Buc-ee's Monument

Geotechnical Engineering Report

Southwest of Interstate 25 and Palmer Divide Road

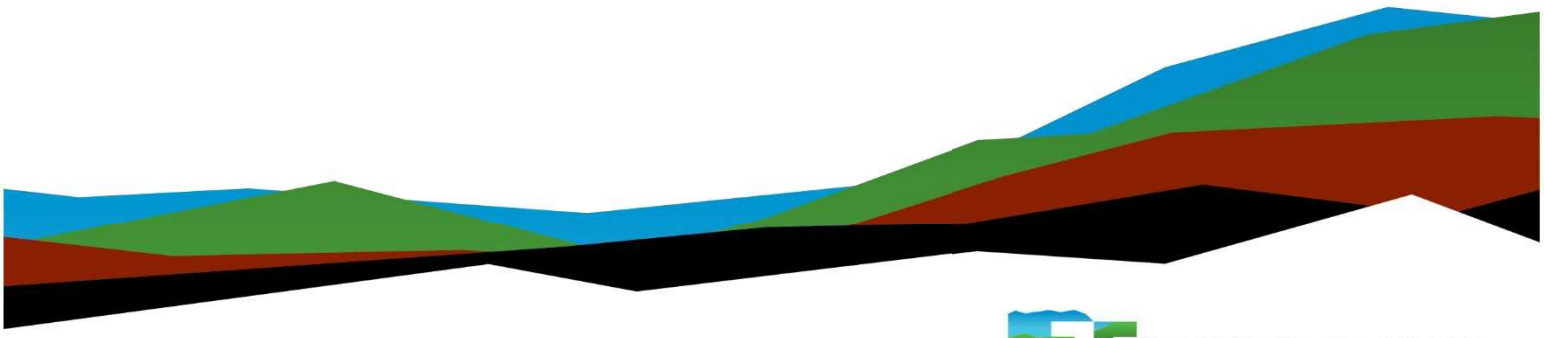
Monument, Colorado

January 31, 2025 (Revised on October 8, 2026)
Terracon Project No. 23245069

Prepared for:

Add PCD File No. PPR2628

Buc-ee's Ltd
327 FM 2004 Road
Lake Jackson, Texas 77566



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January 31, 2025 (Revised on October 8, 2026)

Buc-ee's Ltd
327 FM 2004 Road
Lake Jackson, Texas 77566

Attn: Mr. Scott Ratcliff
P: (979) 529-2704
E: scott.ray@buc.ees.com

Re: Geotechnical Engineering Report
Buc-ee's Monument
Southwest of Interstate 25 and Palmer Divide Road
Monument, Colorado
Terracon Project No. 23245069

Mr. Ratcliff:

We have completed the scope of Geotechnical Engineering services for the project referenced above in general accordance with Terracon Proposal No. P23245069 and Master Services Agreement Task Order dated June 17, 2024, and executed on June 21, 2024, Supplement to Proposal No. 2 dated April 8, 2026, and Supplement to Proposal No. 3 dated June 30, 2026. This report presents the findings of subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs, and pavements for the proposed project. This report was revised on October 8, 2026, to include additional recommendations and discussions in reference to the provided site plans with updated location for travel center building and fuel facility, and new utility improvements for this project.

Geotechnical exploration for this project was performed for multiple past and present site development layouts to gain a comprehensive understanding of the subsurface soil and geologic conditions at the site. We understand from conversations with Buc-ee's that the site will conform with approved zoning plans and permits, and the proposed convenience store will not be constructed on the CC Zones parcel.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

Terracon

Nick M. Novotny, P.G., C.E.G.
Geotechnical Department Manager

Terracon

COLORADO REGISTERED ERIC D. BERNHARDT 10/8/2026 38829 PROFESSIONAL ENGINEER

Eric D. Bernhardt, P.E.
Regional Geotechnical Manager

Table of Contents

Report Summary i
Introduction 1
Project Description 2
Site Conditions 7
Geotechnical Characterization 7
Subsurface Profile 8
Groundwater Conditions 8
Seismic Considerations 10
Corrosivity 10
Geotechnical Overview 11
Difficult Excavations 11
Loose Soils 11
Deep Fill Zones 12
Earthwork 12
Site Preparation 12
Deep Cuts and Fills 13
Material Types 14
Compaction Requirements 15
Excavation 16
Grading and Drainage 16
Earthwork Construction Considerations 17
Foundation Recommendations 18
Shallow Foundation Options – Proposed Building 18
Shallow Foundation Options – Proposed Equipment and Fueling Canopies 20
Shallow Foundation Options – Proposed Above Grade Tank 22
Shallow Foundation Options – Proposed Utility Buildings 23
Shallow Foundation Construction Considerations 25
Drilled Pier Recommendations 27
Light Pole Foundations 29
Floor Slabs 30
Exterior Flatwork 31
Underground Storage Tank and Buried Vault Recommendations 32
Retaining Walls 32
On-site Pavements 33
General Pavement Comments 33
Traffic Analysis 33
Subgrade Soils 33
Pavement Design Parameters 34
On-site Pavement Thicknesses 34
Pavement Maintenance 36
Pavement Construction Considerations 37

Off-Site Pavements **38**
General Comments **38**

Figures

GeoModel

Attachments

Exploration and Testing Procedures
Site Location and Exploration Plans
Exploration and Laboratory Results
Supporting Information

Note: This report was originally delivered in a web-based format. **Blue Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon logo will bring you back to this page. For more interactive features, please view your project online at **client.terracon.com**.

Refer to each individual Attachment for a listing of contents.

Report Summary

Topic [1]	Overview Statement [2]
Project Description	The project consists of constructing a new Buc-ee's facility. The development will consist of the following: ■ Convenience store building: single-story building with a footprint of about 74,000 square feet ■ Fuel canopies ■ Buc-ee's pole sign ■ Underground Storage Tanks (USTs) and remote generator pad ■ EV charging area ■ Parking/driveway areas Since the Geotechnical Engineering Report was initially published, we understand the travel center building has moved to the south and new utility improvements are planned which include: ■ 30 x 50-foot treatment building ■ 500K gallon above-grade water tank with a diameter of about 60 feet ■ 50 x 65-foot sanitary sewer lift station ■ 20 x 15-foot booster pump station with a buried vault
Geotechnical Characterization	The subsurface conditions encountered at the project site generally consisted of about 2 to 6 inches of topsoil, underlain by native sand soils with varying amounts of silt and clay, and native clay soils with varying amounts of sand to depths of about 4 to 24 feet below ground surface (bgs). Native soils were underlain by bedrock consisting of sandstone and claystone to the maximum depths explored of about 25 to 50 feet bgs in the exploratory borings. Boring Nos. B-30, B-33, B-36 to B-44, B-46 to B-49, B-52, B-53, B-55, B-56, B-58 to B-63, B-65 to B-84, B-86 to B-88, and B-90 to B-92 did not encounter bedrock to the maximum depths explored of 10 to 25.5 feet. Groundwater was encountered in some of the exploratory borings at depths of about 9 to 40 feet at the time of our exploration. The majority of the test borings did not encounter groundwater to the maximum depths explored.

Topic [1]	Overview Statement [2]
	Based on the provided grading plan, we anticipate cuts on the order of about 27 feet for this project. We anticipate cuts and excavations for the proposed construction can be accomplished with conventional earthmoving equipment for the majority of the site. However, heavy-duty construction equipment capable of ripping may be necessary when cutting or excavating into very hard sandstone bedrock to facilitate rock breakup and removal. Based on our review of the provided grading plans, we understand cut and fill slopes are planned for this project with slopes of 4:1 Horizontal to Vertical (H:V) or flatter.
Difficult Excavations	Based on the review of the provided grading plan, we anticipate cuts of up to about 21 feet for the site grading and excavations of up to about 25 feet for the proposed underground storage tanks, buried vault, and lift station. We anticipate excavations for the proposed construction can be accomplished with conventional earthmoving equipment for the majority of the site. However, heavy-duty construction equipment capable of ripping may be necessary when excavating into very hard sandstone bedrock to facilitate rock breakup and removal. Consideration should be given to obtaining a unit price for difficult excavation in the contract documents for the project.
Loose Soils	Test boring data indicate loose soils may be locally present. Consequently, loose soils could be encountered below foundations or other improvements and these conditions will likely require some corrective work.
ns	The proposed building may be constructed on a shallow foundation bottomed on a zone of new engineered fill, provided the owner is willing to accept the associated risk of movement. The proposed pad mounted equipment, fuel canopies, and utility buildings may be constructed on a shallow foundation bottomed on native soils or new engineered fill, provided the owner is willing to accept the associated risk of movement. The proposed 500k gallon above-grade tank may be constructed on shallow ring footing foundations bottomed on new engineered fill, provided the owner is willing to accept the associated risk of movement.

Please identify if the cuts are inclusive of the current stockpile material that is on site. Additionally, where the borings performed prior to the stock pile material.

Per DCM 11.3.3: "A geotechnical analysis and report prepared by a Colorado Professional Engineer with recommendations for the foundation preparation and embankment construction shall be submitted to the City/County Engineer with the complete design analysis for all permanent detention facilities."

Topic [1]	Overview Statement [2]
	The proposed fueling canopies, above-grade water tank, and monument sign may be constructed on drilled pier foundation systems embedded in the underlying native soils or bedrock.
Interior Floors	The floor system for the proposed building may consist of a slab-on-grade constructed on new engineered fill, provided the owner is willing to accept the risk of movement.
Retaining Walls	Based on our review of the provided grading plan, new retaining walls with a maximum height of about 36 feet are planned at the north, east and southern portions of the site. We anticipate the proposed retaining walls will be of Mechanically Stabilized Earth (MSE) and concrete cantilever construction. Recommendations for MSE type retaining walls are not included in this report and additional site-specific studies will be presented under separate report cover.
Pavements	This report includes recommended minimum pavement sections for the on-site flexible and rigid pavements for this project. Off-site pavement thickness designs will be presented under a separate cover.
General Comments	This section contains important information about the limitations of this geotechnical engineering report.

1. If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.
2. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

-Identify any geological hazards or constraints on the site. Refer to ECM Appendix C for guidelines.

-Please provide discussion on the stockpile material that is currently on-site and its suitability for the site especially any use of it on the detention ponds.

Introduction

This report presents the results of our subsurface exploration and Geotechnical Engineering services performed for the proposed Buc-ee's Monument to be located southwest of Interstate 25 and Palmer Divide Road in Monument, Colorado. The purpose of these services was to provide information and geotechnical engineering recommendations relative to:

- Subsurface conditions
- Groundwater conditions
- Earthwork
- Grading and drainage
- Foundation design and construction
- Floor slab design and construction
- Seismic site classification
- Lateral earth pressures
- On-site pavement design and construction

The geotechnical engineering Scope of Services for this project included the advancement of 113 test borings (designated as Boring Nos. B-1 to B-100, U-1 to U-11, and S-1) to depths ranging from approximately 10 to 50 feet below existing site grades, laboratory testing, geotechnical engineering analysis, and preparation of this geotechnical engineering report.

This report was revised on September 18, 2026, to include additional recommendations and discussions in reference to the provided site plans with updated location for travel center building and new utility improvements for this project.

Based on the Site Development Plans dated March 24, 2026, that were provided by Kimley-Horn, the location of the travel center building has shifted about 500 feet to the south since we published our Geotechnical Engineering Report dated January 31, 2025 (Revised on August 11, 2025). The referenced site plan presents the new location of the proposed travel center building. As a result, portions of the original exploration program no longer coincide with the proposed structure locations, while some previously explored areas remain within the revised development footprint. The geotechnical recommendations presented in this report have been evaluated and revised, as necessary, based on the results of both the original and supplemental explorations and the updated project layout provided at the time of this study.

Plans showing the site and boring locations are shown on the **Site Location** and **Exploration Plan**, respectively. The results of the laboratory testing performed on soil

and bedrock samples obtained from the site during our field exploration are included on the boring logs in the **Exploration Results** section.

Project Description

Our initial understanding of the project was provided in our proposal and was discussed during project planning. Our final understanding of the project conditions is as follows:

Item	Description
Information Provided	An email request for proposal was provided by Mr. Scott Ratcliff on June 7, 2024. The request included a site plan with requested exploration locations, including soil borings and pavement boring locations. Follow up conversation occurred and an email request for additional exploration was received on March 18, 2026, from Kyle Watson with Kimley-Horn. The most recent grading plans were provided to us by Kimley-Horn on June 16, 2026. The most recent topographic plans were provided to us by Kimley-Horn on September 1, 2026. The loading information for proposed above-grade water tank was provided to us by Kimley-Horn on September 11, 2026.

Item	Description
Project Description	The project consists of constructing a new Buc-ee's facility. The development will consist of the following: ■ Convenience store building: single-story building with a footprint of about 74,000 square feet ■ Fuel canopies ■ Buc-ee's pole sign ■ Underground Storage Tanks (USTs) and remote generator pad ■ EV charging area ■ Parking/driveway areas Since the Geotechnical Engineering Report was initially published, we understand the travel center building has been shifted to the south and new utility improvements are planned which include: ■ 30 x 50-foot treatment building ■ 500K gallon above-grade water tank with a diameter of about 60 feet ■ 50 x 65-foot sanitary sewer lift station ■ 20 x 15-foot booster pump station with a buried vault
Proposed Structures	The proposed building is planned to be of concrete tilt up or pre-cast panel construction on shallow spread footings with a slab-on-grade floor. We anticipate a reinforced concrete slab-on-grade foundation combined with a layer of compacted gravel or crushed stone bed will be utilized for the planned treatment building, above-grade storage tank, proposed lift station and pump station. The canopy and pole sign structures are anticipated to be supported by shallow spread footings or drilled pier foundations. The remote generator pad is anticipated to be supported on a shallow foundation system. We understand the on-site parking/drive areas will generally consist of portland cement concrete pavements. We understand no below-grade areas are planned for these structures; however, underground storage tanks (USTs) and a buried vault at the location of the proposed booster pump are planned to be installed in the northwest portion of the site.

Item	Description
Finished Elevations	Based on our review of the most recent grading plans, the Finished Elevations for the proposed improvements are as follows: ■ **Travel Building Center:** 7,352.6 feet ■ **Treatment Building:** 7,356.45 feet ■ **Water Tank:** 7,360.20 feet ■ **Sanitary Sewer Lift Station:** 7,363.89 feet ■ **Booster Pump:** 7,357.32 feet
Maximum Loads/Pressures	The following loads were used in our engineering analysis: **Travel Center and Treatment Building** (based on Buc-ee's Standard) ■ Columns: 100 kips ■ Walls: 4 kips per linear foot (klf) ■ Slabs: 150 pounds per square foot (psf) **Water Tank** (provided by Kimley-Horn) ■ Contact Pressure Beneath Floor: 1.7 ksf ■ Average Contact Pressure Beneath Footing: 2.5 ksf ■ Maximum Contact Pressure Beneath Footing: 3.5 ksf **Sanitary Sewer Lift Station** (assumed) ■ Columns: 80 kips ■ Walls: 1 to 1.2 kips per linear foot (klf) ■ Slabs: 100 pounds per square foot (psf) **Treatment Building** (assumed) ■ Columns: 40 kips ■ Walls: 1 kip per linear foot (klf) ■ Slabs: 80 pounds per square foot (psf) **Booster Pump Station** (assumed) ■ Columns: 15 kips ■ Walls: 0.5 to 0.75 kips per linear foot (klf) ■ Slabs: 50 pounds per square foot (psf) Maximum loads presented above are based on the Buc-ee's Standard and our experience with similar projects. If the actual maximum loads differ from the values presented in this section, Terracon should be notified, as additional evaluation and analysis may be required.

Item	Description
Grading/Slopes	Based on our review of the provided grading plans, we understand maximum cuts on the order of about 27 feet and maximum fills on the order of about 31 feet are planned for this project. The cuts are planned in the western and northwestern portions of the project site, while the fills are planned in the southern and eastern portions of the site. We understand new retaining walls on the order of about 30 feet in height are anticipated at the north, east and southern portions of the site to develop final site grades. Based on our review of the provided grading plans, we understand cut and fill slopes are planned for this project with slopes of 4:1 Horizontal to Vertical (H:V) or flatter. Summary of the planned cut and fill for each structure is provided below: - **Travel Center Building:** about 18 to 28 feet of cut - **Treatment Building:** about 5 to 8 feet of fill - **Water Tank:** 10 to 15 feet of fill - **Sanitary Sewer Lift Station:** about 5 to 8 feet of fill - **Booster Pump:** about 15 feet of fill
Below-Grade Structures	The planned USTs, lift station, and booster pump station will include below-grade areas up to about 15 to 25 feet below finished grade.
Free Standing Retaining Walls	Based on our review of the provided grading plans, we understand the approximately 1,300-foot-long wall is planned to retain earth along the eastern portion of the Buc-ee's project site and has a maximum height of around 36 feet. Recommendations for MSE type retaining walls are not included in this report and were presented under separate report cover (23245069B - Buc-ee's Monument Retaining Wall GeoReport, dated July 23, 2026)

please provide.

Item	Description
On-site Pavements	On-site drives and parking area pavements for automobile and truck traffic are anticipated to consist of portland cement concrete. Based on other previous Buc-ee's projects Terracon has completed, the following are the anticipated design equivalent single axle loads (ESALs) for the on-site pavements: ■ Light-Duty (car parking): 200,000 18-kip axle loads (ESALs) ■ Heavy-Duty (drive lanes): 500,000 18-kip axle loads (ESALs) ■ Extra-Heavy-Duty (truck lanes for diesel islands): 4,000,000 18-kip axel loads (ESALs) The pavement design period is 20 years.
Off-site Pavements	We understand Palmer Divide Road, Beacon Lite Road, Monument Hill Road and the on and off ramps from I-25 at Palmer Divide Road will be improved as part of this project Pavement sections will comply with the American Association of State Highway and Transportation Officials (AASHTO), the Colorado Department of Transportation (CDOT), and El Paso County Design Standards. Parking spaces and drive lanes are planned to surround the Travel Center Building structure. Anticipated traffic loading is as follows: **Off-site Pavements**: **Annual Average Daily Traffic (AADT)** ■ Palmer Divide Road: 26,800 ADT ■ Beacon Lite Road: 10,900 ADT ■ Monument Hill Road: 4,200 ADT ■ I-25 On and Off Ramps: 20,700 ADT The pavement design period is anticipated to be 20 to 30 years. Recommendations for off-site pavements are not included in this report and Off-site pavement thickness design and construction recommendations were presented under a separate report cover (23245069A - Buc-ee's Monument - Off Site Pavement Improvements GeoReport, dated July 23, 2026).
Building Code	2021 International Building Code (IBC)

Site Conditions

The following description of site conditions is derived from our site visits in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located southwest of the intersection of Interstate 25 and Palmer Divide Road in Monument, Colorado. See **Site Location**
Existing Improvements	The site currently consists of undeveloped land.
Current Ground Cover	Ground cover on the site generally consists of native grasses and weeds. However, areas of the site contain trees and are wooded.
Existing Topography	The site topography slopes down to the southeast with an elevation difference of about 60 feet across the site.
Geology	Surficial geologic conditions near the site, as mapped by the U.S. Geological Survey (USGS) ([1]Thorson, 2003), consist of the Dawson Formation of Paleocene Age. This formation within this area has been reported to include sandstone and conglomerate. The geologic conditions presented in this section were obtained by locating the subject site on available large-scale geologic maps. Due to the scales involved, the precise location of the site can be difficult to determine. In addition, large-scale geologic maps describe only general trends. Local variations are possible and site-specific geology may differ from those described above. A site-specific detailed geologic description is beyond the scope of this project.

Geotechnical Characterization

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of the site. Conditions observed at each

[1]Thorson, J.P., 2003, **Geologic Map of the Greenland Quadrangle**, Douglas and El Paso Counties, Colorado, Colorado Geological Survey, Open-File Report OF-03-09, 1:24,000.

exploration point are indicated on the individual logs. The individual logs can be found in the **Exploration Results** and the GeoModel can be found in the **Figures** attachment of this report. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Subsurface Profile

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at each boring location, refer to the GeoModel.

Model Layer	Layer Name	General Description
1	**Topsoil**	Topsoil; about 2 to 6 inches
2	**Native Sand**	Native sand with varying amounts of clay, silt, and gravel; very loose to dense
3	**Native Clay**	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	**Bedrock**	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Stratification boundaries on the boring logs represent the approximate location of changes in soil and material types; in situ, the transition between materials may be gradual. Further details of the borings can be found on the boring logs in the **Exploration Results**.

Based on the results of the laboratory testing and our experience in the area, native clay soils have nil to low expansive potential, while native sand and sandstone bedrock are considered to be non-expansive. Based on the results of the laboratory testing and our experience in the area, native clay soils have nil to low collapse potential, while native sand and sandstone bedrock have low to high collapse potential. Based upon the results of our laboratory testing and our local experience, the potential for vertical movement due to swelling soils is considered to be negligible.

A summary of laboratory test results is included in the **Exploration Results**.

Groundwater Conditions

The borings were observed while drilling and upon completion of drilling for the presence and level of groundwater. The water levels encountered in the boreholes can be found on the boring logs in **Exploration Results** and are summarized below.

Boring No.	Shallowest depth to groundwater encountered while drilling or upon completion of drilling	Approximate Elevation of Groundwater Encountered [1]
B-10	22 feet	7,309 feet
B-11	14 feet	7,309 feet
B-12	19 feet	7,313 feet
B-13	14 feet	7,312 feet
B-15	9 feet	7,311 feet
B-31	18.5 feet	7,300.5 feet
B-32	12 feet	7,304 feet
B-76	8.5 feet	7,316.5 feet
B-96	21 feet	7,304 feet
B-97	17 feet	7,320 feet
U-1	32 feet	7,316 feet
U-3	16.5 feet	7,321.5 feet
U-4	36 feet	7,303 feet
S-1	10 feet	7,302 feet

B-76 appears to be located in the vicinity of Pond 2. Pond 2 has a bottom elevation of 7314 feet and as a result may require a clay liner or other mitigation to prevent groundwater from impacting the pond.

1. Approximate water elevations are based on the boring elevations, which were interpolated from the ALTA/NSPS Land Title Survey prepared by Kimley-Horn, dated June 14, 2024.
2. Due to safety concerns, borings were backfilled immediately after completion. Therefore, subsequent groundwater measurements were not obtained.
3. Groundwater was only encountered during our field exploration at the locations listed in the table above. No groundwater was observed in the remaining borings.

These observations represent groundwater conditions at the time of field exploration and may not be indicative of other times or at other locations.

Zones of perched and/or trapped groundwater may also occur at times in the subsurface soils overlying bedrock, on top of the bedrock surface or within permeable fractures in the bedrock materials. The location and amount of perched water is dependent upon several factors, including hydrologic conditions, type of site development, irrigation demands on or adjacent to the site, fluctuations in water features, seasonal and weather conditions.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time the borings were performed. Groundwater levels during construction or at other times in the life of the structures may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Seismic Considerations

Based on our subsurface exploration and laboratory testing, it is our opinion that the soils have a low risk of liquefaction. The following table presents the seismic site classification based on the 2021 International Building Code (IBC), and the subsurface conditions encountered within the borings:

Code Used	Site Classification
2021 International Building Code (IBC) [1,2]	D

1. In general accordance with the 2021 International Building Code.
2. The 2021 International Building Code (IBC) which refers to ASCE 7-16 requires a site subsurface profile determination extending a depth of 100 feet for seismic site classification. The current scope requested does not include the required 100-foot subsurface profile determination. The deepest boring of this exploration extended to a maximum depth of about 50 feet and this seismic site class definition considers that similar subsurface conditions exist below the maximum depth of the subsurface exploration.

Corrosivity

The table below lists the results of laboratory soluble sulfate testing.

Location	Sample Depth (feet)	Soluble Sulfate (%)	Soluble Chloride (mg/kg)	Electrical Resistivity[1] (Ω-cm)	pH	Sulfides (Negative /Trace/ Present)	Red-Ox (mV)	Total Salts (mg/Kg)
B-8	1 – 4	<0.10	--	--	--	--	--	--
B-17	1 – 4	<0.10	--	--	--	--	--	--
B-20	1 – 4	<0.10	--	--	--	--	--	--
B-28	1 – 4	<0.10	--	--	--	--	--	--
B-32	1 – 4	<0.10	--	--	--	--	--	--
B-52	1 – 4	<0.10	--	--	--	--	--	--
B-82	1 – 4	<0.10	--	--	--	--	--	--
B-99	1 – 4	<0.10	13	4,700	7.46	Present	+415	194
B-100	24	<0.10	29	5,400	6.17	Negative	+334	90
U-9	1 - 4	<0.10	--	--	--	--	--	--

Location	Sample Depth (feet)	Soluble Sulfate (%)	Soluble Chloride (mg/kg)	Electrical Resistivity[1] (Ω-cm)	pH	Sulfides (Negative /Trace/ Present)	Red-Ox (mV)	Total Salts (mg/Kg)

1. Laboratory electrical resistivity testing was performed on saturated samples.

Results of water-soluble sulfate testing indicate samples of the on-site soils have an exposure class of S0 when classified in accordance with the American Concrete Institute (ACI) Design Manual. The results of the testing indicate ASTM Type I portland or Type IL portland-limestone cement is suitable for project concrete in contact with on-site soils. However, if there is no (or minimal) cost differential, use of ASTM Type II portland cement is recommended for additional sulfate resistance of construction concrete. Concrete should be designed in accordance with the provisions of the ACI Design Manual, Section 318.

Geotechnical Overview

Based on subsurface conditions encountered in the borings, the site appears suitable for the proposed construction from a geotechnical point of view provided certain precautions and design and construction recommendations presented in this report are followed. We have identified geotechnical conditions that could impact design and construction of the proposed site improvements.

Difficult Excavations

We anticipate cuts for the proposed construction can be accomplished with conventional earthmoving equipment for the majority of the site. However, heavy-duty construction equipment capable of ripping may be necessary when cutting into very hard sandstone bedrock to facilitate rock breakup and removal.

We anticipate excavations for the proposed underground storage tanks (USTs) may require the use of heavy-duty construction equipment capable of ripping into very hard sandstone bedrock to facilitate rock breakup and removal. Consideration should be given to obtaining a unit price for difficult excavation in the contract documents for the project.

Loose Soils

Test boring data indicate loose soils may be locally present. Consequently, loose soils could be encountered below foundations or other improvements and these conditions will likely require some corrective work. Corrective work could involve removal and re-

compaction or replacement, in-place soil densification, or deepening footing excavations to suitable bearing materials. In any event, Terracon should be contacted to observe foundation excavations to evaluate bearing conditions and to provide guidance concerning corrective work (if needed).

Deep Fill Zones

Based on our review of the provided grading plans, we understand fills up to about 31 feet in depth are planned for the southwestern portion of the project site. In addition, we understand fills on the order of about 18 to 28 feet are planned beneath the proposed building.

Foundation elements constructed on deep fills are subject to settlement resulting from self-weight of the new engineered fill materials. Additionally, settlement within the native materials below the new engineered fill can occur due to the weight of the fill. The amount of time for the new engineered fill to settle under its own weight cannot be accurately predicted. Therefore, it is critical that new engineered fills and native soils at the base of the new engineered fill be monitored for settlement during and after placement of new fill materials for this project to verify that the majority of the anticipated settlement has concluded prior to construction in these areas.

Earthwork

The following sections present recommendations for site preparation, excavation, subgrade preparation, and placement of engineered fills on the project. All earthwork on the project should be observed and evaluated by Terracon.

Site Preparation

Strip and remove existing vegetation, organics, and other deleterious materials from proposed building and pavement areas. All exposed surfaces should be free of mounds and depressions that could prevent uniform compaction.

Stripped materials consisting of vegetation, unsuitable fills, and organic materials should be wasted from the site or used to revegetate landscaped areas or exposed slopes after completion of grading operations.

Where possible, the site should be initially graded to create a relatively level surface to receive fill and to provide for a relatively uniform thickness of fill beneath the proposed building and improvement areas. All exposed areas that will receive fill, once properly cleared, should be scarified to a minimum depth of 12 inches, conditioned to near

optimum moisture content, and compacted. It is imperative the moisture content of prepared materials be protected from moisture loss.

Although evidence of underground facilities were not observed during our exploration, such features could be encountered during construction. If unexpected fills or underground facilities are encountered, such features should be removed, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

We anticipate the majority of excavations for the proposed construction can be accomplished with conventional earthmoving equipment. However, heavy-duty construction equipment may be necessary when excavating into very hard sandstone bedrock.

Depending upon seasonal conditions, surface water may infiltrate into the excavations on the site. Water seeping into excavations at this site could most likely be controlled by shallow trenches leading to a sump pit where the water could be removed by pumping.

The stability of subgrade soils may be affected by precipitation, repetitive construction traffic, or other factors. If unstable conditions are encountered or develop during construction, workability may be improved by over-excavation of wet zones and mixing these soils with crushed gravel. Use of geosynthetics could also be considered as a stabilization technique. Lightweight excavation equipment may be required to reduce subgrade pumping.

Deep Cuts and Fills

Based on our review of the provided grading plans, we understand fills up to about 31 feet in depth are planned for portions of the project site. In addition, we understand that fills on the order of about 18 to 28 feet are planned beneath portions of the proposed building.

Foundation elements constructed on deep fills are subject to settlement resulting from self-weight of the new engineered fill materials, which is anticipated to be on the order of about 4 to 6 inches or more. Additionally, settlement on the order of about 1 to 2 inches could occur within the native materials below the new engineered fill due to the weight of the fill. The amount of time for the new engineered fill to settle under its own weight cannot be accurately predicted. However, some studies have shown that about 75% of the self-weight settlement of new fill consisting of granular soils can occur during construction.

