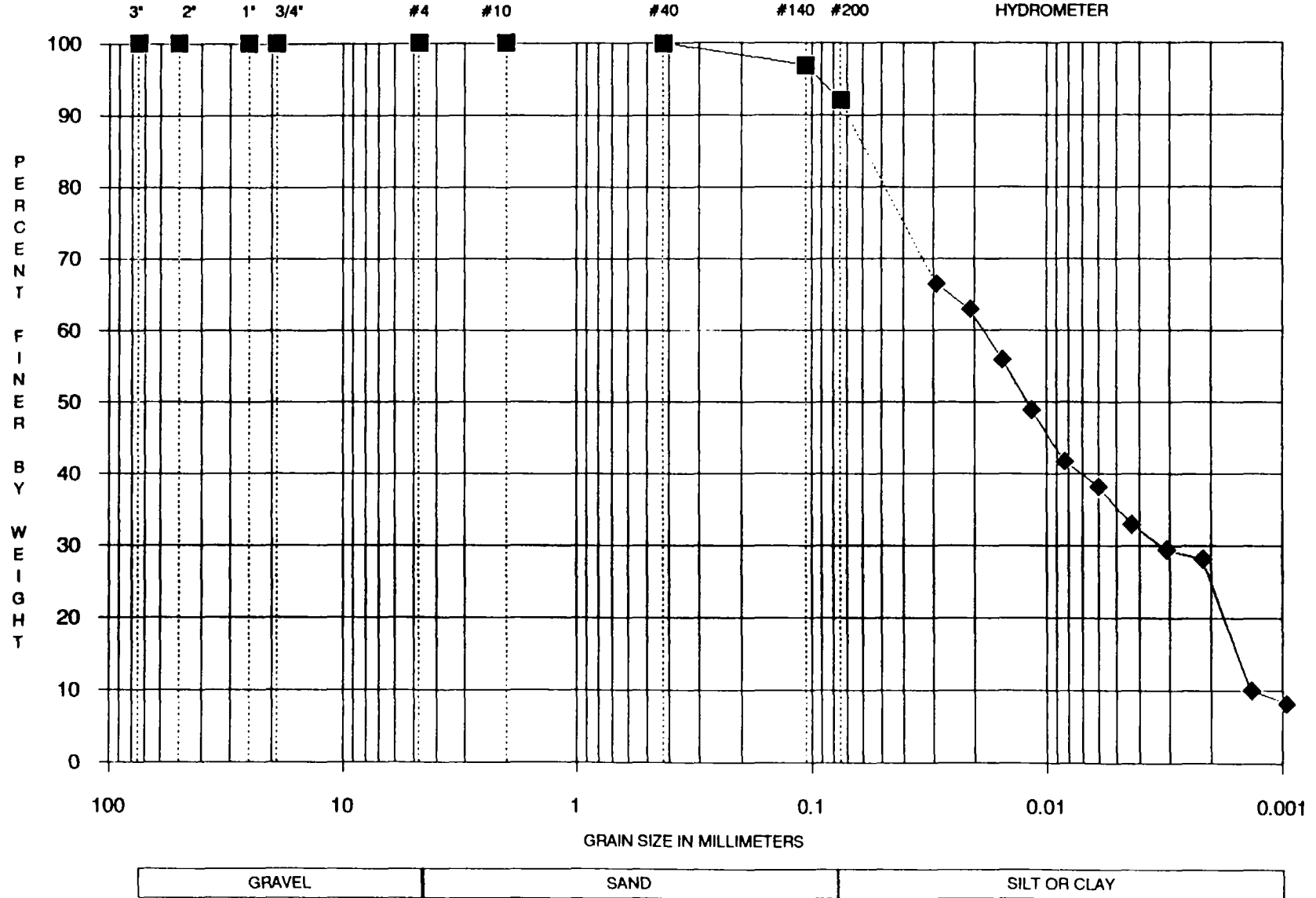
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.63

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
29.0	20.7	8.3

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-62-90 (104.5-106'), ETL SAMPLE # 9007X003-032
U. S. STANDARD SIEVE SIZES



