GEOTECHNICAL REPORT

Gravel Investigation
415 SH 174
Blum, Texas
FG Project No. 24604

Prepared for:

Ryon Fenn
415 SH 174
Blum, Texas 76627

Prepared by:

Franklin Geotechnical LLC
8304 Cardiff Circle
Plano, Texas 75025

Franklin
Geotechnical LLC

Franklin Geotechnical LLC

January 17, 2026

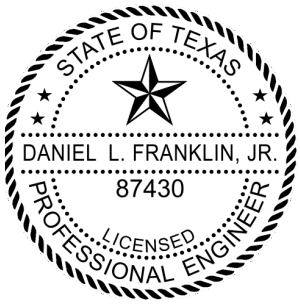
Attention: Ryon Fenn
415 SH 174
Blum, Texas 76627

Reference: Geotechnical Investigation
Gravel Study
415 SH 174
Blum, Texas
FG Project No. 24604

Franklin Geotechnical, LLC is pleased to submit the attached Geotechnical Report. This report estimates the material quantities on your property in Blum, Texas. This report was issued as a draft on August 26, 2024. It has since been updated to include corrected quantities and estimated values. Also included in the report are a vicinity map, boring plan, boring logs, and laboratory test results.

Franklin Geotechnical, LLC appreciates the opportunity to provide these geotechnical engineering services for you, and we look forward to working together in the future.

Sincerely,
Franklin Geotechnical, LLC
TBPE Registered Firm, No. F-26342



Daniel L. Franklin, Jr., P.E.
Professional Engineer

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1.0 INVESTIGATION OVERVIEW

1.1 Introduction

Franklin Geotechnical, LLC (FG) has prepared this report to present the results of our subsurface investigation program and our engineering estimate of materials for the Gravel Study Project in Blum, Texas. The site location is shown on the attached Vicinity Map, Figure 1. This report was originally issued as a draft on August 24, 2024. It has been updated to include corrected quantities and estimated values. The data includes borings, laboratory test results, and estimated material quantities. The report is subject to the limitations provided in Section 8.0.

1.2 Authorization

Mr. Ryon Fenn authorized FG's proposal dated May 1, 2024, for a geotechnical site investigation consisting of soil borings, laboratory analysis of soil samples, and estimation of marketable qualities of earthen materials.

1.3 Purpose and Scope

The purpose of this geotechnical investigation was to determine subsurface conditions at the site as a basis for providing suitable and cost-effective geotechnical engineering recommendations.

The scope of the investigation included:

- A subsurface investigation program with eight (8) soil boring; four (4) soil borings sampled to depths of 21 to 38 feet below the existing ground surface in August of 2022 and four (4) new borings sampled to depths of 35 to 42 below the existing ground surface for this updated study.
- A laboratory testing program for the determination of soil characteristics.
- A geotechnical report including investigation findings, and laboratory test results with engineering estimates of quantities.

Field sampling methods, laboratory testing procedures, soil classifications, and strata descriptions were in general accordance with methods, procedures, and practices set forth by the American Society for Testing and Materials, Annual Book of ASTM Standards, as applicable.

2.0 SITE DESCRIPTION

2.1 Site Physiography

The site is located on the north side of State Highway 174 in Blum, Hill County Texas. The site has an area of approximately 114 acres. Approximately 80 acres were considered for this study. Based on Google Earth imaging the surface elevations range from about 550 to 605 feet above mean sea level.

2.2 Geology

According to the Bureau of Economic Geology at the University of Texas at Austin, Geologic Atlas of Texas, Waco Sheet, the site is underlain by Terrace Deposits (Qt). Terrace deposits consist of gravel, sand, and clay which outcrop adjacent to and outside of the immediate channels of the Brazos River and its tributaries. Their composition is that of alluvium. Terraces were formed when the river changed course, abandoning the previous floodplain, and the new channel cuts deeper into the earth.

3.0 PROJECT DESCRIPTION

FG understands that the project consists of evaluating the presence and quantity of mineral resources (gravel, sand, and select clay soils) within an approximately 80-acre parcel adjacent to Lake Whitney near Kimble Bend in Hill County, Texas. Materials are currently being mined on portions of the property. Previous excavations within the area indicate there are approximately 15 feet of overburden soil over the gravel seam with shale bedrock at a depth of approximately 30 feet below the ground surface.

4.0 SUBSURFACE INVESTIGATION

4.1 Boring Locations

The field investigation consisted of drilling and sampling eight (8) borings to depths of 21 to 42 feet below the existing grade. The approximate boring locations are shown on the attached Boring Plan, Figure 2. Boring locations were established in the field by FG staff with the assistance of the owner.

4.2 Drilling and Sampling Recovery Methods

The borings were drilled with a CME-55 truck-mounted drill rig, in general accordance with the following standards as deemed appropriate in the field:

- Standard Practice for Soil Exploration and Sampling by Auger Boring (ASTM D1452).
- Standard Practice for Thin-Walled Tube Sampling of Fine-Grained Soils for Geotechnical Purposes (ASTM D1587).
- Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils (ASTM D1586).
- Texas Cone Penetrometer (TCP) test [Texas Department of Transportation (TxDOT) Manual of Testing Procedures method Tex-132-E].

All boreholes were backfilled with soil after collecting groundwater readings. Samples will be retained by FG for thirty (30) days unless an alternate storage agreement is requested by the client.

5.0 LABORATORY TESTING

FG performed laboratory testing on representative soil samples recovered during drilling operations to determine engineering properties. The laboratory testing program included:

- Standard Practice for Description and Identification of Soils (Visual-Manual Procedures) (ASTM D2488).
- Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass (ASTM D2216).
- Standard Test Methods for Measurement of Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D4318).
- Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis (ASTM D6913).

Laboratory test results are provided in Appendix B.

6.0 SUBSURFACE CONDITIONS

6.1 Site Stratigraphy and Engineering Properties

The subsurface samples were recovered with seamless push tube and SPT sampling methods. Once gravel was detected, we used a 3-inch diameter split spoon (versus the standard 1.5-inch diameter tool) to retain greater size materials. Descriptions of strata made in the field by the drilling team were modified by the Engineer based on laboratory test results and a visual examination of the soil samples. Recovered soil samples were examined, tested, and classified in general accordance with the Unified Soil Classification System (USCS) (ASTM D2487). Strata and subsurface conditions can best be understood by a thorough review of the boring logs provided in Appendix A. Transition depths should be considered approximate.

In general, the subsurface materials encountered consisted of lean clay (CL) to depths of 10.5 to 34 feet below the ground surface. Clayey sands (SC) were identified below the clays to depths of 17.5 to 23 feet. Silty sand with gravel (SM) and Silty gravel (GM) were found below the sands to the top of shale or limestone at 19 to 34 feet where present. Note that no gravel was identified in Borings GB-1, GB-2, and GB-3. The borings were completed in shale or limestone at depths of 21 to 42 feet below the existing ground surface.

Atterberg liquid limits of the clay soils ranged from 25 to 47 with corresponding plasticity indices of 7 to 33. Within the materials containing gravel, 4 to 83 percent was retained on the No. 4 (gravel size particle) sieve. Laboratory test data is presented in Appendix B.

6.2 Groundwater

During the subsurface exploration for the initial borings made in August of 2022, no groundwater was encountered while drilling to depths of 38 feet below the existing grade.

In the borings drilled in July of 2024, groundwater seepage was as provided in the following table.

Table 6.2 – Groundwater		
Boring Number	**Depth Free Water First Encountered (feet)**	**Water Depth Upon Completion of Drilling (feet)**
GB-1	18	15.5
GB-2	21	15
GB-3	Dry	None
GB-4	12.5	13

The water observations conducted for this investigation should be considered short-term and should not be interpreted as a "Groundwater Study." The project contractor should be prepared to deal with potential groundwater issues should they arise during construction.

Surficial soil moisture contents and perched water tables are often strongly influenced by antecedent rainfall conditions and could be significant near creeks, drainage ways, and areas of standing water. Nearby irrigation can affect moisture levels within the depths that this investigation observed. Oftentimes, groundwater in the form of seepage occurs within sand seams and layers within the clay soil. The locations of specific seepage areas are impossible to predict, and seepage may not be evident until after rainfall events.

7.0 MATERIAL EVALUATION

The materials encountered have been broken down into three categories for this evaluation:

- Select Fill – Select fill materials used in the preparation of building pads for residential and commercial construction are typically low plasticity lean clays (CL) and clayey sands (SC) with a liquid limit of less than 40 and a plasticity index of 8 to 22. From the laboratory test results it appears that about 50 percent of the materials identified as lean clay meet this criterion. When mixed with the clayey sands below the lean clays, we expect all of these materials will meet this criterion.

- Clayey Sand – Clayey sands meet the criteria of select fill. Portions of this strata may be mixed with the higher plasticity lean clay such that they too will be acceptable for select fill soils.

- Sand – some sands at the site silty sands with gravel. They will be separated during the washing process to retrieve the gravel. Depending upon how they are processed, these sands may be used for Portland cement concrete production, construction cushion sand, or other sand backfill requirements.

- Gravel – Gravel materials were found in the silty sands and also in their unique strata of silty gravel. These will be separated during the washing process. The particle size of the gravel ranged from 3 inches to 3/16ths of an inch (No. 4 Sieve). Most of the gravel was about 1-¼ to ¼ inches. These materials are used in Portland cement concrete, asphaltic cement concrete, drainage media for walls and sumps, and other aggregate requirements.

7.1 Excavation Areas

The property was divided into eight areas representing borings B-1 through B-4, and GB-1 through GB-4 (Note that no gravel was identified in borings GB-1, GB-2, and GB-3) Area 1 is about 281,768 square feet and is represented by Boring B-1. Boring B-2 represents Area 2 with a footprint of approximately 329,462 square feet. Area 3 is about 737,524 square feet and is represented by Boring B-3. Boring B-4 represents Area 4 with a footprint of approximately 723,768 square feet. Boring GB-4 represents Area 5 with a footprint of approximately 239,051 square feet. Boring GB-3 represents Area 6 with a footprint of approximately 266,242 square feet. Boring GB-2 represents Area 7 with a footprint of approximately 160,188 square feet. Boring GB-1 represents Area 8 with a footprint of approximately 152,953 square feet. We realize some adjustments may be made in the designation for each boring; this was our estimate and others may wish to make changes that will affect the quantities stated below.

7.2 Material Quantities

Using the square footage of each area and the materials identified in the individual boring for each area we have calculated the following quantities of marketable materials on this parcel of land as presented in Table C-1 in Appendix C for each parcel. Provided below is a summary table of the material quantities:

Table 7.2– Material Quantities			
Lean Clay	**Clayey Sand**	**Sand**	**Gravel**
1,701,381 yd^3	362,351 yd^3	201,238 yd^3	183,020 yd^3
2,756,239 tons	587,006 tons	325,196 tons	296,492 tons

**Note: Mass/weights calculated using a total unit weight of 120 pcf.

7.3 Material Values

Based on competitive prices for materials in north and central Texas, we have determined the following unit prices for these materials based on the estimated quantities based on typical geotechnical soil sampling. It is understood that other methods of sampling may yield different results. This is an engineering estimate and may be considered low/high by others.

Table 7.2 – Material Values

Material	Lean Clay	Clayey Sand	Sand	Gravel	Totals
Estimated Worth – In Place	$2,552,072	$543,527	$503,095	$640,570	$4,239,263
	$1.50/yd^3	$1.50/yd^3	$2.50/yd^3	$3.50 yd^3	
Estimated Worth – Load Ready	$18,604,603	$3,962,308	$2,852,549	$5,336,863	$30,756,323
	$6.75/ton	$6.75/ton	$8.75/ton	$18/ton	

8.0 LIMITATIONS

Since some variation was found in subsurface conditions at boring locations, all parties involved should take notice that even more variation may be encountered between boring locations. Statements in the report as to subsurface variation over given areas are intended only as estimations from the data obtained at specific boring locations.

The professional services that form the basis for this report have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers practicing in the same locality. No warranty, express or implied, is made for the professional advices provided. Franklin Geotechnical LLC's scope of work does not include the investigation, detection, or design related to the presence of any biological pollutants. The term 'biological pollutants' includes, but is not limited to, mold, fungi, spores, bacteria, viruses, and the byproducts of any such biological organisms.

The results, conclusions, and recommendations contained in this report are directed at and intended to be utilized within the scope of work contained in the agreement executed by Franklin Geotechnical LLC, and the client. This report is not intended to be used for any other purposes. Franklin Geotechnical LLC makes no claim or representation concerning any activity or condition falling outside the specified purposes to which this report is directed and said purposes are specifically limited to the scope of work as defined in said agreement. Inquiries as to the said scope of work or concerning any activity or condition not specifically contained therein should be directed to Franklin Geotechnical LLC for a determination and, if necessary, further investigation.