Therefore, it is critical that new engineered fills and native soils at the base of the new engineered fill be monitored for settlement during and after placement of new fill materials for this project to verify that the majority of the anticipated settlement has concluded prior to construction in these areas. This type of settlement monitoring might

include setting several monitoring plates at the base of the ground to receive fill as well as at the top of the newly placed deep fills to monitor settlement versus time to determine when the majority of settlement due to self-weight of the deep fills has substantially completed. Terracon should be contacted to work closely with the project team to develop the settlement monitoring program (i.e. number of settlement monuments, locations, monument construction details, frequency of monitoring, etc.).

We also understand cuts on the order of about 21 feet are planned in the eastern and southeastern portions of the site to achieve final grades. Structures constructed across cut-fill transitions are subject to an additional risk of differential movement as a result of variations in performance between the native materials and the new engineered fill. Therefore, in addition to the monitoring program discussed above for placement of new engineered fill on this project, we recommend foundations for structures that are constructed across a cut-fill transition be constructed on a zone of new engineered fill to reduce the risk of differential movement.

Material Types

Fill for this project should consist of engineered fill. Engineered fill is fill that meets the criteria presented in this report and has been properly documented.

Engineered fill should meet the following material property requirements:

Fill Type [1,2]	USCS Classification	Acceptable location for placement
On-site sand soils	SC, SP, SM	On-site sand soils are considered suitable for reuse as engineered fill below foundation, slab, and pavement areas and as general fill for this project.
On-site clay soils [3]	CL	On-site clay soils mixed with sand are considered suitable for reuse as engineered fill below foundation, slab, and pavement areas, and as general fill for this project.
Processed Sandstone and claystone bedrock [4]	N/A	The processed on-site sandstone and claystone bedrock is considered suitable for engineered fill below foundation, slab, and pavement areas for this project.
Imported soils	Varies	Imported soils meeting the gradation presented herein can be considered acceptable for use as engineered fill beneath foundations, slabs and pavements.

1. Engineered fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen

Fill Type [1,2]	USCS Classification	Acceptable location for placement

subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation.

2. Care should be taken during the fill placement process to avoid zones of dis-similar fill. Improvements constructed over varying fill types are at a higher risk of differential movement compared to improvements over a uniform fill zone.
3. On-site clay soils should be mixed with on-site sand soils to meet the gradation requirements outlined below for imported soils.
4. On-site sandstone and claystone bedrock materials should be staged separately from excavated soils and processed to a soil-like consistency with a maximum particle size of 3 inches.

Imported soils for engineered fill (if required) should meet the following material property requirements:

Gradation	Percent finer by weight (ASTM C136)
3"	100
1"	90-100
¾"	50-100
No. 4 Sieve	30-100
No. 200 Sieve	<35

- Liquid Limit..... 30 (max.)
- Plasticity Index..... 15 (max.)
- Maximum Expansive Potential (%)..... 0.5*

*Measured on a sample compacted to approximately 95 percent of the ASTM D698 maximum dry density at optimum water content. The sample is confined under a 200-psf surcharge and submerged.

Compaction Requirements

Engineered fill should be placed and compacted in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift.

Item	Description
Fill lift thickness	8-inches or less in loose thickness when heavy, self-propelled compaction equipment is used

Item	Description
	4 to 6-inches in loose thickness when hand-guided equipment (i.e. jumping jack, plate compactor) is used
Compaction requirements [1,2]	Minimum of 95% of the material's modified Proctor maximum dry density (ASTM D1557) for fills less than 10 feet in depth. Minimum 100% of the material's modified Proctor maximum dry density for fills greater than 10 feet in depth.
Moisture content cohesionless soils (sand soils)	-2 to +2% of the optimum moisture content

1. We recommend engineered fill be tested for water content and compaction during placement. Should the results of the in-place density tests indicate the specified water or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified water and compaction requirements are achieved.
2. Water levels should be maintained low enough to allow for satisfactory compaction to be achieved without the compacted fill material pumping when proofrolled.

Excavation

Excavations into the subsurface soils and bedrock will encounter a variety of conditions. The individual contractor(s) is responsible for designing and constructing stable, temporary excavations as required to maintain stability of both the excavation sides and bottom. All excavations should be sloped or shored in the interest of safety following local and federal regulations, including current Occupational Safety and Health Administration (OSHA) excavation and trench safety standards.

Soils and bedrock penetrated by the proposed excavations may vary significantly across the site. The soil and bedrock classifications are based solely on the materials encountered in the exploratory borings. The contractor should verify that similar conditions exist throughout the proposed area of excavation. If different subsurface conditions are encountered at the time of construction, the actual conditions should be evaluated to determine any excavation modifications necessary to maintain safe conditions.

Grading and Drainage

All grades must be adjusted to provide positive drainage away from the buildings and other improvements during construction and maintained throughout the life of the proposed project. Infiltration of water into utility or foundation excavations must be

prevented during construction. Landscaped irrigation adjacent to the foundation systems should be minimized or eliminated. Water permitted to pond near or adjacent to the perimeter of the structures (either during or post-construction) can result in significantly higher soil movements than those discussed in this report. As a result, any estimations of potential movement described in this report cannot be relied upon if positive drainage is not obtained and maintained, and water is allowed to infiltrate the fill and/or subgrade.

Permanent grades should be sloped at a minimum of 5 percent grade for at least 5 feet beyond the perimeter of the structures. Asphalt pavement or concrete flatwork should be sloped at a minimum of 2 percent beyond the building perimeters for the life of the structures. Where Americans with Disabilities Act (ADA) or other requirements or existing site features limit the gradient, slopes on the order of ½ to 1 percent minimum may be necessary to comply with the ADA but do increase the risk of unanticipated movement. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be compacted in accordance with recommendations in this report and free of all construction debris to reduce the possibility of water infiltration. After building construction and prior to project completion, we recommend that verification of final grading be performed to document that positive drainage, as described above, has been achieved.

Where paving or flatwork abuts the structures, care should be taken that joints are properly sealed and maintained to prevent the infiltration of surface water.

Sprinkler mains and spray heads should be located a minimum of 5 feet away from the building lines. Where drip line irrigation is located near the building, we recommend that drip line irrigation systems be located at least 5 feet from the outside edge of the foundations. Roof drains should discharge on pavements or be extended away from the building a minimum of 5 feet through the use of splash blocks or downspout extensions.

Earthwork Construction Considerations

Upon completion of grading operations, care should be taken to maintain the moisture content of the subgrade prior to construction of slabs-on-grade, pavements, etc. Construction traffic over prepared subgrade should be minimized and avoided to the extent practical.

The site should also be graded to prevent ponding of surface water on prepared subgrade or in excavations. In areas where water is allowed to pond over a period of time, the affected area should be removed and allowed to dry out. If constraints do not allow for moisture conditioning of affected areas as recommended in this report, the affected area should be over-excavated and replaced with engineered fill. As an alternative, geosynthetics could also be considered as a stabilization technique.

The Geotechnical Engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during over-excavation operations, excavations, subgrade preparation; proof-rolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of building floor slabs.

Based on our review of the most recent grading plans, we understand fills up to about 31 feet in depth are planned for the eastern portion of the project site and fills on the order of about 10 to 30 feet are planned beneath portions of the proposed building. We also understand cuts to the order of about 17 feet are planned in the western and northwestern portions of the site.

Structures constructed across cut-fill transitions are subject to an additional risk of differential movement as a result of variations in performance between the native materials and the new engineered fill. Therefore, it is imperative that the recommendations provided in the **Earthwork** and **Foundation Recommendation** sections of this report be followed to reduce the risk of differential movement.

Foundation Recommendations

Based upon the results of the field exploration and laboratory testing program for this exploration, the following foundation systems were evaluated for the proposed building, pad mounted equipment, fueling canopies, light poles, and monument sign structures:

- Spread footing or reinforced concrete mat foundations on a zone of new engineered fill.
- Straight-shaft, cast-in-place piers/shafts constructed in native soils or bedrock.

Shallow Foundation Options – Proposed Building

The proposed building may be constructed on shallow spread footing foundations bottomed on a zone of new engineered fill, provided the owner is willing to accept the associated risk of movement.

Based on our review of the provided grading plans, we understand the proposed building is planned to be constructed across a cut-fill transition. Therefore, prior to construction of site improvements (including foundations) for the proposed building, settlement monitoring results for the new fill materials should be reviewed and the project team should determine that the settlement of deep fill areas has substantially completed. In addition, to reduce the risk of differential movement across the cut-fill transition, we recommend foundations be constructed on a minimum of 3 feet of new engineered fill.

Design recommendations for shallow foundation systems for the proposed building are presented in the following table.

Description	Spread Footing	Mat Foundation
Subgrade Preparation	Minimum of 3 feet of new engineered fill	
Supporting Stratum	New engineered fill	
Maximum Allowable Bearing Pressure [1]	2,500 psf	
Minimum Footing Dimensions	Isolated footings: 24 inches Continuous footings: 18 inches	--
Maximum Foundation Dimensions	Isolated footings: 6 x 6 feet	6 x 6 feet
Modulus of Subgrade Reaction (Mat Foundation)	Square: $K_{(BXB)} = k_1\left(\frac{B+1}{2B}\right)^2$ Rectangle: $K_{(BXL)} = k_1\left(\frac{1+0.5B/L}{1.50}\right)$ k_1 = 120 pounds per square inch per inch (psi/in.) Where: k_1 = modulus of subgrade reaction of a foundation measuring 1 ft. x 1 ft. $K_{(BXB)}$ = modulus of subgrade reaction for a foundation having a square dimension B $K_{(BXL)}$ = modulus of subgrade reaction for a foundation having dimensions of B by L	
Coefficient of Friction (Sliding)	0.4	
Allowable Passive Resistance (equivalent fluid pressure)	300 psf/ft.	
Minimum Embedment Below Finished Grade for Frost Protection [2]	30 inches	
Approximate Total Movement [3,4]	About 1 inch	
Estimated Differential Movement [4,5,6]	About ½ to ¾ of total movement	

Description	Spread Footing	Mat Foundation

1. The recommended maximum allowable bearing pressure assumes any lower strength soils, if encountered, will be excavated and replaced with engineered fill.
2. For perimeter footings, footings beneath unheated areas, and footings that will be exposed to freezing conditions during construction. Interior footings may bottom at a minimum depth of 12 inches below finished grade in heated areas.
3. Foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of engineered fill, and the quality of the earthwork operations and footing construction.
4. Based upon the results of our laboratory testing and our local experience, the potential for vertical movement due to swelling soils is considered to be negligible.
5. Footings should be proportioned on the basis of equal total dead load pressure to reduce differential movement between adjacent footings.
6. Estimate differential movement is considered to be over a distance of about 40 feet.

Shallow Foundation Options – Proposed Equipment and Fueling Canopies

The proposed pad mounted equipment and fueling canopies may be constructed on shallow foundations bottomed on native soils or new engineered fill, provided the owner is willing to accept the associated risk of movement. Prior to construction of site improvements (including foundations), the settlement monitoring results should be reviewed and the project team should determine that the settlement of deep fill areas has substantially completed.

Design recommendations for shallow foundation systems for the proposed pad mounted equipment and/or fueling canopies are presented in the following table.

Description	Spread Footing	Mat Foundation
Subgrade Preparation	Minimum of 12 inches of scarified, moisture conditioned, and compacted native soils or new engineered fill below bottom of lowest foundation element	
Supporting Stratum	Native soil or new engineered fill	
Maximum Allowable Bearing Pressure [1]	2,500 psf	
Minimum Footing Dimensions	Isolated footings: 24 inches Continuous footings: 18 inches	--
Maximum Foundation Dimensions	Isolated footings: 6 x 6 feet	6 x 6 feet

Description	Spread Footing	Mat Foundation
Coefficient of Friction (Sliding)	0.4	
Allowable Passive Resistance (equivalent fluid pressure)	300 psf/ft.	
Modulus of Subgrade Reaction (Mat Foundation)	Square: $K_{(BXB)} = k_1\left(\frac{B+1}{2B}\right)^2$ Rectangle: $K_{(BXL)} = k_1\left(\frac{1+0.5B/L}{1.50}\right)$ k_1 = 120 pounds per square inch per inch (psi/in.) Where: k_1 = modulus of subgrade reaction of a foundation measuring 1 ft. x 1 ft. $K_{(BXB)}$ = modulus of subgrade reaction for a foundation having a square dimension B $K_{(BXL)}$ = modulus of subgrade reaction for a foundation having dimensions of B by L	
Minimum Footing Dimensions	Isolated footings: 24 inches Continuous footings: 18 inches	--
Maximum Mat Foundation Dimensions	--	6 x 6 feet
Minimum Embedment Below Finished Grade for Frost Protection [2]	30 inches	
Approximate Total Movement [3,4]	About 1 inch	
Estimated Differential Movement [4,5,6]	About ½ to ¾ of total movement	

Description	Spread Footing	Mat Foundation

1. The recommended maximum allowable bearing pressure assumes any lower strength soils, if encountered, will be excavated and replaced with engineered fill.
2. For perimeter footings, footings beneath unheated areas, and footings that will be exposed to freezing conditions during construction. Interior footings may bottom at a minimum depth of 12 inches below finished grade in heated areas.
3. Foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of engineered fill, and the quality of the earthwork operations and footing construction.
4. Based upon the results of our laboratory testing and our local experience, the potential for vertical movement due to swelling soils is considered to be negligible.
5. Footings should be proportioned on the basis of equal total dead load pressure to reduce differential movement between adjacent footings.
6. Estimate differential movement is considered to be over a distance of about 40 feet.

Shallow Foundation Options – Proposed Above Grade Tank

The proposed 500k gallon above-grade storage tank may be constructed on shallow ring footing foundations bottomed on new engineered fill, provided the owner is willing to accept the associated risk of movement. Prior to construction of site improvements (including foundations), the settlement monitoring results should be reviewed and the project team should determine that the settlement of deep fill areas has substantially completed.

Based on the Site Development Plans dated March 24, 2026, that were provided by Kimley-Horn, four borings (designated as Boring Nos. U-3 to U-6) were initially performed within the footprint of the originally proposed above-grade tank. Following completion of the initial field exploration, Terracon was informed that an alternative location for the proposed above-grade tank, approximately 300 feet east of the original location, was being considered. Terracon subsequently performed four additional borings (designated as Boring Nos. U-8 to U-11) within the alternative location. Based on the most recent information from the structural designer, the geotechnical recommendations presented in the following sections were developed based on subsurface conditions encountered at original above-grade tank location. The applicability of these recommendations should be reviewed if the final planned location and associated grades of the above-grade tank differ from those evaluated.

Design recommendations for foundation systems for the proposed 500k gallon above-grade storage tank are presented in the following table.

Description	Properties
Subgrade Preparation	Minimum of 3 feet of new engineered fill
Supporting Stratum	New engineered fill

Description		Properties
Maximum Allowable Bearing Pressure [1]	**Tank Floor**	1,700 psf
	Ring Wall	3,500 psf
Minimum Footing Dimensions for Ring Wall		3 feet wide
Coefficient of Friction (Sliding)		0.4
Allowable Passive Resistance (equivalent fluid pressure)		300 psf/ft.
Modulus of Subgrade Reaction		k_1 = 120 pounds per square inch per inch (psi/in.) Where: k_1 = modulus of subgrade reaction of a foundation measuring 1 ft. x 1 ft.
Minimum Embedment Below Finished Grade for Frost Protection [2]		30 inches
Approximate Total Movement [3,4]		About 2 inch
Estimated Differential Movement [4,5,6]		About ½ to ¾ of total movement

1. The recommended maximum allowable bearing pressure assumes any lower strength soils, if encountered, will be excavated and replaced with engineered fill.
2. For perimeter footings, footings beneath unheated areas, and footings that will be exposed to freezing conditions during construction. Interior footings may bottom at a minimum depth of 12 inches below finished grade in heated areas.
3. Foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of engineered fill, and the quality of the earthwork operations and footing construction.
4. Based upon the results of our laboratory testing and our local experience, the potential for vertical movement due to swelling soils is considered to be negligible.
5. Footings should be proportioned on the basis of equal total dead load pressure to reduce differential movement between adjacent footings.
6. Estimate differential movement is considered to be over a distance of about 40 feet.

After foundation and tank construction, but prior to the installation of all tank utility connections, we recommend hydro testing the proposed tank. Hydro testing demonstrates a tanks fitness for service by providing and integrity test. The test reduces the risk of catastrophic failure, by using test conditions that replicate operational conditions using water as a test medium. Larger than 1-inch settlements are the main concern for the site. We believe pre-loading the soils below the proposed tank during the hydro testing will activate a large portion of the expected settlement for the tank and

significantly reduce future settlement once the utilities have been connected to the tank after hydro testing/pre-loading. It may be prudent to monitor the settlement of the tank which could consist of plotting the settlement vs. time to check when the graph appears to have plateaued and substantially completed. Performing this monitoring will help provide information that can assist with determining when most of the primary settlement has occurred, substantially reducing risk for future settlements experienced by the tank after the utilities are connected. Terracon is available to provide geotechnical engineering consultation regarding coordination of the monitoring program and/or interpretation of the hydro testing/pre-loading monitoring data.

Shallow Foundation Options – Proposed Utility Buildings

The proposed buildings for sanitary sewer lift station, pump station, treatment, generator improvements may be constructed on shallow foundations bottomed on new engineered fill, provided the owner is willing to accept the associated risk of movement. Prior to construction of site improvements (including foundations), the settlement monitoring results should be reviewed and the project team should determine that the settlement of deep fill areas has substantially completed.

Design recommendations for shallow foundation systems for the proposed 500k gallon above-grade tank are presented in the following table.

Description	Spread Footing	Mat Foundation
Subgrade Preparation	Minimum of 12 inches of scarified, moisture conditioned, and compacted native soils or new engineered fill below bottom of lowest foundation element	
Supporting Stratum	Native soil or new engineered fill	
Maximum Allowable Bearing Pressure [1]	2,500 psf	1,500 psf
Minimum Footing Dimensions	Isolated footings: 24 inches Continuous footings: 18 inches	--
Maximum Mat Foundation Dimensions	Isolated footings: 10 x 10 feet	10 x 10 feet
Coefficient of Friction (Sliding)	0.4	
Allowable Passive Resistance (equivalent fluid pressure)	300 psf/ft.	

Description	Spread Footing	Mat Foundation
Modulus of Subgrade Reaction (Mat Foundation)	Square: $K_{(BXB)} = k_1\left(\frac{B+1}{2B}\right)^2$ Rectangle: $K_{(BXL)} = k_1\left(\frac{1+0.5B/L}{1.50}\right)$ k_1 = 120 pounds per square inch per inch (psi/in.) Where: k_1 = modulus of subgrade reaction of a foundation measuring 1 ft. x 1 ft. $K_{(BXB)}$ = modulus of subgrade reaction for a foundation having a square dimension B $K_{(BXL)}$ = modulus of subgrade reaction for a foundation having dimensions of B by L	
Minimum Embedment Below Finished Grade for Frost Protection [2]	30 inches	
Approximate Total Movement [3,4]	About 1 inch	
Estimated Differential Movement [4,5,6]	About ½ to ¾ of total movement	

1. The recommended maximum allowable bearing pressure assumes any lower strength soils, if encountered, will be excavated and replaced with engineered fill.
2. For perimeter footings, footings beneath unheated areas, and footings that will be exposed to freezing conditions during construction. Interior footings may bottom at a minimum depth of 12 inches below finished grade in heated areas.
3. Foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of engineered fill, and the quality of the earthwork operations and footing construction.
4. Based upon the results of our laboratory testing and our local experience, the potential for vertical movement due to swelling soils is considered to be negligible.
5. Footings should be proportioned on the basis of equal total dead load pressure to reduce differential movement between adjacent footings.
6. Estimate differential movement is considered to be over a distance of about 40 feet.

Shallow Foundation Construction Considerations

Additional foundation movements could occur if water from any source infiltrates the foundation soils; therefore, proper drainage should be provided in the final design and

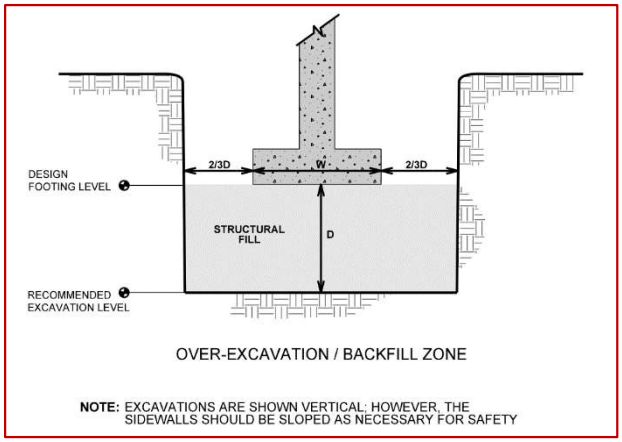
during construction and throughout the life of the structure. Failure to maintain the proper drainage as recommended in the **Grading and Drainage** section of **Earthwork** will nullify the movement estimates provided above.

Unstable subgrade conditions should be observed by the Geotechnical Engineer to assess the subgrade and provide suitable alternatives for stabilization. Stabilized areas should be proofrolled prior to continuing construction to assess the stability of the subgrade.

The base of all foundation excavations should be free of water and loose soil prior to concrete placement. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Should the soils at bearing level become excessively dry, disturbed or saturated, or frozen, the affected soil should be removed prior to placing concrete.

Footings, foundations, and masonry walls should be detailed and reinforced as necessary to reduce the potential for distress caused by differential foundation movement. The use of joints at openings or other discontinuities in masonry walls is recommended.

Over-excavation of native soils below footings should extend laterally beyond all edges of the footings at least 8 inches per foot of over-excavation depth below footing base elevation. The over-excavation should then be backfilled up to the footing base elevation with approved fill placed in lifts of 8 inches or less in loose thickness (6 inches or less if using hand-guided compaction equipment) and compacted to at least 95 percent of the material's standard effort maximum dry density (ASTM D1557). The over-excavation and backfill procedure is described in the following figure.



OVER-EXCAVATION / BACKFILL ZONE

NOTE: EXCAVATIONS ARE SHOWN VERTICAL; HOWEVER, THE SIDEWALLS SHOULD BE SLOPED AS NECESSARY FOR SAFETY

The base of all foundation excavations should be free of water and loose soil prior to concrete placement. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Should the soils at bearing level become excessively dry, disturbed or saturated, or frozen, the affected soil should be removed prior to placing concrete.

Footings, foundations, and masonry walls should be detailed and reinforced as necessary to reduce the potential for distress caused by differential foundation movement. The use of joints at openings or other discontinuities in masonry walls is recommended.

Drilled Pier Recommendations

The proposed fueling canopies, monument sign, and 500k above-grade tank could be constructed on drilled pier foundation systems embedded in the underlying native soils or bedrock. If drilled piers are selected for support of the proposed 500K above-ground storage tank, hydro testing and/or preloading would not necessarily be needed to allow for primary settlement to occur prior to connecting utilities to the tank. However, hydro testing may still be required by others for leak testing or other reasons.

Design recommendations for drilled pier foundation systems are presented in the table below:

Description	Value
Minimum Pier Length [1]	8 feet
Maximum Allowable End-Bearing Pressure	▪ Native soils / engineered fill – 3,000 psf ▪ Sandstone Bedrock – 25,000 psf [2]
Maximum Allowable Skin Friction [3]	▪ Native soils / engineered fill – 250 psf ▪ Sandstone Bedrock – 1,750 psf
Minimum Pier Diameter	18 inches
Approximate Total Movement	▪ Piers terminated in native soils / engineered fill – about 1 inch ▪ Piers terminated in bedrock - about ½ inch

1. Recommended minimum length and diameter may need to be increased to account for structural engineering requirements.
2. Drilled piers must penetrate bedrock a minimum of 5 feet or 2 pier diameters, whichever is greater.
3. Skin friction should not be applied in the upper 3 feet of the drilled pier to account for frost effects.

Piers should be considered to work in group action if the center-to-center horizontal spacing is less than three pier diameters. A minimum practical center-to-center horizontal spacing between piers of at least three diameters should be maintained, and adjacent piers should bottom at the same elevation. The capacity of individual piers must be reduced when considering the effects of group action. Capacity reduction is a

function of pier spacing and the number of piers within a group. The following table presents capacity reductions for closely spaced piers.

Description	Value		
Drilled Pier Spacing (Center-to-Center)	>3 diameters	>2 to 3 diameters	1 to 2 diameters
Pier Capacity Reduction	None	30 percent	50 percent

1. End bearing values do not need to be reduced for closely spaced piers if bottom of piers are at the same elevation.

To satisfy forces in the horizontal direction using the computer program LPILE©, piers may be designed for the following lateral load criteria:

Soil Type	Curve Model (p-y)	Unit Weight (pcf)	Undrained Shear Strength (psf)	Angle of Internal Friction, Φ (degrees)	Coeff. of Subgrade Reaction, k (pci)	Strain, ε_{50} (%)
Clay	Stiff clay w/out free water	120	1,000	--	Allow LPILE program to choose values based on the other parameters in this table.	
Sand	Sand (Reese)	115	--	31		
Sandstone	Sand (Reese)	130	--	41		

Lateral analysis should account for the center-to-center spacing and P-Y multiplier values per the following table:

Pier Center-to-Center Spacing (In Direction of Loading)	P-multiplier, P_M Row 1	P-multiplier, P_M Row 2	P-multiplier, P_M Row 3 and Higher
3 x diameter	0.8	0.4	0.3
5 x diameter	1.0	0.85	0.7

The structural engineer should determine the reinforcement necessary for the piers. At a minimum, all piers should be reinforced full depth for the applied axial, lateral, and uplift stresses imposed.

Drilling to design depth through the very hard sandstone bedrock layers will likely require the use of heavy-duty equipment.

Groundwater was encountered at depths as shallow as 8.5 feet in the area of the proposed monument sign. Pier casing will be required if groundwater, loose soils, or caving soils are encountered. Casing should be withdrawn in a slow continuous manner maintaining a sufficient head of concrete to prevent infiltration of water or caving soils or the creation of voids in pier concrete. Pier concrete should have a relatively high fluidity when placed in cased pier holes or through a tremie. Pier concrete with slump in the range of 5 to 7 inches is recommended for uncased piers. For cased piers, a slump in the range of 7 to 9 inches is recommended.

Groundwater should be removed from each pier hole prior to concrete placement. Pier concrete should be placed immediately after completion of drilling and cleaning. If pier concrete cannot be placed in dry conditions, a tremie or slurry drilling method should be used for concrete placement. Free-fall concrete placement in piers will only be acceptable if provisions are taken to avoid striking the concrete on the sides of the hole or reinforcing steel. The use of a bottom-dump hopper, or an elephant's trunk discharging near the bottom of the hole where concrete segregation will be reduced, is recommended.

Due to potential sloughing and raveling, foundation concrete quantities may exceed calculated geometric volumes. Pier-bearing surfaces must be cleaned prior to concrete placement. A Terracon representative should observe the bearing surface and shaft configuration.

The top of the piers should be cylindrical in shape. Forms may be necessary at the top of the piers in order to minimize the disturbance of the soils and to maintain a cylindrical shape. Failure to provide this shape (i.e., allowing mushrooming of pier tops) may result in additional uplift forces and unanticipated movement.

Light Pole Foundations

Design recommendations for drilled pier foundations systems to support the proposed light poles are presented in the table below:

Description	Value
Soil Type	Sand
Minimum Pier Length/Embedment Depth	8 feet [1]
Maximum Allowable End Bearing Pressure	3,000 psf
Allowable Skin Friction [2]	250 psf
Allowable Lateral Earth Pressure [3,4]	340 psf/ft.

Description	Value

1. The minimum pier length is from finished grade.
2. Allowable skin friction should not be applied for the upper 3 feet of the drilled pier from finished grade to **account for frost effects**.
3. The allowable lateral bearing pressure is based on the Broms method.
4. The estimated movement of the light pole base cannot be reasonably estimated the vertical loads of the light pole are very low. Because of the low vertical loads, movement of the light poles will be primarily controlled by the overall performance of the surrounding soils.

Floor Slabs

Slab-on-grade floors may be utilized for the interior floor system for the proposed building, provided slabs-on-grade are constructed on new engineered fill, and provided some slab movement can be tolerated.

Based on our review of the provided grading plans, we understand the proposed building is planned to be constructed across a cut-fill transition. Therefore, prior to construction of floor slabs for the proposed building, settlement monitoring results for the new fill materials should be reviewed and the project team should determine that the settlement of deep fill areas has substantially completed.

In addition, to reduce the risk of differential movement across the cut-fill transition, we recommend floor slabs be constructed on a minimum 3-foot zone of new engineered fill. We estimate this alternative will reduce settlement to about 1 inch or less.

For structural design of concrete slabs-on-grade, a modulus of subgrade reaction of 120 pounds per cubic inch (pci) may be used for point or limited area loads for floors supported on an engineered fill.

Additional floor slab design and construction recommendations are as follows:

- Positive separations and/or isolation joints should be provided between slabs and all foundations, columns, or utility lines to allow independent movement.
- Control joints should be provided in slabs to control the location and extent of cracking.
- Interior trench backfill placed beneath slabs should be compacted in accordance with recommended specifications described previously.
- The use of a vapor retarder should be considered beneath concrete slabs on grade that will be covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer

and slab contractor should refer to ACI 302 for procedures and cautions regarding the use and placement of a vapor retarder.
- Floor slabs should not be constructed on frozen subgrade.
- Other design and construction considerations, as outlined in the ACI Design Manual, are recommended.

Movements of slab-on-grades using the techniques described above will likely be reduced and tend to be more uniform. The estimates outlined previously assume that the other recommendations provided in the recommendations presented in this section and in the **Grading and Drainage** subsection of **Earthwork** are followed.

Exterior Flatwork

Exterior slabs-on-grade and flatwork constructed on the on-site soils or new engineered fill will have a low risk of movement. We recommend the subgrade soils below exterior slabs-on-grade are scarified to a depth of at least 12 inches, moisture conditioned, and compacted to grade. New fill materials beneath slabs-on-grade should be placed and compacted as described in the **Earthwork** section of this report.