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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-65-90 (15-17')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	033
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy gravelly silt of low plasticity with 16% sand and 7% gravel	ML

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	92.5
#10	2.000	87.7
#40	0.425	83.8
#140	0.106	79.0
#200	0.075	76.6
HYDROMETER	0.0281	62.3
	0.0202	59.3
	0.0147	54.8
	0.0109	51.8
	0.0078	48.8
	0.0057	44.4
	0.0041	38.4
	0.0030	35.4
	0.0021	29.9
0.0013	22.0	
0.0009	19.0	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

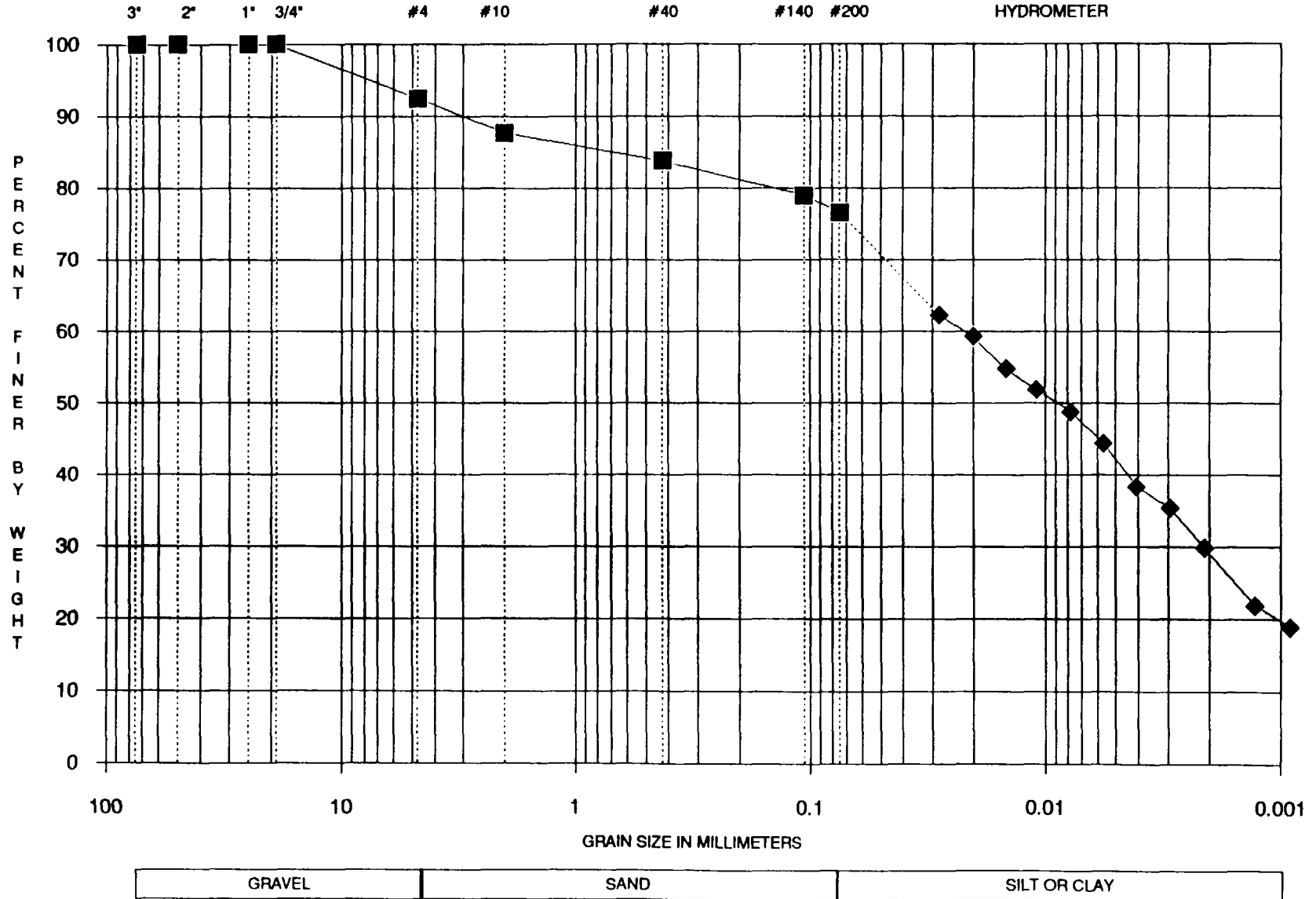
SPECIFIC GRAVITY (estimated)
2.65

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
30.3	26.5	3.8

NOTES
NA=NOT APPLICABLE
Specific gravity determination was not performed due to insufficient sample quantity; a value of 2.65 was estimated for calculation of hydrometer results.