FIGURES

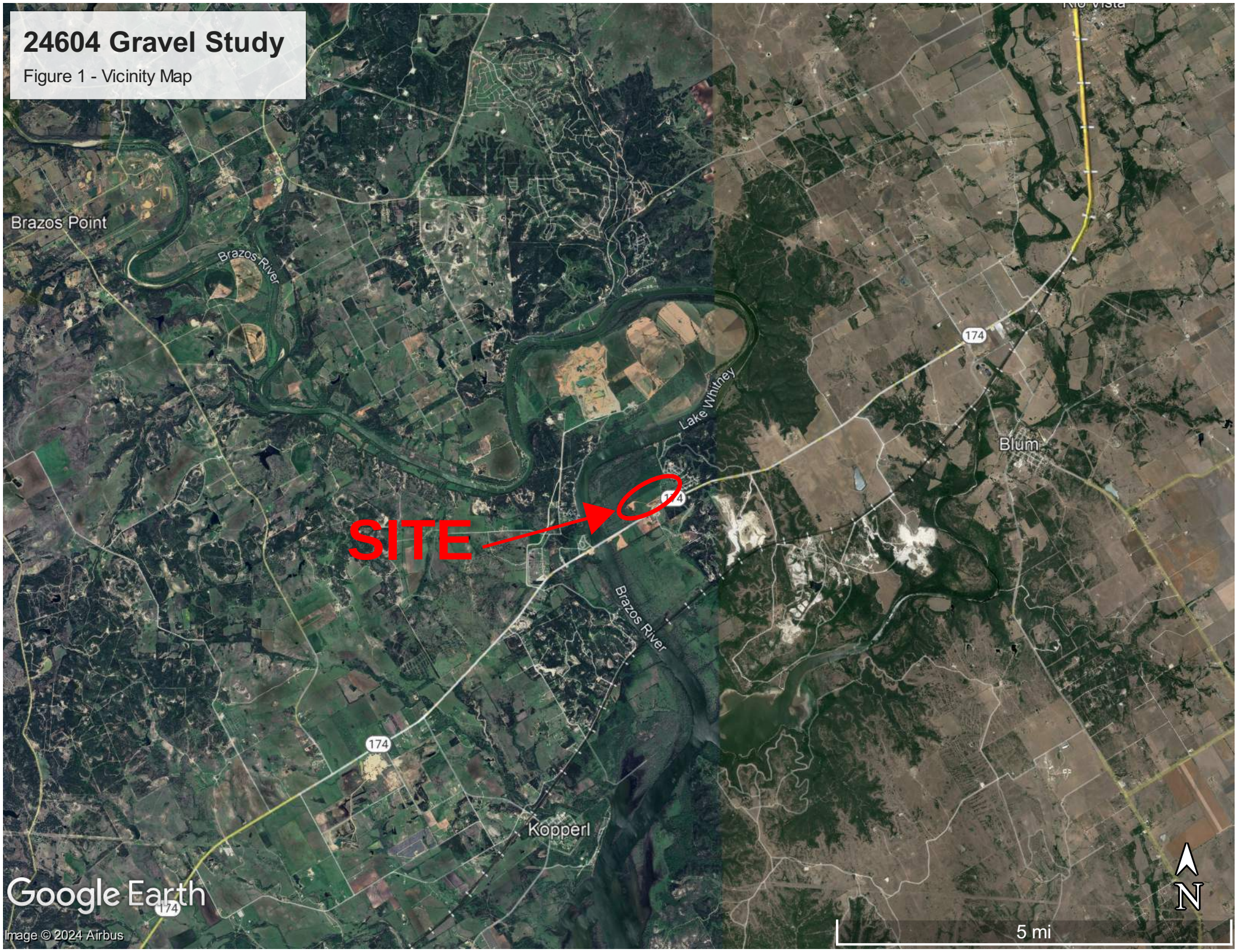
Vicinity Map

Boring Plan

Definition of Areas

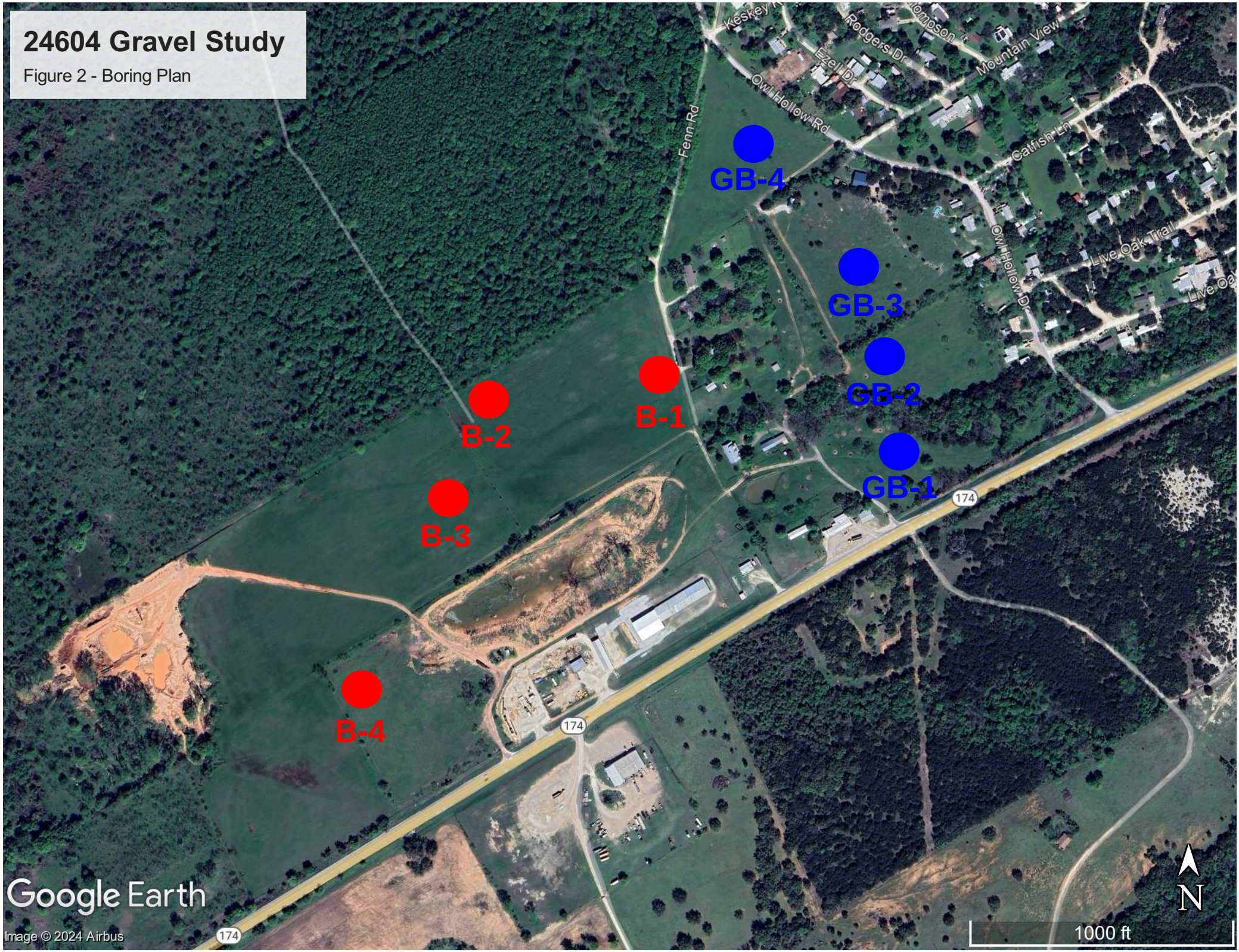
24604 Gravel Study

Figure 1 - Vicinity Map



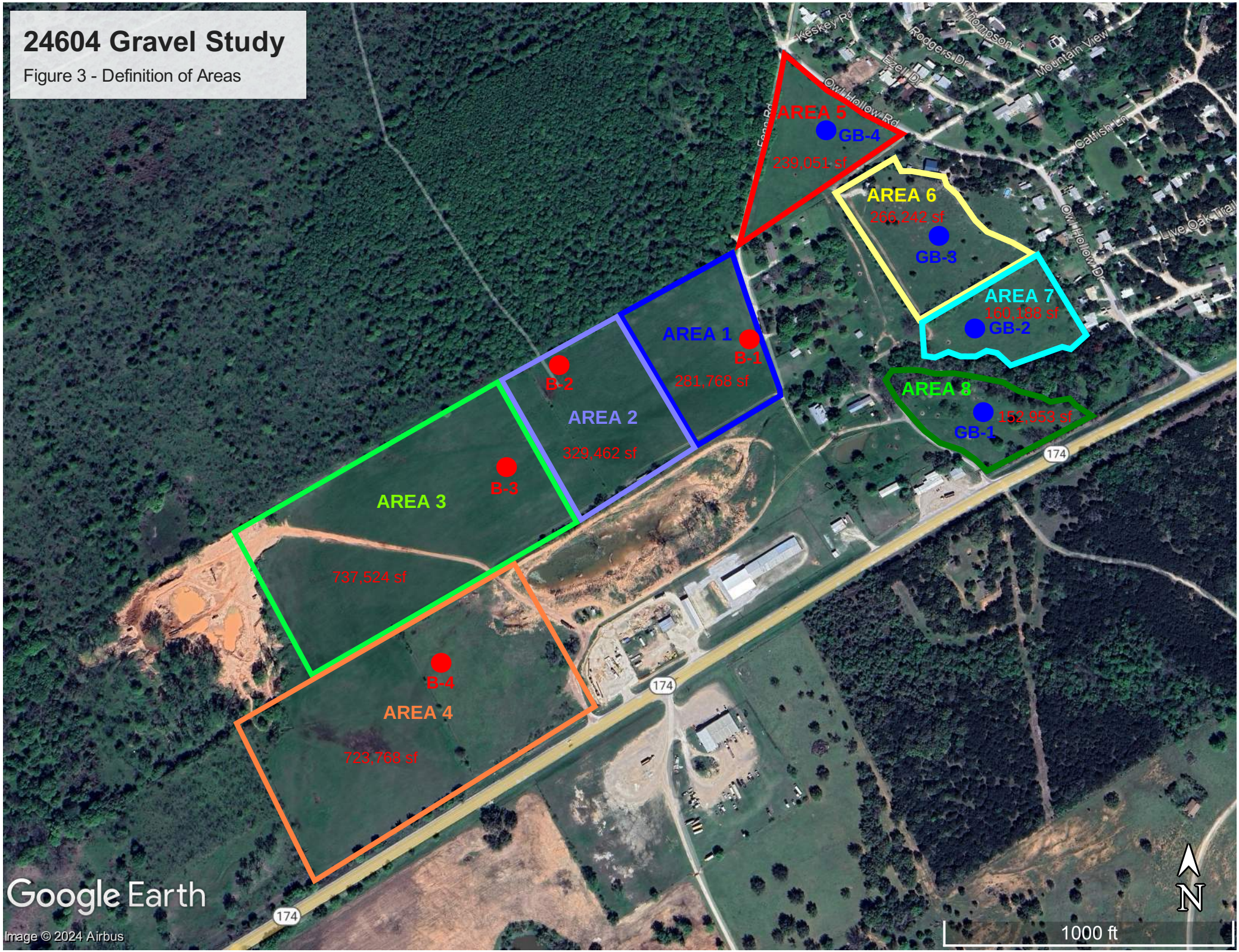
24604 Gravel Study

Figure 2 - Boring Plan



24604 Gravel Study

Figure 3 - Definition of Areas



APPENDIX A

Boring Logs

LOG OF BORING No. B-1

MID-TEX TESTING — CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION

PROJECT: Gravel Investigation **PROJECT NO.:** 220505
CLIENT: Ryan Fenn
PROJECT LOCATION: 415 TX 174, Blum, Texas
LOCATION: Area 1 **ELEVATION:** Not Measured
DRILLER: T. King **LOGGED BY:** D. Franklin
DRILLING METHOD: Solid Stem Auger **DATE:** 8/17/22
DEPTH TO - WATER> INITIAL: ▽ Dry **AFTER COMPLETION** ▽ None

Depth (feet)	Sample Type	Description	Graphic	Pocket Penetrometer (tsf)	Blow Counts	% Swell
0						
		Hard brown and dark brown LEAN CLAY with sand (CL)		4.5		
				4.5		
5				4.5		
		6				
		Hard brown LEAN CLAY with sand (CL)		4.5		
				4.5		
10		10				
		Hard reddish brown LEAN CLAY with sand (CL)				
		13				
15		Medium dense to dense red CLAYEY SAND (SC)		4.5		
					29/18"	
20					38/18"	
					37/18"	
		23				
25		Dense to very dense tan SILTY GRAVEL with sand (GM)			48/18"	
					66/18"	
					58/18"	
30					61/18"	
					69/18"	
					73/18"	
35						

TEST RESULTS
Plastic Limit ⊢——⊣ Liquid Limit
10 20 30 40 50

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Figure A-1

LOG OF BORING No. B-1 (continued)

CONSTRUCTION MATERIALS · ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING

PROJECT: Gravel Investigation **PROJECT NO.:** 220505
CLIENT: Ryan Fenn
PROJECT LOCATION: 415 TX 174, Blum, Texas
LOCATION: Area 1 **ELEVATION:** Not Measured
DRILLER: T. King **LOGGED BY:** D. Franklin
DRILLING METHOD: Solid Stem Auger **DATE:** 8/17/22
DEPTH TO - WATER> INITIAL: ▽ Dry **AFTER COMPLETION** ▽ None

Depth (feet)	Sample Type	Description	Graphic	Pocket Penetrometer (tsf)	Blow Counts	% Swell	TEST RESULTS: Plastic Limit ⊢—⊣ Liquid Limit (10 20 30 40 50)
35							
	X	Dense to very dense tan SILTY GRAVEL with sand (GM) 36.5			78/18"		
	T	Gray SHALE			50/0.25" 50/0.5"		
		Boring Completed at 38 Feet					
40							

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING No. B-2

PROJECT: Gravel Investigation **PROJECT NO.:** 220505
CLIENT: Ryan Fenn
PROJECT LOCATION: 415 TX 174, Blum, Texas
LOCATION: Area 2 **ELEVATION:** Not Measured
DRILLER: T. King **LOGGED BY:** D. Franklin
DRILLING METHOD: Solid Stem Auger **DATE:** 8/17/22
DEPTH TO - WATER> INITIAL: Dry **AFTER COMPLETION** None

Depth (feet)	Sample Type	Description	Graphic	Pocket Penetrometer (tsf)	Blow Counts	% Swell
0						
		Hard brown and tan LEAN CLAY with sand (CL)	4.5			
			4.5			
5			4.5			
			4.5			
			4.5			
10		10				
		Very stiff red LEAN CLAY with sand (CL)	3.5			
15						
		18.5			38/18"	
20		Dense to very dense red CLAYEY SAND with gravel (SC) 21			46/18"	
		Very dense tan SILTY SAND with gravel (SM)			76/18"	
					81/18"	
25					77/18"	
		27				
		Very dense red SILTY GRAVEL with sand (GM) 29			89/18"	
30	T	Gray SHALE			50/0.75" 50/0.5"	
		Boring Completed at 30 Feet				
35						

TEST RESULTS
Plastic Limit — Liquid Limit
10 20 30 40 50

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING No. B-3

MID-TEX TESTING — CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION

PROJECT: Gravel Investigation **PROJECT NO.:** 220505
CLIENT: Ryan Fenn
PROJECT LOCATION: 415 TX 174, Blum, Texas
LOCATION: Area 3 **ELEVATION:** Not Measured
DRILLER: T. King **LOGGED BY:** D. Franklin
DRILLING METHOD: Solid Stem Auger **DATE:** 8/17/22
DEPTH TO - WATER> INITIAL: ▽ Dry **AFTER COMPLETION** ▽ None

Depth (feet)	Sample Type	Description	Graphic	Pocket Penetrometer (tsf)	Blow Counts	% Swell
0						
		Hard brown LEAN CLAY with sand (CL)		4.5		
		2				
		Hard dark brown LEAN CLAY with sand (CL)		4.5		
5				4.5		
				4.5		
		8				
		Very stiff to hard red LEAN CLAY with sand (CL)		4.5		
10						
				3.0		
15		15.5				
		Dense red SILTY SAND with gravel (SM)			47/18"	
20					61/18"	
					73/18"	
		24				
25	T	Gray SHALE			50/0.25" 50/0.5"	
		Boring Completed at 25 Feet				
30						
35						

TEST RESULTS
Plastic Limit ⊢——⊣ Liquid Limit
10 20 30 40 50

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING No. B-4

PROJECT: Gravel Investigation **PROJECT NO.:** 220505
CLIENT: Ryan Fenn
PROJECT LOCATION: 415 TX 174, Blum, Texas
LOCATION: Area 4 **ELEVATION:** Not Measured
DRILLER: T. King **LOGGED BY:** D. Franklin
DRILLING METHOD: Solid Stem Auger **DATE:** 8/17/22
DEPTH TO - WATER> INITIAL: Dry **AFTER COMPLETION** None

Depth (feet)	Sample Type	Description	Graphic	Pocket Penetrometer (tsf)	Blow Counts	% Swell	TEST RESULTS: Plastic Limit — Liquid Limit
0							10 20 30 40 50
		Hard dark brown LEAN CLAY with sand (CL)		4.5			
				4.5			
5				4.5			
		6					
		Hard tan and red LEAN CLAY with sand (CL)		4.5			
				4.5			
10		10.5					
		Medium dense red CLAYEY SAND (SC)					
	X				35/18"		
15		17.5					
	X	Very dense to dense red SILTY SAND with gravel (SM)			89/18"		
		19					
20		Gray SHALE					
	T				50/0.75" 50/1.5"		
		Boring Completed at 21 Feet					
25							
30							
35							

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Boring GB-1

Boring Location: 32.132866, 97.475743

Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	1	■	4.5	Very stiff to hard, Dark brown Lean Clay (CL)										1
	2	■												2
	3	■	4.0			13								3
	4	■												4
	5	■												5
	6	■	4.5	Very stiff to hard, Reddish brown Lean Clay (CL)										6
	7	■												7
	8	■	4.0											8
	9	■												9
	10	■	2.75			18		25	22	6		86		10
	11													11
	12													12
	13													13
	14	■												14
	15	■	2.0											15
▼	16													16
	17													17
▽	18													18
	19	■	2.5	Very stiff to hard, Brown Fat Clay with limestone fragments (CH)		28								19
	20	■												20
	21													21
	22													22
	23													23
	24													24
	25	☒	62/12"											25
	26													26
	27													27
	28			Hard, Tan and Light gray Fat Clay with limestone fragments (CH)										28
	29													29
	30	☒	78/12"											30

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	18	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	15.5	Soil cuttings	