For structural design of exterior concrete slabs-on-grade, a modulus of subgrade reaction of 120 pci may be used for point or limited area loads for exterior slabs-on-grade at this site.

Additional slab design and construction recommendations are as follows:

- Minimizing moisture increases in the backfill.
- Controlling moisture-density during placement of backfill.
- Positive separations and/or isolation joints should be provided between exterior slabs and the building to allow independent movement.
- Control joints should be provided in slabs to control the location and extent of cracking.
- Exterior slabs should not be constructed on frozen subgrade
- Other design and construction considerations, as outlined in Section 302.1R of the ACI Design Manual, are recommended.

Movements of exterior flatwork using the techniques described above will likely be reduced and tend to be more uniform. The estimates presented previously assume that the other recommendations provided in the recommendations presented in this section and in the **Grading and Drainage** subsection of **Earthwork** are followed.

Underground Storage Tank and Buried Vault Recommendations

We understand underground storage tanks (USTs) are planned at the western portion of the site with anticipated excavation depths of about 15 feet. Additionally, the proposed booster pump station includes a buried vault with anticipated excavation depth of up to about 25 feet. Based on the results of our field exploration and our review of the provided grading plans, sandstone bedrock is anticipated to be encountered at or above final site grades in the area of the proposed USTs and vault. Therefore, sandstone bedrock should be anticipated in excavations for the proposed improvements.

We anticipate specialized heavy-duty equipment capable of ripping may be required for bedrock excavation to facilitate rock breakup and removal for the installation of the USTs. Consideration should be given to obtaining a unit price for difficult excavation in the contract documents for the project.

Groundwater was not encountered in any of the borings performed in the area of the proposed underground storage tanks and below grade vault. However, groundwater was encountered in other portions of the site at depths as shallow as 9 feet. We recommend the proposed improvements be designed to resist buoyancy forces equal to those generated if water was within 5 feet of finished site grades.

On-site soils and processed bedrock excavated from the proposed tank and vault locations should be suitable for reuse as engineered fill or backfill in the construction of the underground fuel storage tanks for the project, provided the materials meet the requirements presented in this report. The excavation and backfilling operations for the construction of the tanks should be performed in accordance with the **Earthwork** section of this report.

Retaining Walls

Based on our review of the provided grading plans, we understand the approximately 1,300-foot-long wall is planned to retain earth along the eastern portion of the Buc-ee's project site and has a maximum height of around 36 feet. **Global stability analysis, design parameters, and recommendations for MSE retaining walls are not included in this report and additional site-specific studies and laboratory testing with geotechnical recommendations were presented under a separate report cover (23255069B - Buc-ee's Monument Retaining Wall GeoReport, dated July 23, 2026).**

On-site Pavements

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section of this report. Analyses for the pavement design of the project were generally based on the procedures of AASHTO as referenced in the El Paso County Engineering Criteria Manual.

Traffic Analysis

The total 20-year ESAL's (18-kip Equivalent Single Axle Loads) in Light-Duty, Heavy-Duty and Extra Heavy-Duty areas used in this analysis were assumed based on the experience with previous Buc-ee's project Terracon has completed. The equivalent single axle loads (ESALs) used for the pavement design are outlined in the following table:

On-Site Pavement Area	Total 18-kip Equivalent Single Axle Load (ESAL) over a 20 Year Design Life
Light-Duty	200,000
Heavy-Duty	500,000
Extra Heavy-Duty	4,000,000

Subgrade Soils

Pavements constructed on the on-site soils and new engineered fill will have a low risk of movement. We recommend the subgrade soils below pavements be scarified to a depth of at least 12 inches, moisture conditioned, and compacted to grade.

The design modulus of subgrade reaction (M_{RSG}) for the pavement analyses was determined in accordance with the procedures of AASHTO as referenced in the El Paso County Engineering Criteria Manual. Based on the results of the laboratory testing, the subgrade conditions in the area of the proposed on-site new pavements were analyzed and a single design modulus of subgrade reaction was used for design purposes. Samples of subgrade materials were tested for sieve analysis, and plasticity index, and California Baring Ratio (CBR). The results of the CBR testing for the on-site pavements is provided in the table below:

Boring No.	Soil Type	CBR Value
B-43	Clayey Sand (SC)	3.7
B-55	Clayey Sand (SC)	6.5
B-75	Silty Sand (SM)	4.5

Based on the results of the CBR testing, we selected a design CBR value of 4.0 for use in our analysis. The design CBR and corresponding resilient modulus and modulus of subgrade reaction (M_{RSG}) are summarized in the following table:

Design CBR Value	Correlated Resilient Modulus	Correlated Design M_{RSG}
4.0	5,000 psi	120 pci

Pavement Design Parameters

Based on the data outlined in this report, the following design parameters were determined by the procedures outlined by AASHTO as referenced in the El Paso County Engineering Criteria Manual and were utilized for pavement engineering analyses for the project:

On-Site Pavement Design Parameters		
Analysis Period		20 years
Level of Reliability		80%
Overall Standard Deviation		0.45
Serviceability	Initial (P_0) PSI	4.2
	Terminal (Pt) PSI	2.0
Subgrade Conditions	Design CBR Value	4.0
	Correlated Design M_{RSG}	120 pci
	Correlated Resilient Modulus	5,000 psi
Seasonal Variation Factor		1.0
Load Transfer Coefficient	Without Dowels	3.8
	With Dowels	3.2

On-site Pavement Thicknesses

Based on the results of the analyses, the following tables provide the minimum recommended thickness of portland cement concrete (PCC) sections for on-site pavements for plain jointed (no dowels) and jointed reinforced (with dowels) PCC pavements:

On-Site PCC Pavement Thickness Recommendations – Plain Jointed (No Dowels)

Layer	Thickness (inches)		
	Light-Duty PCC [1]	Heavy-Duty PCC [1, 2]	Extra-Heavy-Duty PCC
PCC	5.5 inches	7.0 inches	--
Aggregate Base	4.0 inches	4.0 inches	--
Total	9.5 inches	11.0 inches	--

1. Contraction joints for Light-Duty and Heavy-Duty PCC (rigid) pavements should be constructed in accordance with the American Concrete Institute (ACI) PRC 330-21 (Commercial Concrete Parking Lots and Site Paving Design and Construction - Guide). ACI PRC 330-21 is based on non-doweled pavements.
2. Buc-ee's minimum pavement thickness.

On-Site PCC Pavement Thickness Recommendations – Jointed Reinforced (With Dowels)

Layer	Thickness (inches)		
	Light-Duty PCC [1]	Heavy-Duty PCC [1, 2]	Extra-Heavy-Duty PCC
PCC	--	7.0 inches	8.0 inches
Aggregate Base	--	4.0 inches	4.0 inches
Total	--	11.0 inches	12.0 inches

1. Contraction joints for Heavy-Duty and Extra-Heavy Duty PCC should be constructed in accordance with ACI 330.2R-17 (Guide for the Design and Construction of Concrete Site Paving for Industrial and Trucking Facilities).
2. Buc-ee's minimum pavement thickness.
3. Heavy-Duty PCC pavements should include ¾-inch diameter by 10-inch long dowel bars spaced at 12 inches center to center in all longitudinal and transverse contraction and construction joints.
4. Extra-Heavy-Duty PCC pavements should include 1¼-inch diameter by 15-inch long dowel bars spaced at 12 inches center to center in all longitudinal and transverse contraction and construction joints.

Contraction joints should be saw cut to 1/5 of the depth of the concrete. Early entry sawing methods should be used and should begin as soon as the slab can support the weight of a man and the saw and can be cut without dislodging coarse aggregate particles from the surface.

Contraction joints should have a maximum spacing no greater than 12.5 feet for 5.5-inch thick concrete (Light-Duty PCC) and 15 feet for 6-inch thick or greater concrete (Heavy-Duty PCC and Extra-Heavy-Duty PCC), as described in ACI 330.2R-17.

Expansion (isolation) joints must be full depth and should only be used to isolate fixed objects abutting or within the paved area. When they must be located in areas that encounter wheel loads, the pavement edges at the joint should be thickened by 2 inches wherever practical. The transition in thickness should occur over a minimum distance of 5 feet.

Tie bars made of deformed steel with a ½-inch diameter and 30-inch length spaced at 30 inches on center are also recommended to tie the exterior curb and gutter to the outer concrete pavement edge to keep the outside slab from separating from the curb and gutter.

All concrete for rigid pavements should have a minimum 28-day compressive strength of 4,500 and be placed with a maximum slump of 4 inches.

Although not required for structural support, a minimum 4-inch thick base course layer is recommended to help reduce potential for slab curl, shrinkage cracking, and subgrade pumping through joints.

Proper joint spacing as described above will also be required to prevent excessive slab curling and shrinkage cracking. Joints should be sealed to prevent entry of foreign material and doweled where necessary for load transfer. PCC pavement details for joint spacing, joint reinforcement, and joint sealing should be prepared in accordance with ACI PRC 330-21 and ACI 330.2R-17. Concrete pavements should be constructed in accordance with ACI 325.9R-15.

The jointing information provided in this report is not comprehensive and should not be substituted for detailed construction plans and specifications. Once the pavement details are completed in the project civil design plans, Terracon should be contacted to review the plans including pavement slab layout, and jointing plan and details.

Pavement Maintenance

Future performance of pavements constructed at this site will be dependent upon several factors, including:

- Maintaining stable moisture content of the subgrade soils both before and after pavement construction.
- Providing for a planned program of preventative maintenance.

The performance of all pavements can be enhanced by minimizing excess moisture, which can reach the subgrade soils. The following recommendations should be implemented:

- Site grading at a minimum 2 percent grade onto or away from the pavements.

- Water should not be allowed to pond behind curbs.
- Compaction of any utility trenches for landscaped areas to the same criteria as the pavement subgrade.
- Sealing all landscaped areas in or adjacent to pavements or providing drains to reduce the risk of moisture migration to subgrade soils.
- Placing compacted backfill against the exterior side of curb and gutter.
- Placing curb, gutter, and/or sidewalk directly on subgrade soils without the use of base course materials.

Preventative maintenance should be planned and provided for an ongoing pavement management program in order to enhance future pavement performance. Preventative maintenance activities are intended to slow the rate of pavement deterioration.

Preventative maintenance consists of both localized maintenance (e.g. crack sealing and patching) and global maintenance (e.g. surface sealing). Preventative maintenance is usually the first priority when implementing a planned pavement maintenance program.

Pavement Construction Considerations

Site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade may be disturbed due to utility excavations, construction traffic, desiccation, or rainfall. As a result, the pavement subgrade may not be suitable for pavement construction and corrective action will be required. The subgrade should be carefully evaluated at the time of pavement construction for signs of disturbance or excessive rutting. If disturbance has occurred, pavement subgrade areas should be reworked, moisture conditioned, and properly compacted to the recommendations in this report immediately prior to paving.

We recommend the pavement areas be rough graded and then thoroughly proofrolled with a loaded tandem axle dump truck prior to final grading and paving. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by removing and replacing the materials with properly compacted fills. All pavement areas should be moisture conditioned and properly compacted to the recommendations in this report immediately prior to paving.

The placement of a partial pavement thickness for use during construction is not recommended without a detailed pavement analysis incorporating construction traffic. In addition, if the actual traffic varies from the assumptions described above, we should be contacted to confirm and/or modify the pavement thickness recommendations outlined above.

Off-Site Pavements

Recommendations for off-site pavements are not included in this report and Off-site pavement thickness design and construction recommendations were presented under a separate report cover (23245069A - Buc-ee's Monument - Off Site Pavement Improvements GeoReport, dated July 23, 2026).

General Comments

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including

excavation support and dewatering requirements/design are the responsibility of others. Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

Figures

Contents:

Cross Section Map with Aerial Image (2 pages)
Cross Section Map with Site Overlay (3 pages)
Subsurface Profile A'-A
Subsurface Profile B'-B
Subsurface Profile C'-C
Subsurface Profile D'-D
Subsurface Profile E-E'
Subsurface Profile F-F'
Subsurface Profile G-G'
Subsurface Profile H-H'
Subsurface Profile I-I' (Utility Improvements)
Subsurface Profile J-J' (Additional UST Borings)
Subsurface Profile K-K' (Additional Building Borings)
Subsurface Profile L-L' (Additional Building Borings)
GeoModel – Convenience Store and Sign
GeoModel – Fuel Canopy and UST
GeoModel – Remote Generator
GeoModel – Pavements (Northern Portion)
GeoModel – Pavements (Central Portion)
GeoModel – Pavements (Southern Portion)
GeoModel – Convenience Store Building (Additional Borings)
GeoModel – New Under Ground Tank Borings
GeoModel – Utility Improvements
GeoModel – Above Grade Tank (Original Location)
GeoModel – Above Grade Tank (Alternative Location)

Attachments

Cross Section Map with Aerial Image

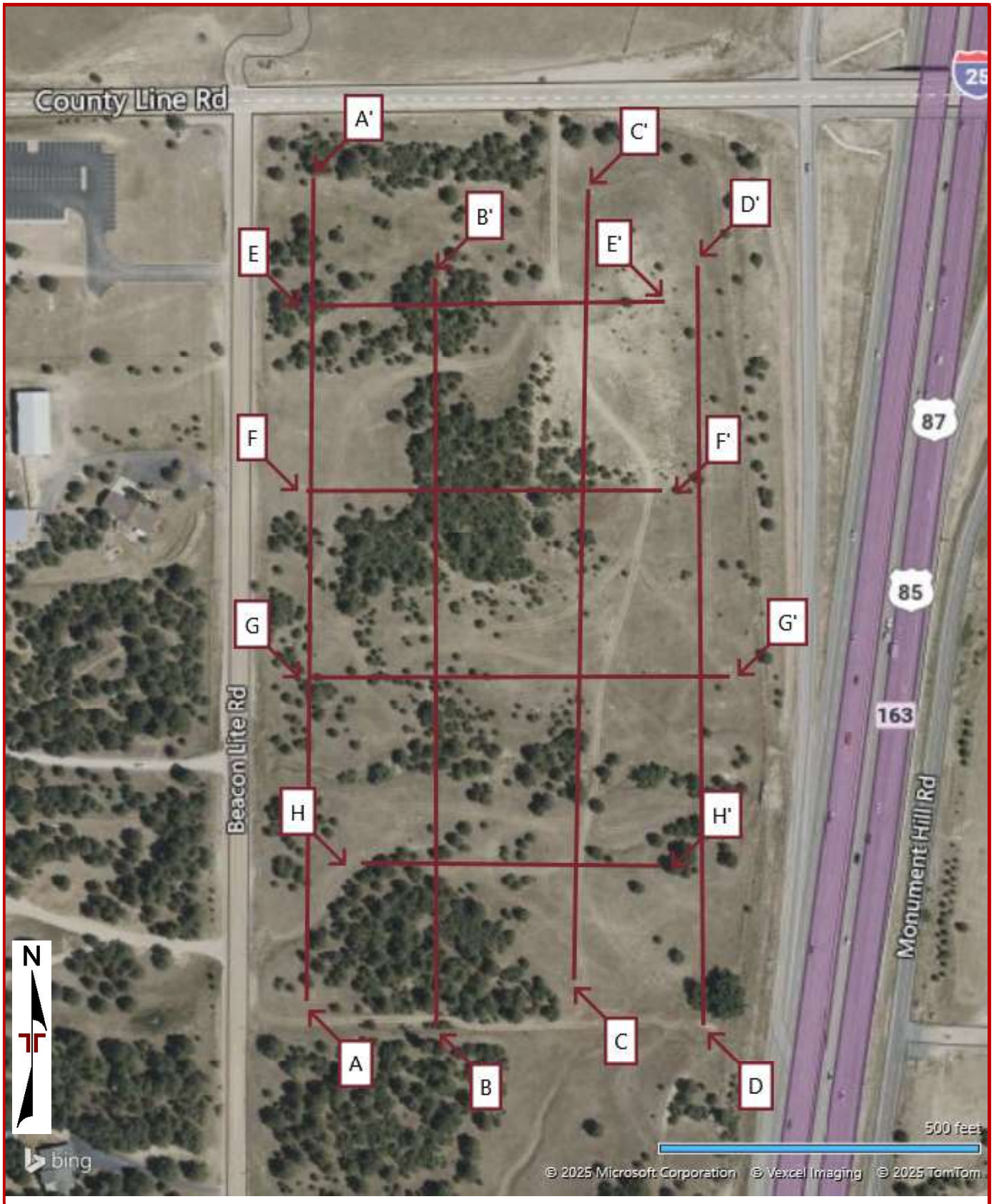


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES MAP PROVIDED BY MICROSOFT BING MAPS

Cross Section Map with Aerial Image (Additional UST and Building Borings and Utility Improvements)

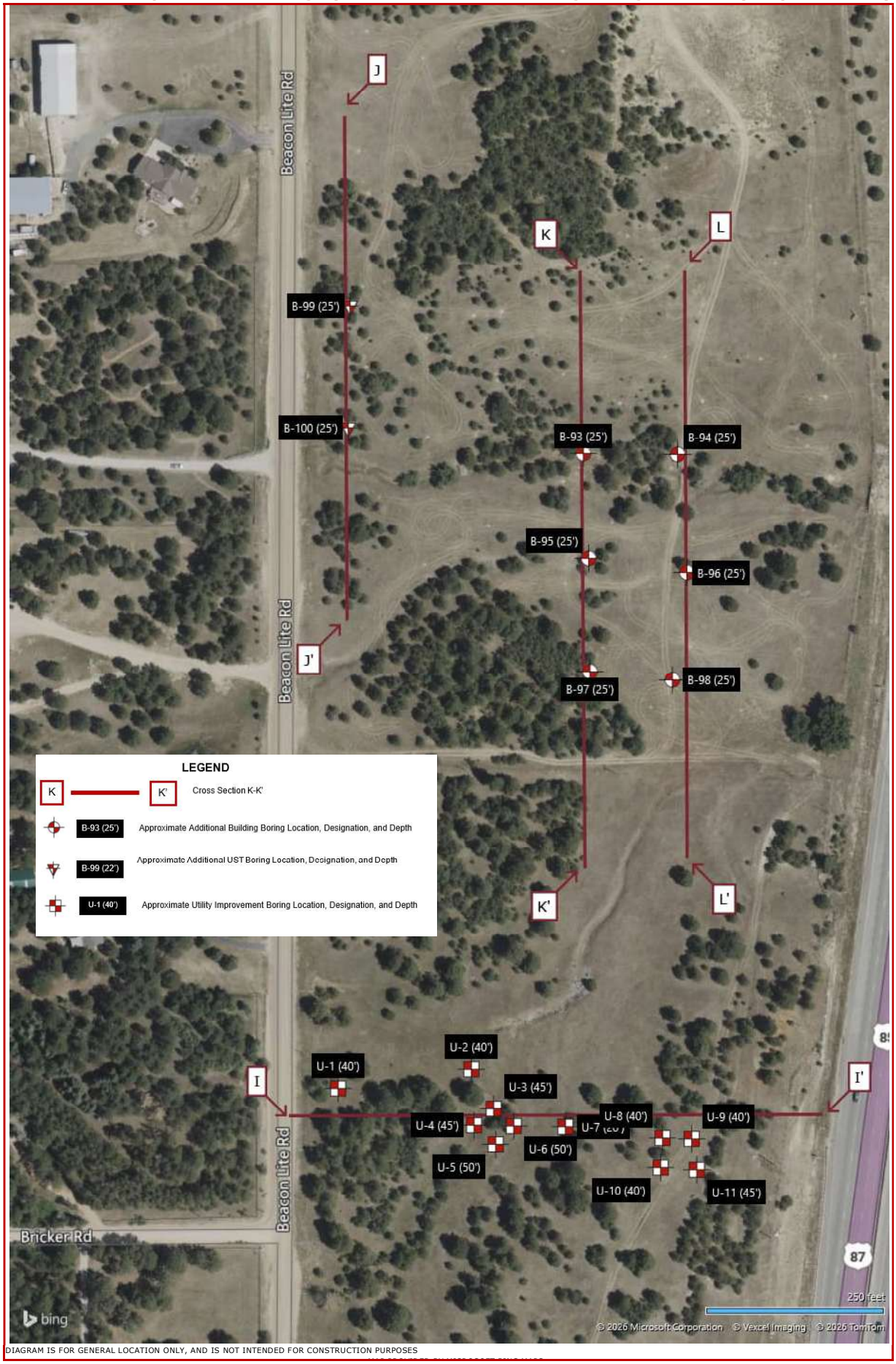


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

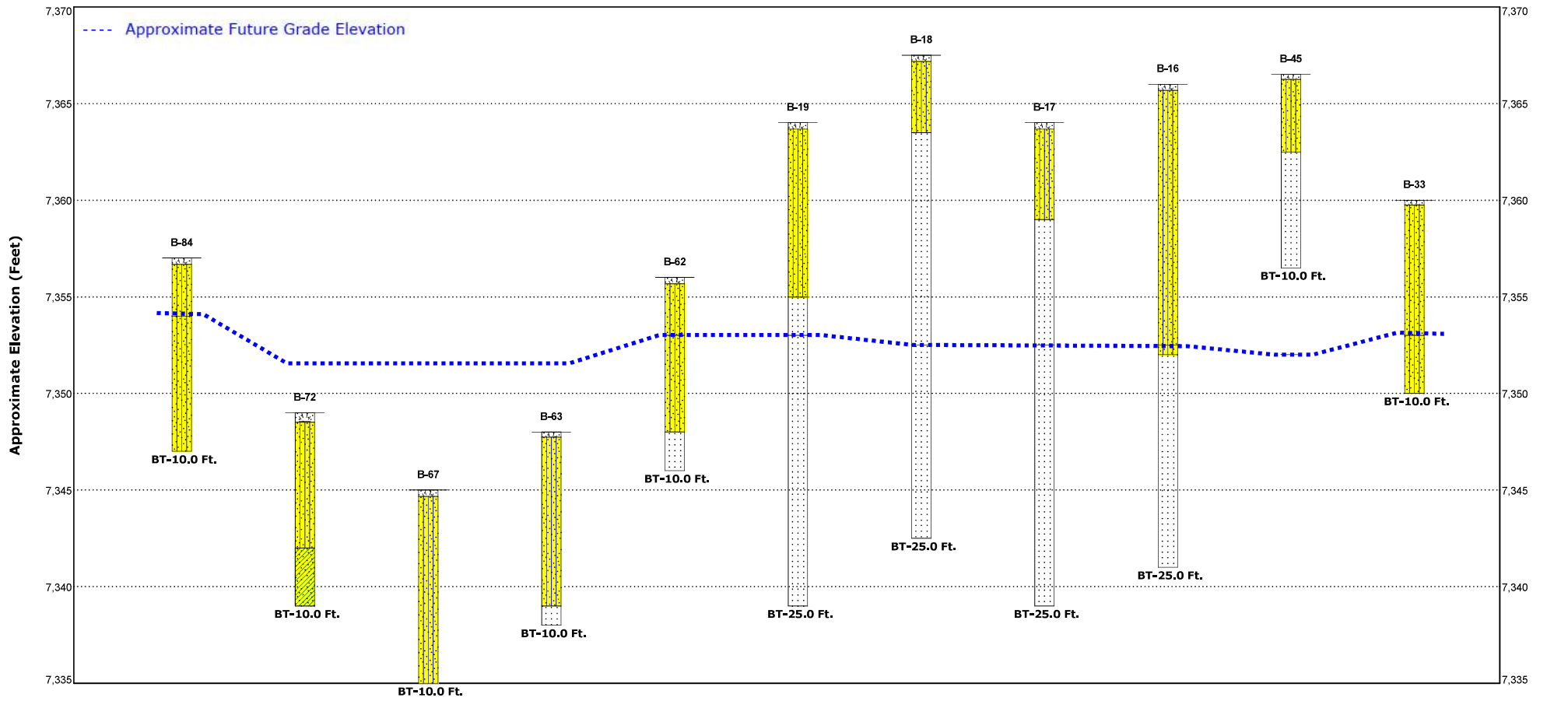
Buc-ee's Monument
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Terracon Project No. 23245069

Subsurface Profile

Section A-A'

Terracon
4172 Center Park Dr
Colorado Springs, CO

S ◄ ► N



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-16 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR / BT — Borehole Termination Type	Topsoil Silty Sand Sandstone Sandy Lean Clay

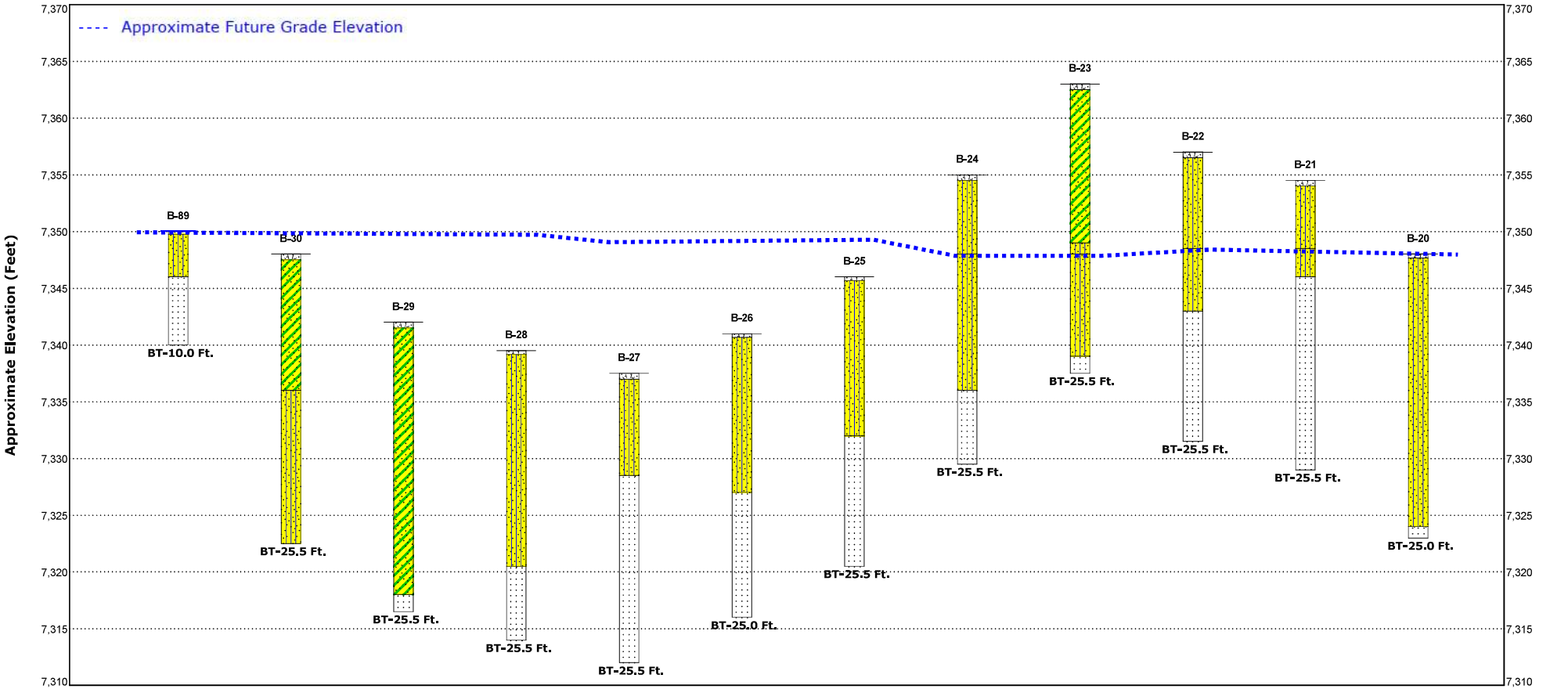
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Terracon Project No. 23245069

Subsurface Profile

Section B-B'

Terracon
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S ◄ ► N



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-20 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR / BT — Borehole Termination Type	Topsoil; Silty Sand; Sandstone; Clayey Sand

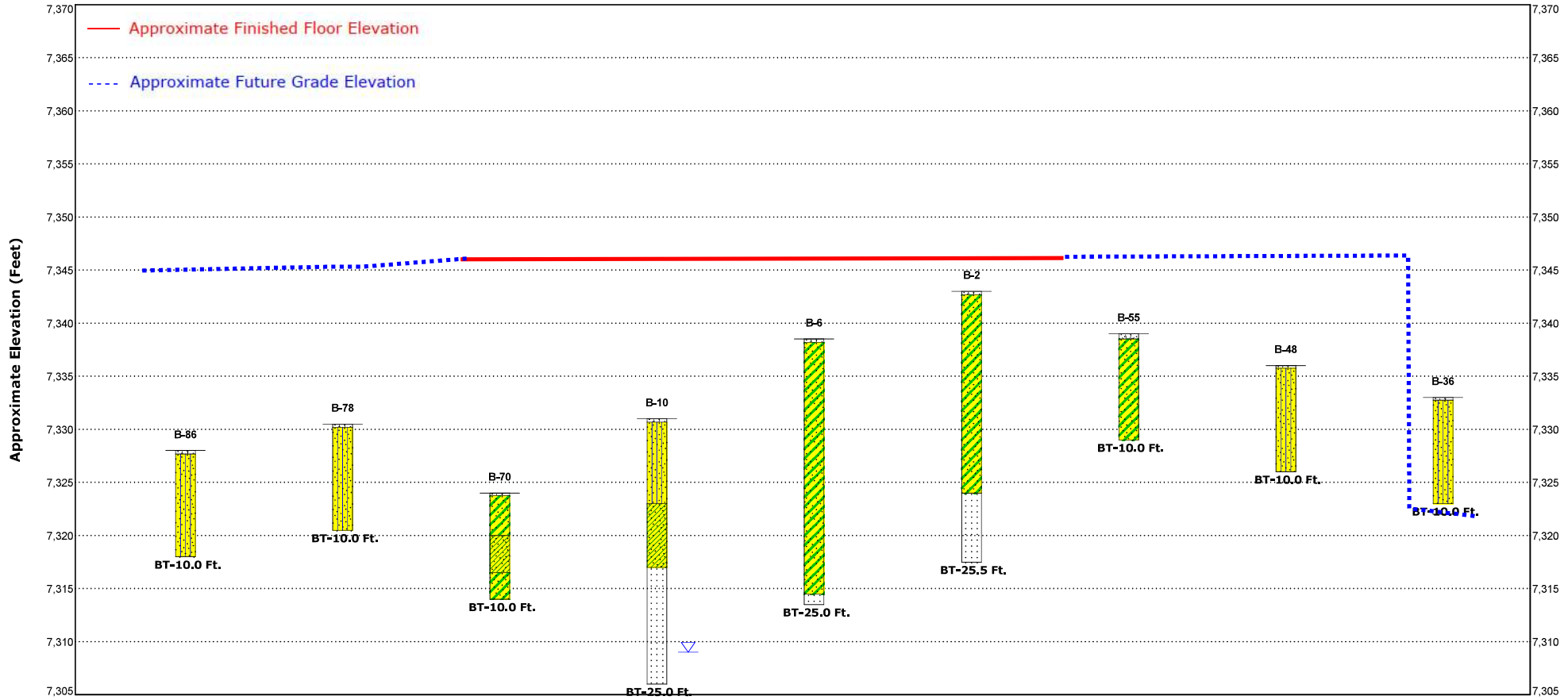
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Subsurface Profile