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-65-90 (15-17'), ETL SAMPLE # 9007X003-033
U. S. STANDARD SIEVE SIZES

69-H



WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90(9.5-11')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	034
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey sandy silt of high plasticity with 4% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.00	100.0
2"	50.00	100.0
1"	25.00	100.0
3/4"	19.00	100.0
#4	4.750	100.0
#10	2.000	99.8
#40	0.425	99.0
#140	0.106	96.3
#200	0.075	95.7
HYDROMETER	0.0294	85.0
	0.0208	85.0
	0.0148	82.4
	0.0109	79.8
	0.0077	79.8
	0.0053	77.3
	0.0040	69.5
	0.0028	64.4
	0.0019	56.7
	0.0012	46.4
0.0009	41.2	

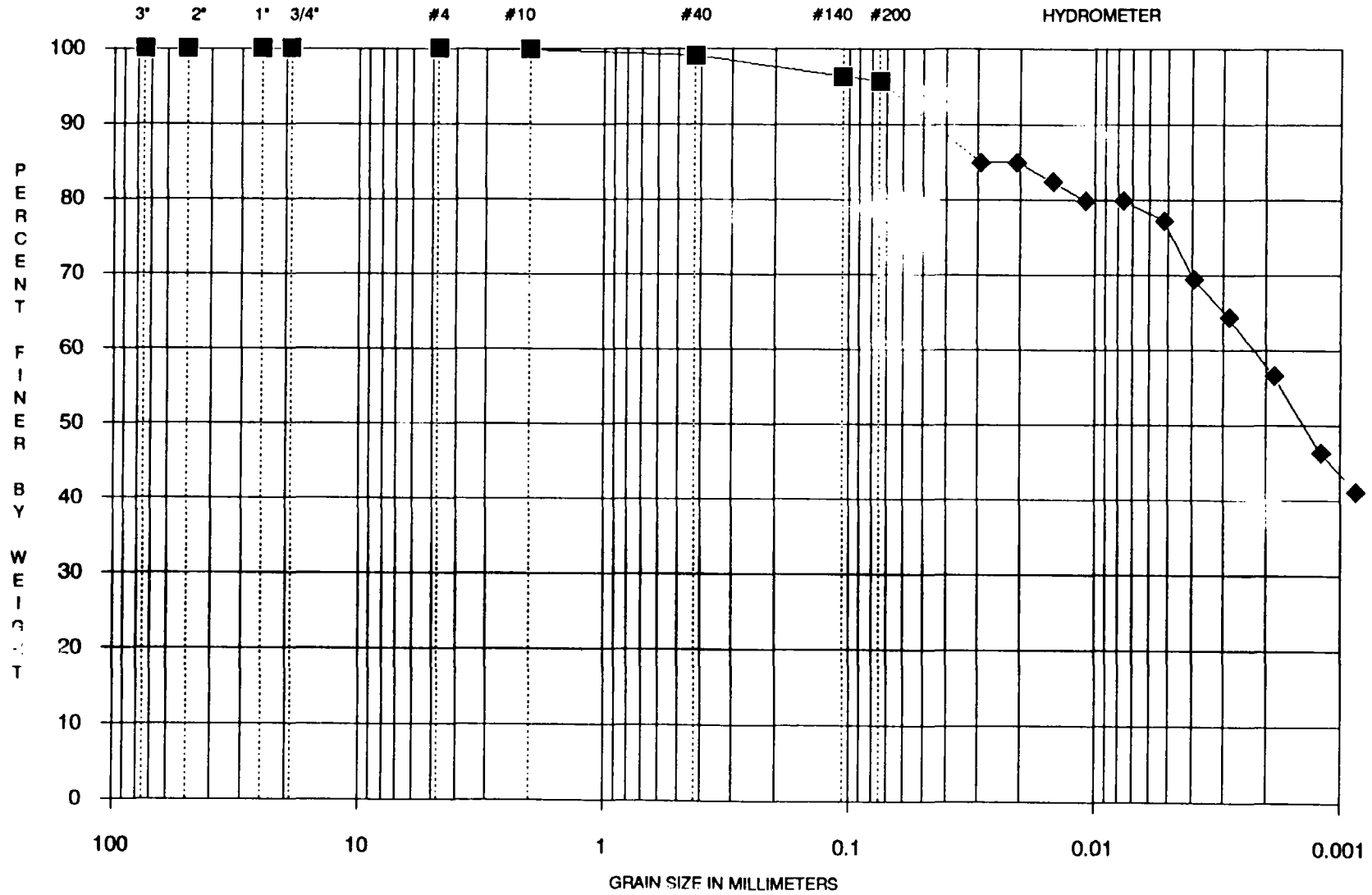
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.69