Boring GB-1

Boring Location: 32.132866, 97.475743

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Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	31			Hard, Tan and Light gray Fat Clay with limestone fragments (CH)										31
	32													32
	33													33
	34					26								34
	35	■	4.5											35
	36													36
	37													37
	38													38
	39													39
	40													40
	41													41
	42	☒	NBC	Gray LIMESTONE										42
	43			Boring completed at 42 feet										43
	44													44
	45													45
	46													46
	47													47
	48													48
	49													49
	50													50
	51													51
	52													52
	53													53
	54													54
	55													55
	56													56
	57													57
	58													58
	59													59
	60													60

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	18	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	15.5	Soil cuttings	

Boring GB-2

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Boring Location: 32.133843, 97.476105

Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	1–10	■	4.5 / 4.5 / 4.5 / 4.5 / 4.0	Very stiff to hard, Brown Lean Clay with calcareous nodules (CL)		14								1–10
	11–12													11–12
	13			Very stiff to hard, Reddish brown Lean Clay with ferrous nodules (CL)		19		28	22	6				13
▼	14–15	■	2.5 / 4.5											14–15
	16–18													16–18
	19–20	■	3.5	- with sand at 18-20'										19–20
▽	21–28													21–28
	29			- Reddish brown and light gray with limestone fragments at 29'										29
	30	☒	NBC			22						80		30

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	21	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	15	Soil cuttings	

Boring GB-2

Boring Location: 32.133843, 97.476105

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Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	31			Very stiff to hard, Reddish brown and Light gray Lean Clay with Limestone fragments (CL)										31
	32													32
	33													33
	34													34
	35	X	50/0.5"	Gray LIMESTONE										35
	36			Boring completed at 35 feet										36
	37													37
	38													38
	39													39
	40													40
	41													41
	42													42
	43													43
	44													44
	45													45
	46													46
	47													47
	48													48
	49													49
	50													50
	51													51
	52													52
	53													53
	54													54
	55													55
	56													56
	57													57
	58													58
	59													59
	60													60

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	21	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	15	Soil cuttings	

Boring GB-3

Boring Location: 32.134879, 97.476403

Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	Depth (feet)
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Free Swell (%)	Fines Content (%)		
	1–8	■		Very stiff to hard, Reddish brown Lean Clay (CL)		11		31	17	14				1–8
	9–11			Red Clayey Sand (SC)										9–11
	12–13			Light brown Lean Clay (CL)										12–13
	14–15	■		Very stiff, Reddish Brown Lean Clay with sand (CL)		15		29	22	7		66		14–17
	16–17													
	18–30	▨		Tan LIMESTONE										18–30

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	Dry	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	Dry	Soil cuttings	

Boring GB-3

Boring Location: 32.134879, 97.476403

Page 2 of 2

Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	31			Tan LIMESTONE										31
	32													32
	33			Gray LIMESTONE										33
	34													34
	35													35
	36			Boring completed at 35 feet										36
	37													37
	38													38
	39													39
	40													40
	41													41
	42													42
	43													43
	44													44
	45													45
	46													46
	47													47
	48													48
	49													49
	50													50
	51													51
	52													52
	53													53
	54													54
	55													55
	56													56
	57													57
	58													58
	59													59
	60													60

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	Dry	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	Dry	Soil cuttings	

Boring GB-4

Page 1 of 2

Boring Location: 32.136150, 97.477760

Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	1		4.5	Hard, Brown Lean Clay (CL)		10								1
	2													2
	3		4.5											3
	4													4
	5													5
	6													6
	7													7
	8			Red Clayey Sand (SC)										8
	9		1.5	Stiff, Red Lean Clay with sand (CL)		21						78		9
	10													10
	11													11
	12													12
▽	13													13
	14													14
	15		12/12"											15
	16													16
	17													17
	18													18
	19													19
	20		18/12"	Medium dense, Red Clayey Sand (SC)		20						39		20
	21													21
	22													22
	23													23
	24		24/12"	Medium dense, Red Silty Sand with gravel (SM)		23						43		24
	25		13/12"			14						25		25
	26		27/12"			17						28		26
	27													27
	28													28
	29		3/12"	- very loose to loose at 28' - possible cave in										29
	30		10/12"			22						36		30

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	12.5	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	13	Soil cuttings	

Boring GB-4

Boring Location: 32.136150, 97.477760

Page 2 of 2

Franklin Geotechnical LLC

Project: Gravel Study
Client: Ryon Fenn
Project Location: 415 SH 174, Blum, Texas 76627
FG Project No.: 24604

Date Drilled: 7/18/2024
Logged By: DLF
Drilled By: MidTex
Drill Rig: CME 55

FIELD DATA				SUBSURFACE MATERIAL DESCRIPTION	LABORATORY DATA								Soil Type Graphic	
								Atterberg Limits						
Water Level	Depth (feet)	Sample Type	Penetrometer (tsf) SPT or TCP (bpf)		Compressive Strength (tsf)	Moisture Content (%)	Dry Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Free Swell (%)	Fines Content (%)		Depth (feet)
	31	☒	11/12"	Medium dense, Red Silty Sand with gravel (SM)		19						29		31
	32													32
	33													33
	34													34
	35	☒	NBC	Gray LIMESTONE										35
	36			Boring completed at 35 feet										36
	37													37
	38													38
	39													39
	40													40
	41													41
	42													42
	43													43
	44													44
	45													45
	46													46
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	54													54
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	56													56
	57													57
	58													58
	59													59
	60													60

GROUND WATER INFORMATION		BORING ADVANCEMENT METHOD	NOTES
Depth Free Water First Encountered (feet):	12.5	Solid Stem Auger	Strata boudries may not be exact
		BORING ABANDONMENT METHOD	
Water Level at Completion of Drilling (feet):	13	Soil cuttings	

APPENDIX B

Laboratory Test Results

MID-TEX TESTING

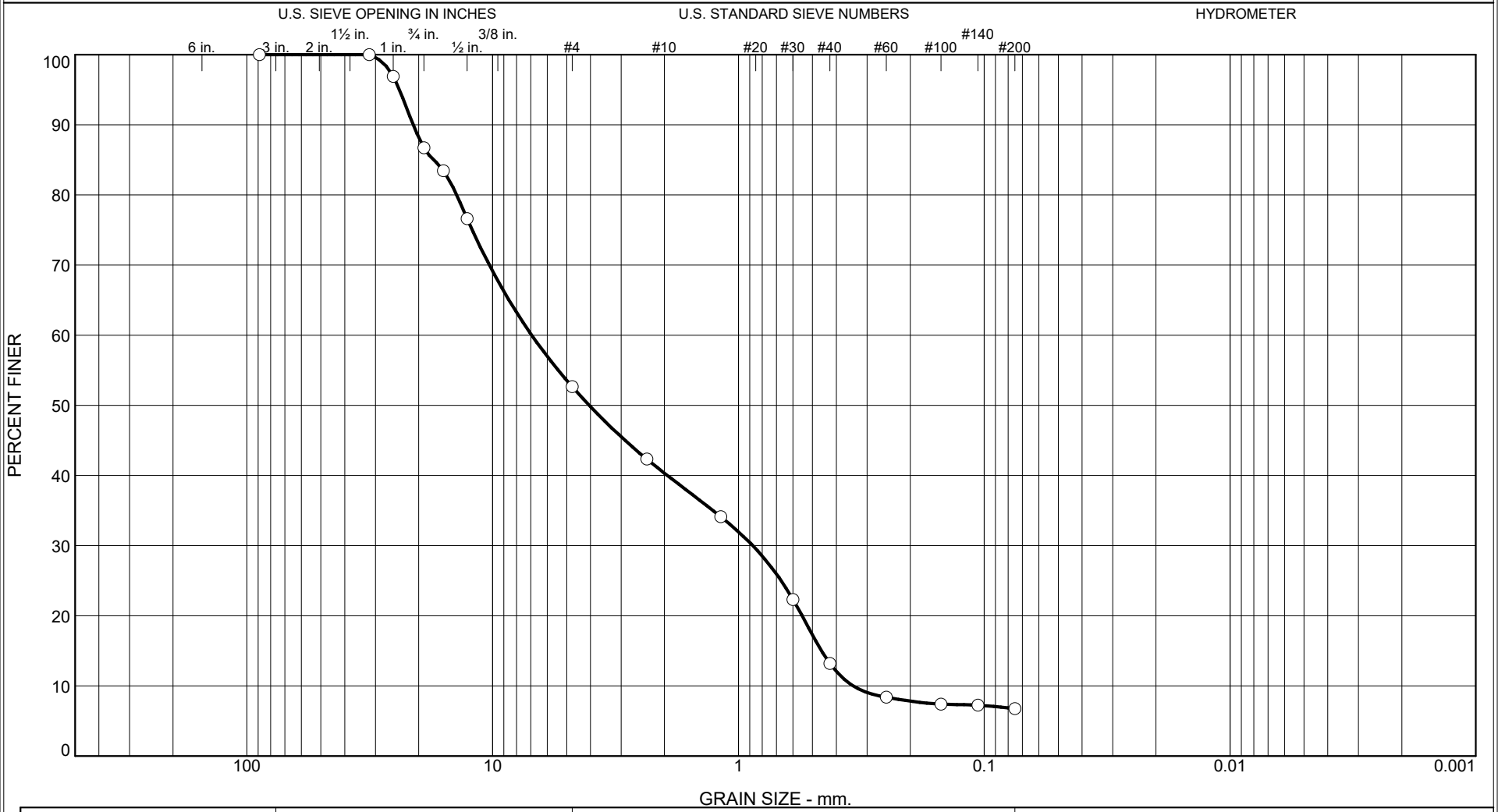
LABORATORY TEST DATA SUMMARY SHEET

PROJECT: Gravel Investigation
PROJECT NUMBER: 220505
PROJECT LOCATION: 415 TX 174, Blum, Texas
CLIENT: Ryan Fenn
PROJECT MANAGER.: Dan Franklin

START DATE: 9/18/2022
FINISH DATE: 9/9/2022
TECHNICAIN(S): LM
DATE SAMPLED: 8/17/2022

Boring No.	Depth (ft.) Top	Depth (ft.) Bott	Sample No.	Description of Sample / USCS Classification	Atterberg Limits LL	PL	PI	Moisture Content (%)	(%) Passing No. 200 Sieve	(%) Retained No. 40 Sieve	(%) Retained No. 4 Sieve	Unit Weight / Compression Tests: Dry Unit Weight (pcf)	Moisture Content (%)	Compressive Strength (tsf)	Failure Strain (%)	Confining Pressure (psi)	Consol. / Swell Tests Results: Dry Unit Weight (pcf)	Final Swell Moisture Content (%)	Free Swell (%)	Overburden Pressure (psf)
B-1	2.0	4.0		Brown and dark brown LEAN CLAY (CL)	36	14	22	10												
B-1	6.0	8.0		Brown LEAN CLAY with sand (CL)	45	14	31	12	54	17	0									
B-1	13.0	15.0		Red CLAYEY SAND (SC)				9	14	3	0									
B-1	19.0	21.5		Red CLAYEY SAND (SC)				7	49	6	0									
B-1	25.0	26.5		Tan SILTY GRAVEL with sand (GM)				4	7	81	47									
B-1	27.0	28.5		Tan SILTY GRAVEL with sand (GM)				5	0	97	67									
B-1	29.0	30.5		Tan SILTY GRAVEL with sand (GM)				6	15	81	51									
B-1	31.0	32.5		Tan SILTY GRAVEL with sand (GM)				8	14	85	59									
B-1	33.0	34.5		Tan SILTY GRAVEL with sand (GM)				5	14	85	63									
B-1	35.0	36.5		Tan SILTY GRAVEL with sand (GM)				6	0	98	83									
B-2	4.0	6.0		Brown and tan LEAN CLAY with sand (CL)	47	14	33	8	82	6	0									
B-2	8.0	10.0		Brown and tan LEAN CLAY with sand (CL)	41	14	27	14												
B-2	13.0	15.0		Red LEAN CLAY with sand (CL)				8	66	5	0									
B-2	17.0	18.5		Red LEAN CLAY with sand (CL)				10	62	5	0									
B-2	19.0	20.5		Red CLAYEY SAND with gravel (SC)				11	18	58	32									
B-2	21.0	22.5		Tan SILTY SAND with gravel (SM)				6	76	18	4									
B-2	23.0	24.5		Tan SILTY SAND with gravel (SM)				4	14	56	19									
B-2	25.0	26.5		Tan SILTY SAND with gravel (SM)				8	75	21	7									
B-2	27.0	28.5		Red SILTY GRAVEL with sand (GM)				7	8	83	51									
B-3	0.0	2.0		Brown LEAN CLAY with sand (CL)	31	16	15	5												
B-3	8.0	10.0		Red LEAN CLAY with sand (CL)	35	15	20	7	58	8	0									
B-3	13.0	15.0		Red LEAN CLAY with sand (CL)				14	59	11	0									
B-3	16.0	17.5		Red SILTY SAND with gravel (SM)				9	9	19	2									
B-3	18.0	19.5		Red SILTY SAND with gravel (SM)				10	15	50	20									
B-3	20.0	21.5		Red SILTY SAND with gravel (SM)				9	11	46	10									
B-3	22.0	23.5		Red SILTY SAND with gravel (SM)				13	15	58	19									
B-4	2.0	4.0		Dark brown LEAN CLAY with sand (CL)	28	14	14	27	71	5	0									
B-4	6.0	8.0		Tan and red LEAN CLAY with sand (CL)	40	11	29	9												
B-4	13.5	15.0		Red CLAYEY SAND (SC)				8	20	1										
B-4	17.5	19.0		Red SILTY SAND with gravel (SM)				13	32	63	30									

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	13.3	34.0	12.4	27.1	6.4	6.8	

Identification	Date Sampled	Date Received	Date Tested
Location: B-1 Depth: 25-26.5'	8/17/22	8/17/22	8/19/22

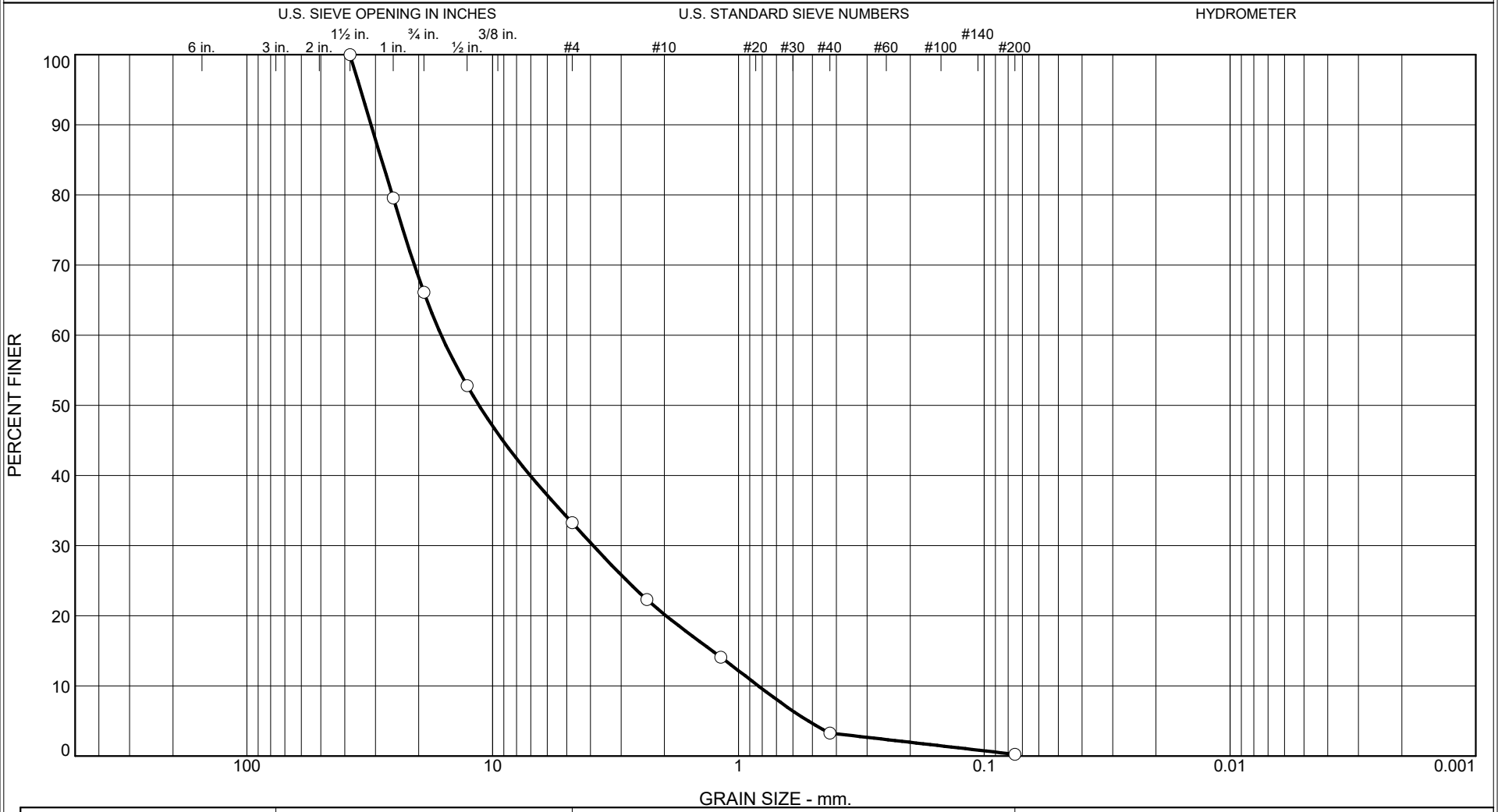
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-1