Section C-C'

Terracon
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Colorado Springs, CO

S ◄ ► N



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-2 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR / BT — Borehole Termination Type	Topsoil Clayey Sand Sandstone Silty Sand Sandy Lean Clay

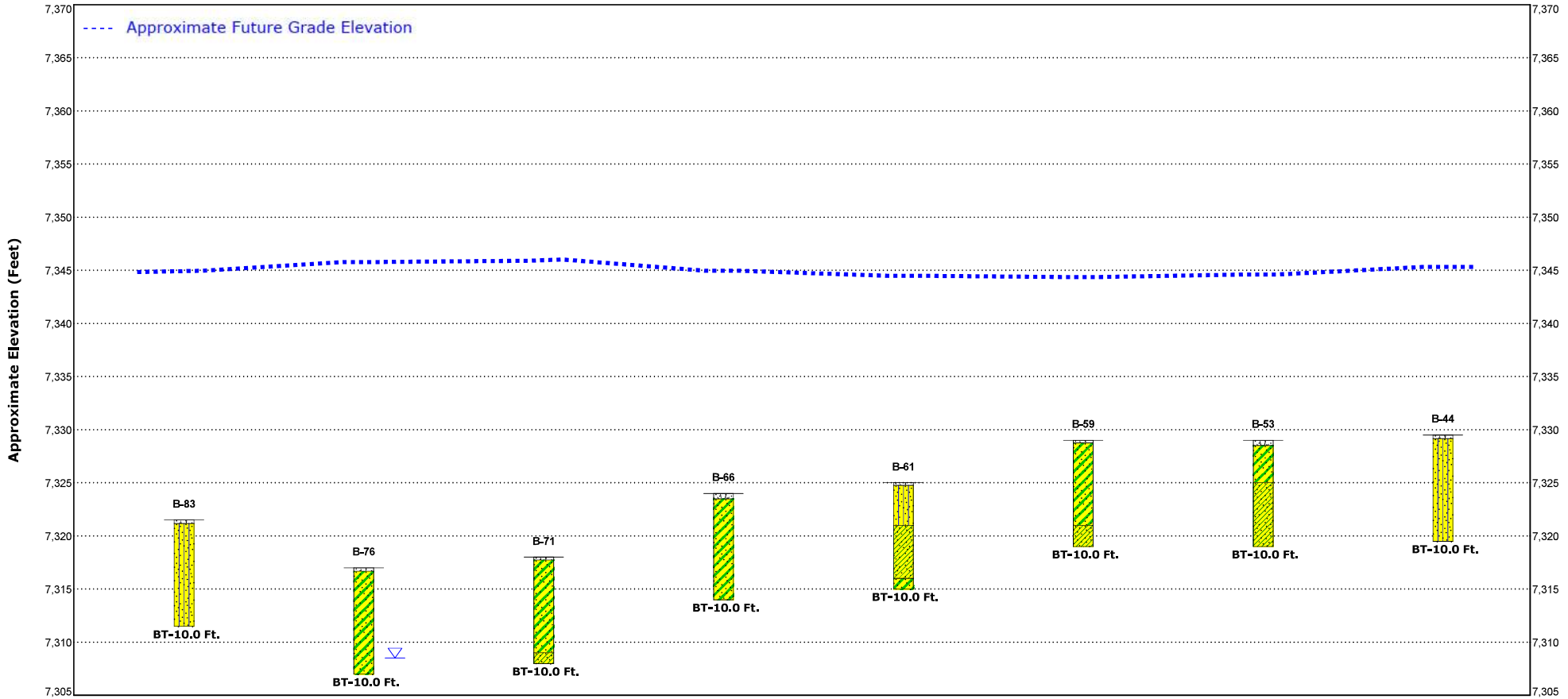
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Subsurface Profile

Section D-D'

Terracon
4172 Center Park Dr
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S ◄ ► N



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-44 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR BT — Borehole Termination Type	Topsoil Silty Sand Clayey Sand Sandy Lean Clay

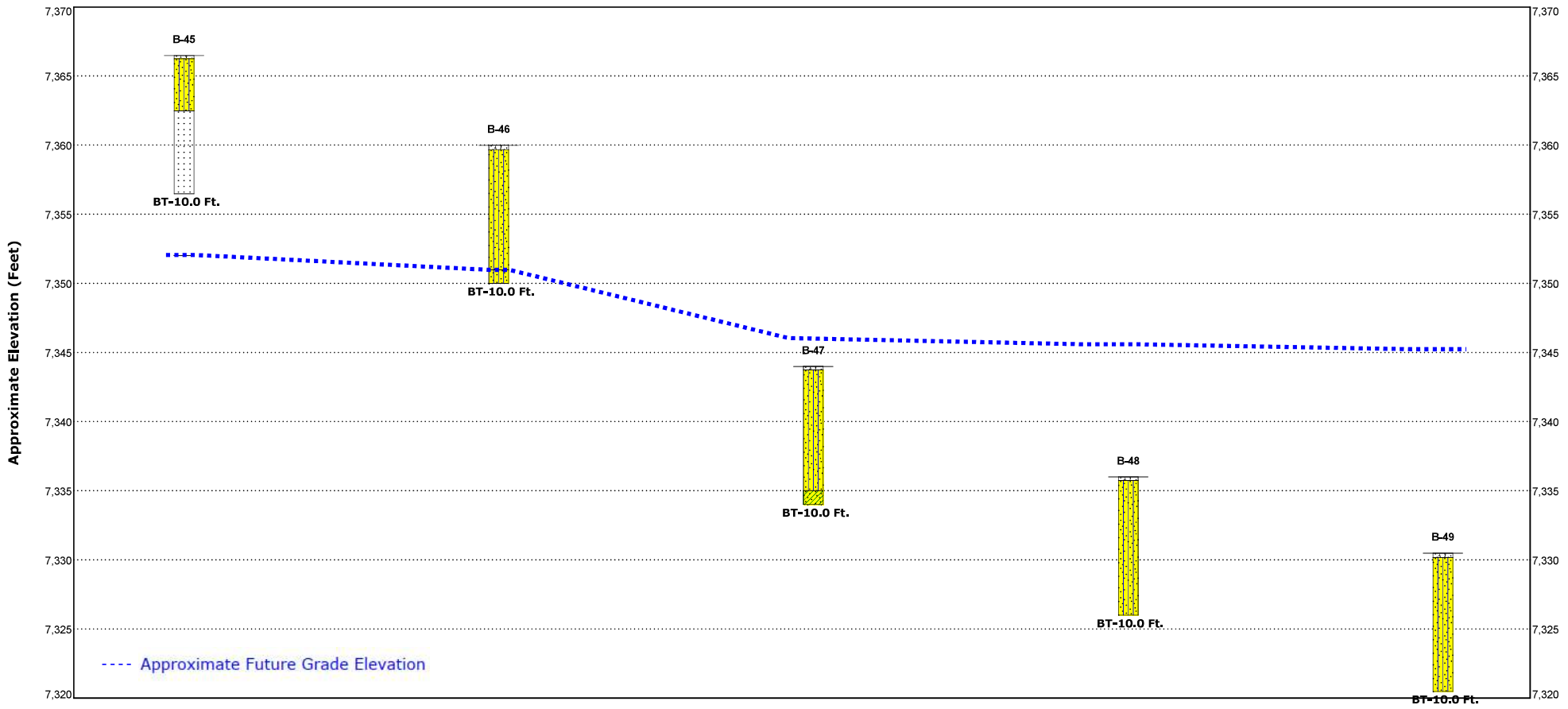
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Subsurface Profile

Section E-E'

Terracon
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W ◄ ► E



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-45 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR / BT — Borehole Termination Type	Topsoil Silty Sand Sandstone Sandy Lean Clay

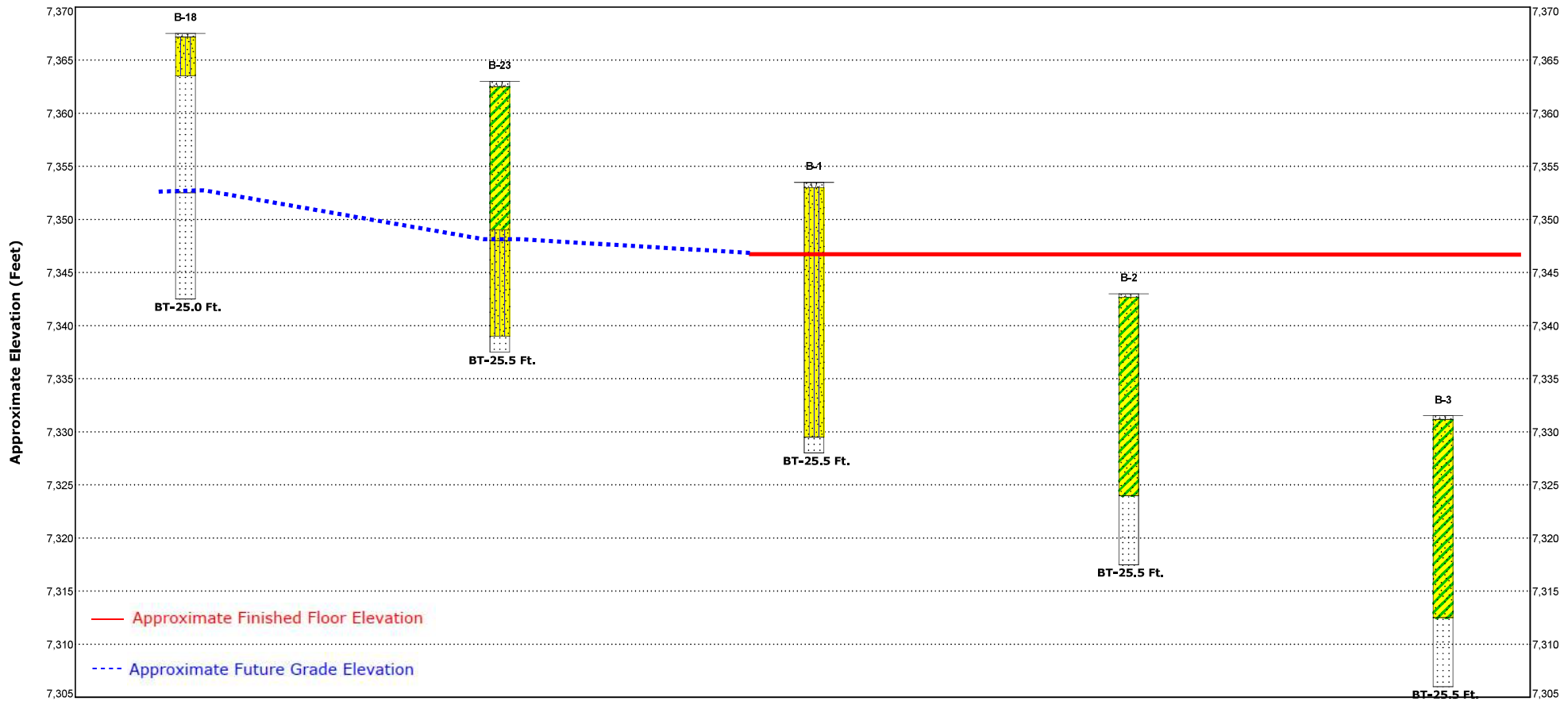
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Subsurface Profile

Section F-F'

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W ◄ ► E



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-1 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR / BT — Borehole Termination Type	Topsoil Silty Sand Sandstone Clayey Sand

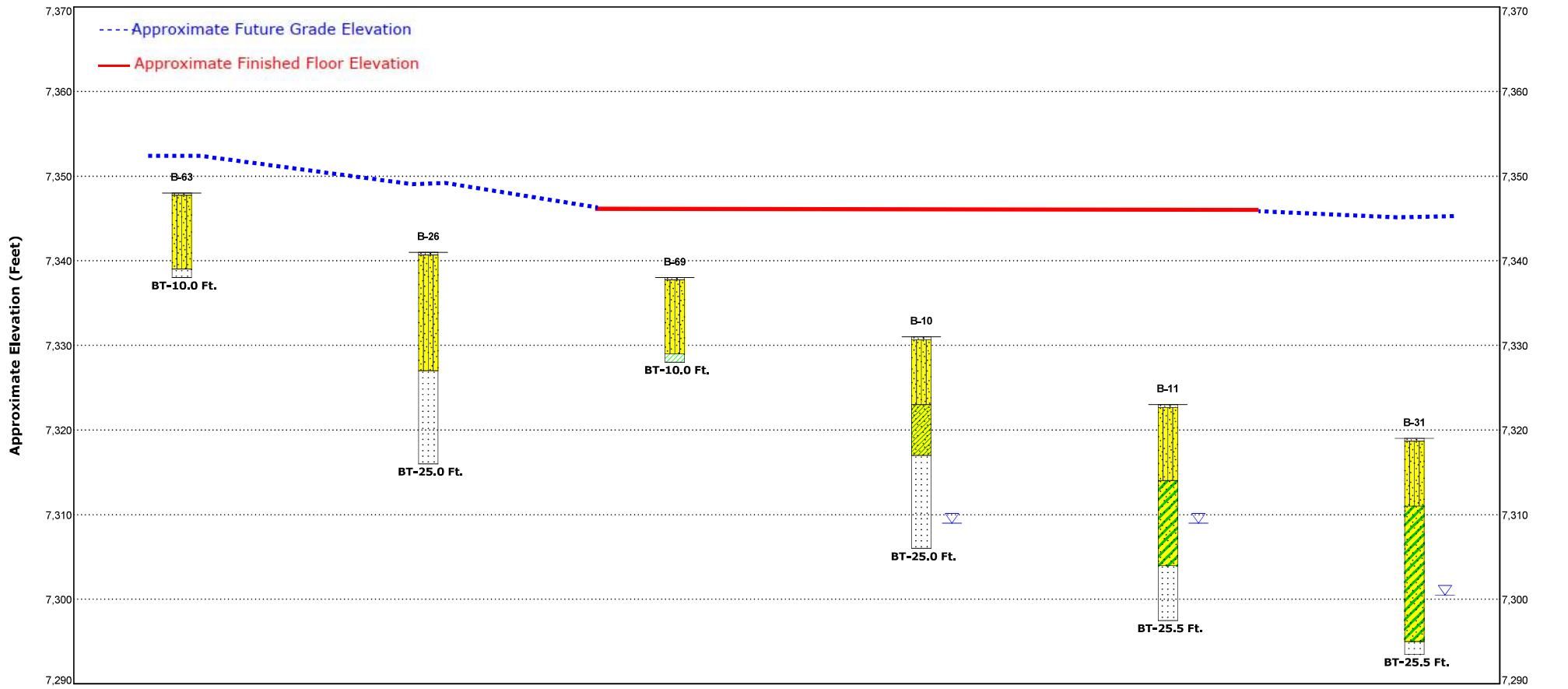
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Terracon Project No. 23245069

Subsurface Profile

Section G-G'

Terracon
4172 Center Park Dr
Colorado Springs, CO

W ◄ ► E



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-10 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) — Borehole Lithology AR / BT — Borehole Termination Type	Topsoil, Silty Sand, Sandy Lean Clay, Sandstone, Clayey Sand, Lean Clay

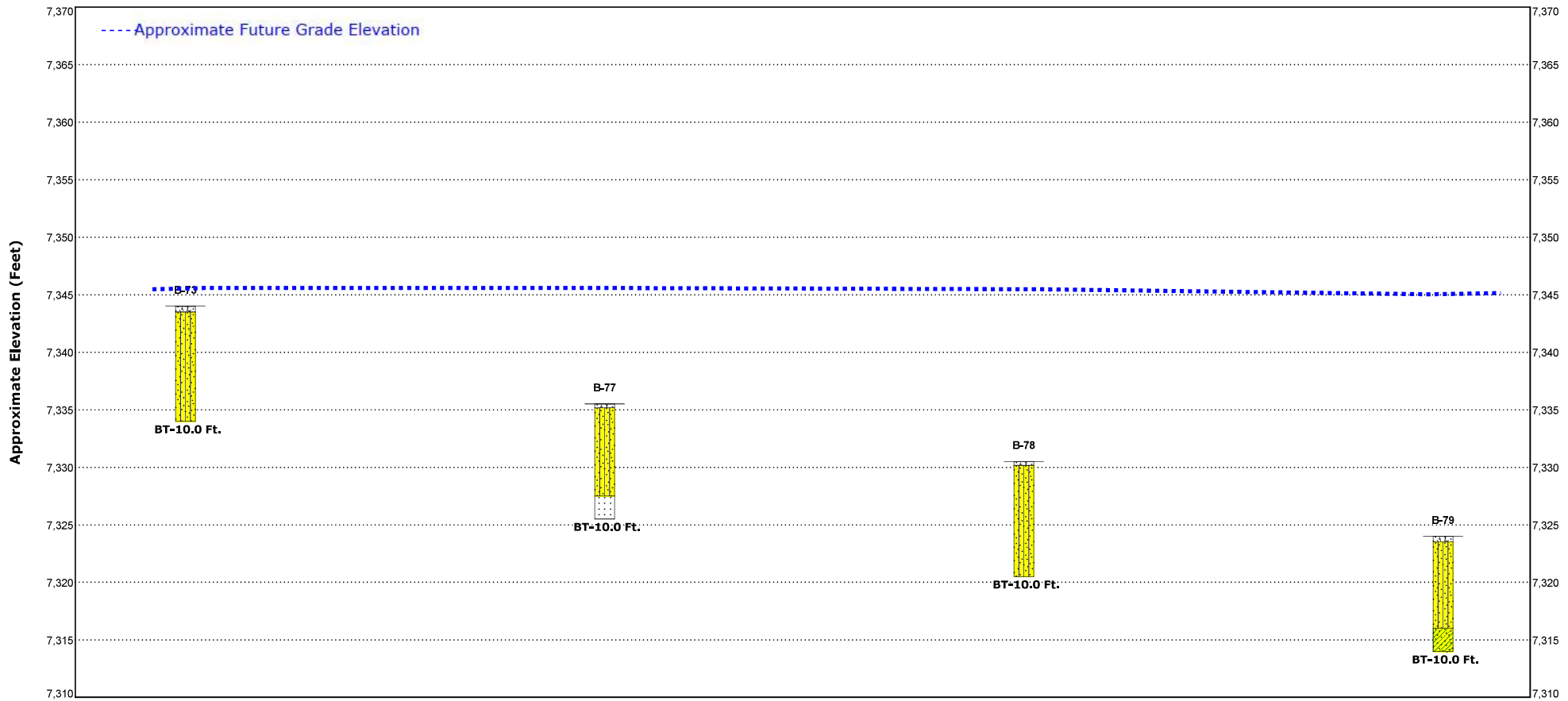
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Terracon Project No. 23245069

Subsurface Profile

Section H-H'

Terracon
4172 Center Park Dr
Colorado Springs, CO

W E



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-73 — Borehole Number Moisture Content — %w — LL PL — Liquid and Plastic Limits Sampling (See General Notes) — Borehole Lithology AR / BT — Borehole Termination Type	Topsoil; Silty Sand; Sandstone; Sandy Lean Clay

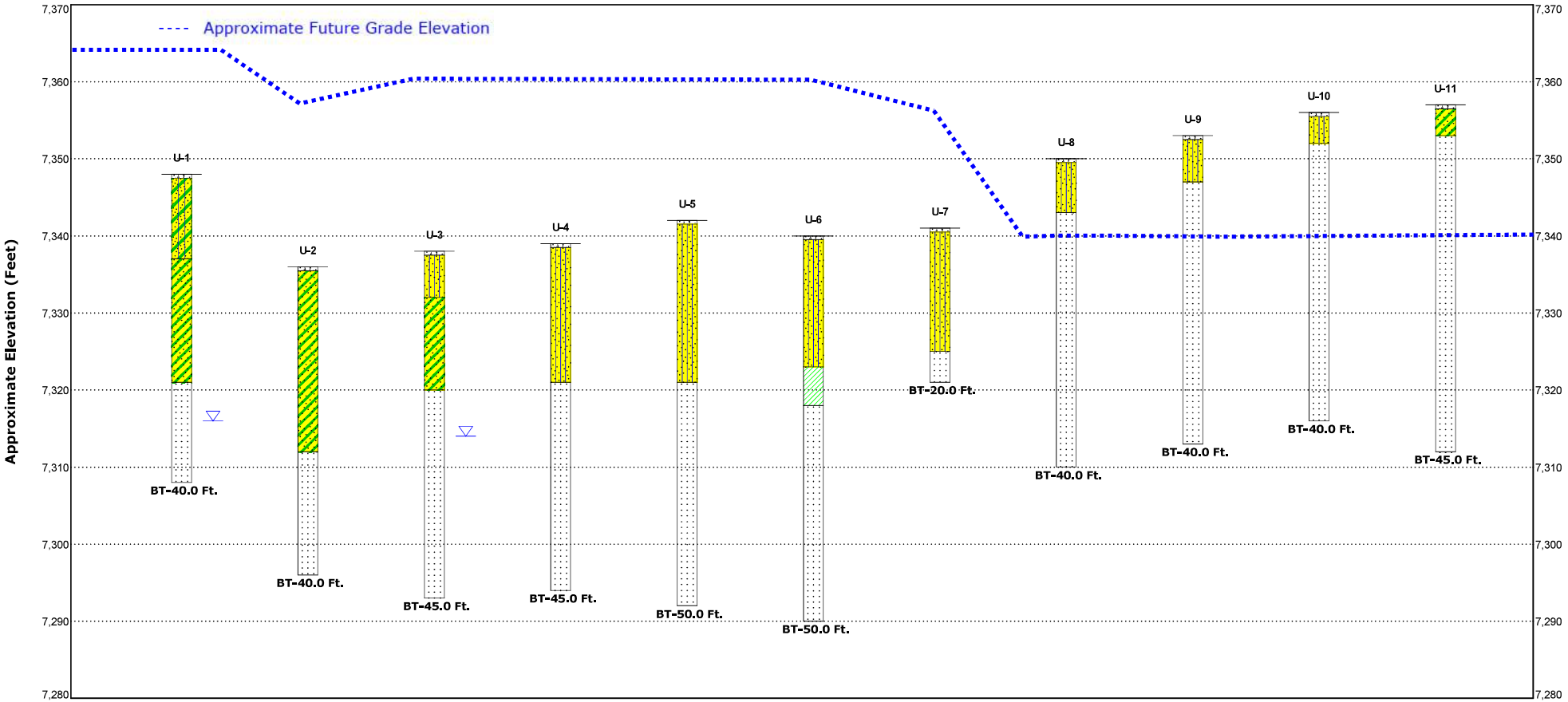
Buc-ees Monument
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Terracon Project No. 23245069

Subsurface Profile

Section I-I'

Terracon
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Colorado Springs, CO

I ◄ ► I'



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	U-1 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR BT — Borehole Termination Type	Topsoil Silty Clayey Sand Clayey Sand Sandstone Silty Sand Lean Clay

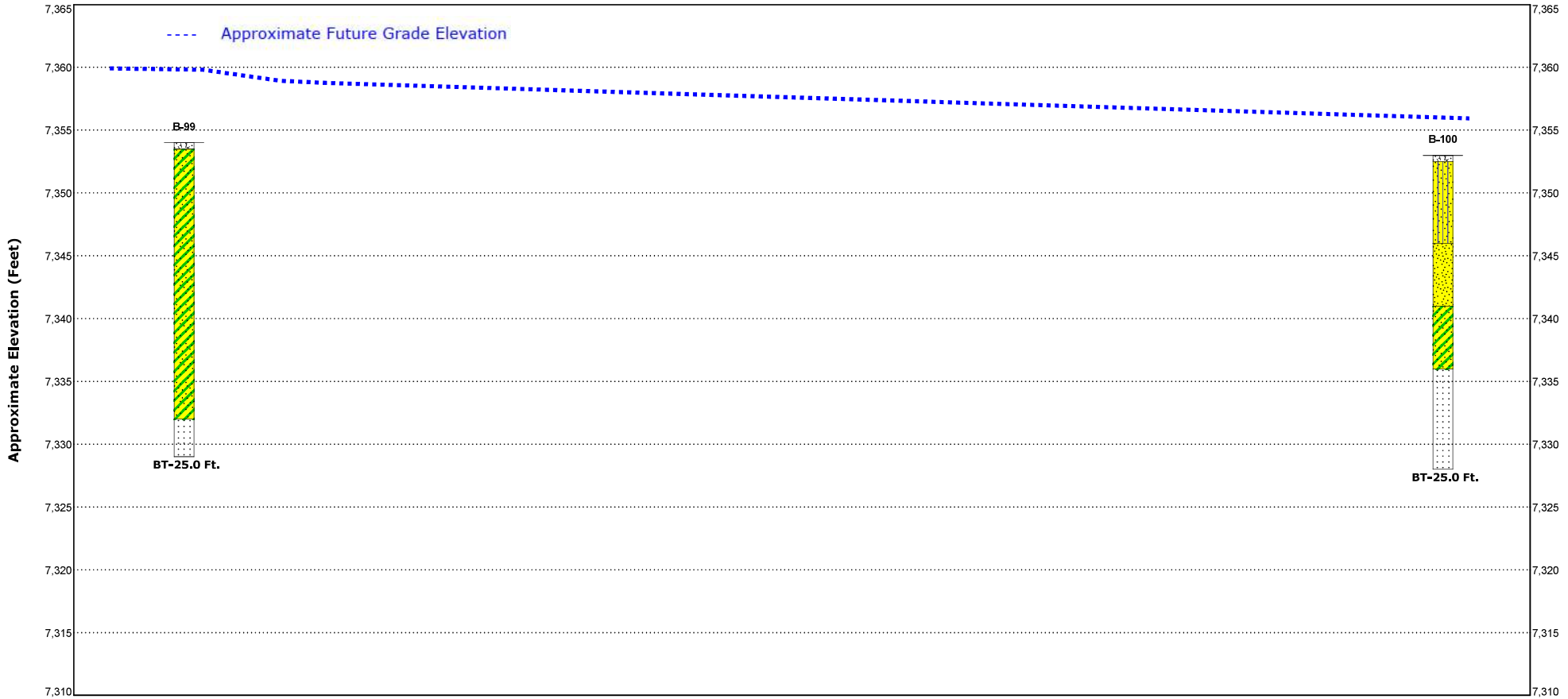
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Terracon Project No. 23245069

Subsurface Profile

Section J-J'

Terracon
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Colorado Springs, CO

J ◄ ► J'



Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-99 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR BT — Borehole Termination Type	Topsoil; Clayey Sand; Sandstone; Silty Sand; Poorly-graded Sand

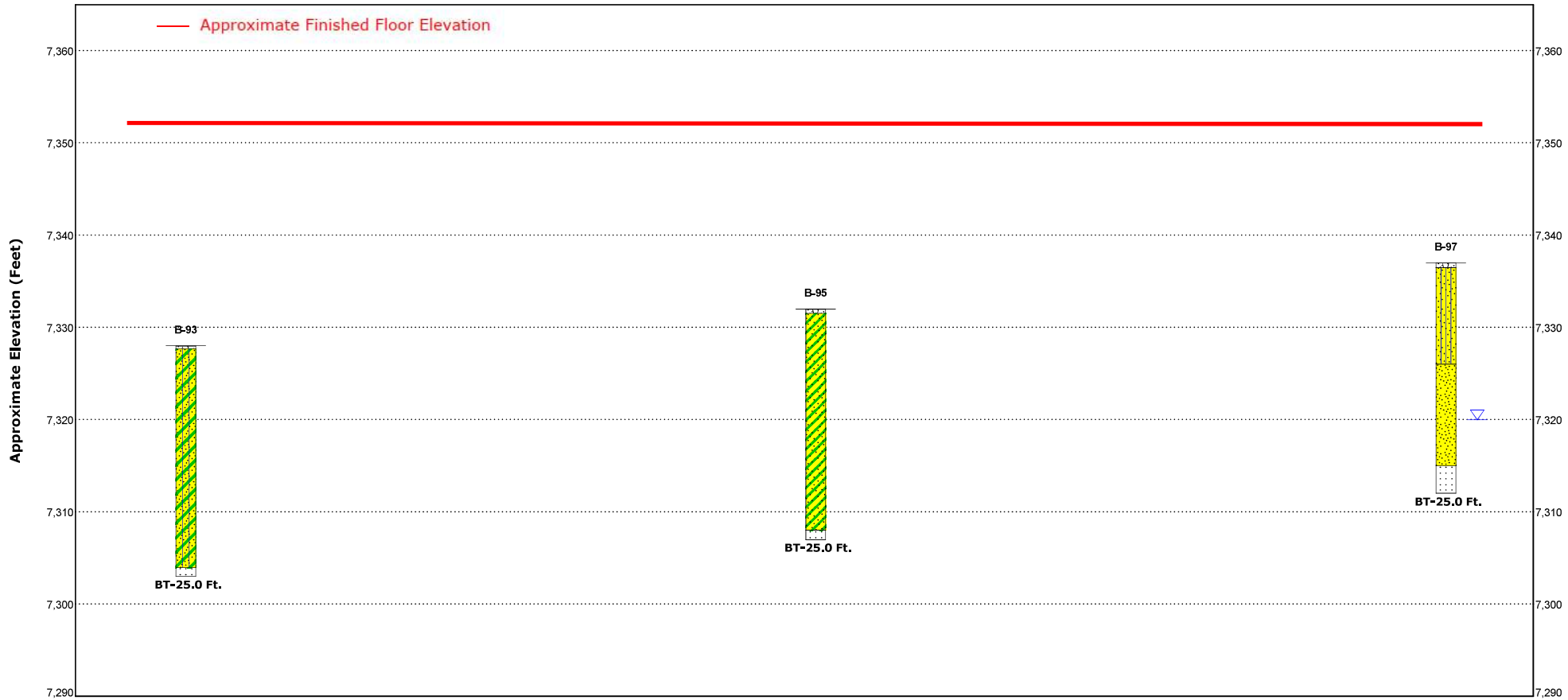
Buc-ees Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Subsurface Profile