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
69.5	38.0	31.5

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-69-90(9.5-11'), ETL SAMPLE # 9007X003-034
U. S. STANDARD SIEVE SIZES



GRAVEL	SAND	SILT OR CLAY
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WESTON ENVIRONMENTAL TECHNOLOGY LABORATORY

SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90 (24.5-26')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	035
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light brown sandy gravelly silt of low plasticity with 41% sand and 9% gravel	ML

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	91.1
#10	2.000	91.0
#40	0.425	75.4
#140	0.106	56.9
#200	0.075	50.4
HYDROMETER	0.0293	40.9
	0.0212	35.9
	0.0152	32.6
	0.0112	29.3
	0.0080	27.7
	0.0057	24.3
	0.0041	21.0
	0.0029	17.7
	0.0021	14.4
0.0012	12.7	
0.0009	11.1	

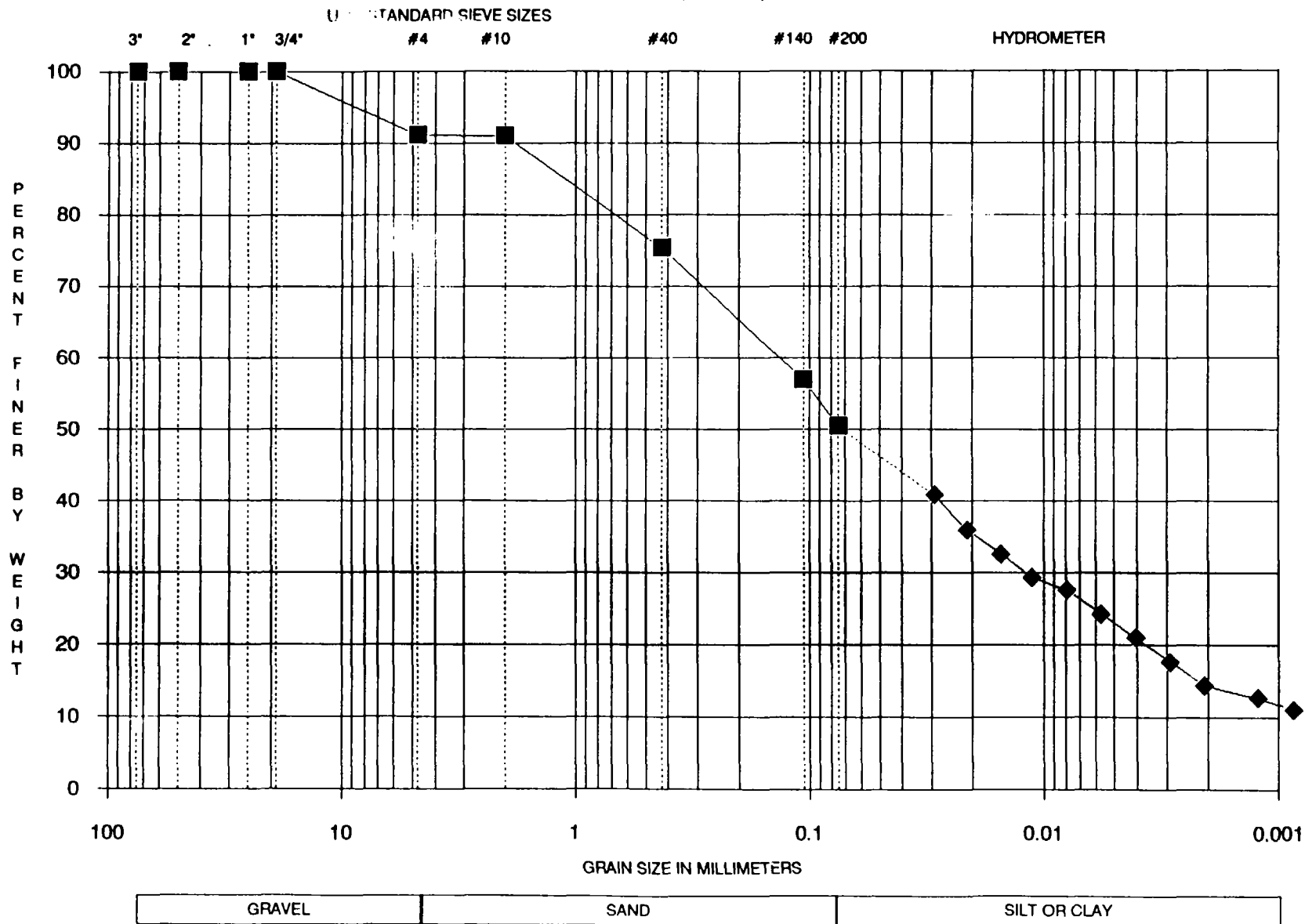
EFFECTIVE SIZES	
% Finer	Diameter mm
60	0.160
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.98