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	33.9	32.8	13.1	16.9	3.0	0.3	

Identification		Date Sampled	Date Received	Date Tested
Location: B-1	Depth: 27-28.5'	8/17/22	8/17/22	9/8/22

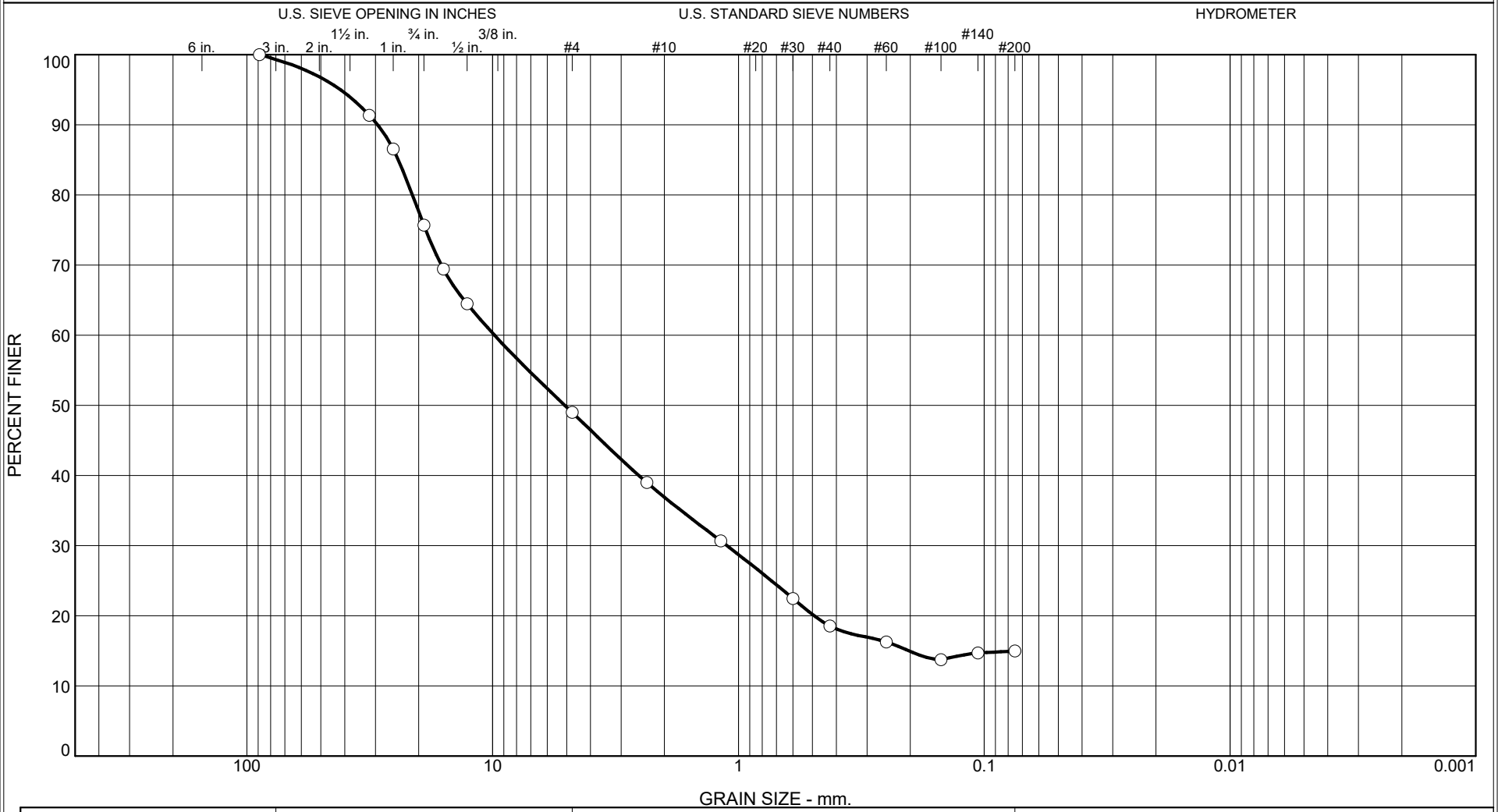
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-2

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.7	23.6	26.7	12.1	18.3	3.6	15.0	

Identification	Date Sampled	Date Received	Date Tested
Location: B-1 Depth: 29-30.5'	8/17/22	8/17/22	8/19/22

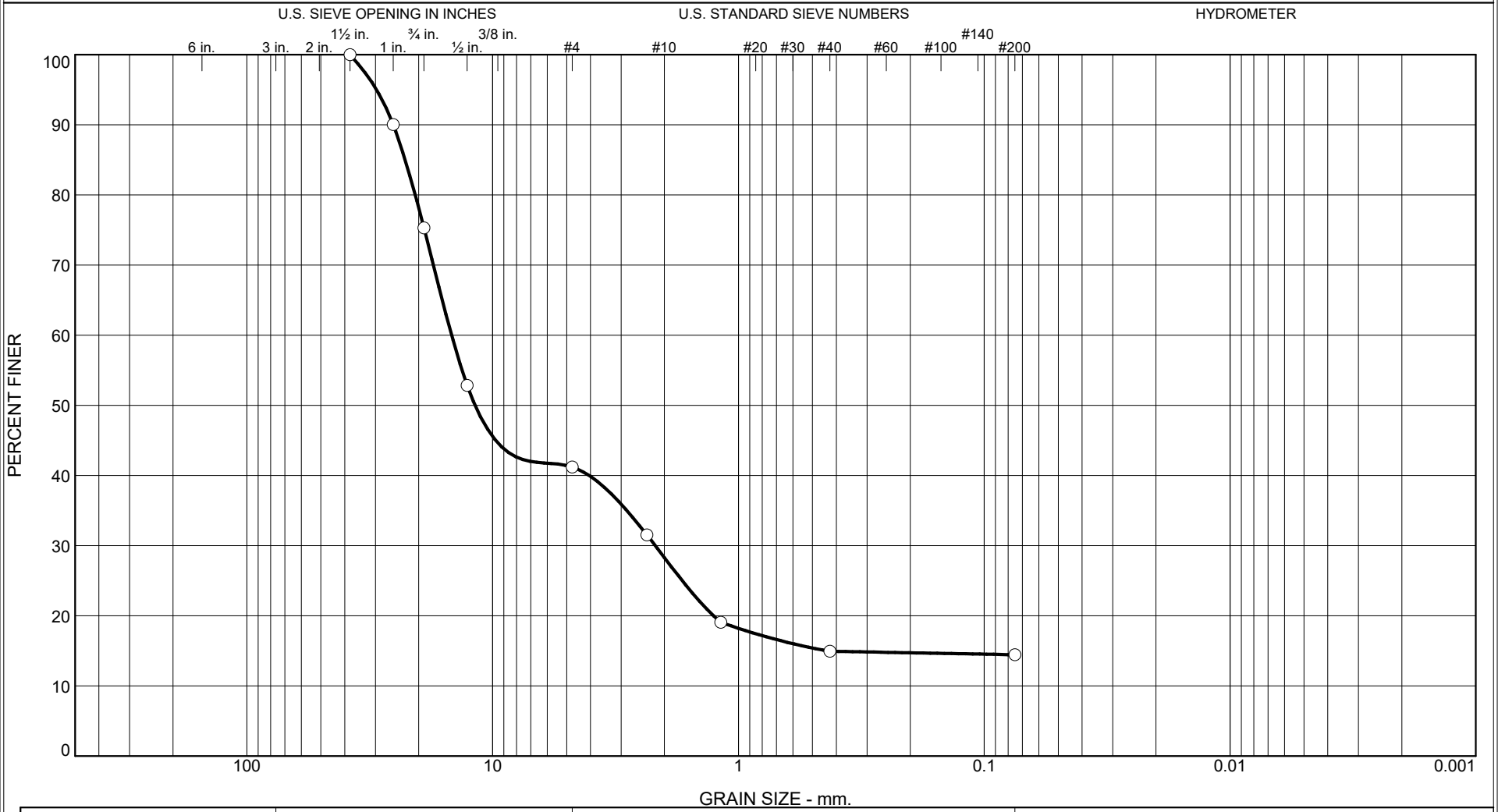
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-3

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	24.7	34.1	12.9	13.4	0.4	14.5	

Identification		Date Sampled	Date Received	Date Tested
Location: B-1	Depth: 31-32.5'	8/17/22	8/17/22	9/8/22

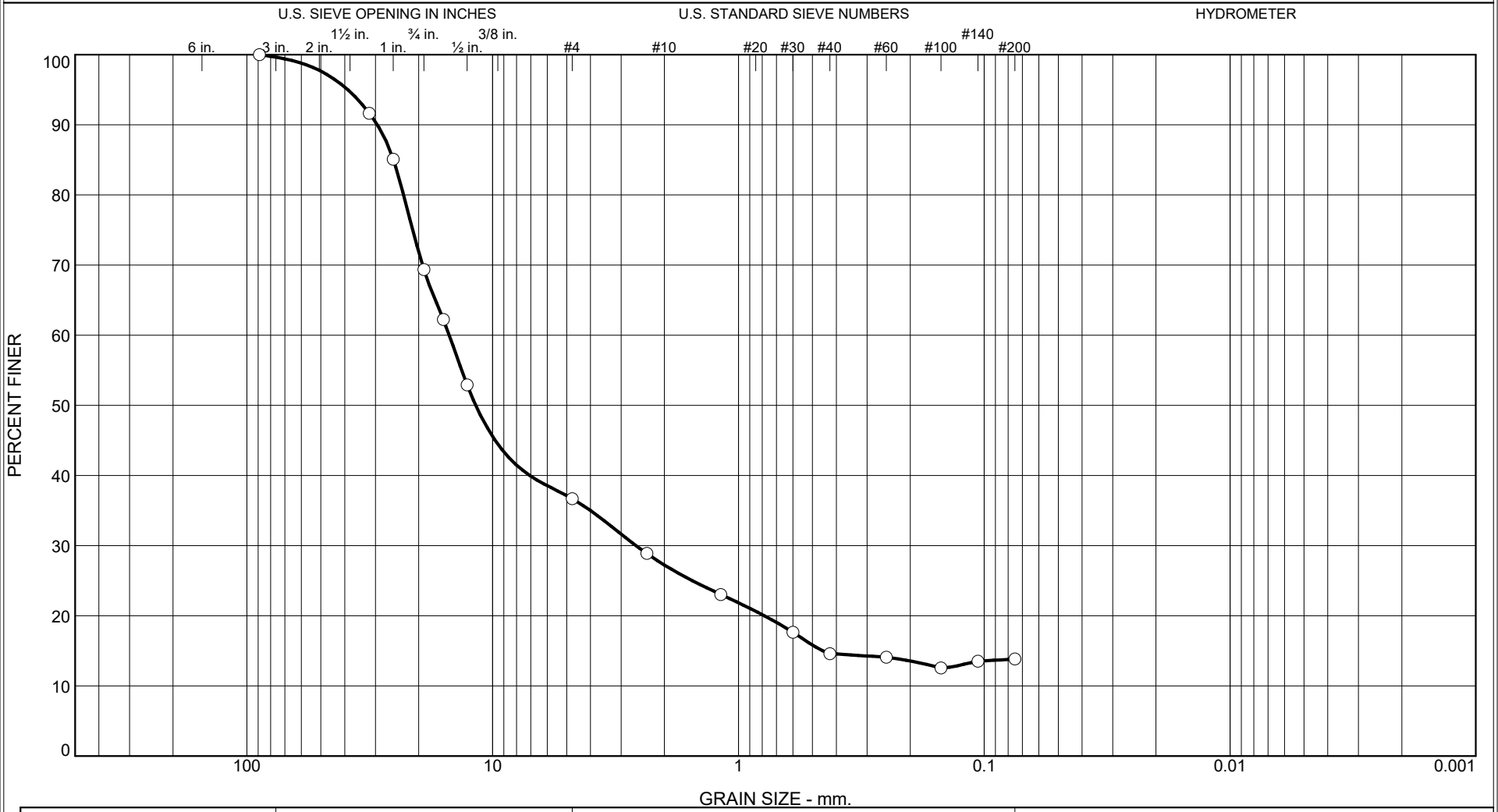
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-4

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.4	30.4	32.7	9.5	12.6	0.8	14.0	

Identification	Date Sampled	Date Received	Date Tested
Location: B-1 Depth: 33-34.5'	8/17/22	8/17/22	8/19/22