Section K-K'

Terracon
4172 Center Park Dr
Colorado Springs, CO

K ◄ ► K'



Notes	Water Level Observations	Explanation
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-93 — Borehole Number Moisture Content — %w LL PL — Liquid and Plastic Limits Sampling (See General Notes) Borehole Lithology AR BT — Borehole Termination Type

Material Legend

Topsoil | Silty Clayey Sand | Sandstone | Clayey Sand | Silty Sand | Poorly-graded Sand

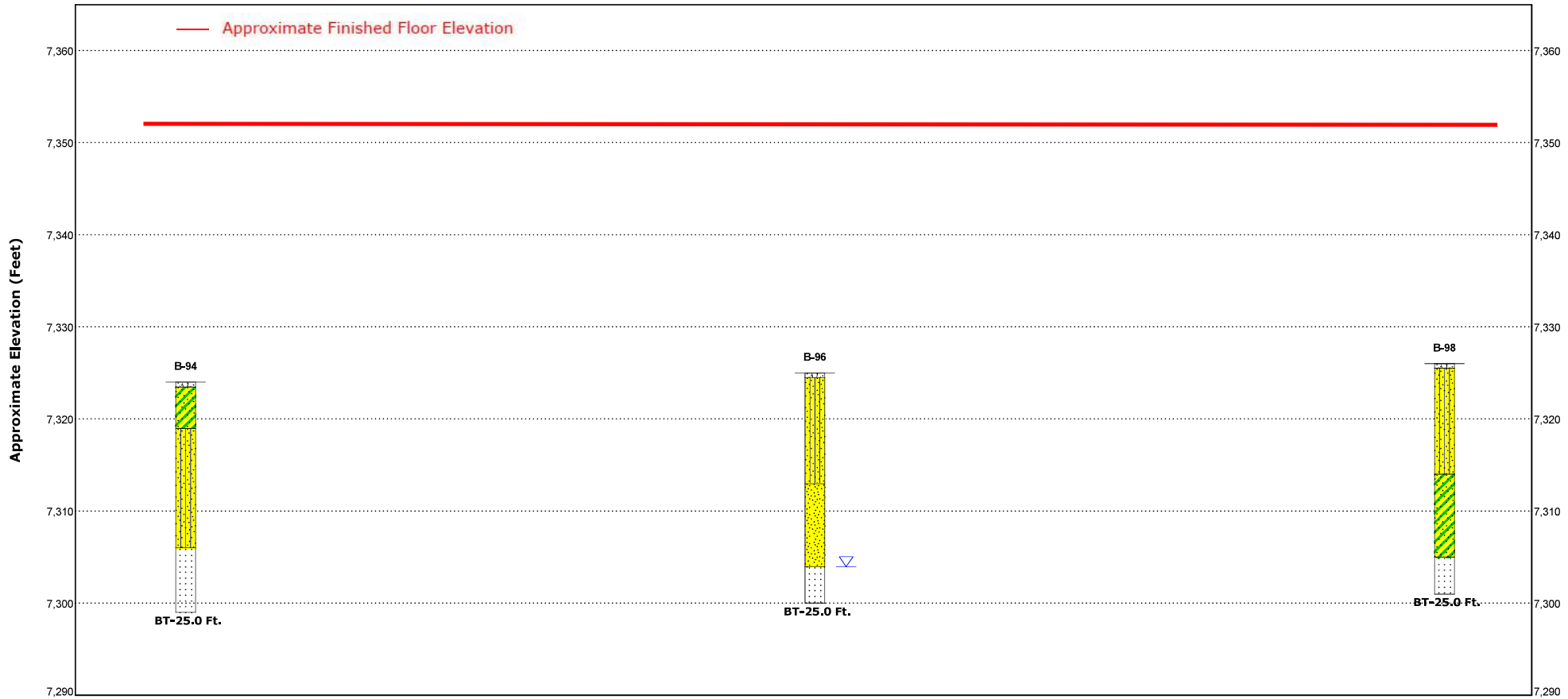
Buc-ees Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Subsurface Profile

Section L-L'

Terracon
4172 Center Park Dr
Colorado Springs, CO

L ◄ ► L'

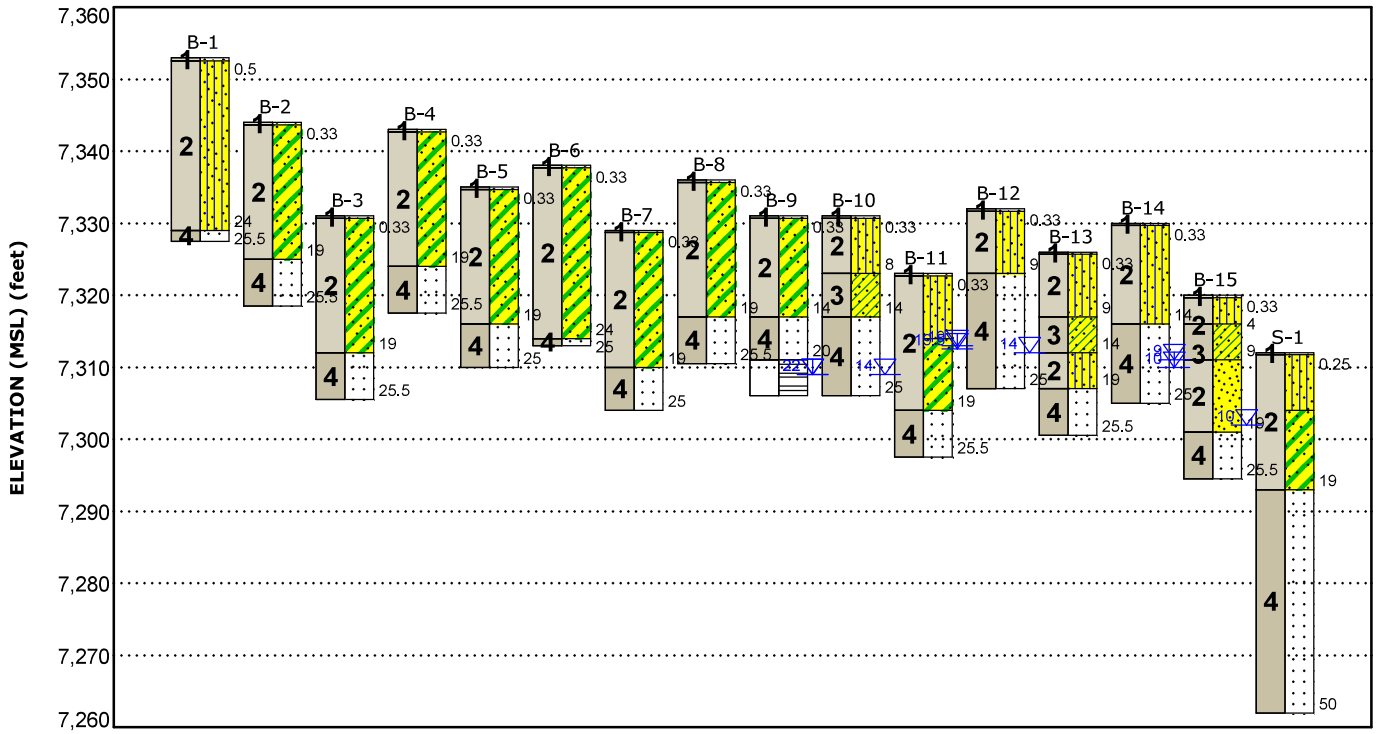


Notes	Water Level Observations	Explanation	Material Legend
See Exploration Plan for orientation of soil profile. See General Notes in Supporting Information for symbols and soil classifications. Soils profile provided for illustration purposes only. Soils between borings may differ AR - Auger Refusal BT - Boring Termination	Water Level Reading at time of drilling. Water Level Reading after drilling.	B-94 — Borehole Number Moisture Content — %w; LL PL — Liquid and Plastic Limits Sampling (See General Notes) — Borehole Lithology AR / BT — Borehole Termination Type	Topsoil; Clayey Sand; Silty Sand; Sandstone; Poorly-graded Sand

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Convenience Store and Sign



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	Topsoil; about 2 to 6 inches
2	Native Sand	Native sand with varying amounts of clay, silt and gravel; very loose to dense
3	Native Clay	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	Bedrock	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Legend

- Topsoil
- Sandstone
- Shale
- Poorly-graded Sand
- Silty Sand
- Clayey Sand
- Sandy Lean Clay

▽ First Water Observation
▽ Second Water Observation

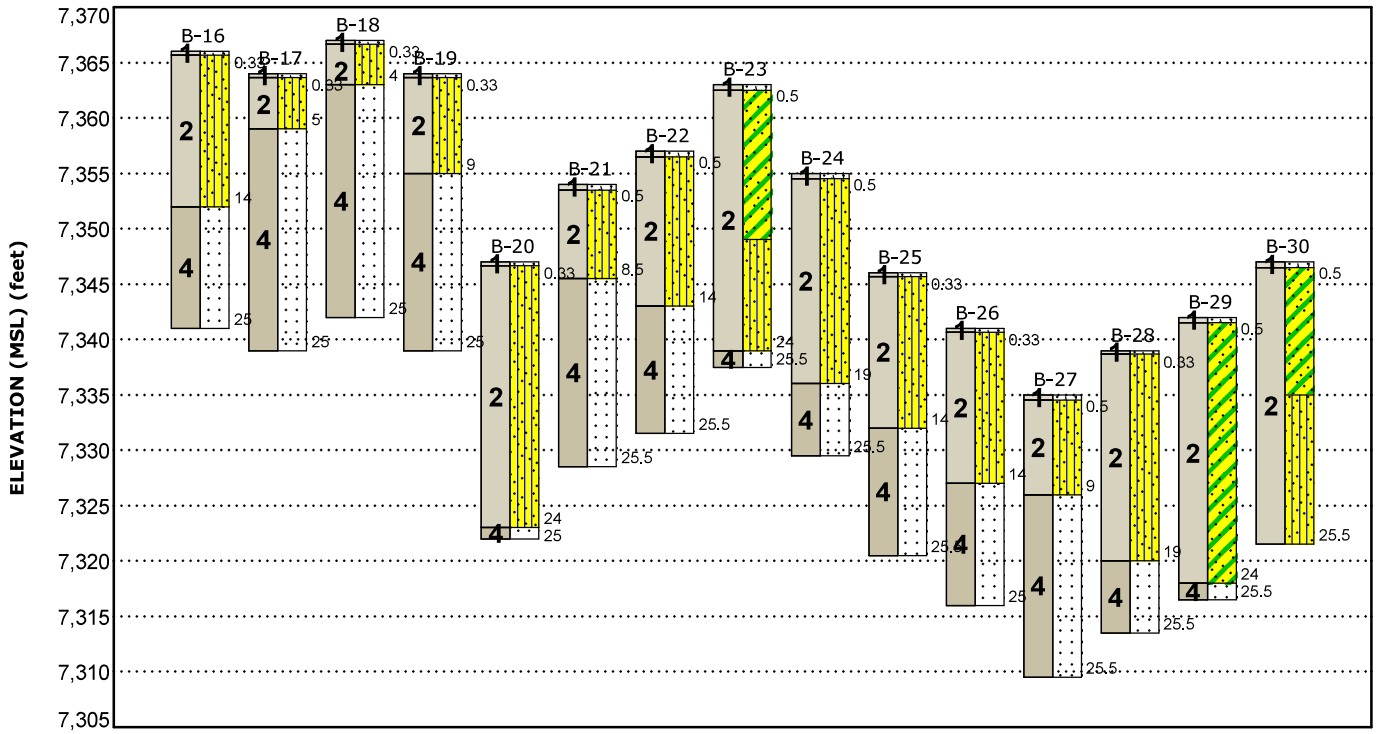
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Fuel Canopy and UST



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	**Topsoil**	Topsoil; about 2 to 6 inches
2	**Native Sand**	Native sand with varying amounts of clay, silt and gravel; very loose to dense
3	**Native Clay**	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	**Bedrock**	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Legend

Topsoil
Silty Sand
Sandstone
Clayey Sand

▽ First Water Observation
▽ Second Water Observation

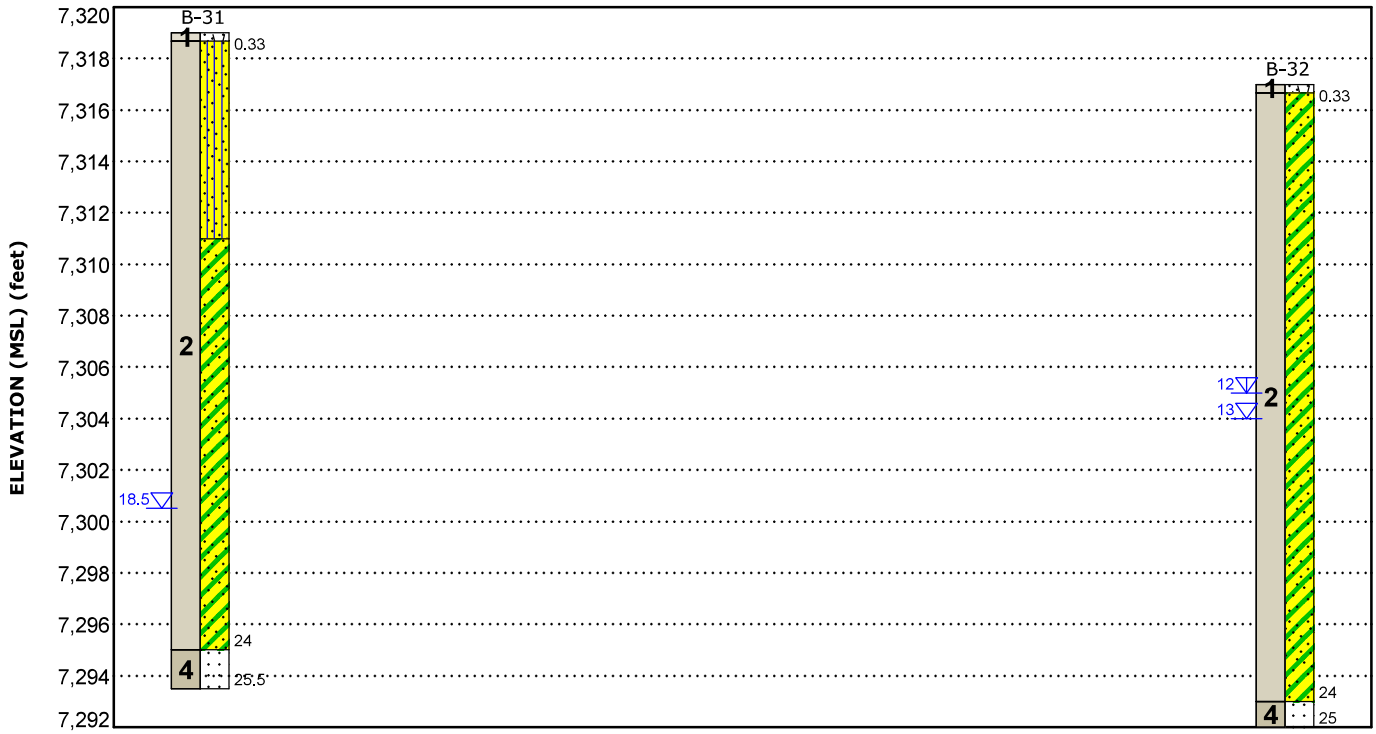
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
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Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Remote Generator



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	**Topsoil**	Topsoil; about 2 to 6 inches
2	**Native Sand**	Native sand with varying amounts of clay, silt and gravel; very loose to dense
3	**Native Clay**	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	**Bedrock**	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Legend

- Topsoil
- Silty Sand
- Clayey Sand
- Sandstone

▽ First Water Observation
▽ Second Water Observation

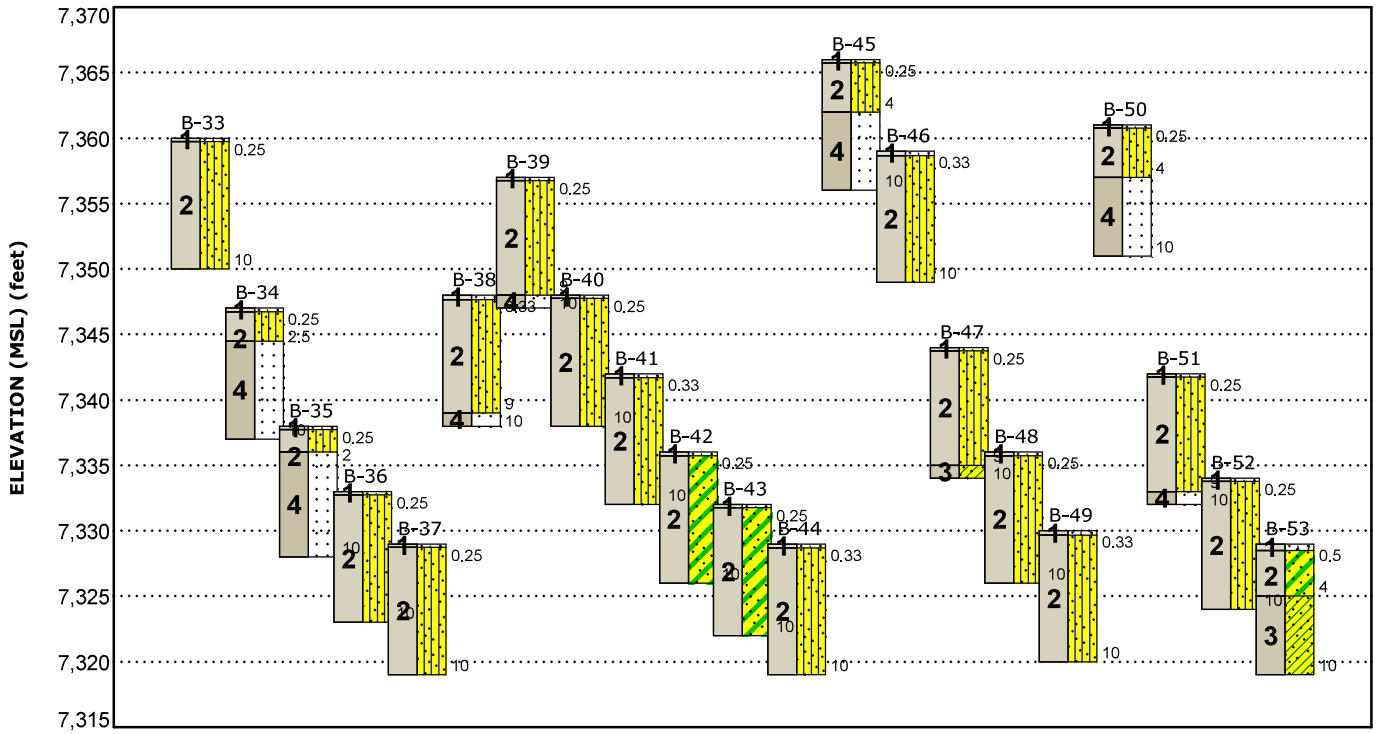
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Pavements (Northern Portion)



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	**Topsoil**	Topsoil; about 2 to 6 inches
2	**Native Sand**	Native sand with varying amounts of clay, silt and gravel; very loose to dense
3	**Native Clay**	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	**Bedrock**	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Legend

- Topsoil
- Silty Sand
- Sandstone
- Clayey Sand
- Sandy Lean Clay

▽ First Water Observation
▽ Second Water Observation

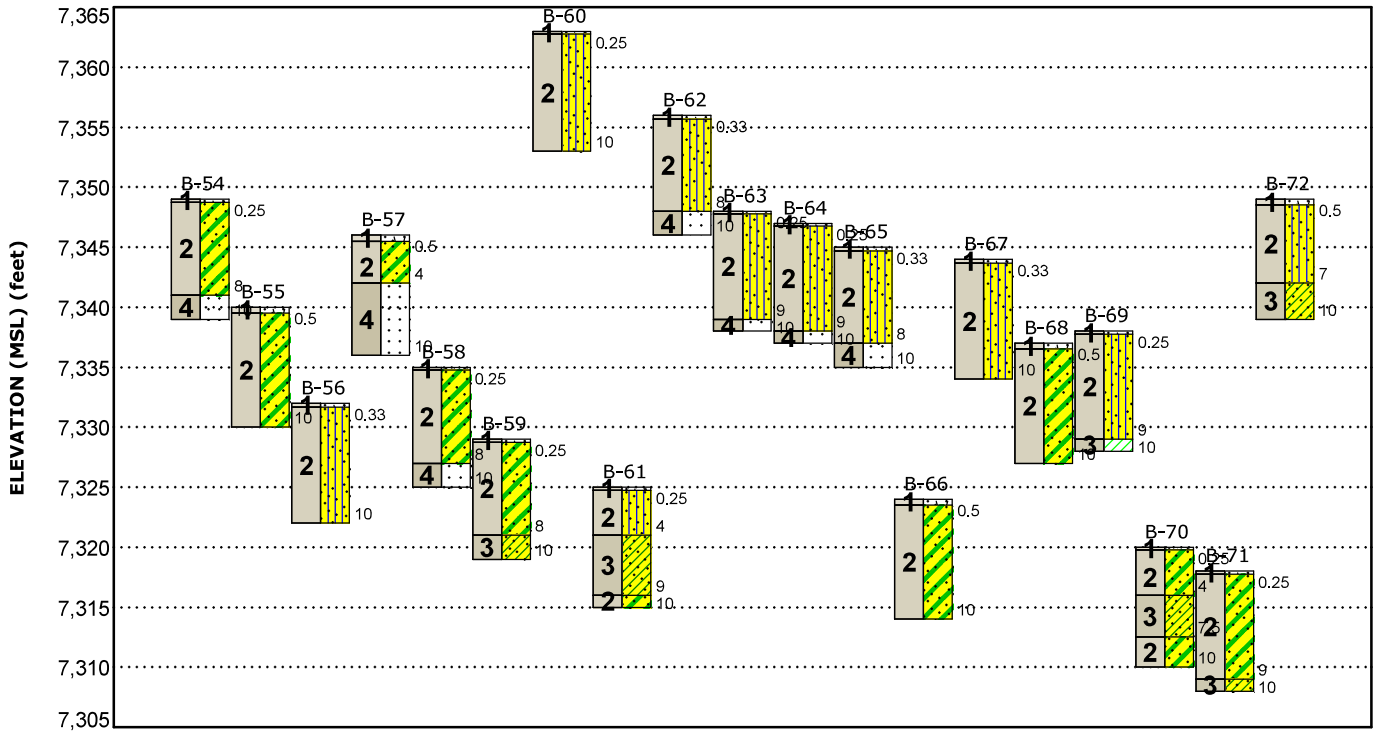
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Pavements (Central Portion)



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	**Topsoil**	Topsoil; about 2 to 6 inches
2	**Native Sand**	Native sand with varying amounts of clay, silt and gravel; very loose to dense
3	**Native Clay**	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	**Bedrock**	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Legend

- Topsoil
- Sandstone
- Sandy Lean Clay
- Clayey Sand
- Silty Sand
- Lean Clay

▽ First Water Observation
▽ Second Water Observation

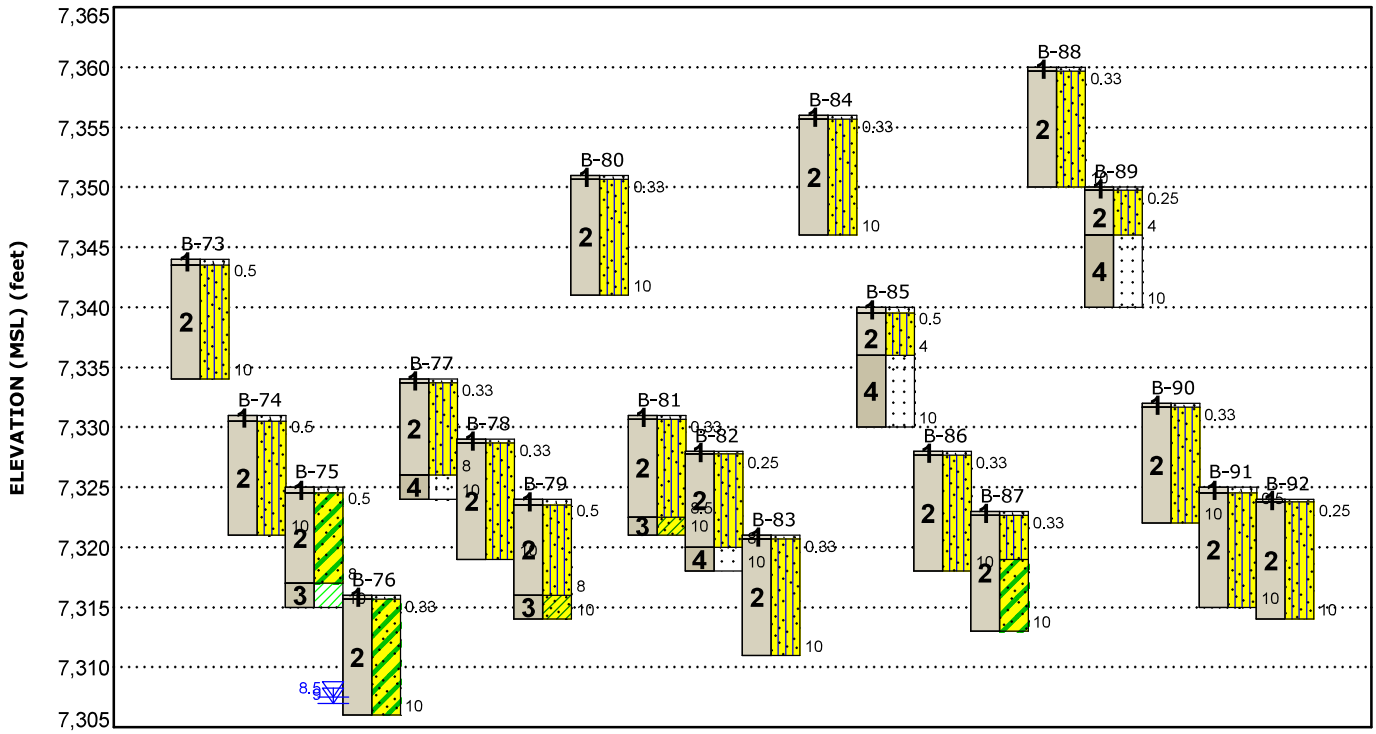
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Pavements (Southern Portion)



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	**Topsoil**	Topsoil; about 2 to 6 inches
2	**Native Sand**	Native sand with varying amounts of clay, silt and gravel; very loose to dense
3	**Native Clay**	Native lean clay with varying amounts of sand and gravel; stiff to hard
4	**Bedrock**	Bedrock consisting of sandstone and claystone; soft to very hard, weak to strong cementation

Legend

- Topsoil
- Silty Sand
- Clayey Sand
- Lean Clay
- Sandstone
- Sandy Lean Clay

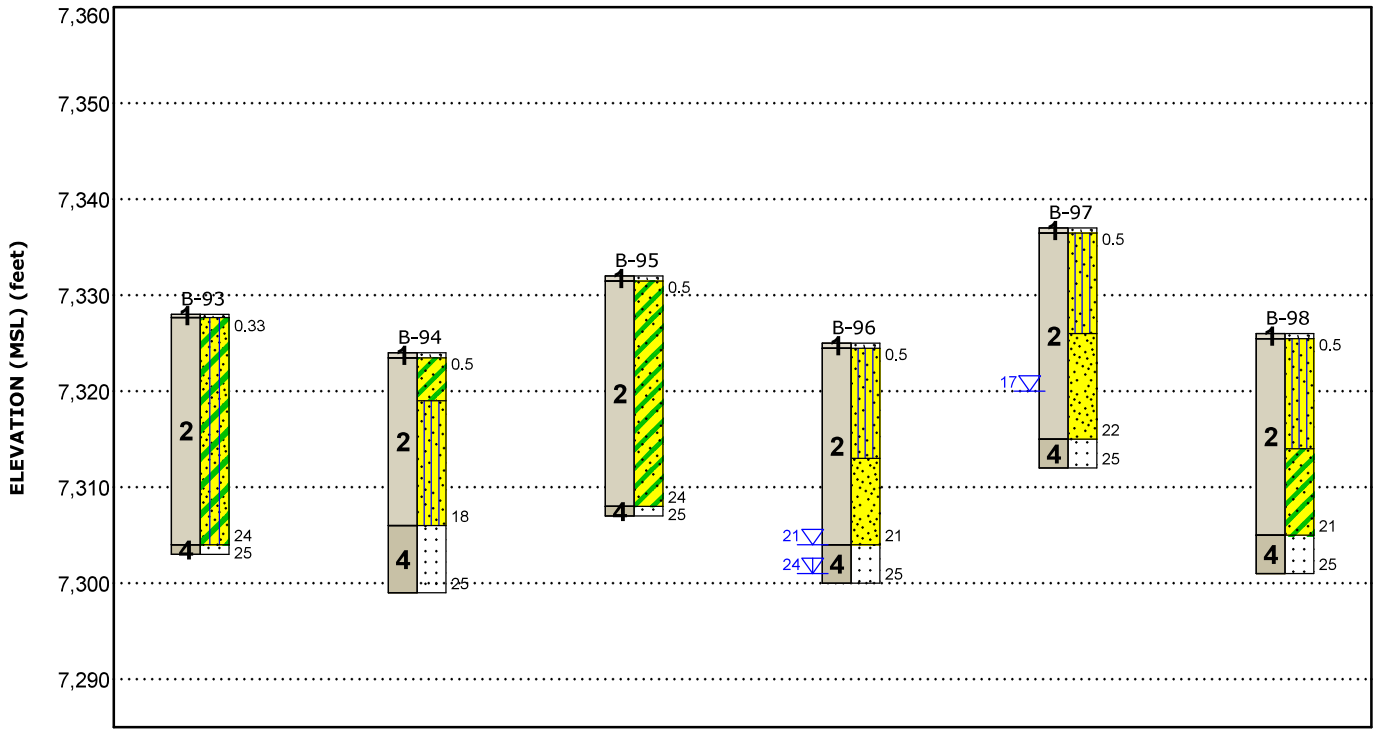
▽ First Water Observation
▽ Second Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Convenience Store Building (Additional Borings)