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
37.4	34.0	3.4

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
 EBASCO PROJECT SAMPLE S-69-90 (24.5-26'), ETL SAMPLE # 9007X003-035



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SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90 (54.5-56')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	036
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey brown sandy silt of high plasticity with 12% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	98.6
#40	0.425	95.4
#140	0.106	89.8
#200	0.075	87.6
HYDROMETER	0.0265	82.5
	0.0189	80.8
	0.0135	79.0
	0.0101	75.6
	0.0072	73.8
	0.0052	70.4
	0.0037	65.2
	0.0027	61.7
	0.0020	53.6
0.0013	23.7	
0.0009	18.5	

EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

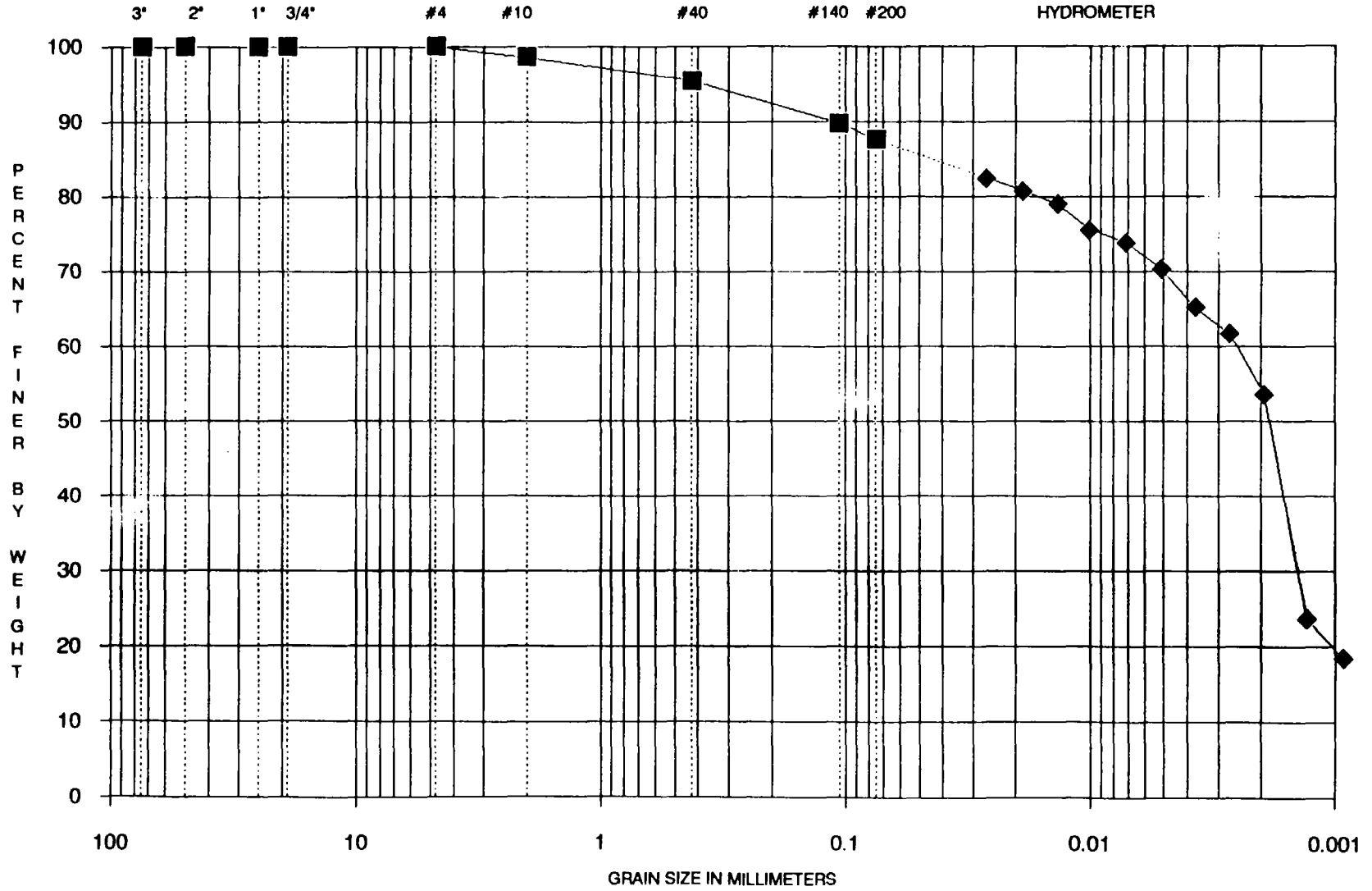
SPECIFIC GRAVITY
2.65

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