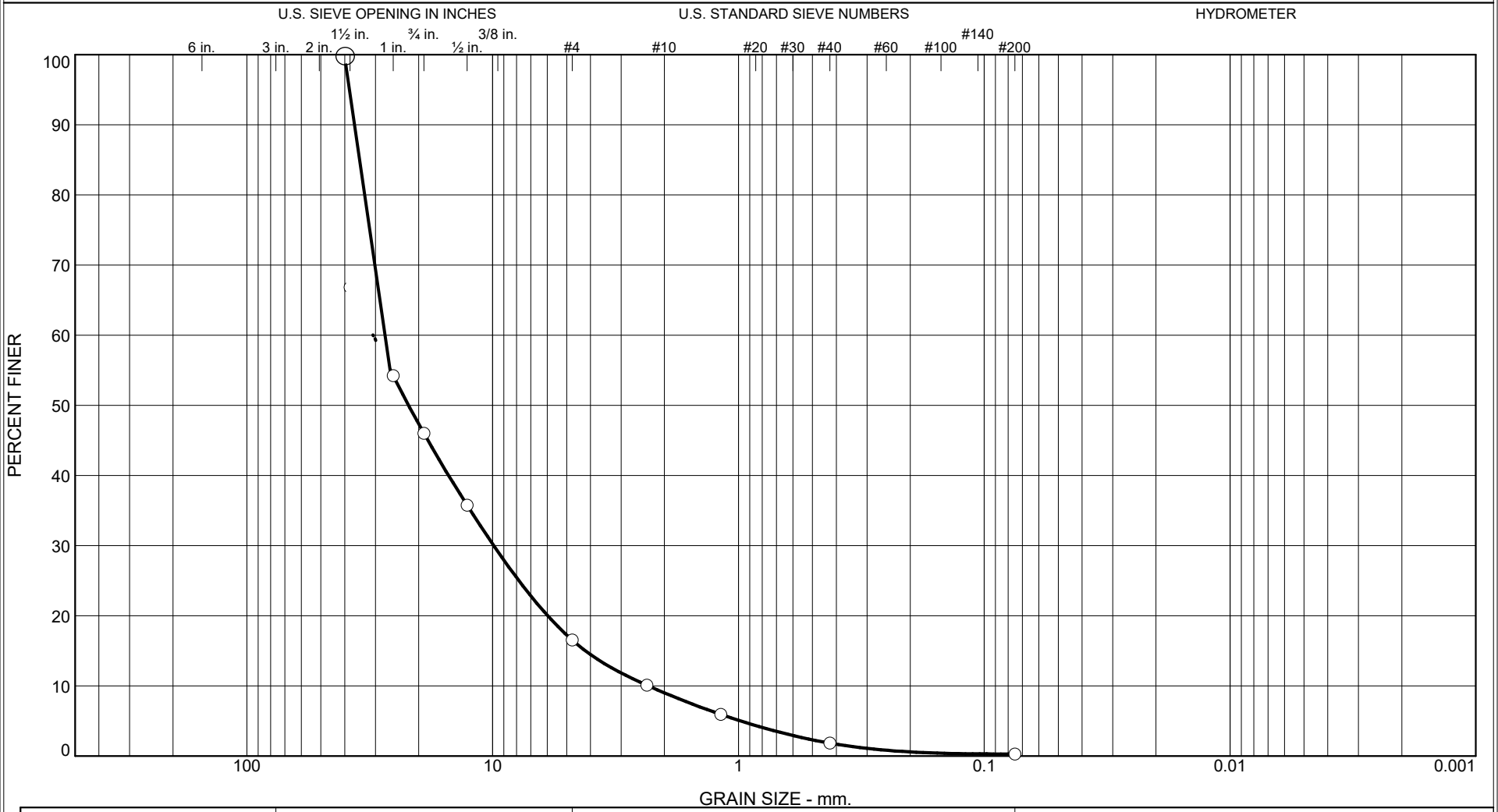
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-5

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○		53.7	29.4	7.6	7.1	1.6	0.3	

Identification		Date Sampled	Date Received	Date Tested
Location: B-1	Depth: 35-36.5'	8/17/22	8/17/22	9/8/22

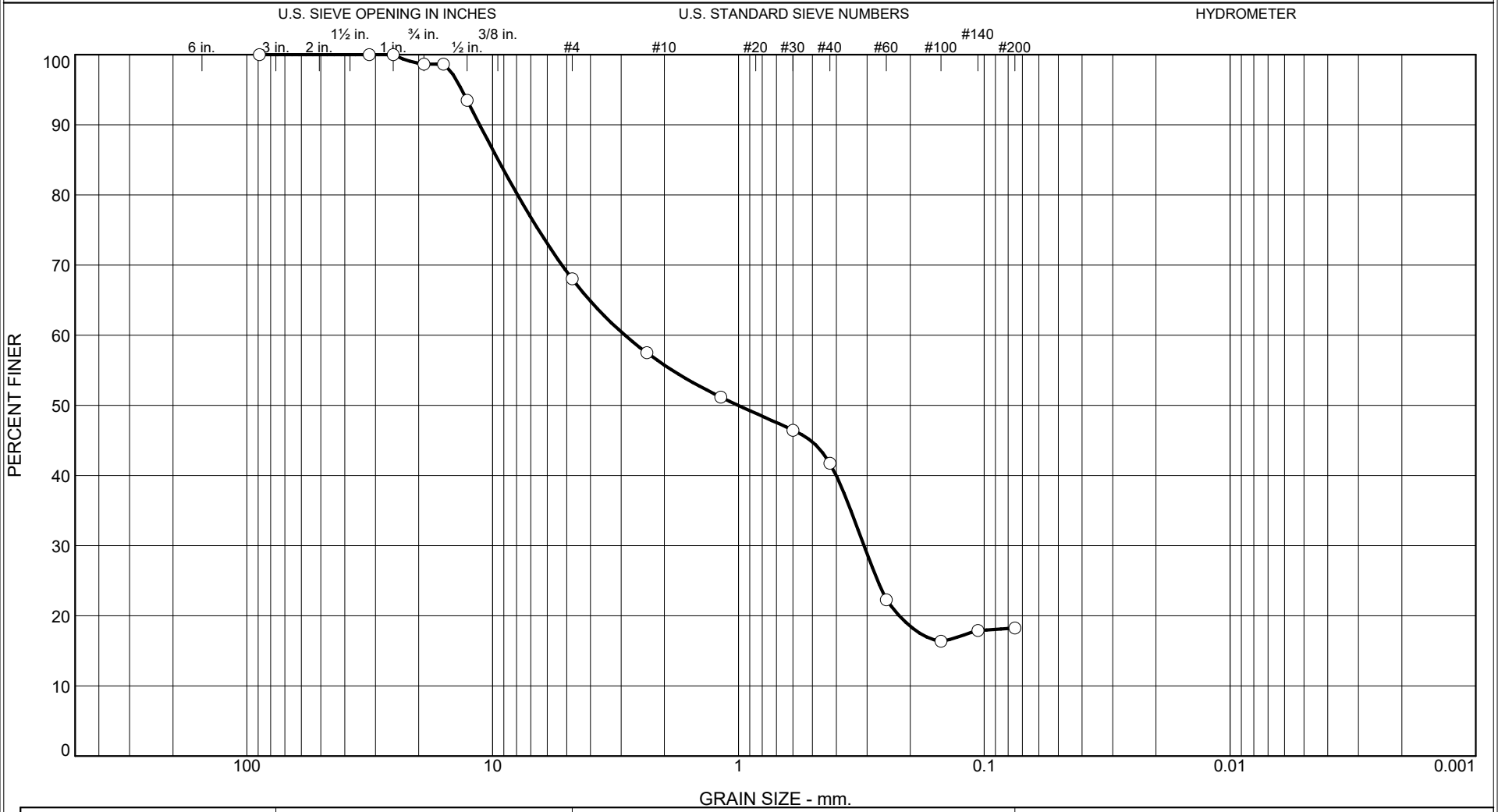
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-6

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	1.4	30.6	12.3	14.0	23.4	18.3	

Identification	Date Sampled	Date Received	Date Tested
Location: B-2 Depth: 19-20.5'	8/17/22	8/17/22	8/19/22

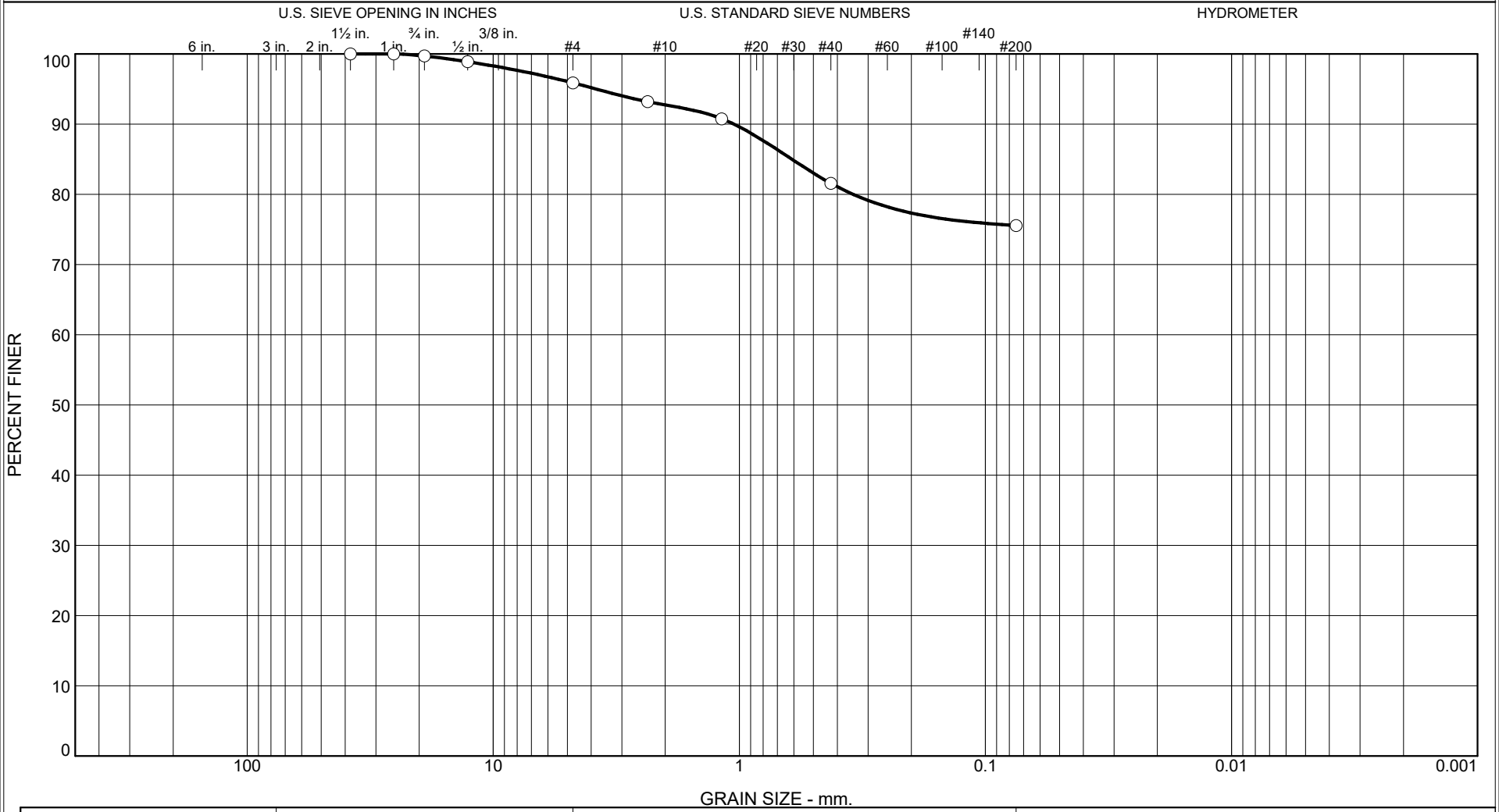
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-7

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.3	3.8	3.2	11.1	6.1	75.5	

Identification		Date Sampled	Date Received	Date Tested
Location: B-2	Depth: 21-22.5'	8/17/22	8/17/22	9/8/22

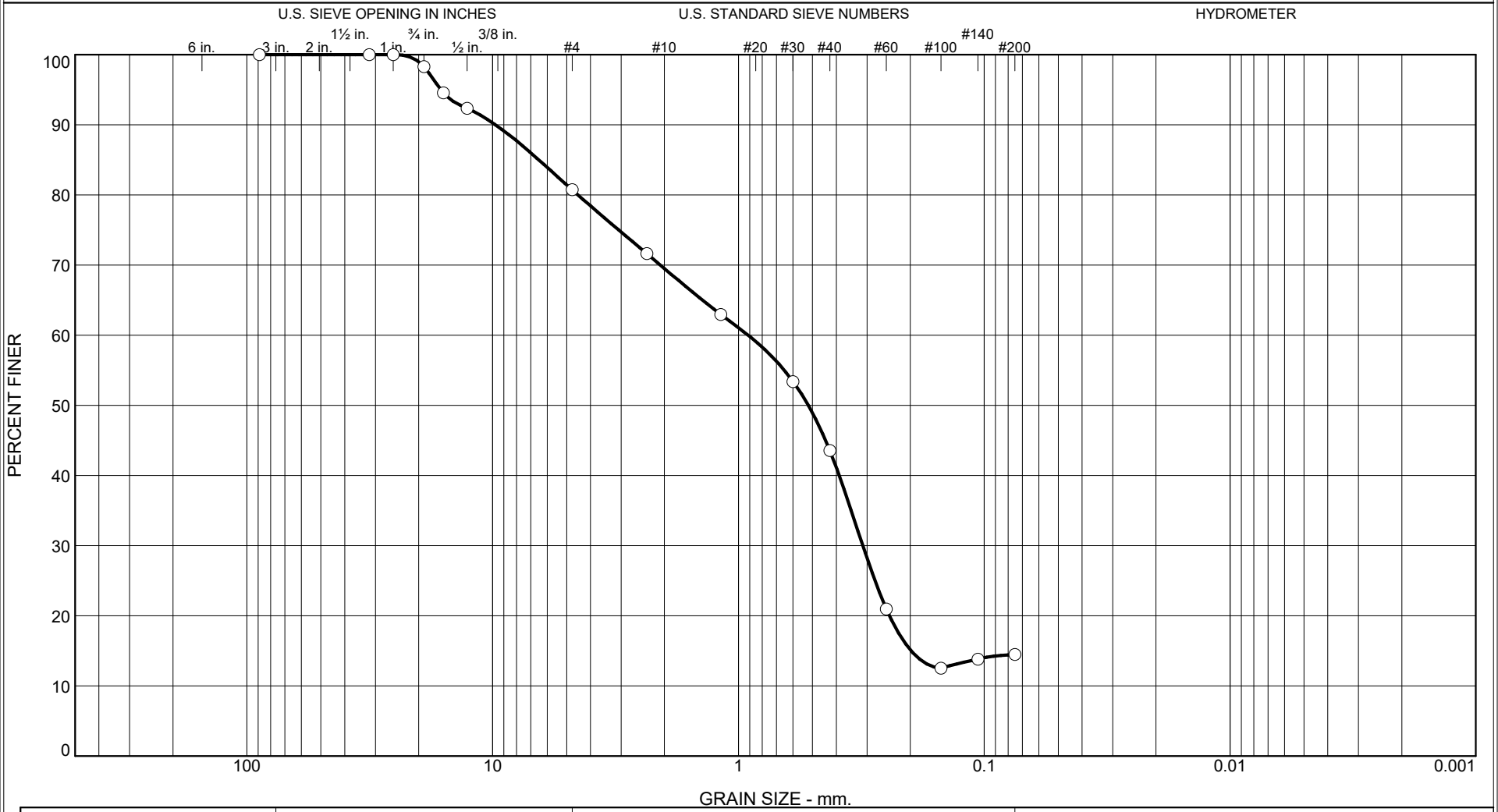
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-8

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	1.7	17.6	11.2	25.9	29.1	14.5	

Identification	Date Sampled	Date Received	Date Tested
Location: B-2 Depth: 23-24.5'	8/17/22	8/17/22	8/19/22