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 4 to 6 inches thick
2	Native Sand	Native sand with varying amounts of clay, silt and gravel; fine to coarse grained, very loose to medium dense
3	Native Clay	Native lean clay with varying amounts of sand and gravel; stiff
4	Bedrock	Bedrock consisting of sandstone with varying amounts of clay; firm to very hard, weak to strong cementation

Legend

- Topsoil
- Sandstone
- Silty Sand
- Silty Clayey Sand
- Clayey Sand
- Poorly-graded Sand

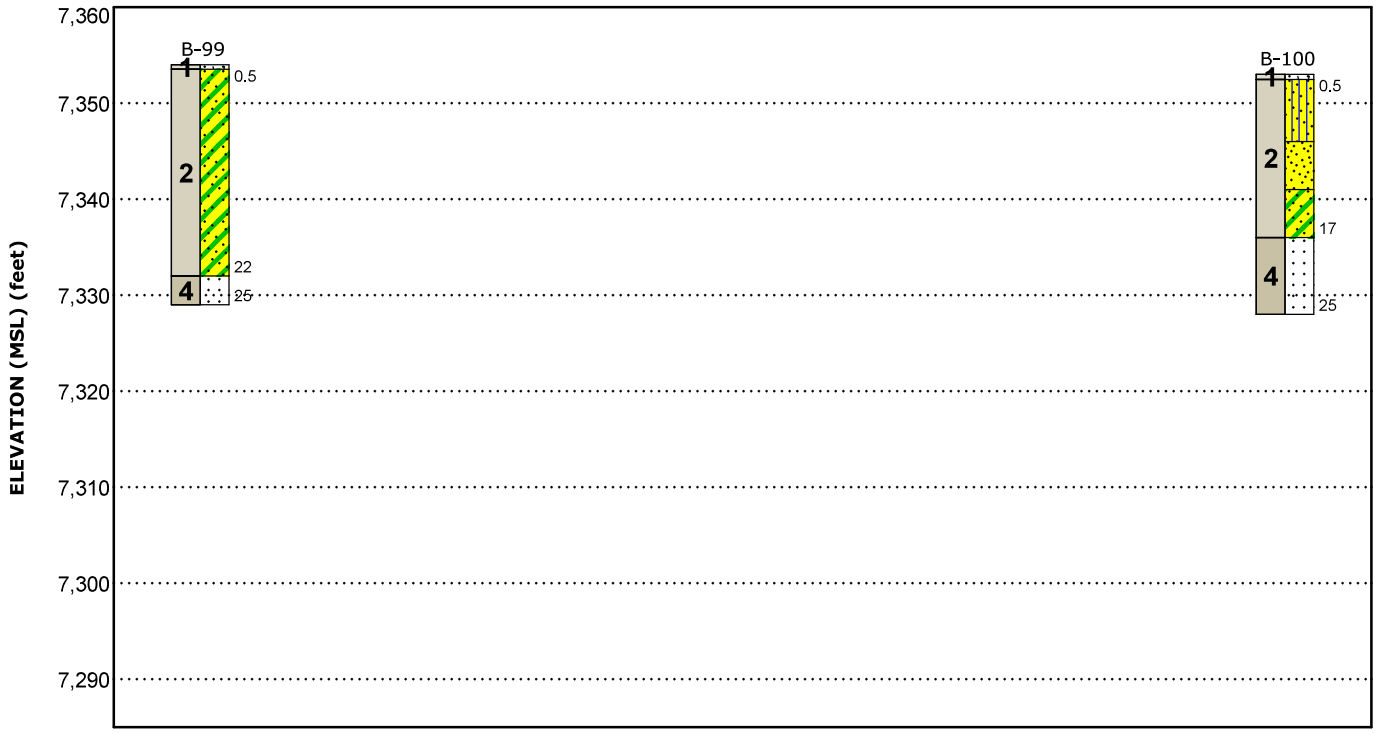
▽ First Water Observation
▽ Second Water Observation
▼ Third Water Observation
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - New Under Ground Tank Borings



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 4 to 6 inches thick
2	Native Sand	Native sand with varying amounts of clay, silt and gravel; fine to coarse grained, very loose to medium dense
3	Native Clay	Native lean clay with varying amounts of sand and gravel; stiff
4	Bedrock	Bedrock consisting of sandstone with varying amounts of clay; firm to very hard, weak to strong cementation

Legend

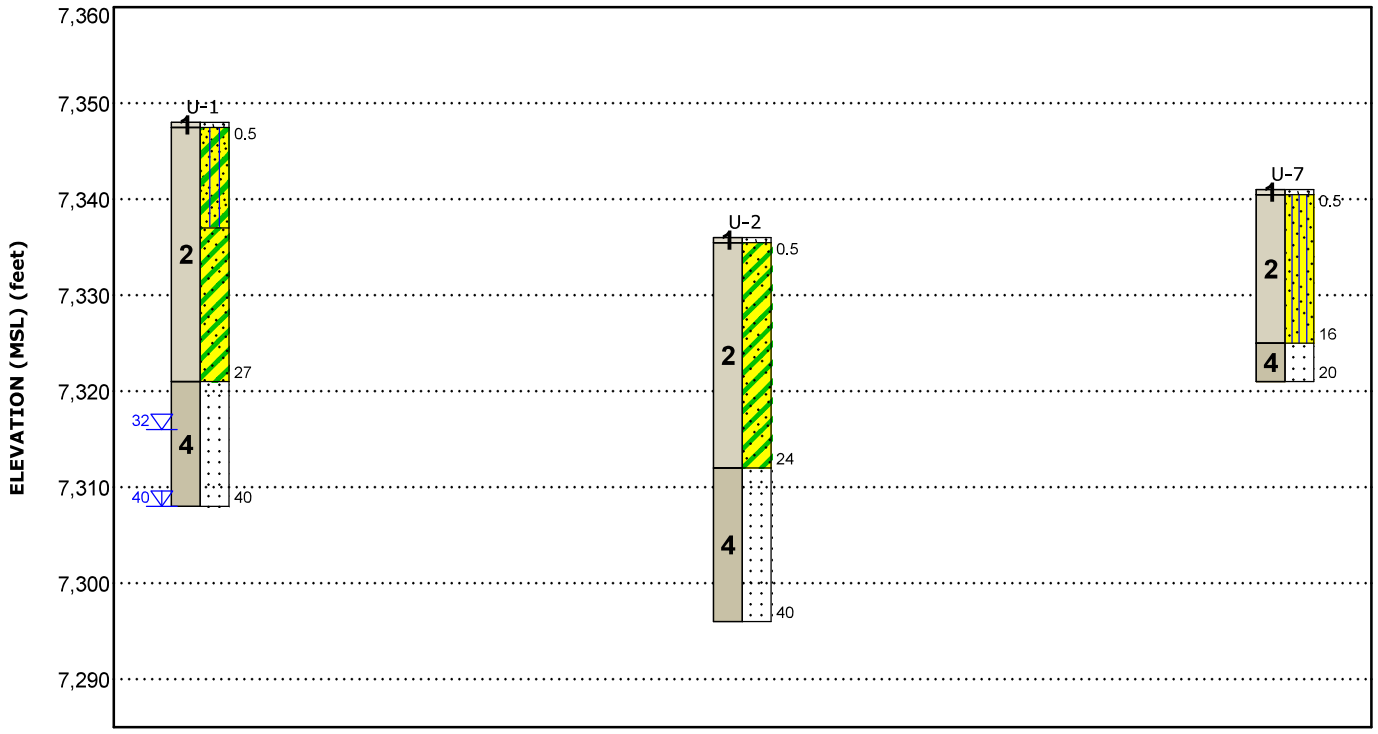
- Topsoil
- Clayey Sand
- Sandstone
- Silty Sand
- Poorly-graded Sand

▽ First Water Observation
▽ Second Water Observation
▼ Third Water Observation
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Utility Improvements



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 4 to 6 inches thick
2	Native Sand	Native sand with varying amounts of clay, silt and gravel; fine to coarse grained, very loose to medium dense
3	Native Clay	Native lean clay with varying amounts of sand and gravel; stiff
4	Bedrock	Bedrock consisting of sandstone with varying amounts of clay; firm to very hard, weak to strong cementation

Legend

- Topsoil
- Silty Clayey Sand
- Clayey Sand
- Sandstone
- Silty Sand

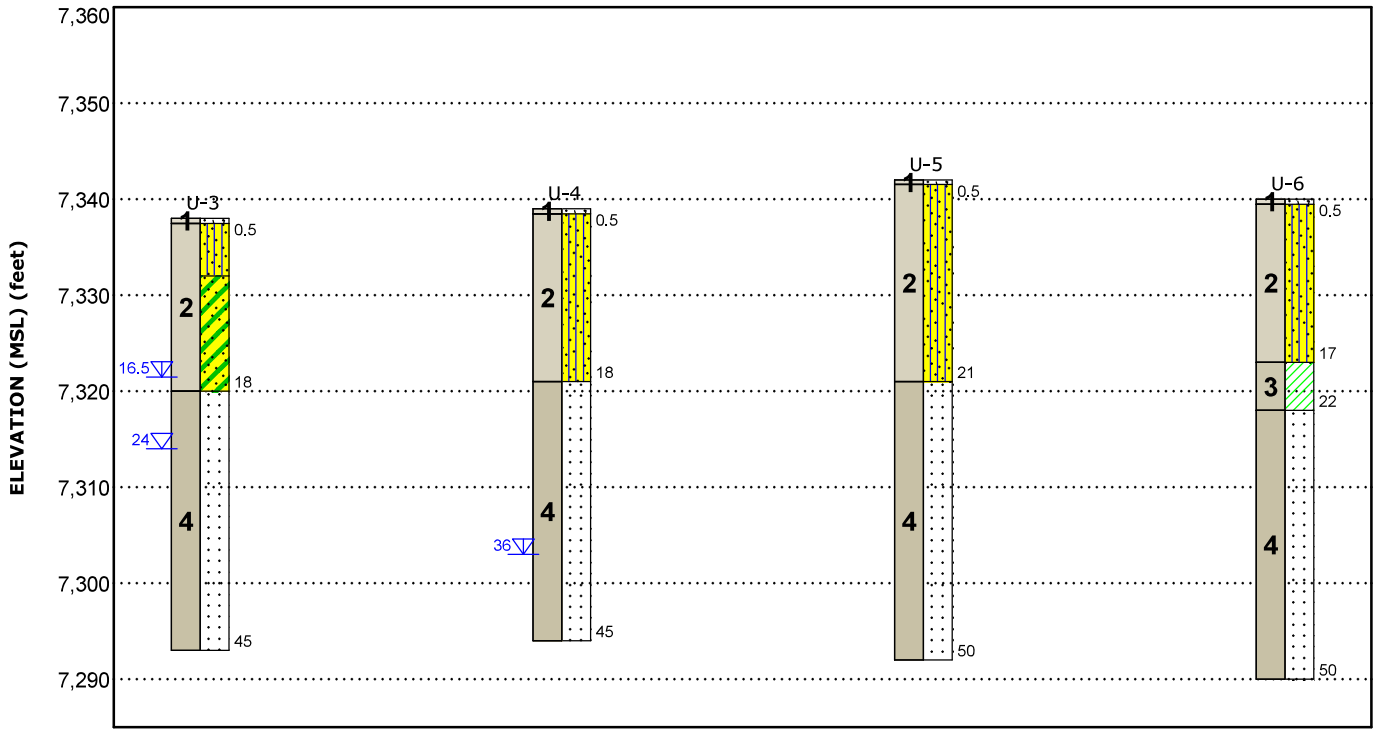
▽ First Water Observation
▽ Second Water Observation
▼ Third Water Observation
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Above Grade Tank (Original Location)



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 4 to 6 inches thick
2	Native Sand	Native sand with varying amounts of clay, silt and gravel; fine to coarse grained, very loose to medium dense
3	Native Clay	Native lean clay with varying amounts of sand and gravel; stiff
4	Bedrock	Bedrock consisting of sandstone with varying amounts of clay; firm to very hard, weak to strong cementation

Legend

- Topsoil
- Silty Sand
- Clayey Sand
- Sandstone
- Lean Clay

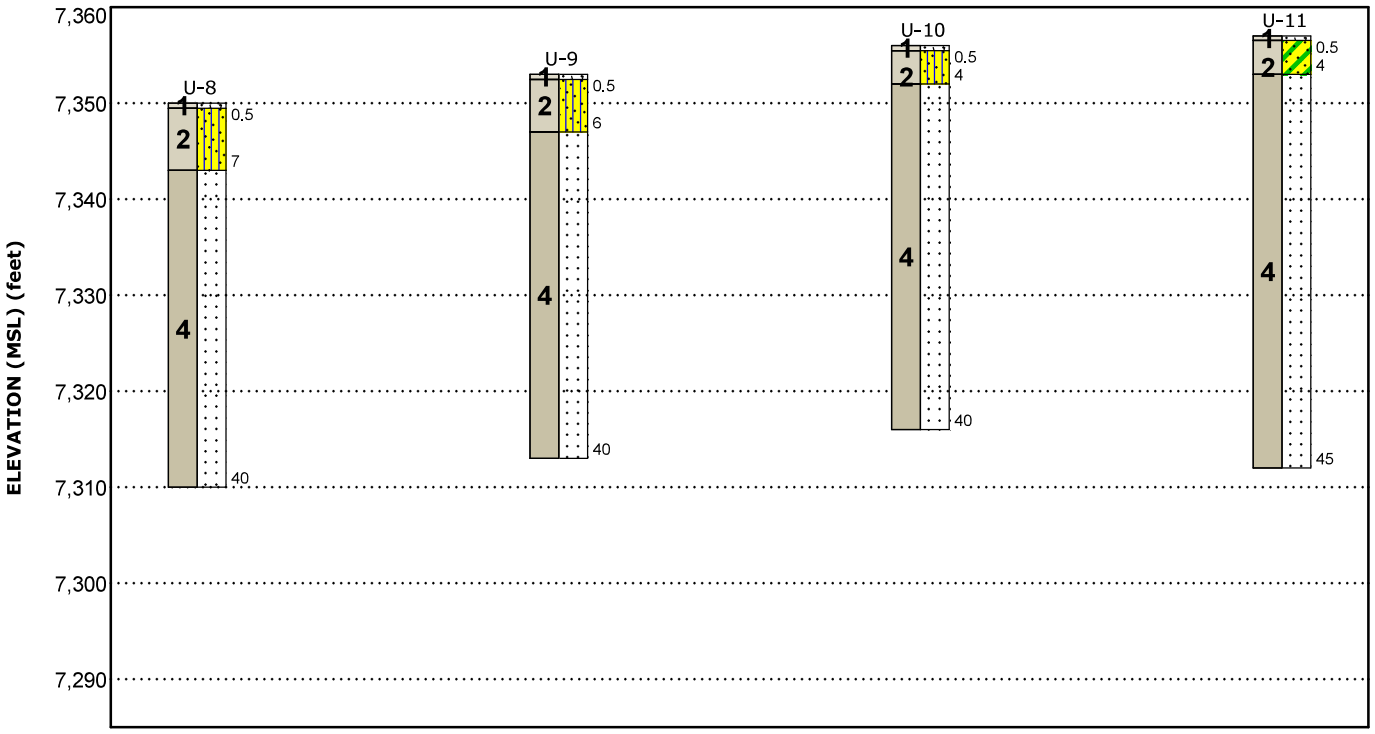
▽ First Water Observation
▽ Second Water Observation
▼ Third Water Observation
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

GeoModel - Above Grade Tank (Alternative Location)



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 4 to 6 inches thick
2	Native Sand	Native sand with varying amounts of clay, silt and gravel; fine to coarse grained, very loose to medium dense
3	Native Clay	Native lean clay with varying amounts of sand and gravel; stiff
4	Bedrock	Bedrock consisting of sandstone with varying amounts of clay; firm to very hard, weak to strong cementation

Legend

Topsoil
Silty Sand
Sandstone
Clayey Sand

▽ First Water Observation
▽ Second Water Observation
▼ Third Water Observation
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Exploration and Testing Procedures

Field Exploration

Boring Layout and Elevations: The locations of the borings are presented in the **Site Location and Exploration Plans**. The borings were located in the field by overlaying the site plan on Google Earth, recording the latitude and longitude coordinates, and staking the borings using a handheld, recreational-grade GPS unit. The accuracy of the latitude and longitude values is typically about +/- 25 feet when obtaining the values using this method. Ground surface elevations at each of the boring locations were obtained by interpolation from Kimley Horn Grading Plan, dated July 8, 2025. The accuracy of the boring locations and surface elevations should only be assumed to the level implied by the methods used.

Subsurface Exploration Procedures: The borings were drilled with a CME-75 and Mobil B-57 truck-mounted rotary drill rigs with solid-stem augers. During the drilling operations, lithologic logs of the borings were recorded by Terracon. Relatively undisturbed samples were obtained at selected intervals utilizing a 2-inch outside diameter standard split spoon sampler, a 2½-inch outside diameter modified California barrel sampler, a 3-inch outside diameter Dames & Moore barrel sampler, and 3-inch thin walled tube sample (Shelby Tubes). Bulk samples were obtained from auger cuttings. Penetration resistance values were recorded in a manner similar to the standard penetration test (SPT). This test consists of driving the sampler into the ground with a 140-pound hammer free falling through a distance of 30 inches. The number of blows required to advance the barrel sampler 12 inches (18 inches for standard split-spoon samplers, final 12 inches are recorded) or the interval indicated is recorded and can be correlated to the standard penetration resistance value (N-value). The blow count values are indicated on the boring logs at the respective sample depths. Modified California and Dames and Moore barrel sampler blow counts are not considered N-values.

An automatic hammer was used to advance the samplers in the borings performed on this site. A greater efficiency is typically achieved with the automatic hammer compared to the conventional safety hammer operated with a cathead and rope. Published correlations between the SPT values and soil properties are based on the lower efficiency cathead and rope method. This higher efficiency affects the standard penetration resistance blow count value by increasing the penetration per hammer blow over what would be obtained using the cathead and rope method. The effect of the automatic hammer's efficiency has been considered in the interpretation and analysis of the subsurface information for this report.

The standard penetration test provides a reasonable indication of the in-place density of sandy type materials, but only provides an indication of the relative stiffness of cohesive materials since the blow count in these soils may be affected by the soil moisture

content. In addition, considerable care should be exercised in interpreting the N-values in gravelly soils, particularly where the size of the gravel particle exceeds the inside diameter of the sampler.

Groundwater measurements were obtained in the borings at the time of drilling. Due to safety concerns, the borings were backfilled with auger cuttings drilling. Some settlement of the backfill may occur and should be repaired as soon as possible.

Laboratory Testing

Samples retrieved during the field exploration were returned to the laboratory for observation by the Geotechnical Engineer and were classified in general accordance with the Unified Soil Classification System presented in the **Supporting Information**. Rock classification was conducted using locally accepted practices for engineering purposes; petrographic analysis may reveal other rock types.

At this time, an applicable laboratory-testing program was formulated to determine engineering properties of the subsurface materials. Following the completion of the laboratory testing, the field descriptions were confirmed or modified as necessary, and the boring logs were prepared. The boring logs are included in the **Exploration Results**.

Laboratory test results are included in the **Exploration Results**. These results were used for the geotechnical engineering analyses and the development of foundation, earthwork, and pavement recommendations. All laboratory tests were performed in general accordance with the applicable local or other accepted standards.

Selected soil and bedrock samples were tested for the following engineering properties:

- Water content
- Dry density
- Grain size distribution
- Atterberg limits
- Swell/consolidation
- Moisture-Density Relationship (Standard Proctor)
- California Bearing Ratio (CBR)
- Water-soluble sulfate content

Site Location and Exploration Plans

Contents:

Site Location Plan
Exploration Plan with Aerial Image (3 pages)
Exploration Plan with Project Overlay (8 pages)

Note: All attachments are one page unless noted above.

Site Location

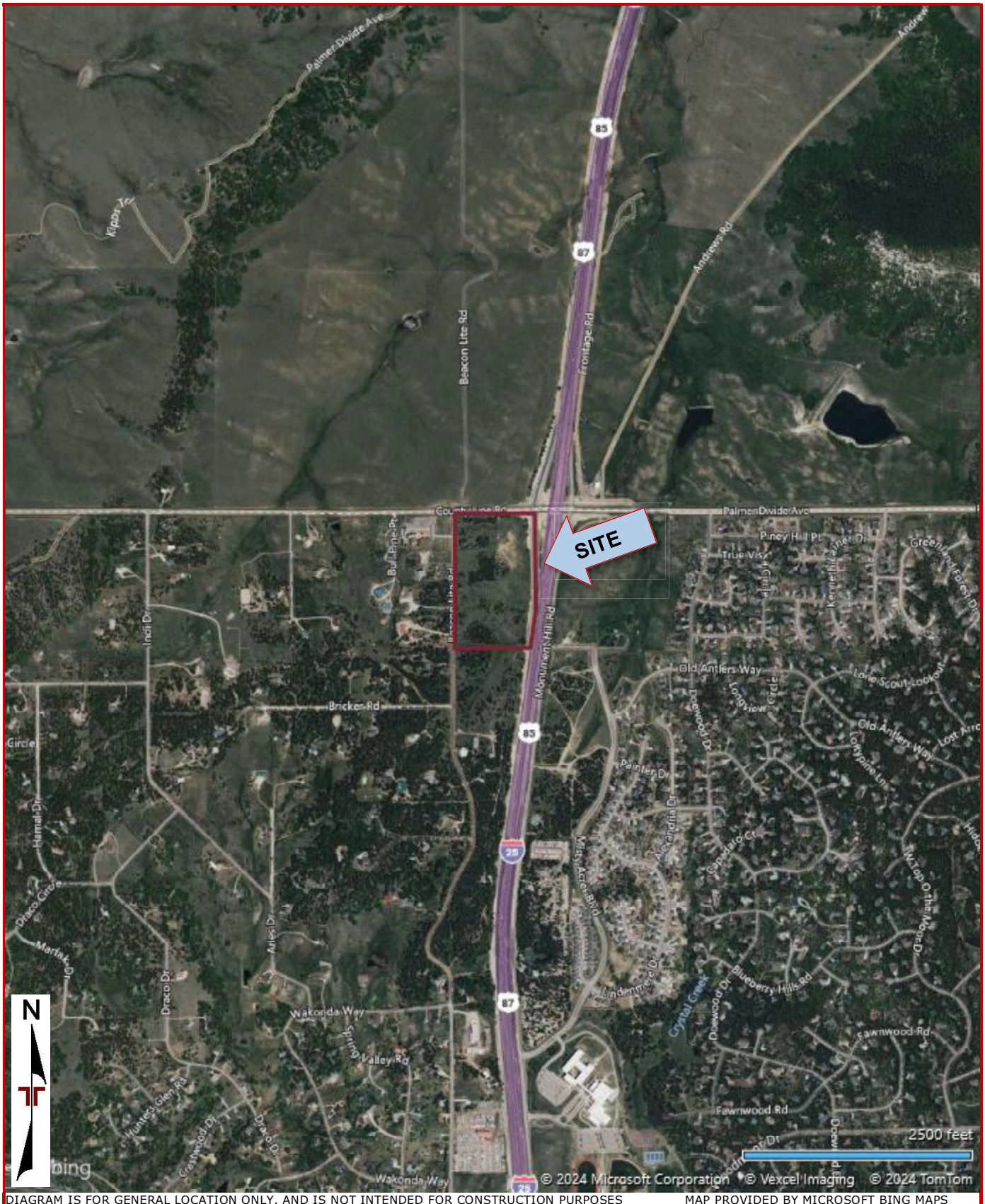


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES MAP PROVIDED BY MICROSOFT BING MAPS

Exploration Plan with Aerial Image (All Borings)

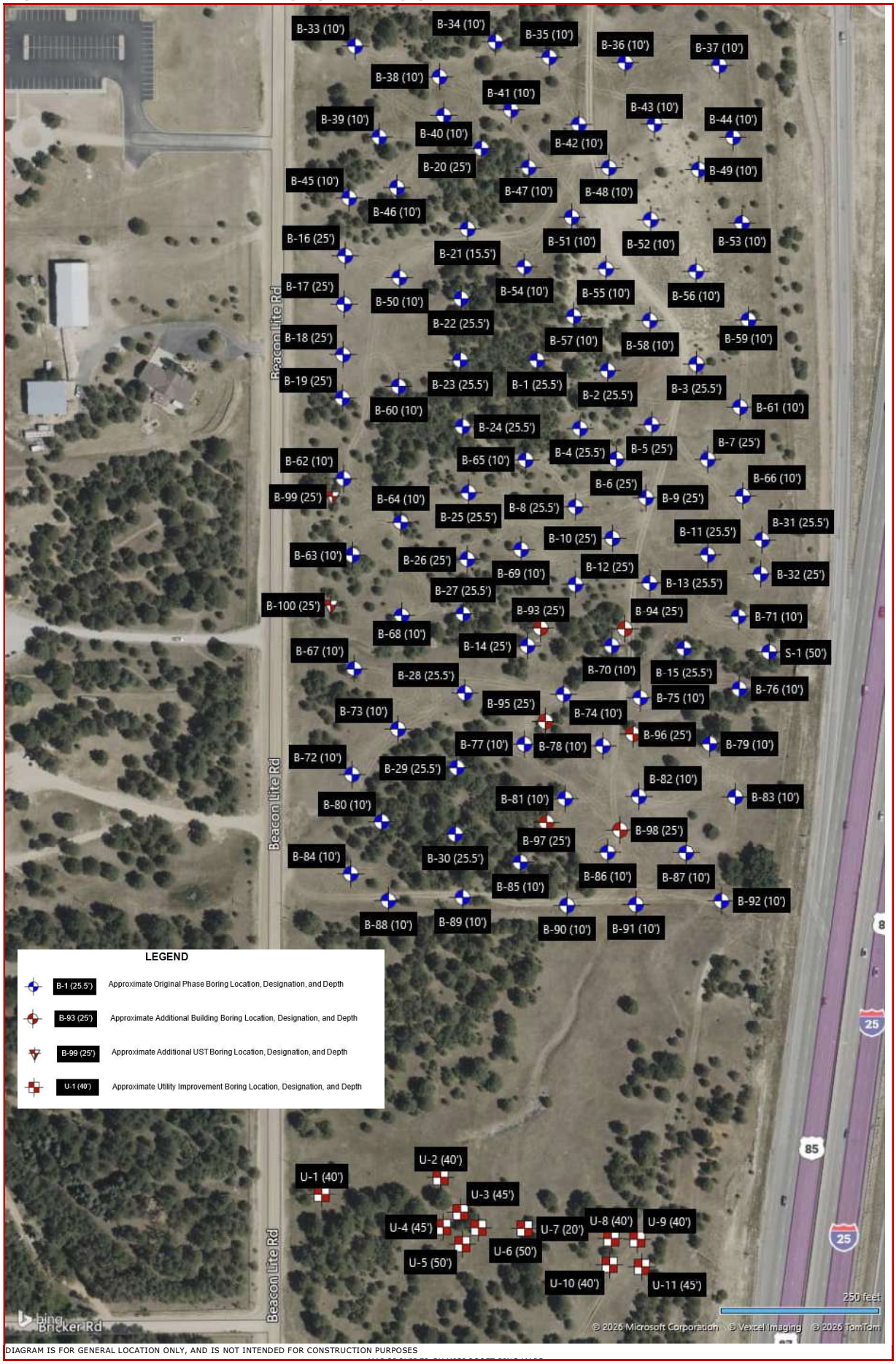


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Exploration Plan with Aerial Image and Depth to Bedrock (All Borings)

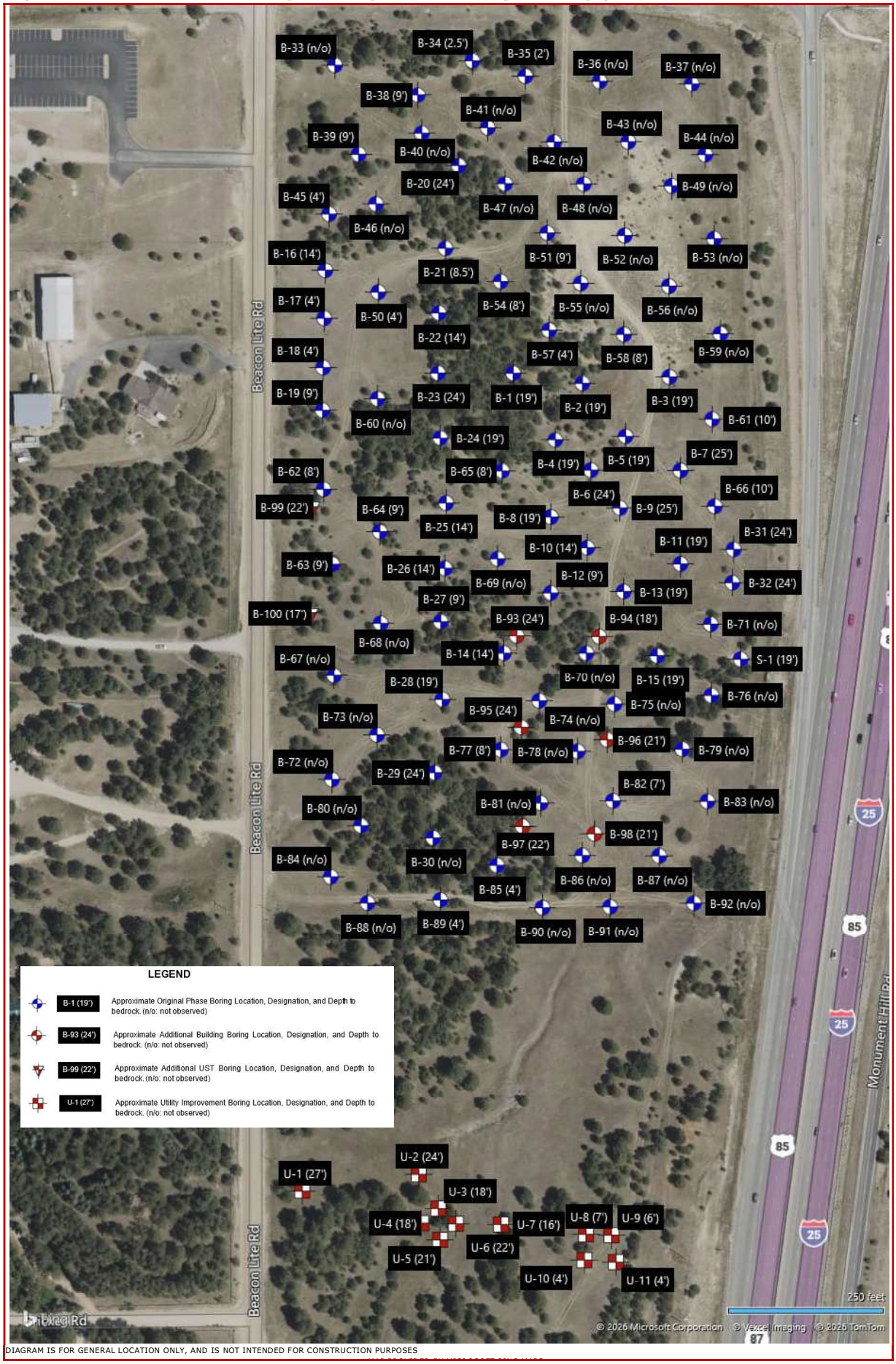


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Exploration and Laboratory Results

Contents:

Boring Logs (Boring Nos. B-1 to B-100, U-1 to U-11, and S-1)
Swell Consolidation Test (35 pages)
Grain Size Distribution (23 pages)
Moisture Density Relationship (3 pages)
CBR (3 pages)
Corrosivity (5 pages)
Summary of Laboratory Test Results (10 pages)

Note: All attachments are one page unless noted above.