79.5	48.2	31.3

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-69-90 (54.5-56'), ETL SAMPLE # 9007X003-036

U. S. STANDARD SIEVE SIZES



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GRAVEL	SAND	SILT OR CLAY
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SOIL CHARACTERIZATION TEST RESULTS			
PROJECT	EBASCO	PROJECT SAMPLE I.D.	S-69-90 (84.5-86')
JOB NUMBER	9007X003	ETL SAMPLE NUMBER	037
W. O. NUMBER	5395-06-01-0001	TEST DATE	8/9/90

DRY SOIL DESCRIPTION	USCS SOIL CLASS
light grey sandy silt of high plasticity with 4% sand	MH

GRAIN SIZE RESULTS		
U. S. Standard Sieve Size	Diameter mm	% Finer
3"	75.000	100.0
2"	50.000	100.0
1"	25.000	100.0
3/4"	19.000	100.0
#4	4.750	100.0
#10	2.000	99.7
#40	0.425	98.5
#140	0.106	96.7
#200	0.075	95.7
HYDROMETER	0.0265	78.5
	0.0187	78.5
	0.0136	73.5
	0.0100	71.8
	0.0072	70.1
	0.0052	66.7
	0.0037	65.1
	0.0026	63.4
	0.0020	51.6
	0.0013	14.6
0.0009	9.6	