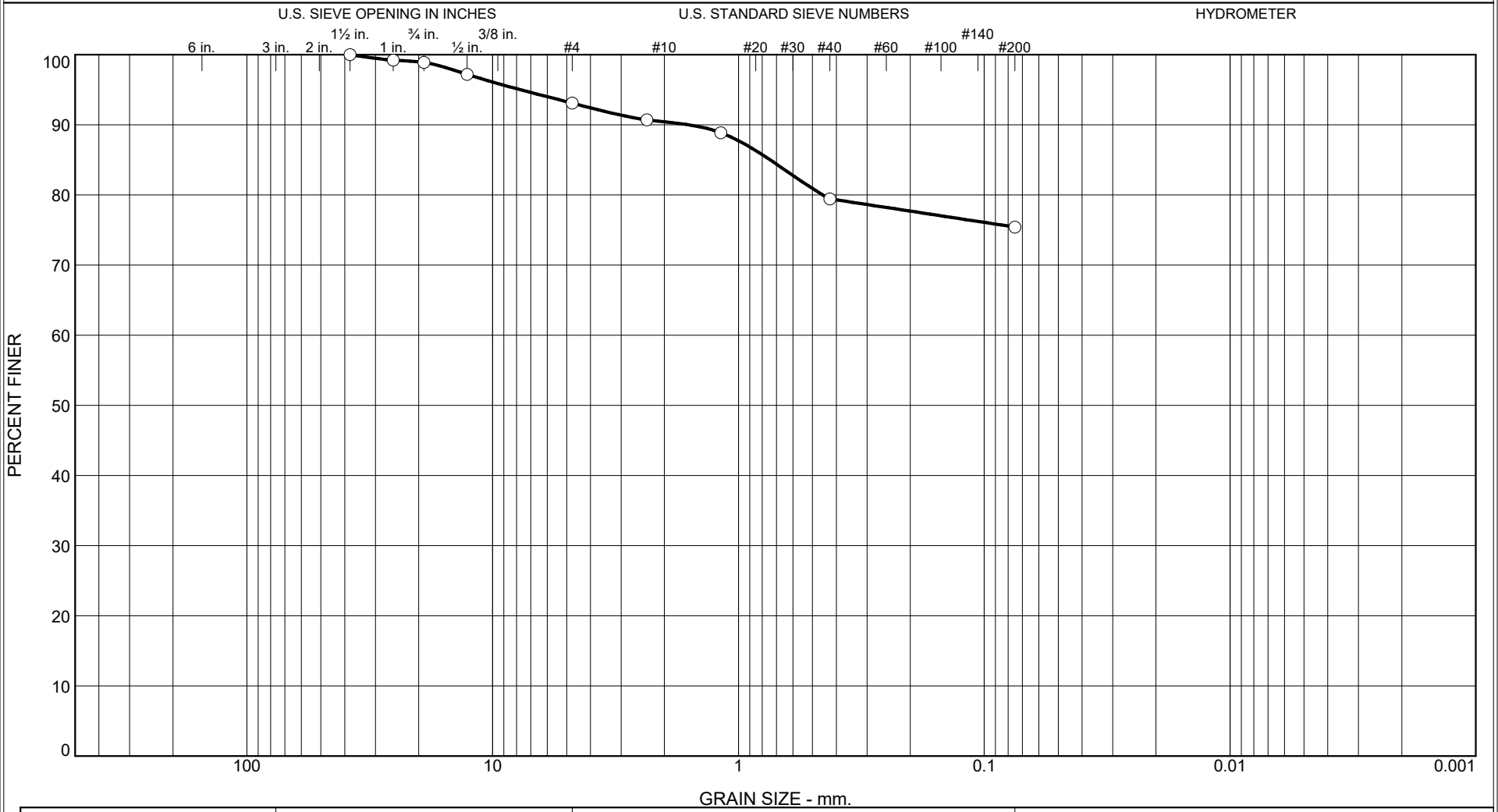
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-9

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	1.1	5.8	2.7	11.0	4.0	75.4	

Identification		Date Sampled	Date Received	Date Tested
Location: B-2	Depth: 25-26.5'	8/17/22	8/17/22	9/8/22

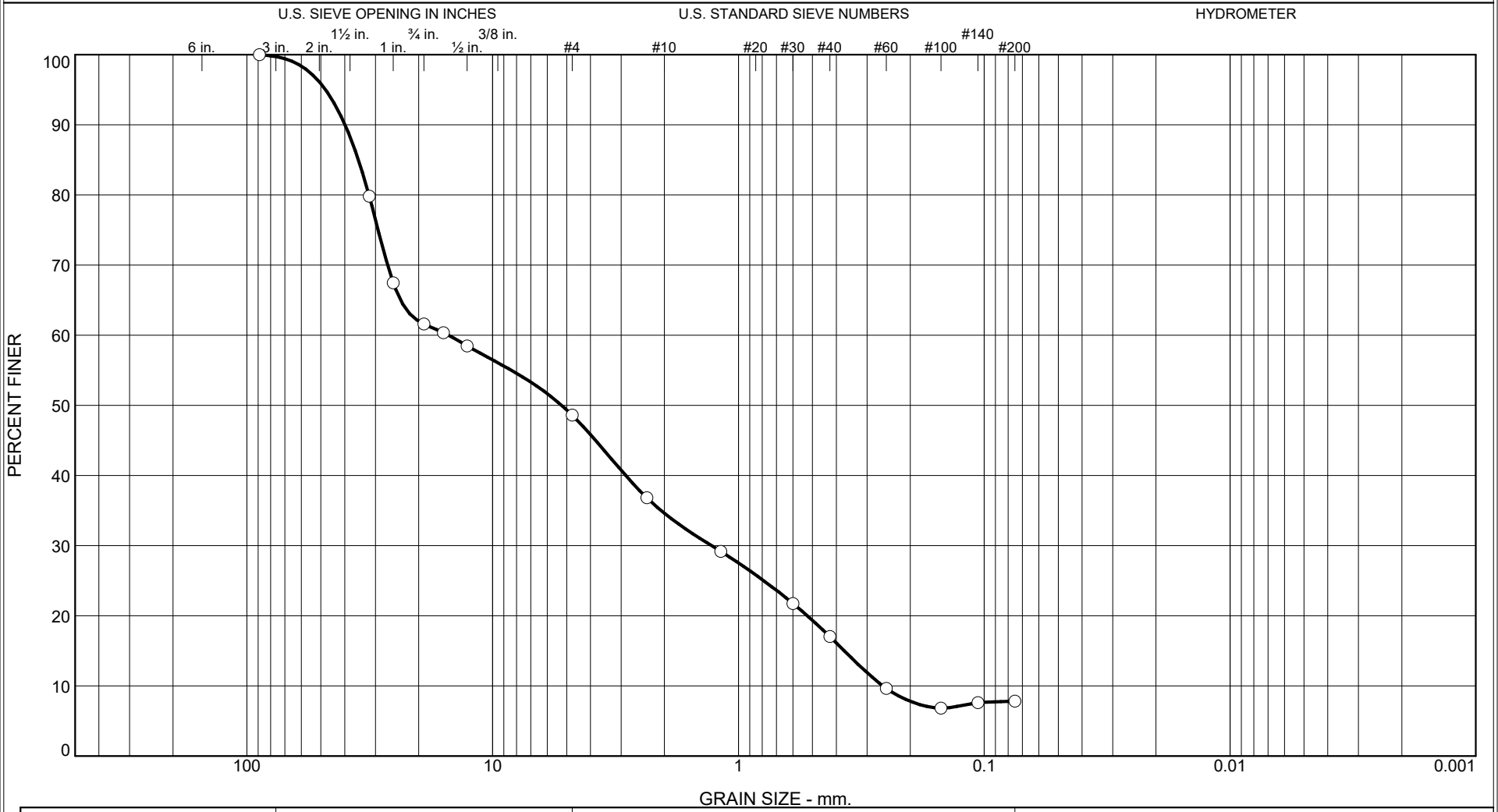
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-10

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.3	38.1	13.0	14.0	17.6	9.3	8.0	

Identification	Date Sampled	Date Received	Date Tested
Location: B-2 Depth: 27-28.5'	8/17/22	8/17/22	8/19/22

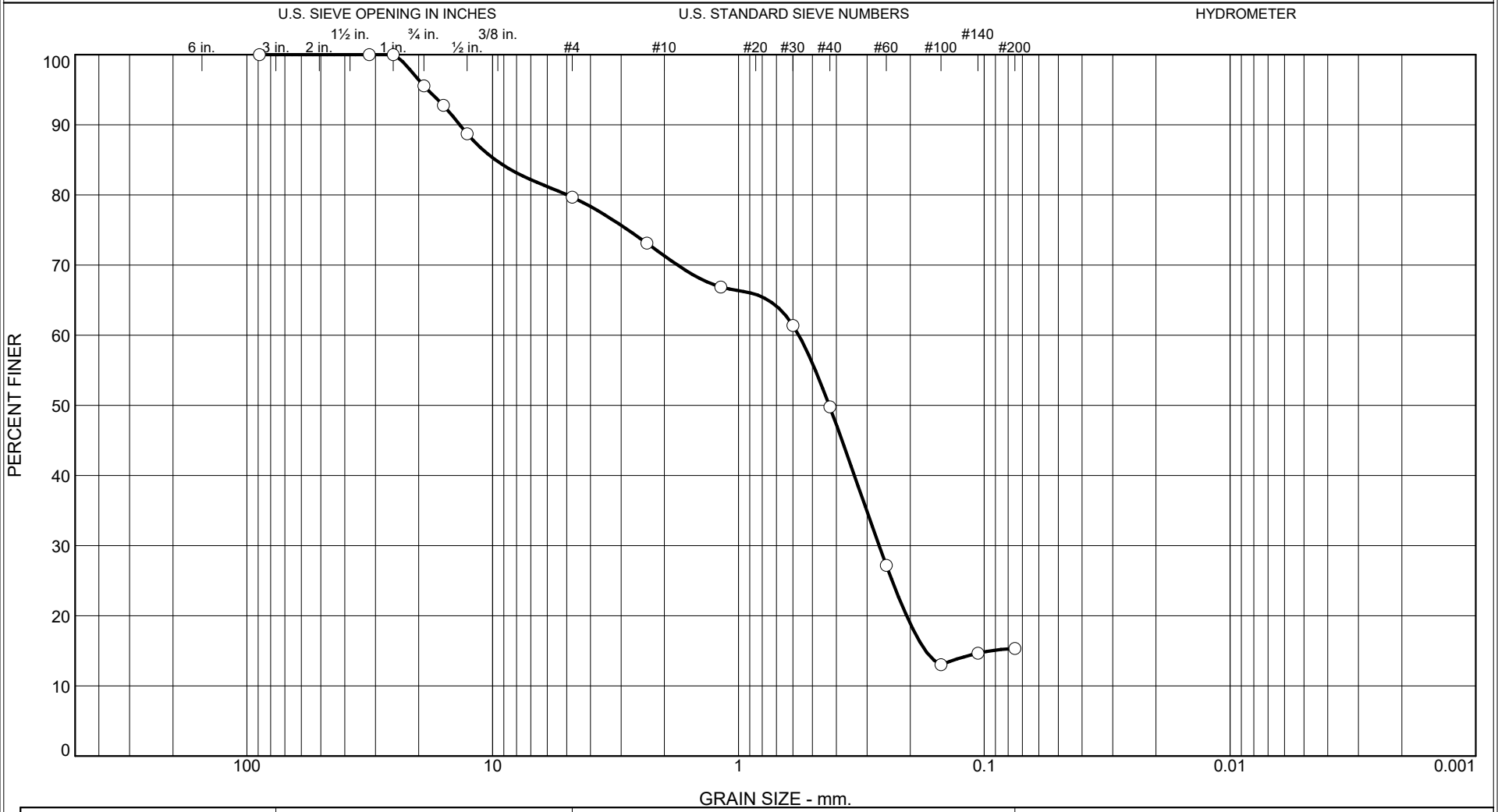
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-11

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	4.5	15.8	8.4	21.5	34.5	15.3	

Identification	Date Sampled	Date Received	Date Tested
Location: B-3 Depth: 18-19.5'	8/17/22	8/17/22	8/19/22

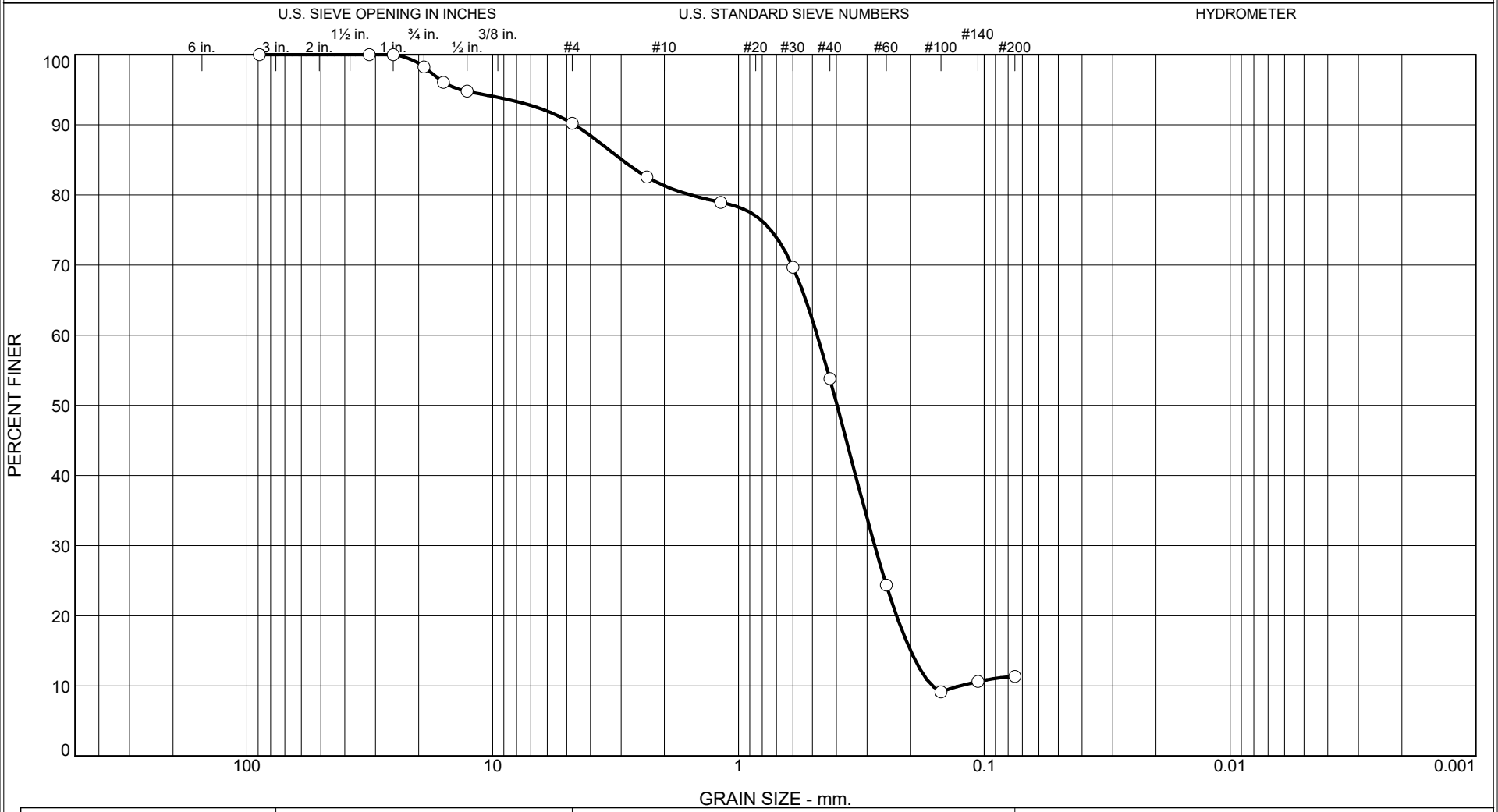
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-12

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	1.8	8.0	8.9	27.5	42.4	11.4	

Identification	Date Sampled	Date Received	Date Tested
Location: B-3 Depth: 20-21.5'	8/17/22	8/17/22	8/19/22

Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-13

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
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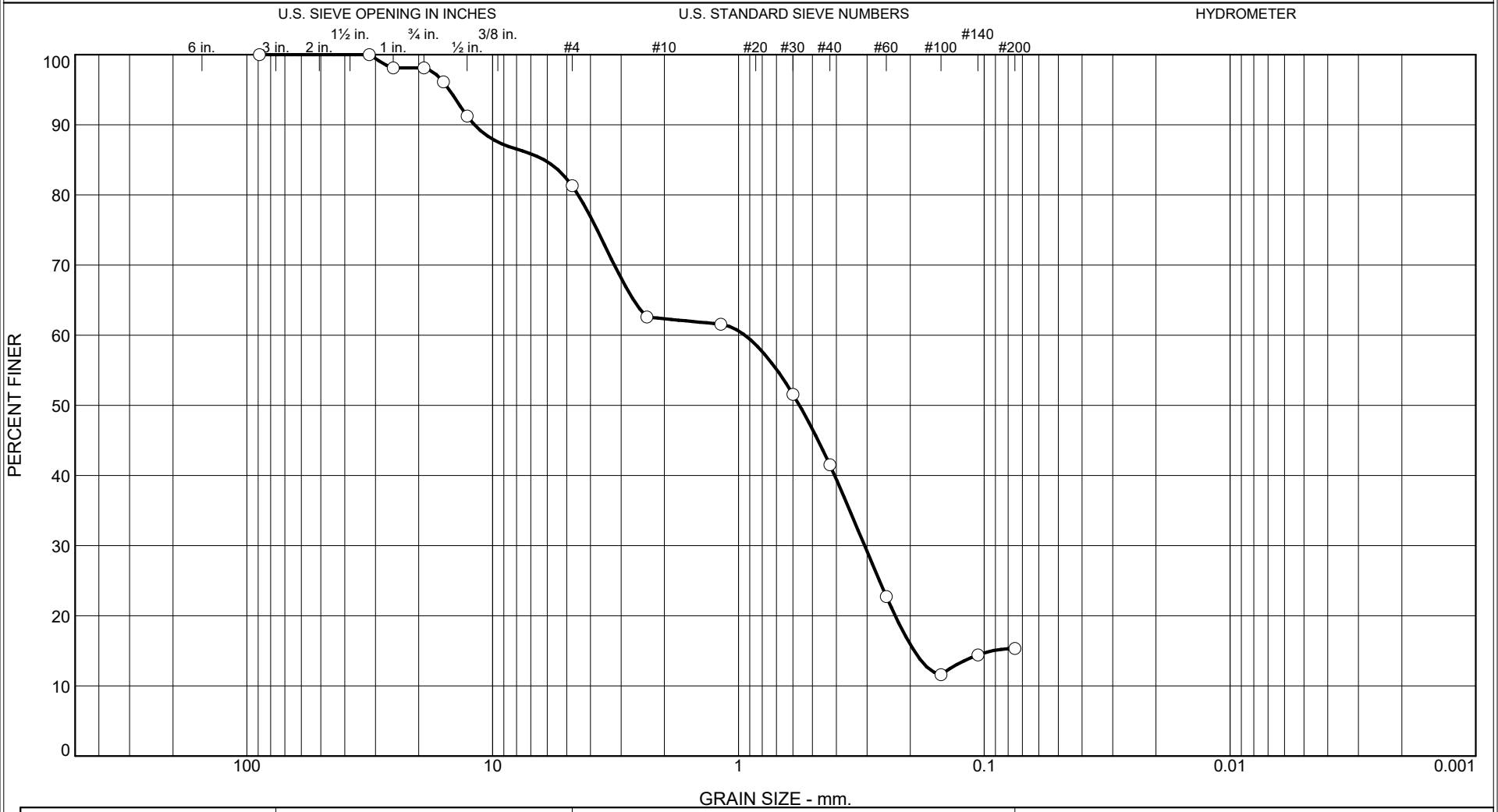
Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	1.9	16.8	19.0	20.8	26.1	15.4	

Identification	Date Sampled	Date Received	Date Tested
Location: B-3 Depth: 22-23.5'	8/17/22	8/17/22	8/19/22

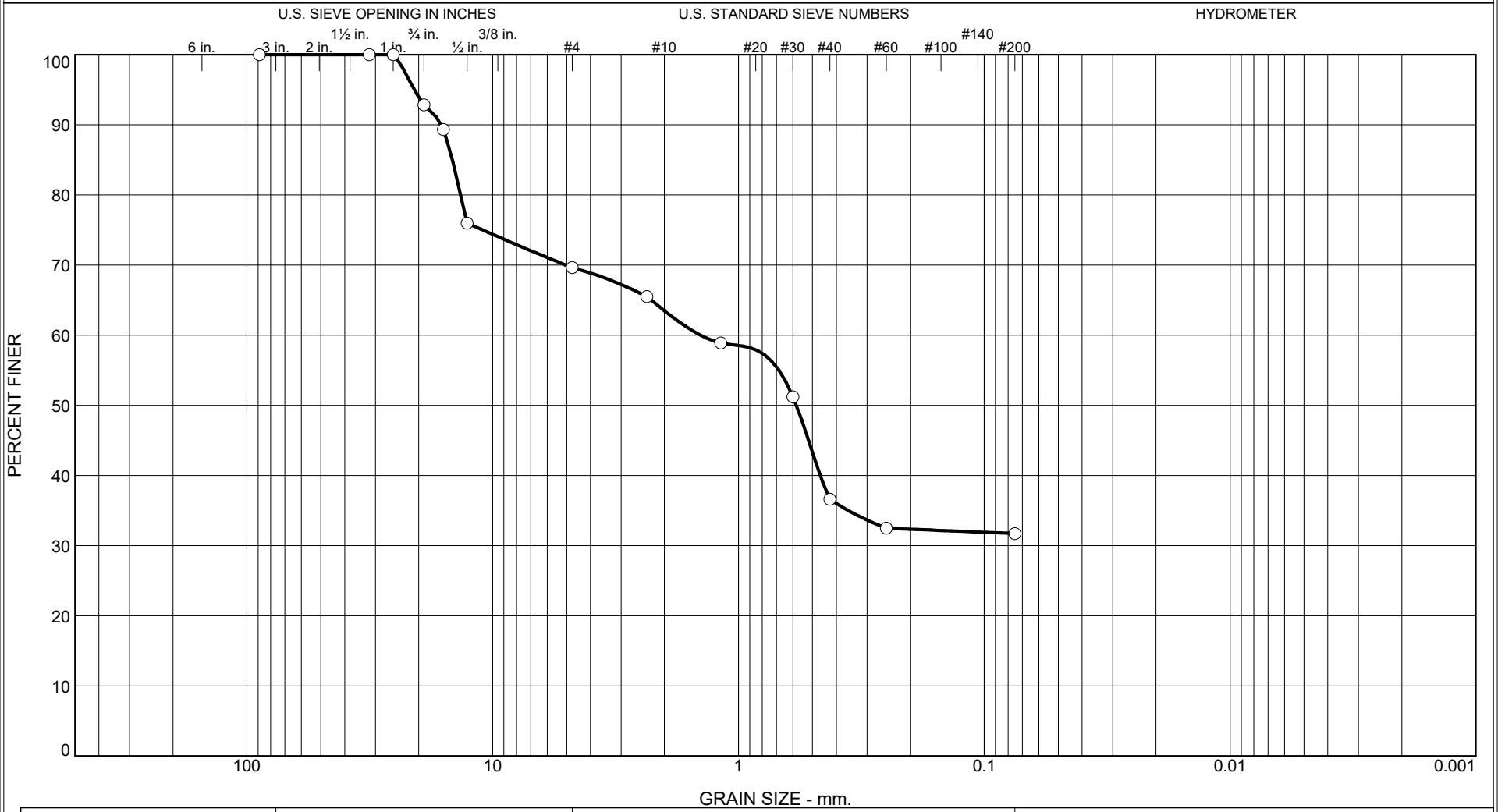
Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-14

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	7.2	23.2	6.1	26.9	4.9	31.7	

Identification	Date Sampled	Date Received	Date Tested
Location: B-4 Depth: 17.5-19'	8/17/22	8/17/22	8/19/22

Client Ryan Fenn

Project Gravel Investigation

Project No. 220505 Figure B-15

CONSTRUCTION MATERIALS • ENGINEERING, TESTING & INSPECTION
MID-TEX TESTING LLC

Franklin Geotechnical

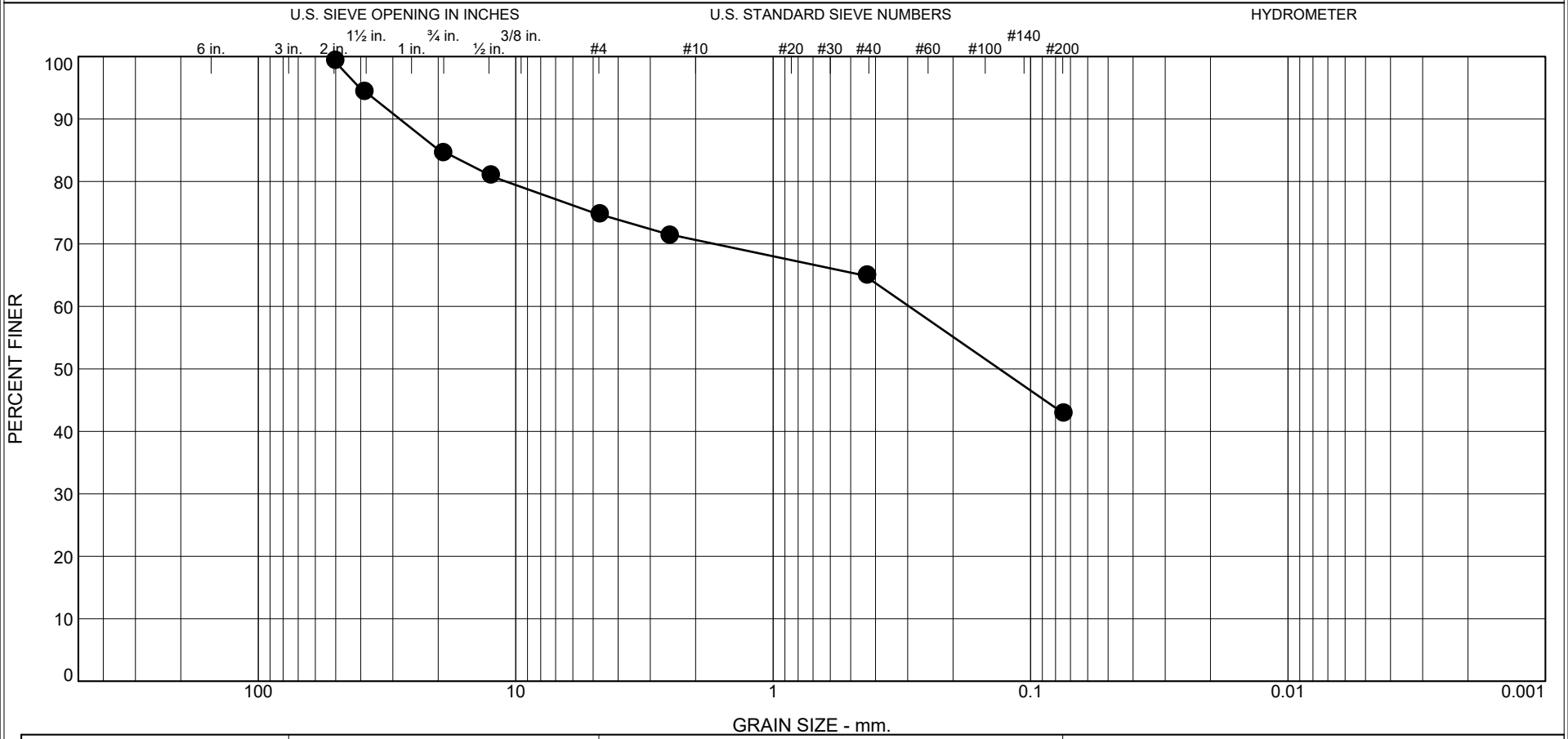
LABORATORY TEST DATA SUMMARY SHEET

PROJECT: Gravel Investigation
FG PROJECT NUMBER: 24604
PROJECT LOCATION: Blum, Texas
CLIENT: Ryon Fenn
FG PROJECT MANAGER: Dan Franklin

START DATE: 7/23/2024
FINISH DATE: 7/30/2024
TECHNICAIN(S): DFB
DATE SAMPLED: 7/18/2024

Boring No.	Depth (ft.)		Sample Description and USCS Classification	Atterberg Limits			Moisture Content (%)	(%) Passing No. 200 Sieve	(%) Passing No. 40 Sieve	(%) Passing No. 4 Sieve	Unit Weight / Compression Tests				Swell Tests Results			
	Top	Bott.		LL	PL	PI					Dry Unit Weight (pcf)	Moisture Content (%)	Compressive Strength (tsf)	Failure Strain (%)	Initial Swell Mositure Content (%)	Final Swell Moisture Content (%)	Free Swell (%)	Overburden Pressure (psf)
GB-1	2.0	4.0	Dark Brown Fat Clay (CH)				13											
GB-1	8.0	10.0	Reddish Brown Lean Clay (CL)	25	19	6	18	86										
GB-1	18.0	20.0	Brown Fat Clay with Limestone Fragments (CH)				28											
GB-1	34.0	35.0	Tan and Light Gray Fat Clay with Ferris Stains, Shaley (CH)				26											
GB-2	4.0	6.0	Brown Lean Clay with Calcareous Nodules (CL)				14											
GB-2	13.0	15.0	Reddish Brown Lean Clay with Ferris Nodules (CL)	28	22	6	19											
GB-2	29.0	30.0	Reddish Brown and Light Gray Lean Clay with Limestone Fragments (CL)				22	80										
GB-3	6.0	8.0	Reddish Brown Lean Clay (CL)	31	17	14	11											
GB-3	13.0	15.0	Reddish Brown Lean Clay with Sand (CL)	29	22	7	15	66										
GB-4	0.0	2.0	Brown Lean Clay (CL)				10											
GB-4	8.0	10.0	Red Lean Clay (CL)				21	78										
GB-4	18.5	20.0	Red Clayey Sand (SC)				20	39										
GB-4	23.0	24.0	Red Silty Sand with Gravel (SM)				23	43	65	75								
GB-4	24.0	25.0	Red Silty Sand with Gravel (SM)				14	25	51	66								
GB-4	25.0	26.0	Red Silty Sand with Gravel (SM)				17	28	61	69								
GB-4	29.0	30.0	Red Silty Sand with Gravel (SM)				22	36	64	79								
GB-4	30.0	31.0	Red Silty Sand with Gravel (SM)				19	29	52	65								

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○		16.5	8.7	3.8	7.0	21.4	42.6	

	Identification	Date Sampled	Date Received	Date Tested
○	Location: Boring GB-4 Depth: 23-24 Feet	7/18/24	7/22/24	7/29/24

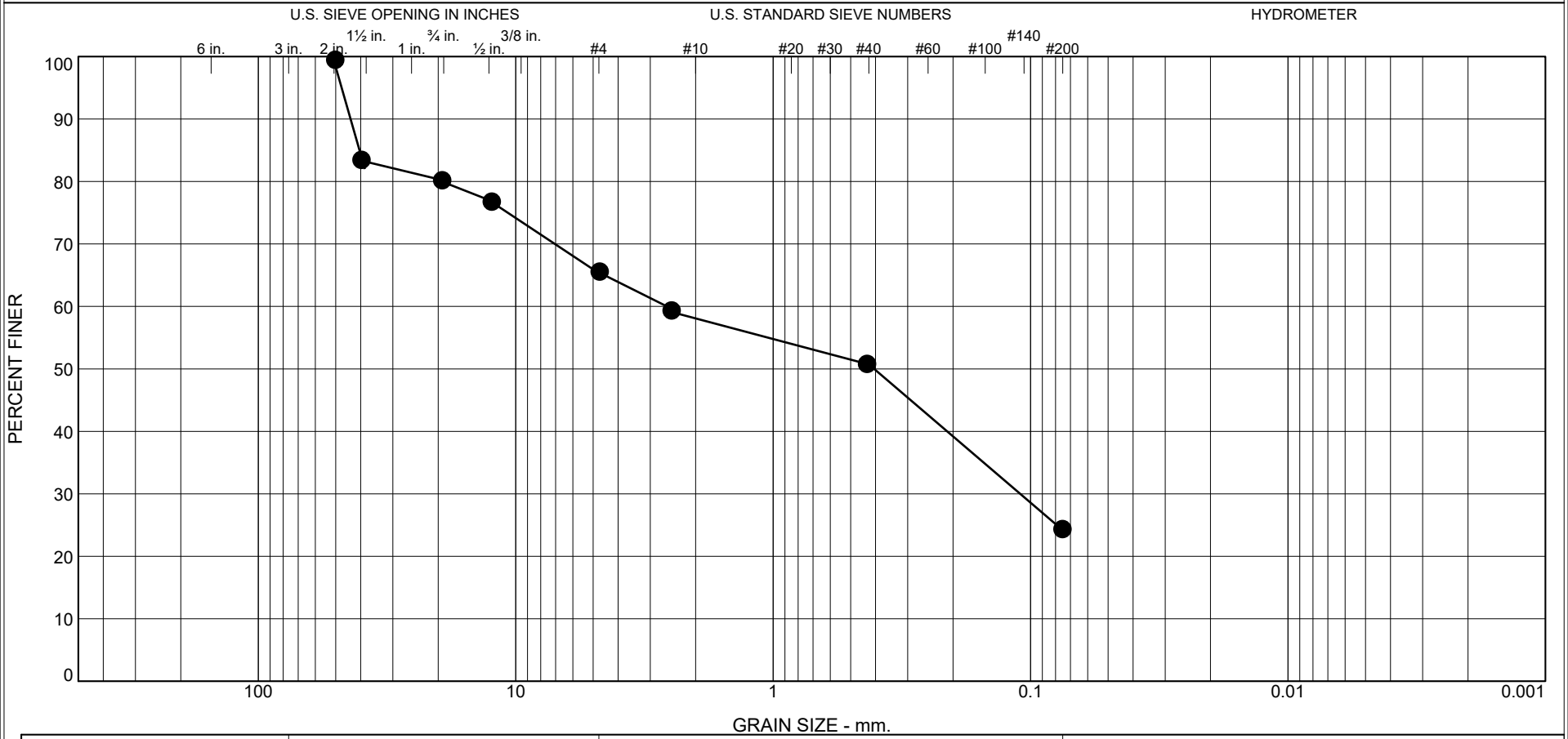
Client Ryon Fenn

Project Gravel Investigation

Project No. 24604 Figure B-16

Franklin Geotechnical

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○		20.2	14.1	7.7	7.0	26.2	24.8	