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-1

Location: See Exploration Plan

Latitude: 39.1282° Longitude: -104.8663°

Depth (Ft.) Elevation: 7353.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7353								
2		**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, medium dense to dense			18-28		3.1	100		
					22-30					
		6.8 7346.7								
		Approximate Finished Floor Elevation = 7346.7 feet			22-27		5.7	100		
					10-9-12 N=21				NP	26
					17-23-26 N=49		6.9			
		24.0 7329.5								
4		**SANDSTONE**, fine to coarse grained, brown, very hard, strong cementation			24-36-50/4"					
		25.5 7328								
		Boring Terminated at 25.5 Feet								

Depth (Ft.): 5, 10, 15, 20, 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-22-2024

Boring Completed
07-22-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-2

Location: See Exploration Plan

Latitude: 39.1281° Longitude: -104.8659°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.)	Elevation: 7343.0 (Ft.) +/-	Model Layer	Graphic Log	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	**TOPSOIL**, about 4 inches thick 7342.67	1									
	CLAYEY SAND (SC), fine to coarse grained, brown to orangish brown, loose to medium dense	2				15-13					
						7-10		7.5	113		
						13-20		7.2	117		
19.0	7324										
	SANDSTONE, fine to coarse grained, light gray, olive brown, white, and orange brown, medium hard to hard, strong cementation	4				18-20					
						21-50/5"		11.7	118	38-22-16	28
						13-18-40 N=58					
25.5	7317.5										
	Boring Terminated at 25.5 Feet										

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-3

Location: See Exploration Plan

Latitude: 39.1281° Longitude: -104.8654°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.) | Elevation: 7331.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7331.17								
2		**CLAYEY SAND (SC)**, trace gravel, fine to coarse grained, brown to orangish brown, loose to medium dense			6-9	+0.2 @ 200 psf	13.2	113	38-14-24	43
					9-18					
					9-14		7.8	114		
					15-25		10.9	118		
4		19.0 7312.5 **SANDSTONE**, fine to coarse grained, brown, orange, pink, and white, hard, strong cementation			50/6"		8.6	114		
		25.5 7306			15-17-39 N=56					
		Boring Terminated at 25.5 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-4

Location: See Exploration Plan

Latitude: 39.1279° Longitude: -104.8660°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.)	Elevation (Ft.) +/-
0.3	7342.67
19.0	7324
25.5	7317.5

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3								
2		5			8-6					
					5-12		7.8	102		
		10			10-19		12.0	117	29-16-13	44
		15			15-21					
4		20			50/6"		9.2	106		
		25			21-33-50/5"					

TOPSOIL, about 4 inches thick

CLAYEY SAND (SC), with gravel below 14 feet, fine to coarse grained, brown to orangish brown, loose to medium dense

SANDSTONE, fine to coarse grained, brown, hard to very hard, strong cementation

Boring Terminated at 25.5 Feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-5

Location: See Exploration Plan

Latitude: 39.1279° Longitude: -104.8657°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.)	Elevation (Ft.) +/-	Model Layer	Graphic Log	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
0.3	7334.67	1									
						11-9				29-16-13	47
						6-9	-0.6 @ 500 psf	7.8	113		
		2				22-23		7.7	119		
						19-20		7.3	120		
19.0	7316										
		4				50/5"		9.1	106		
						43-50/5"		9.2			
25.0	7310										

Boring Terminated at 25 Feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-6

Location: See Exploration Plan

Latitude: 39.1277° Longitude: -104.8658°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Elevation: 7338.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick — 7338.17									
2			**CLAYEY SAND (SC)**, fine to coarse grained, brown to orangish brown, loose to medium dense				5-4					
							7-12		6.0	112		
				5								
							6-12				27-15-12	45
				10								
							23-26					
				15								
							19-35		11.4	121		
				20								
4		24.0	7314.5									
			SANDSTONE, fine to coarse grained, olive brown to orangish brown, medium hard, strong cementation				26-50/4"		17.2	112		
		25.0	7313.5	25								
			Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-7

Location: See Exploration Plan

Latitude: 39.1277° Longitude: -104.8653°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Elevation: 7328.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick	7328.17								
2			**CLAYEY SAND (SC)**, fine to coarse grained, orangish brown to brown, medium dense				11-10					
							10-13		11.0	112		
				5								
							11-11		10.7	111		
				10								
							11-22					
				15								
		19.0		7309.5								
4			**SANDSTONE**, fine to coarse grained, olive brown, pink, and white, medium hard to very hard, strong cementation				34-50/4"		7.7	116	NP	18
				20								
							50/4"					
		25.0		7303.5								
			Boring Terminated at 25 Feet	25								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
DG

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
07-17-2024

Boring Completed
07-17-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-8

Location: See Exploration Plan

Latitude: 39.1275° Longitude: -104.8661°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Elevation: 7336.5 (Ft.) +/-

Model Layer	Depth (Ft.)	Description	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.3	**TOPSOIL**, about 4 inches thick								
	7336.17									
2		**CLAYEY SAND (SC)**, fine to coarse grained, dark brown to orangish brown, loose to medium dense			7-7		7.9	107		
					5-10	-0.8 @ 500 psf	7.5	117	NP	45
					8-15					
					9-11-13 N=24		11.8			
	19.0									
	7317.5									
4		**SANDSTONE**, fine to coarse grained, orange, brown, olive brown, gray, and red, medium hard, strong cementation			35-50/4"		10.6	118		
					19-21-26 N=47					
	25.5									
	7311									
		Boring Terminated at 25.5 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-9

Location: See Exploration Plan

Latitude: 39.1276° Longitude: -104.8657°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.) | Elevation: 7331.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7331.17								
2		**CLAYEY SAND (SC)**, fine to coarse grained, orangish brown, loose to medium dense			8-8		11.2	114		
					11-19					
					16-16		11.4	115		
4		14.0 7317.5 **SANDSTONE**, micaceous, with fines, fine grained, mottled olive brown to grayish brown to reddish brown, firm to hard, weak cementation			27-19		4.1	125		
					14-29		18.6	107	38-24-14	86
		20.0 7311.5 **CLAYSTONE**, gray to orange, firm to hard								
					50/5"					
		25.0 7306.5 ***Boring Terminated at 25 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-17-2024

Boring Completed
07-17-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-10

Location: See Exploration Plan

Latitude: 39.1274° Longitude: -104.8659°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7331.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick 7330.67									
2			**SILTY SAND (SM)**, fine to coarse grained, dark brown to tan, medium dense				11-13		3.5	101		
							12-14		6.2	119		
		8.0	7323	5								
3			**SANDY LEAN CLAY (CL)**, brown to orangish brown, very stiff				9-14	-0.5 @ 500 psf	13.6	111		
		14.0	7317	10								
4			**SANDSTONE**, with clay, fine to coarse grained, brown to tan, firm to medium hard, strong cementation				16-24		9.3	118	45-22-23	37
				15								
							14-19					
				20	▽							
							40-48					
		25.0	7306	25								
			Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 22 feet while drilling
▽ 22 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-18-2024

Boring Completed
07-18-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-11

Location: See Exploration Plan

Latitude: 39.1274° Longitude: -104.8654°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Elevation: 7323.0 (Ft.) +/-

Model Layer	Depth (Ft.)	Material Description	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.3 / 7322.67	**TOPSOIL**, about 4 inches thick								
		SILTY SAND (SM), fine to coarse grained, brown to dark brown, loose			7-8					
					7-12		7.3	115		
	9.0 / 7314									
2		**CLAYEY SAND (SC)**, fine to medium grained, orange to orangish brown, medium dense			9-10		13.9	110	30-16-14	49
			▽		14-16		11.9	114		
	19.0 / 7304									
4		**SANDSTONE**, fine to coarse grained, gray, tan, white, red, pink, and orange, medium hard to very hard, strong cementation			23-50/5"					
					27-46-39 N=85					
	25.5 / 7297.5									
		Boring Terminated at 25.5 Feet								

Depth (Ft.) 5, 10, 15, 20, 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 14 feet while drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-18-2024

Boring Completed
07-18-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-12

Location: See Exploration Plan

Latitude: 39.1272° Longitude: -104.8661°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.) | Elevation: 7332.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation	Material Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	7331.67	**TOPSOIL**, about 4 inches thick									
2				**SILTY SAND (SM)**, with gravel, fine to coarse grained, brown, medium dense				14-17		5.8	124		
								10-18		7.5	123		
		9.0	7323		5								
4				**SANDSTONE**, fine to coarse grained, brown, olive brown, gray, and pink, medium hard to very hard, strong cementation				23-45				NP	29
					10								
								15-50/6"		13.6	115		
					15								
						▽		9-5-7 N=12					
					20	▽							
								50/4"		12.2	115		
		25.0	7307		25								
				Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 19 feet while drilling
▽ 19.5 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-18-2024

Boring Completed
07-18-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-13

Location: See Exploration Plan

Latitude: 39.1272° Longitude: -104.8657°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7326.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick 7325.67									
2		9.0	**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown to dark brown, loose 7317				6-6				NP	43
							8-10		12.4	104		
				5								
3		14.0	**SANDY LEAN CLAY (CL)**, trace gravel, grayish brown, stiff 7312				7-7	-1.8 @ 500 psf	11.7	111		
				10	▽							
2		19.0	**SILTY SAND (SM)**, with gravel, fine to coarse grained, brown to gray, medium dense 7307				8-15		16.9	108		
				15								
4		25.5	**SANDSTONE**, fine to coarse grained, brown, gray, and white, medium hard, strong cementation 7300.5				38-50/4"					
				20								
							10-15-30 N=45					
				25								
			Boring Terminated at 25.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 14 feet while drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-18-2024

Boring Completed
07-18-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-14

Location: See Exploration Plan

Latitude: 39.1269° Longitude: -104.8663°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-

Elevation: 7333.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick	7332.67								
2			**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, tan, medium dense				16-23					
							25-42		4.4	122		
				5								
							17-36		6.6	125		
				10								
		14.0		7319								
4			**SANDSTONE**, fine to coarse grained, white, pink, gray, and orange, medium hard to very hard, strong cementation				33-50/4"		11.8	118	37-19-18	25
				15								
							23-50/5"					
				20								
							50/6"					
		25.0		7308								
			Boring Terminated at 25 Feet	25								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-18-2024

Boring Completed
07-18-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-15

Location: See Exploration Plan

Latitude: 39.1269° Longitude: -104.8655°

Approximate Future Grade Elevation: 7345.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7323.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick 7322.67									
2		4.0	**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, orangish brown to tan, medium dense 7319				9-10		7.1	111		
3		9.0	**SANDY LEAN CLAY (CL)**, orangish brown, stiff 7314	5			7-10	0.0 @ 500 psf	15.2	109	30-18-12	56
2		19.0	**POORLY GRADED SAND (SP)**, with gravel, trace clay, fine to coarse grained, brown to pink, loose to medium dense 7304	10	▽ ▽		7-9					
				15			16-22		9.9	113		
4		25.5	**SANDSTONE**, fine to coarse grained, white, pink, and gray, medium hard to hard, strong cementation 7297.5	20			26-50/5"					
				25			21-31-32 N=63					
			Boring Terminated at 25.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 9 feet while drilling
▽ 10 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-18-2024

Boring Completed
07-18-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-16

Location: See Exploration Plan

Latitude: 39.1286° Longitude: -104.8674°

Depth (Ft.) | Elevation: 7366.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7365.67								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, pale brown, medium dense to dense			13-17		5.7	118		
					7-13					
					16-32		11.1	115		
		13.5 7352.5								
		14.0 Approximate Future Grade Elevation = 7352.5 feet 7352								
4		**SANDSTONE**, fine to coarse grained, orange, brown, pink, and light red, medium hard to very hard, strong cementation			24-33		11.0	116		
					50/4"				NP	29
		25.0 7341			50/5"		7.9			
		Boring Terminated at 25 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-16-2024

Boring Completed
07-16-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-17

Location: See Exploration Plan

Latitude: 39.1284° Longitude: -104.8674°

Depth (Ft.) | Elevation: 7364.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	7363.67								
		TOPSOIL, about 4 inches thick									
2		**SILTY SAND (SM)**, fine to coarse grained, brown, medium dense to dense				11-13		4.7	112		
						22-50/6"					
		5.0	7359								
		SANDSTONE, fine to coarse grained, white, gray, orange, and brown, medium hard to very hard, strong cementation				36-50/3"		10.6	116	NP	17
		11.5	7352.5								
4		Approximate Future Grade Elevation = 7352.5 feet				30-50/5"					
						25-50/5"		11.4			
						27-50/4"					
		25.0	7339								
		Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-16-2024

Boring Completed
07-16-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-18

Location: See Exploration Plan

Latitude: 39.1282° Longitude: -104.8674°

Depth (Ft.) | Elevation: 7367.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 7367.17 **TOPSOIL**, about 4 inches thick								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, dark brown to tan, loose to medium dense			16-30		7.7	124		
		4.0 7363.5								
		SANDSTONE, with clay, fine to coarse grained, gray, white, orangish brown, and reddish brown, medium hard to very hard, strong cementation			37-50/5"		8.8	119		
					50/5"					
4		15.0 7352.5			28-42-50/4"		10.6		34-18-16	31
		Approximate Future Grade Elevation = 7352.5 feet								
					50/5"		9.1	100		
		25.0 7342.5			22-50/6"					
		Boring Terminated at 25 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-16-2024

Boring Completed
07-16-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-19

Location: See Exploration Plan

Latitude: 39.1280° Longitude: -104.8674°

Depth (Ft.) Elevation: 7364.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7363.67								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, brown, medium dense to dense			16-22					
					15-38	-1.6 @ 500 psf	4.9	110		
		9.0 7355								
		SANDSTONE, fine to coarse grained, orange, reddish brown, white, and gray, medium hard to very hard, strong cementation			15-50/5"				33-16-17	37
		11.0 7353								
4		Approximate Future Grade Elevation = 7353.0 feet			50/5"		8.2	117		
					40-50/3"					
		25.0 7339			50/6"					
		Boring Terminated at 25 Feet								

5 10 15 20 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
DG

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
07-16-2024

Boring Completed
07-16-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-20

Location: See Exploration Plan

Latitude: 39.1291° Longitude: -104.8666°

Approximate Future Grade Elevation: 7348.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7348.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick	7347.67								
2			**SILTY SAND (SM)**, fine to coarse grained, orangish brown to olive brown, loose to medium dense				4-4					
				5			6-14		7.1	103		
				10			10-18					
				15			12-27		8.0	120	NP	21
				20			19-30					
4		24.0	**SANDSTONE**, fine to coarse grained, olive brown, dark grayish brown, and white, medium hard, strong cementation	7324			35-50/3"		8.2	114		
		25.0	***Boring Terminated at 25 Feet***	7323								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-19-2024

Boring Completed
07-19-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-21

Location: See Exploration Plan

Latitude: 39.1287° Longitude: -104.8667°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7354.5 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5	**TOPSOIL**, about 6 inches thick 7354									
2		6.0	**SILTY SAND (SM)**, trace gravel and silt, fine to coarse grained, brown, medium dense 7348.5	5			24-26					
			Approximate Future Grade Elevation = 7348.5 feet				22-30		6.6	109		
		8.5	7346									
4		25.5	**SANDSTONE**, with clay and gravel, fine to coarse grained, gray brown, medium hard to very hard, moderate to strong cementation 7329	10			38-50/6"		4.9	106	22-13-9	44
				15			7-35-45 N=80					
				20			5-10-48 N=58		8.2			
				25			30-50/6"					
			Boring Terminated at 25.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-22-2024

Boring Completed
07-22-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-22

Location: See Exploration Plan

Latitude: 39.1284° Longitude: -104.8667°

Depth (Ft.) | Elevation: 7357.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7356.5								
2		**SILTY SAND (SM)**, trace gravel, fine to coarse grained, brown, medium dense to dense			20-23		3.3	116	NP	33
					22-42					
		8.5 7348.5								
		Approximate Future Grade Elevation = 7348.5 feet			17-34		6.6	119		
		14.0 7343								
4		**SANDSTONE**, with gravel, fine to coarse grained, gray brown, very hard, moderate to strong cementation			9-47-50/4"					
					50/6"		8.2			
					33-50/4"					
		25.5 7331.5								
		Boring Terminated at 25.5 Feet								

Depth (Ft.): 5, 10, 15, 20, 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-22-2024

Boring Completed
07-22-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-23

Location: See Exploration Plan

Latitude: 39.1282° Longitude: -104.8667°

Depth (Ft.) | Elevation: 7363.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7362.5								
2		**CLAYEY SAND (SC)**, fine to coarse grained, brown, loose to medium dense			21-21		5.4	111	31-16-15	30
					5-11					
					11-12		11.4	108		
		14.0 7349								
		SILTY SAND (SM), fine to coarse grained, gray brown, medium dense			6-5-6 N=11					
		15.0 7348								
		Approximate Future Grade Elevation = 7348.0 feet								
					9-9-11 N=20		8.3			
		24.0 7339								
4		**SANDSTONE**, with gravel, fine to coarse grained, gray brown, medium hard, moderate cementation			11-16-24 N=40					
		25.5 7337.5								
		Boring Terminated at 25.5 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-23-2024

Boring Completed
07-23-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-24

Location: See Exploration Plan

Latitude: 39.1279° Longitude: -104.8667°

Depth (Ft.) | Elevation: 7355.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7354.5								
		SILTY SAND (SM), varies to clayey sand with gravel, fine to coarse grained, brown, medium dense to dense			23-27		4.3	113		
					30-35		5.9	120		
		7.0 7348								
2		Approximate Future Grade Elevation = 7348.0 feet			16-30					
					5-6-6 N=12		8.2			
		19.0 7336								
4		**SANDSTONE**, with gravel, fine to coarse grained, gray brown, firm to hard, moderate to strong cementation			8-11-13 N=24		8.8		NP	25
					20-23-28 N=51					
		25.5 7329.5								
		Boring Terminated at 25.5 Feet								

Depth (Ft.): 5, 10, 15, 20, 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-23-2024

Boring Completed
07-23-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-25

Location: See Exploration Plan

Latitude: 39.1276° Longitude: -104.8667°

Approximate Future Grade Elevation: 7348.0 (Ft.) +/-
Depth (Ft.) Elevation: 7346.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7345.67								
2		**SILTY SAND (SM)**, varies to clayey poorly graded sand, fine to coarse grained, brown, medium dense			15-22					
					15-27		5.7	120		
					15-24					
4		14.0 7332 **SANDSTONE**, fine grained, grayish brown to olive brown, medium hard to very hard, moderate cementation			21-29-28 N=57		8.2		NP	27
					50/4"		9.7	123		
		25.5 7320.5			16-17-16 N=33		12.7			
		Boring Terminated at 25.5 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-19-2024

Boring Completed
07-19-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-26

Location: See Exploration Plan

Latitude: 39.1273° Longitude: -104.8667°

Approximate Future Grade Elevation: 7348.0 (Ft.) +/-
Depth (Ft.) Elevation: 7341.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7340.67								
2		**SILTY SAND (SM)**, varies to poorly graded sand with gravel, fine to coarse grained, dark brown, medium dense			19-37		5.7	122		
					20-27					
					15-34		10.8	120		
4		14.0 7327 **SANDSTONE**, varies to sandy claystone, fine to coarse grained, olive brown to orange, very hard, weak cementation			24-44-40 N=84		9.9			
					10-25-50/6"		13.3		32-19-13	54
							13.2			
		25.0 7316			24-50/4"					
		Boring Terminated at 25 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-19-2024

Boring Completed
07-19-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-27

Location: See Exploration Plan

Latitude: 39.1271° Longitude: -104.8667°

Approximate Future Grade Elevation: 7348.0 (Ft.) +/-
Elevation: 7337.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Material Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5	**TOPSOIL**, about 6 inches thick	7337									
2		9.0	**SILTY SAND (SM)**, trace gravel, fine to coarse grained, brown, medium dense	7328.5	5			10-10		5.3	104		
								7-14				NP	38
4		25.5	**SANDSTONE**, with gravel, fine to coarse grained, gray brown, medium hard to hard, moderate to strong cementation	7312	10			20-38		9.9	124		
					15			10-16-16 N=32		13.1			
					20			23-31-44 N=75					
					25			19-24-34 N=58		11.6			
			Boring Terminated at 25.5 Feet										

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer
efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-23-2024

Boring Completed
07-23-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-28

Location: See Exploration Plan

Latitude: 39.1267° Longitude: -104.8667°

Approximate Future Grade Elevation: 7349.0 (Ft.) +/-
Elevation: 7339.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7339.17								
2		**SILTY SAND (SM)**, varies to poorly graded sand with gravel, fine to coarse grained, dark brown, loose to medium dense			1-2					
					9-9		1.3	112		
					9-10		16.7	101	NP	10
					18-22		8.0	119		
4		19.0 7320.5 **SANDSTONE**, fine to coarse grained, olive brown, white, and pink, firm to medium hard, strong cementation			29-50/5"					
					12-14-13 N=27					
		25.5 7314 ***Boring Terminated at 25.5 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-19-2024

Boring Completed
07-19-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-29

Location: See Exploration Plan

Latitude: 39.1264° Longitude: -104.8667°

Approximate Future Grade Elevation: 7349.0 (Ft.) +/-

Elevation: 7342.0 (Ft.) +/-

Model Layer	Depth (Ft.)	Material Description	Elevation (Ft.)	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.5	**TOPSOIL**, about 6 inches thick	7341.5									
2		**CLAYEY SAND (SC)**, trace gravel and silt, fine to coarse grained, brown, loose to medium dense					20-23		4.7	102	21-13-8	41
							16-30					
				5								
							14-21		3.0	119		
				10								
							4-4-4 N=8					
				15								
							5-5-6 N=11		11.4			
				20								
4	24.0	**SANDSTONE**, with gravel, fine to coarse grained, gray brown, medium hard, moderate to strong cementation	7318				17-20-17 N=37					
	25.5	***Boring Terminated at 25.5 Feet***	7316.5	25								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer
efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-24-2024

Boring Completed
07-24-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-30

Location: See Exploration Plan

Latitude: 39.1261° Longitude: -104.8667°

Approximate Future Grade Elevation: 7349.0 (Ft.) +/-
Elevation: 7348.0 (Ft.) +/-

Model Layer	Depth (Ft.)	Material Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.5 / 7347.5	**TOPSOIL**, about 6 inches thick									
		CLAYEY SAND (SC), varies to sandy lean clay, trace gravel and silt, fine to coarse grained, brown, medium dense				18-23					
						18-31		3.6	119	27-15-12	52
			5								
			10			20-37		3.3	116		
2		**SILTY SAND (SM)**, fine to coarse grained, brown, medium dense				8-8-8 N=16		5.1			
			15								
			20			5-6-7 N=13					
						7-9-13 N=22					
	25.5 / 7322.5		25								
		Boring Terminated at 25.5 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer
efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-24-2024

Boring Completed
07-24-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-31

Location: See Exploration Plan

Latitude: 39.1274° Longitude: -104.8650°

Approximate Future Grade Elevation: 7344.0 (Ft.) +/-
Depth (Ft.) Elevation: 7319.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7318.67								
		SILTY SAND (SM), fine to coarse grained, brown, loose to medium dense			14-12		7.0	107		
					8-12					
		8.0 7311								
2		**CLAYEY SAND (SC)**, fine to coarse grained, brown to orangish brown, loose to medium dense			6-9	-0.1 @ 500 psf	16.7	109	29-15-14	41
			▽		5-6		19.4	109		
					9-13		16.3	105		
4		**SANDSTONE**, fine to coarse grained, pink to white, firm, moderate cementation			14-11-13 N=24					
		25.5 7293.5								
		Boring Terminated at 25.5 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 18.5 feet while drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-16-2024

Boring Completed
07-16-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-32

Location: See Exploration Plan

Latitude: 39.1272° Longitude: -104.8650°

Approximate Future Grade Elevation: 7344.0 (Ft.) +/-
Depth (Ft.) Elevation: 7317.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7316.67								
2		**CLAYEY SAND (SC)**, fine to coarse grained, brown to orangish brown, loose to medium dense			8-9		7.6	117		
					7-9	-0.9 @ 200 psf	16.7	105	28-15-13	44
					8-10		15.2	113		
					14-12		7.2	124		
					12-24					
4		24.0 7293 **SANDSTONE**, fine to coarse grained, gray, white, and pink, medium hard, moderate cementation 25.0 7292			35-28					
		Boring Terminated at 25 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
13 feet while drilling
12 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-16-2024

Boring Completed
07-16-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-33

Location: See Exploration Plan

Latitude: 39.1295° Longitude: -104.8673°

Depth (Ft.) Elevation: 7360.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7359.75								
2		**SILTY SAND (SM)**, trace gravel and clay, fine to coarse grained, tan to grayish brown, medium dense			19-24		3.2	122	NP	36
					24-23		4.8	122		
		5								
		7.0 7353 Approximate Future Grade Elevation = 7353.0 feet								
		10.0 7350			14-20					
		10 ***Boring Terminated at 10 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-34

Location: See Exploration Plan

Latitude: 39.1295° Longitude: -104.8665°

Model Layer	Graphic Log	Depth (Ft.) / Elevation: 7347.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 2 inches thick — 7346.75									
2		**SILTY SAND (SM)**, trace gravel, fine to medium grained, tan to brown, dense									
		2.0 — 7345									
		2.5 Approximate Future Grade Elevation = 7345.0 feet — 7344.5				21-39		2.8	125	NP	32
4		**SANDSTONE**, fine to coarse grained, orangish brown to redddish brown, medium hard, strong cementation	5			38-50/4"		4.0	123		
		10.0 — 7337	10			33-50/4"					
		Boring Terminated at 10 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-35

Location: See Exploration Plan

Latitude: 39.1295° Longitude: -104.8662°

Depth (Ft.) | Elevation: 7338.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7337.75								
2		**SILTY SAND (SM)**, trace clay, fine to medium grained, brown 2.0 7336								
4		2.0 **SANDSTONE**, fine to coarse grained, orange to reddish brown, medium hard, moderate cementation 7336			22-34		7.6	124	NP	33
		Approximate Future Grade Elevation = 7336.0 feet								
					22-41		5.5	120		
		10.0 7328			31-49					
		Boring Terminated at 10 Feet								

5

10

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-36

Model Layer	Graphic Log	Location: See Exploration Plan Latitude: 39.1294° Longitude: -104.8658° Depth (Ft.) / Elevation: 7333.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick — 7332.75									
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown to dark brown, loose to medium dense				7-6	-6.2 @ 200 psf	10.6	100	NP	39
			5			5-5		11.9	117		
		10.0 — 7323				6-12					
		Boring Terminated at 10 Feet	10								
		11.0 — 7322									
		Approximate Future Grade Elevation = 7322.0 feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Logged by
DG