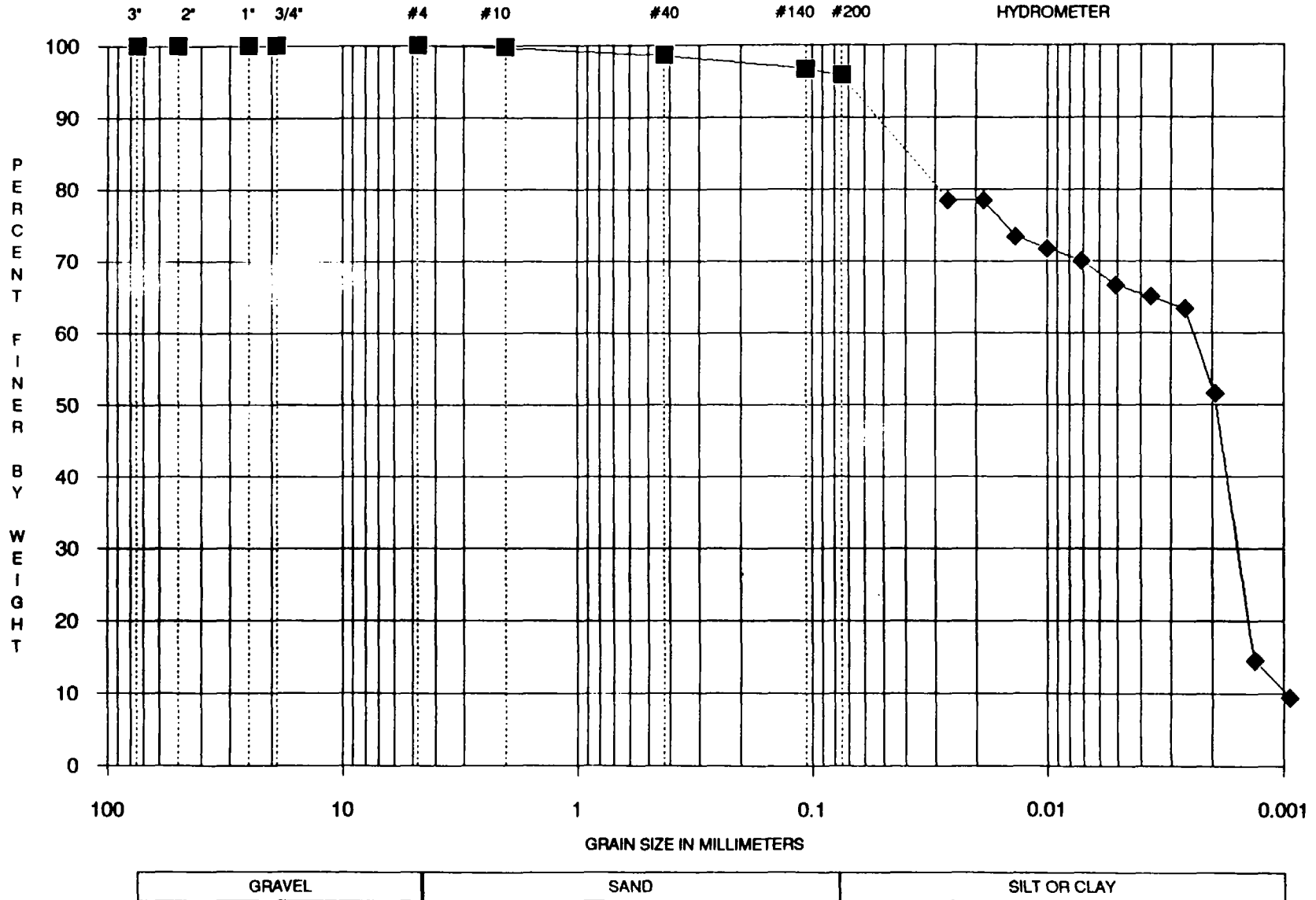
EFFECTIVE SIZES	
% Finer	Diameter mm
60	NA
30	NA
10	NA
Uniformity Coefficient	Gradation Coefficient
NA	NA

SPECIFIC GRAVITY
2.69

INDEX PROPERTIES		
LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
51.4	37.1	14.3

NOTES
NA=NOT APPLICABLE

GRAIN SIZE DISTRIBUTION CURVE FOR
EBASCO PROJECT SAMPLE S-69-90 (84.5-86'), ETL SAMPLE # 9007X003-037
U. S. STANDARD SIEVE SIZES



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