	Identification	Date Sampled	Date Received	Date Tested
○	Location: Boring GB-4 Depth: 24-25 Feet	7/18/24	7/22/24	7/29/24

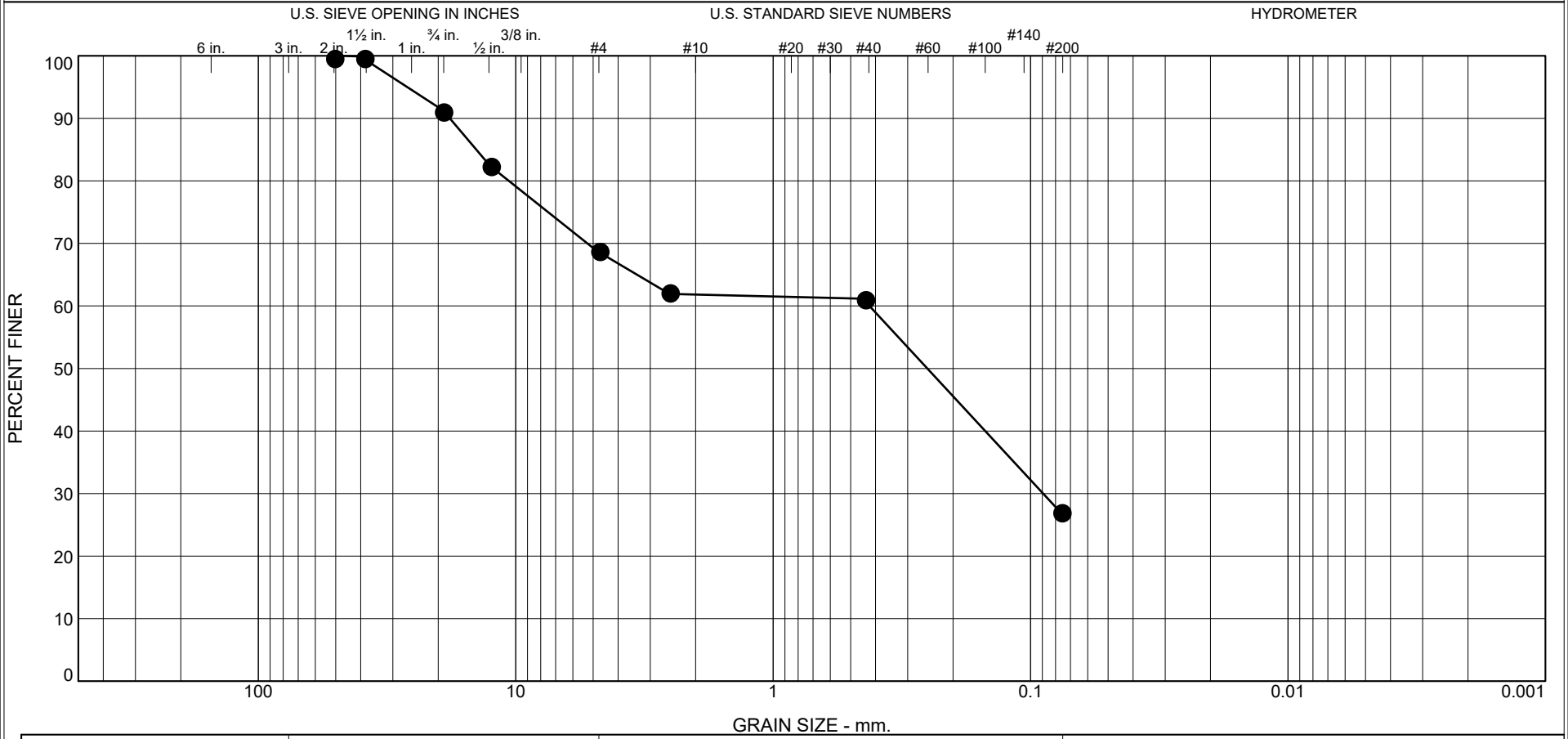
Client Ryon Fenn

Project Gravel Investigation

Project No. 24604 Figure B-17

Franklin Geotechnical

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○		8.7	22.4	5.9	1.9	33.3	27.8	

	Identification	Date Sampled	Date Received	Date Tested
○	Location: Boring GB-4 Depth: 25-26 Feet	7/18/24	7/22/24	7/29/24

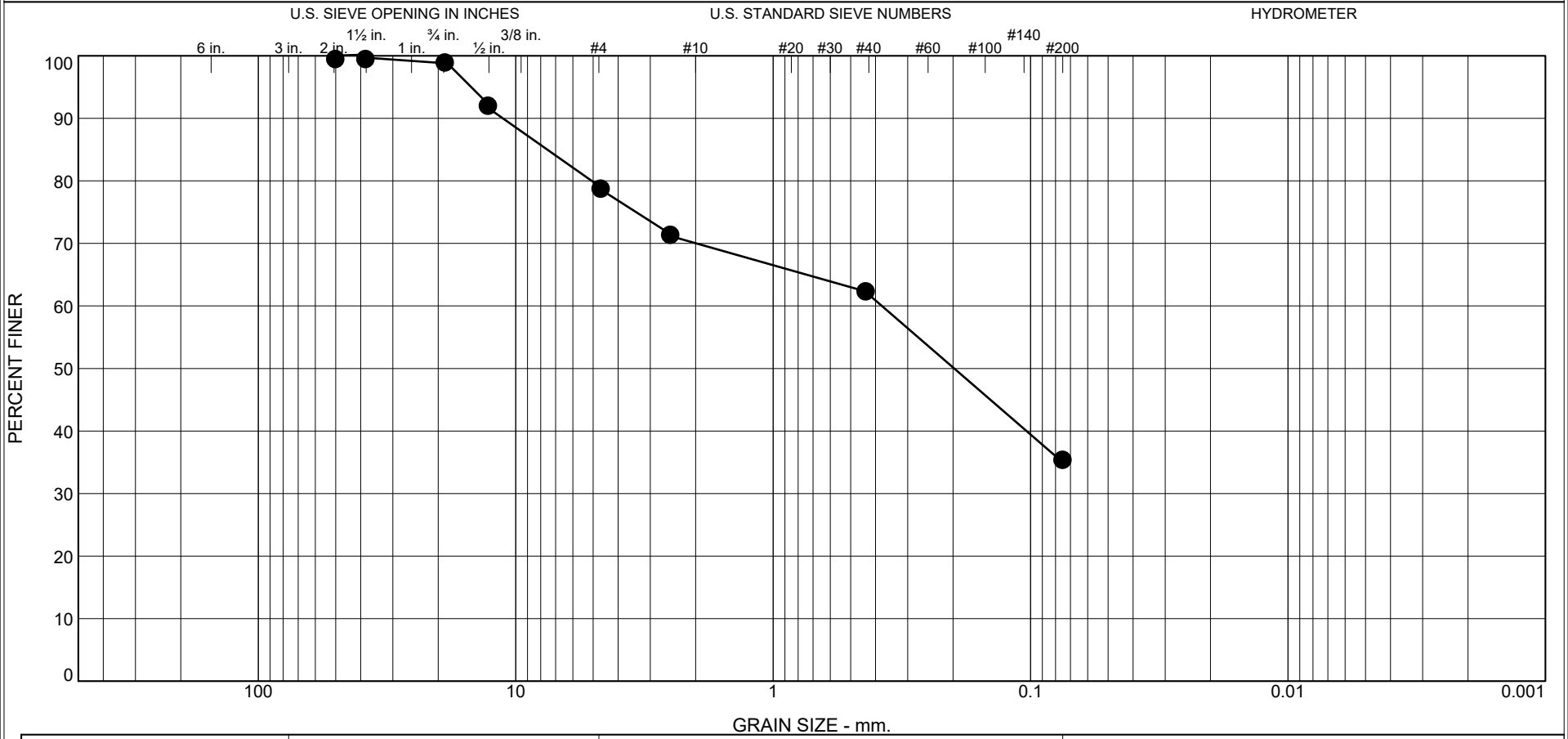
Client Ryon Fenn

Project Gravel Investigation

Project No. 24604 Figure B-18

Franklin Geotechnical

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○		0.8	20.2	9.0	6.4	27.1	36.5	

	Identification	Date Sampled	Date Received	Date Tested
○	Location: Boring GB-4 Depth: 29-30 Feet	7/18/24	7/22/24	7/29/24

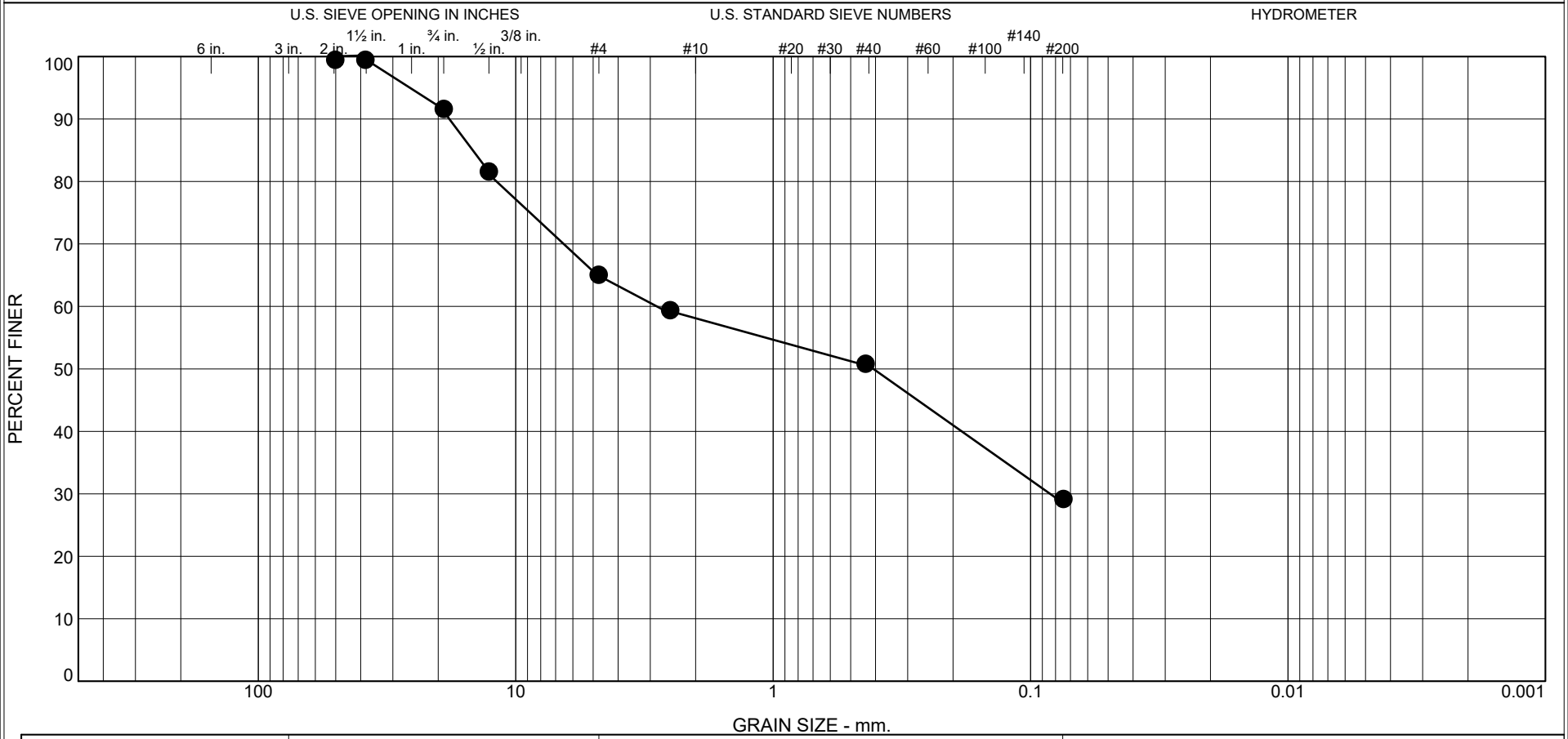
Client Ryon Fenn

Project Gravel Investigation

Project No. 24604 Figure B-19

Franklin Geotechnical

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○		8.1	26.8	7.1	6.1	22.6	29.3	

	Identification	Date Sampled	Date Received	Date Tested
○	Location: Boring GB-4 Depth: 30-31 Feet	7/18/24	7/22/24	7/29/24

Client Ryon Fenn

Project Gravel Investigation

Project No. 24604 Figure B-20

Franklin Geotechnical

APPENDIX C

Material Quantities and Totals

Table C1 - Material Quantities and Totals

Designation	Area (sq. ft.)	Lean Clay thickness (feet)	Volume Lean Clay (cu. yds.)	Clayey Sand thickness (feet)	Volume Clayey Sand (cu. yds.)	Sand and Gravel thickness (feet)	Percent Sand (avg.)	Volume Sand (cu. yds.)	Percent Gravel (avg.)	Volume Gravel (cu. yds.)
1	281,768	13	135,666	10	104,359	13.5	27.2	38,773	61.8	87,019
2	329,462	18.5	225,742	2.5	30,506	6	31.6	23,136	16.0	11,403
						2	41.1	10,030	51.1	12,471
3	737,524	15.5	423,393	0	0	8.5	35.3	81,961	16.3	37,769
4	723,768	10.5	281,465	7	187,644	1.5	33.0	13,269	30.4	12,224
5	239,051	18.5	163,794	5	39,842	10	38.5	34,069	25.0	22,134
6	266,242	17	167,634	0	0	0	0	0	0	0
7	160,188	34	201,718	0	0	0	0	0	0	0
8	152,953	18	101,969	0	0	0	0	0	0	0
Totals	2,311,573		1,701,381		362,351			201,238		183,020
Estimated Worth Per Cubic Yard- In Place			$1.50		$1.50			$2.50		$3.50
Estimated Worth Per Ton - Load Ready			$6.75		$6.75			$8.75		$18.00
Estimated Total Sums - In Place			$2,552,072		$543,527			$503,095		$640,570
Estimated Total Sums - Load Ready			$18,604,603		$3,962,308			$2,852,549		$5,336,863
Total Estimate - In Place								$4,239,263		
Total Estimate - Load Ready								$30,756,323		