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Boring Started
07-08-2024

Boring Completed
07-08-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-37

Location: See Exploration Plan

Latitude: 39.1294° Longitude: -104.8654°

Depth (Ft.) Elevation: 7329.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7329.25								
		SILTY SAND (SM), varies to clayey sand, fine to coarse grained, brown to dark grayish brown, loose to medium dense			8-4	-10.3 @ 200 psf	8.6	96	NP	40
2		5.5 7324			8-11		9.4	116		
		Approximate Future Grade Elevation = 7324.0 feet								
		10.0 7319.5			7-19					
		Boring Terminated at 10 Feet								

5

10

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-38

Location: See Exploration Plan

Latitude: 39.1294° Longitude: -104.8668°

Approximate Future Grade Elevation: 7350.0 (Ft.) +/-
Depth (Ft.) Elevation: 7348.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7347.67								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, dark brown to very dark brown, loose to medium dense			4-4				NP	34
					8-12		11.1	119		
		9.0 7339								
4		**SANDSTONE**, fine to coarse grained, brown, medium hard, weak cementation 10.0 7338			15-18		8.4	127		
		Boring Terminated at 10 Feet								

5

10

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-39

Location: See Exploration Plan

Latitude: 39.1291° Longitude: -104.8672°

Depth (Ft.) Elevation: 7357.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7356.75								
		SILTY SAND (SM), varies to clayey sand, fine to medium grained, brown to orangish brown, loose to medium dense			8-8	-1.3 @ 200 psf	7.6	102	28-12-16	37
2		5.0 7352			10-10					
		Approximate Future Grade Elevation = 7352.0 feet								
		9.0 7348								
4		10.0 **SANDSTONE**, fine to coarse grained, brown, medium hard, weak cementation 7347			19-29		8.2	122		
		Boring Terminated at 10 Feet								

5

10

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-40

Location: See Exploration Plan

Latitude: 39.1292° Longitude: -104.8668°

Approximate Future Grade Elevation: 7350.0 (Ft.) +/-
Depth (Ft.) Elevation: 7348.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7347.75								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, brown, loose to medium dense			12-12		7.6	115		
					8-9	-0.7 @ 200 psf	12.0	116	30-14-16	30
		5								
		10.0 7338			10-12		10.6	113		
		10 ***Boring Terminated at 10 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-41

Location: See Exploration Plan

Latitude: 39.1292° Longitude: -104.8664°

Approximate Future Grade Elevation: 7347.0 (Ft.) +/-
Depth (Ft.) Elevation: 7342.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7341.67								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown to dark brown, medium dense			12-8		10.5	108	NP	42
					10-11		8.3	119		
		10.0 7332			12-12					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-42

Location: See Exploration Plan

Latitude: 39.1292° Longitude: -104.8661°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7337.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7336.75								
2		**CLAYEY SAND (SC)**, fine to coarse grained, grayish brown to light brown, loose to medium dense			4-3				29-13-16	42
					15-21		8.4	123		
		5								
		10.0 7327			9-10		15.9	112		
		Boring Terminated at 10 Feet 10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-43

Location: See Exploration Plan

Latitude: 39.1292° Longitude: -104.8656°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7332.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7331.75								
2		**CLAYEY SAND (SC)**, fine to coarse grained, dark brown to orangish brown, loose to medium dense			5-6	-0.8 @ 200 psf	13.0	108	29-15-14	40
					11-13		8.6	109		
		5								
		10.0 7322			9-10					
		10								
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-44

Location: See Exploration Plan

Latitude: 39.1291° Longitude: -104.8652°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7329.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7329.17								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, dark brown to grayish brown, loose to medium dense			14-11	-0.8 @ 200 psf	3.3	109	NP	39
					6-9		9.5	120		
		5								
		10.0 7319.5			15-21					
		Boring Terminated at 10 Feet 10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-45

Location: See Exploration Plan

Latitude: 39.1289° Longitude: -104.8673°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7366.5 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 3 inches thick 7366.25									
2			**SILTY SAND (SM)**, fine to coarse grained, tan to orangish brown, medium dense				12-21		7.0	117	NP	43
		4.0	7362.5									
4			**SANDSTONE**, fine to coarse grained, pale brown to orangish brown, medium hard to hard, moderate to strong cementation	5			27-45		6.0	122		
		10.0	7356.5	10			50/6"					
			Boring Terminated at 10 Feet									
		14.5	7352									
			Approximate Future Grade Elevation = 7352.0 feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-46

Location: See Exploration Plan

Latitude: 39.1289° Longitude: -104.8671°

Depth (Ft.) Elevation: 7360.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7359.67								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine grained, brown to orangish brown, medium dense			14-15				NP	35
					9-11		7.9	115		
		9.0 7351 Approximate Future Grade Elevation = 7351.0 feet								
		10.0 7350			13-25		10.1	122		
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-47

Location: See Exploration Plan

Latitude: 39.1290° Longitude: -104.8663°

Approximate Future Grade Elevation: 7347.0 (Ft.) +/-
Depth (Ft.) Elevation: 7344.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 2 inches thick 7343.75								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown, medium dense			13-14				NP	31
					16-25		5.8	119		
		9.0 7335								
3		10.0 **SANDY LEAN CLAY (CL)**, trace gravel, light grayish brown to orange, very stiff 7334			15-24		9.2	122		
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-48

Location: See Exploration Plan

Latitude: 39.1290° Longitude: -104.8659°

Approximate Future Grade Elevation: 7346.5 (Ft.) +/-
Depth (Ft.) Elevation: 7336.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7335.75								
2		**SILTY SAND (SM)**, with gravel, fine to coarse grained, brown to orangish brown, loose to medium dense			7-8		4.5	105	NP	17
					7-10		5.6	97		
		10.0 7326			23-30					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-49

Location: See Exploration Plan

Latitude: 39.1290° Longitude: -104.8654°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7330.5 (Ft.) +/-

Model Layer	Depth (Ft.)	Material Description	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.3	**TOPSOIL**, about 4 inches thick (7330.17)								
2		**SILTY SAND (SM)**, with gravel, fine to coarse grained, tan to orangish brown, medium dense			17-26		7.6	115	NP	47
	5				24-33		4.1	100		
	10	10.0 (7320.5)			19-23					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-50

Location: See Exploration Plan

Latitude: 39.1285° Longitude: -104.8671°

Depth (Ft.) | Elevation: 7361.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7361.25								
2		**SILTY SAND (SM)**, trace clay, fine to coarse grained, tan to dark brown, medium dense			8-7		5.1	104	NP	27
4		4.0 7357.5 **SANDSTONE**, fine to coarse grained, light reddish brown to orange, firm to hard, moderate to strong cementation			13-31		6.4	126		
		10.0 7351.5			50/6"					
		10.5 ***Boring Terminated at 10 Feet*** 7351								
		Approximate Future Grade Elevation = 7351.0 feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Logged by
DG

Boring Started
07-10-2024

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Boring Completed
07-10-2024

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-51

Location: See Exploration Plan

Latitude: 39.1288° Longitude: -104.8661°

Approximate Future Grade Elevation: 7346.5 (Ft.) +/-

Elevation: 7342.0 (Ft.) +/-

Model Layer	Depth (Ft.)	Graphic Log	Material Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.3		**TOPSOIL**, about 3 inches thick	7341.75								
2	9.0		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to medium grained, brown, medium dense	7333			11-18		8.7	120	NP	33
							10-15		10.7	121		
4	10.0		**SANDSTONE**, fine to coarse grained, light gray, medium hard, strong cementation	7332			29-50/4"					
			Boring Terminated at 10 Feet	10								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-52

Location: See Exploration Plan

Latitude: 39.1288° Longitude: -104.8657°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7334.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7333.75								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, tan to orange, medium dense to dense			25-33		7.7	121	NP	39
					16-17		7.7	118		
		5								
		10.0 7324			23-36					
		10 ***Boring Terminated at 10 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-53

Location: See Exploration Plan

Latitude: 39.1287° Longitude: -104.8652°

Approximate Future Grade Elevation: 7344.0 (Ft.) +/-
Depth (Ft.) Elevation: 7329.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7328.5								
2		**CLAYEY SAND (SC)**, fine to coarse grained, brown, medium dense			15-15		3.7	107	23-14-9	48
		4.0 7325								
3		**SANDY LEAN CLAY (CL)**, grayish brown to dark brown, stiff			6-7	-0.1 @ 200 psf	13.8	108		
		10.0 7319			7-11					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-08-2024

Boring Completed
07-08-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-54

Location: See Exploration Plan

Latitude: 39.1286° Longitude: -104.8664°

Depth (Ft.) Elevation: 7349.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7348.75								
		CLAYEY SAND (SC), trace gravel, fine to coarse grained, dark brown to orangish brown, loose								
		2.0 7347								
		Approximate Future Grade Elevation = 7347.0 feet			7-11		8.9	119	25-15-10	41
2										
					6-10		10.5	114		
		8.0 7341								
4		**SANDSTONE**, fine to coarse grained, brown to orangish brown, hard, strong cementation								
		10.0 7339			50/6"					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-55

Location: See Exploration Plan

Latitude: 39.1285° Longitude: -104.8659°

Approximate Future Grade Elevation: 7346.5 (Ft.) +/-
Depth (Ft.) Elevation: 7339.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 5 inches thick 7338.5								
2		**CLAYEY SAND (SC)**, fine to coarse grained, dark brown to orangish brown, loose to medium dense			5-8		11.1	112	30-14-16	47
					15-21		7.1	117		
		10.0 7329			17-27					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-56

Location: See Exploration Plan

Latitude: 39.1285° Longitude: -104.8654°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7332.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7331.67								
2		**SILTY SAND (SM)**, varies to sandy silt, fine to coarse grained, dark brown to orangish brown, medium dense			14-18		9.6	108	NP	51
					17-31		9.9	115		
		10.0 7322			19-28					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-57

Location: See Exploration Plan

Latitude: 39.1283° Longitude: -104.8661°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7347.5 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5	**TOPSOIL**, about 6 inches thick 7347									
		1.5	**CLAYEY SAND (SC)**, trace gravel, fine to coarse grained, brown, dense 7346									
2			Approximate Future Grade Elevation = 7346.0 feet				27-35				22-13-9	45
		4.0	7343.5									
4			**SANDSTONE**, with gravel, fine to coarse grained, gray brown, medium hard to hard, strong cementation	5			42-50/4"		3.5			
		10.0	7337.5	10			24-29		10.5	119		
			Boring Terminated at 10 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer
efficiency: 77.8%

Driller
Terracon

Logged by
KE

Boring Started
07-22-2024

Boring Completed
07-22-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-58

Location: See Exploration Plan

Latitude: 39.1283° Longitude: -104.8657°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Elevation: 7335.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7334.75								
2		**CLAYEY SAND (SC)**, varies to silty sand, fine to coarse grained, orangish brown, loose to medium dense			6-7	-0.2 @ 200 psf	11.4	114	29-15-14	42
					7-9		9.4	114		
		8.0 7327								
4		**SANDSTONE**, fine to coarse grained, brown, medium hard, moderate cementation			19-32		9.4	111		
		10.0 7325								
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-59

Location: See Exploration Plan

Latitude: 39.1283° Longitude: -104.8651°

Approximate Future Grade Elevation: 7344.0 (Ft.) +/-
Elevation: 7329.0 (Ft.) +/-

Model Layer	Depth (Ft.)	Elevation	Material Description	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.3	7328.75	**TOPSOIL**, about 3 inches thick									
2	8.0	7321	**CLAYEY SAND (SC)**, fine to coarse grained, brown to orangish brown, loose				6-7	+0.1 @ 200 psf	13.6	113	32-15-17	39
				5			6-8		14.6			
3	10.0	7319	**SANDY LEAN CLAY (CL)**, brown, stiff				7-7		18.7			
			Boring Terminated at 10 Feet	10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-60

Location: See Exploration Plan

Latitude: 39.1280° Longitude: -104.8671°

Depth (Ft.) Elevation: 7363.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7363.25								
2		**SILTY SAND (SM)**, fine grained, brown to orangish brown, medium dense			18-19		4.5	111	NP	44
					12-17		6.7	120		
		10.0 7353.5			15-34					
		Boring Terminated at 10 Feet								
		12.5 7351								
		Approximate Future Grade Elevation = 7351.0 feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Logged by
DG

Boring Started
07-10-2024

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Boring Completed
07-10-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-61

Location: See Exploration Plan

Latitude: 39.1280° Longitude: -104.8652°

Approximate Future Grade Elevation: 7344.0 (Ft.) +/-
Elevation: 7325.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 3 inches thick	7324.75									
2		4.0	**SILTY SAND (SM)**, trace gravel, fine to medium grained, brown to grayish brown, medium dense	7321				15-14		2.9	100	NP	44
3		9.0	**SANDY LEAN CLAY (CL)**, dark brown to grayish brown, stiff	7316	5			7-11	+0.5 @ 200 psf	15.8	108		
2		10.0	**CLAYEY SAND (SC)**, trace gravel, fine to coarse grained, brown to orangish brown, medium dense	7315				16-22					
			Boring Terminated at 10 Feet		10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-62

Location: See Exploration Plan

Latitude: 39.1276° Longitude: -104.8674°

Depth (Ft.) | Elevation: 7356.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7355.67								
		SILTY SAND (SM), varies to clayey sand, fine to coarse grained, dark brown, medium dense								
		3.0 7353			10-15		2.8	107	NP	34
2		Approximate Future Grade Elevation = 7353.0 feet								
					14-18		8.3	120		
		8.0 7348								
4		**SANDSTONE**, fine to coarse grained, brown, medium hard, moderate cementation								
		10.0 7346			30-48					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-63

Location: See Exploration Plan

Latitude: 39.1273° Longitude: -104.8673°

Approximate Future Grade Elevation: 7352.0 (Ft.) +/-
Depth (Ft.) Elevation: 7348.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7347.75								
2		**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, medium dense			17-16				NP	38
					13-20		5.7	116		
		9.0 7339								
4		**SANDSTONE**, fine to coarse grained, light olive gray to white, medium hard, moderate cementation 10.0 7338			17-43		11.4	120		
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Logged by
DG

Boring Started
07-10-2024

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Boring Completed
07-10-2024

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-64

Location: See Exploration Plan

Latitude: 39.1275° Longitude: -104.8670°

Approximate Future Grade Elevation: 7351.0 (Ft.) +/-

Elevation: 7347.5 (Ft.) +/-

Model Layer	Depth (Ft.)	Graphic Log	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1	0.3	**TOPSOIL**, about 3 inches thick (7347.25)								
2		**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, loose to medium dense			8-5		5.1		NP	22
					12-17		3.7	121		
	9.0	(7338.5)								
4	10.0	**SANDSTONE**, fine to coarse grained, brown to light reddish brown, medium hard, strong cementation (7337.5)			31-50/4"					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-65

Location: See Exploration Plan

Latitude: 39.1277° Longitude: -104.8664°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7345.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick 7344.67									
2		8.0	**SILTY SAND (SM)**, fine grained, tan to dark brown, medium dense 7337	5			13-17		7.1	115	NP	45
							14-28		7.4	120		
4		10.0	**SANDSTONE**, fine grained, brown, medium hard, weak cementation 7335	10			19-36					
			Boring Terminated at 10 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-66

Location: See Exploration Plan

Latitude: 39.1276° Longitude: -104.8651°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7324.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 5 inches thick 7323.5								
2		**CLAYEY SAND (SC)**, fine to coarse grained, orangish brown to dark brown, loose to medium dense			5-5		5.1	103	26-14-12	41
					9-12		10.3	118		
		10.0 7314			8-12					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-67

Location: See Exploration Plan

Latitude: 39.1268° Longitude: -104.8673°

Approximate Future Grade Elevation: 7352.0 (Ft.) +/-
Depth (Ft.) Elevation: 7345.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7344.67								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to medium grained, dark brown, loose			3-4		3.6	99	NP	26
					8-10		7.3	114		
		10.0 7335			13-18					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-68

Location: See Exploration Plan

Latitude: 39.1271° Longitude: -104.8670°

Approximate Future Grade Elevation: 7351.0 (Ft.) +/-
Depth (Ft.) Elevation: 7341.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 5 inches thick 7340.5								
2		**CLAYEY SAND (SC)**, fine grained, brown to tan, loose to medium dense			5-7	-0.5 @ 200 psf	14.4	105	26-14-12	42
					13-21		10.9	124		
		10.0 7331			11-18		11.6	120		
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-10-2024

Boring Completed
07-10-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-69

Location: See Exploration Plan

Latitude: 39.1273° Longitude: -104.8664°

Approximate Finished Floor Elevation: 7346.7 (Ft.) +/-

Depth (Ft.) | Elevation: 7338.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7337.75								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, tan to orangish brown, medium dense			13-13		7.2	117	NP	35
					13-22		6.5	123		
		5								
3		9.0 7329 **LEAN CLAY (CL)**, trace sand and gravel, mottled pale brown to brown to orange, very stiff 10.0 7328			11-16					
		10 ***Boring Terminated at 10 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-70

Location: See Exploration Plan

Latitude: 39.1269° Longitude: -104.8659°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7324.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7323.75								
2		**CLAYEY SAND (SC)**, fine to coarse grained, tan to orangish brown, loose			7-10		6.4	116	24-15-9	40
		4.0 7320								
3		**SANDY LEAN CLAY (CL)**, grayish brown to orangish brown, stiff			8-9	+0.3 @ 200 psf	8.7	115		
		7.5 7316.5								
2		**CLAYEY SAND (SC)**, trace gravel, fine to coarse grained, orangish brown to orange, medium dense			8-16					
		10.0 7314								
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-71

Location: See Exploration Plan

Latitude: 39.1271° Longitude: -104.8652°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7318.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7317.75								
2		**CLAYEY SAND (SC)**, fine to coarse grained, dark brown to orangish brown, loose to medium dense			6-7		8.9	109	25-13-12	35
					9-11		8.5	120		
		5								
3		9.0 7309 **SANDY LEAN CLAY (CL)**, grayish brown to orangish brown, stiff 10.0 7308			6-8					
		10 ***Boring Terminated at 10 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-09-2024

Boring Completed
07-09-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-72

Location: See Exploration Plan

Latitude: 39.1264° Longitude: -104.8673°

Approximate Future Grade Elevation: 7352.0 (Ft.) +/-

Elevation: 7349.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7348.5								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, dark brown to black, loose to medium dense			4-5		3.5	105	NP	31
					10-15		6.6	116		
3		7.0 7342 **SANDY LEAN CLAY (CL)**, orangish brown, very stiff			8-12					
		10.0 7339 ***Boring Terminated at 10 Feet***								

Depth (Ft.): 5, 10

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-73

Location: See Exploration Plan

Latitude: 39.1266° Longitude: -104.8671°

Approximate Future Grade Elevation: 7351.0 (Ft.) +/-
Depth (Ft.) Elevation: 7344.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 5 inches thick 7343.5								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, tan to orangish brown, loose to medium dense			4-3		2.7		NP	24
					7-14		6.1	123		
		10.0 7334			14-26					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-74

Location: See Exploration Plan

Latitude: 39.1267° Longitude: -104.8661°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7331.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 5 inches thick 7330.5								
2		**SILTY SAND (SM)**, trace clay and gravel, fine grained, brown to orangish brown, medium dense			10-11		8.3	109	NP	33
					15-17		6.2	121		
		10.0 7321			16-11					
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-75

Location: See Exploration Plan

Latitude: 39.1267° Longitude: -104.8657°

Approximate Future Grade Elevation: 7345.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7325.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5	**TOPSOIL**, about 5 inches thick 7324.5									
2			**CLAYEY SAND (SC)**, varies to silty sand, fine grained, dark brown to orangish brown, medium dense				12-11	+1.0 @ 200 psf	6.6	107	NP	39
							9-11		7.0	116		
				5								
3		8.0	7317 **LEAN CLAY (CL)**, with sand, dark brown to orangish brown, stiff				5-7		11.6	111		
		10.0	7315	10								
			Boring Terminated at 10 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-76

Location: See Exploration Plan

Latitude: 39.1267° Longitude: -104.8652°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7317.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7316.67								
2		**CLAYEY SAND (SC)**, varies to silty sand, fine to coarse grained, dark brown to orangish brown, loose			6-11	+0.9 @ 200 psf	7.2	121	NP	44
					7-9		13.1	111		
		5								
			▽							
		10.0 7307			8-10					
		Boring Terminated at 10 Feet 10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 8.5 feet while drilling
▽ 9 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-77

Location: See Exploration Plan

Latitude: 39.1265° Longitude: -104.8664°

Approximate Future Grade Elevation: 7346.0 (Ft.) +/-
Depth (Ft.) Elevation: 7335.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7335.17								
2		**SILTY SAND (SM)**, trace clay and gravel, fine to coarse grained, brown to dark brown, loose to medium dense			6-11		2.9	114	NP	20
					10-11		4.6	117		
		5								
4		8.0 7327.5 **SANDSTONE**, fine to coarse grained, brown, medium hard, weak cementation								
		10.0 7325.5			19-29					
		10								
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-78

Location: See Exploration Plan

Latitude: 39.1265° Longitude: -104.8659°

Approximate Future Grade Elevation: 7345.5 (Ft.) +/-
Depth (Ft.) Elevation: 7330.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7330.17								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, dark brown, loose to medium dense			4-5		3.2	110	NP	28
					6-10		7.2	119		
		10.0 7320.5			8-12					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-79

Location: See Exploration Plan

Latitude: 39.1265° Longitude: -104.8654°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-

Elevation: 7324.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5	**TOPSOIL**, about 6 inches thick	7323.5									
2			**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, loose					7-8		2.0	121	NP	23
								14-13		8.3	119		
					5								
3		8.0	**SANDY LEAN CLAY (CL)**, grayish brown to orange, stiff	7316									
		10.0	***Boring Terminated at 10 Feet***	7314	10			7-10					

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-80

Location: See Exploration Plan

Latitude: 39.1262° Longitude: -104.8671°

Approximate Future Grade Elevation: 7351.0 (Ft.) +/-
Depth (Ft.) Elevation: 7350.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7349.67								
2		**SILTY SAND (SM)**, fine to medium grained, tan to orangish brown, medium dense			14-14		2.6	117	NP	32
					13-13		4.7	117		
		5								
		10.0 7340			8-11					
		10								
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-81

Location: See Exploration Plan

Latitude: 39.1263° Longitude: -104.8661°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-

Elevation: 7331.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7331.17								
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, dark brown to black, loose to medium dense			3-3				NP	26
					14-26		5.1	121		
		8.5 7323								
3		**SANDY LEAN CLAY (CL)**, dark brown to orange, very stiff			7-12		9.7	116		
		10.0 7321.5								
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-82

Location: See Exploration Plan

Latitude: 39.1263° Longitude: -104.8657°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7328.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7327.75								
2		**SILTY SAND (SM)**, trace clay and gravel, fine grained, brown to dark brown, medium dense to dense			9-14		3.3	110	NP	19
					20-30		7.3	123		
		5								
4		8.0 7320 **SANDSTONE**, fine to coarse grained, brown to orange, medium hard, weak cementation			22-37					
		10.0 7318 10								
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-83

Location: See Exploration Plan

Latitude: 39.1263° Longitude: -104.8652°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7321.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7321.17								
2		**SILTY SAND (SM)**, fine to coarse grained, grayish brown to orangish brown, loose to medium dense			4-4		1.3		NP	17
					11-21		2.8	125		
		10.0 7311.5			12-9					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-84

Location: See Exploration Plan

Latitude: 39.1259° Longitude: -104.8673°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7357.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 4 inches thick — 7356.67									
			SILTY SAND (SM), with gravel, fine to coarse grained, brown to tan, loose to medium dense				6-12		1.3		NP	24
		3.0	7354									
2			Approximate Future Grade Elevation = 7354.0 feet	5			18-17		2.4	118		
		10.0	7347	10			7-18					
			Boring Terminated at 10 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Logged by
DG

Boring Started
07-12-2024

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Boring Completed
07-12-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-85

Location: See Exploration Plan

Latitude: 39.1260° Longitude: -104.8664°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7340.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7339.5								
2		**SILTY SAND (SM)**, trace gravel, fine to coarse grained, brown, medium dense to dense			14-16		3.7	108	NP	37
		4.0 7336								
4		**SANDSTONE**, with gravel, fine to coarse grained, gray brown, medium hard, moderate to strong cementation			29-44					
		10.0 7330			39-50/6"		3.4	119		
		Boring Terminated at 10 Feet								

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See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME-75

Hammer Type
Automatic Hammer
efficiency: 77.8%

Driller
Terracon

Logged by
KE

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
07-24-2024

Boring Completed
07-24-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-86

Location: See Exploration Plan

Latitude: 39.1260° Longitude: -104.8659°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7328.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7327.67								
2		**SILTY SAND (SM)**, fine to coarse grained, dark brown, loose to medium dense			4-6		8.7	108	NP	27
					11-12		9.8	116		
		10.0 7318			9-9					
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-87

Location: See Exploration Plan

Latitude: 39.1260° Longitude: -104.8655°

Approximate Future Grade Elevation: 7345.0 (Ft.) +/-
Depth (Ft.) Elevation: 7323.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7322.67								
1		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, dark brown, loose			5-9		6.0	117		
1		4.0 7319								
2		**CLAYEY SAND (SC)**, fine to coarse grained, brown, loose to medium dense			7-9	+0.1 @ 200 psf	12.1	109	27-15-12	27
2		5								
2		10.0 7313			11-11		11.3	115		
		10 ***Boring Terminated at 10 Feet***								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-88

Location: See Exploration Plan

Latitude: 39.1258° Longitude: -104.8671°

Approximate Future Grade Elevation: 7360.5 (Ft.) +/-
Depth (Ft.) Elevation: 7360.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7360.17								
2		**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, loose to medium dense			6-6		6.7	121	NP	29
					8-10		7.9	123		
		5								
		10.0 7350.5			9-11					
		Boring Terminated at 10 Feet 10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-89

Location: See Exploration Plan

Latitude: 39.1258° Longitude: -104.8667°

Approximate Future Grade Elevation: 7350.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7350.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3	**TOPSOIL**, about 3 inches thick 7349.75									
2		4.0	**SILTY SAND (SM)**, fine to coarse grained, orangish brown, medium dense 7346				17-19		2.7	107	NP	30
4		10.0	**SANDSTONE**, fine to coarse grained, pale brown to orange, medium hard, strong cementation 7340	5			29-50/6"		3.6	125		
				10			39-50/5"					
			Boring Terminated at 10 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-12-2024

Boring Completed
07-12-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-90

Location: See Exploration Plan

Latitude: 39.1258° Longitude: -104.8661°

Approximate Future Grade Elevation: 7333.0 (Ft.) +/-
Depth (Ft.) Elevation: 7333.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7332.67								
2		**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, medium dense			13-17		3.8	108	NP	34
					14-20		4.0	117		
		5								
		10.0 7323			15-17					
		10								
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Logged by
DG

Boring Started
07-12-2024

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Boring Completed
07-12-2024

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-91

Location: See Exploration Plan

Latitude: 39.1258° Longitude: -104.8657°

Approximate Future Grade Elevation: 7325.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 7325.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5	**TOPSOIL**, about 5 inches thick 7324.5									
2			**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown, loose to medium dense				7-5		5.0	111	NP	22
				5			13-17		7.2	119		
		10.0	7315				9-13					
			Boring Terminated at 10 Feet	10								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-92

Location: See Exploration Plan

Latitude: 39.1258° Longitude: -104.8653°

Approximate Future Grade Elevation: 7323.0 (Ft.) +/-
Depth (Ft.) Elevation: 7323.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 3 inches thick 7322.75								
2		**SILTY SAND (SM)**, varies to clayey sand with gravel, fine to coarse grained, brown to dark brown, loose to medium dense			7-6		4.6	101	NP	36
					10-14		11.0	119		
		5								
		10.0 7313			9-10					
		10								
		Boring Terminated at 10 Feet								

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
07-11-2024

Boring Completed
07-11-2024

Notes

Advancement Method
6-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings and silica sand upon completion

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-93

Location: See Exploration Plan

Latitude: 39.1270° Longitude: -104.8663°

Depth (Ft.) Approximate Elevation: 7328 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 **TOPSOIL**, about 4 inches thick 7327.67									
2		**SILTY CLAYEY SAND (SC-SM)**, varies to silty sand, fine to coarse grained, brown to orangish brown, medium dense			8-14			7.1	105	22-18-4	37.9
					16-19	-10.4 @ 500 psf		4.2	96		
					15-16			6.6	118		
					11-17						
					16-27						
					14-32						
4		24.0 7304 25.0 **SANDSTONE**, brown, medium hard 7303			50/9"			10.2	109		
		Boring Terminated at 25 Feet									

5 10 15 20 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
DG

Boring Started
04-15-2026

Boring Completed
04-15-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-94

Location: See Exploration Plan

Latitude: 39.1269° Longitude: -104.8658°

Depth (Ft.) Approximate Elevation: 7324 (Ft.)

Model Layer	Depth (Ft.)	Elevation	Description	Field Test Results	Water Content (%)	Dry Unit Weight (pcf)
1	0.5	7323.5	**TOPSOIL**, about 6 inches thick			
2	5.0	7319	**CLAYEY SAND (SC)**, fine to coarse grained, olive brown to brown, medium dense	9-8 9-16		
2	18.0	7306	**SILTY SAND (SM)**, fine to coarse grained, brown to orangish brown, medium dense to dense	23-24 6-10 14-14	13.3	115
4	25.0	7299	**SANDSTONE**, fine to coarse grained, yellowish brown to gray, hard to very hard	50/5" 50/7"		
			Boring Terminated at 25 Feet			

Depth (Ft.): 5, 10, 15, 20, 25

Water Level Observations; Sample Type; Swell (%); Unconfined Compressive Strength (psf); Atterberg Limits (LL-PL-PI); Percent Fines

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
EYOAB

Boring Started
04-29-2026

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Completed
04-29-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-95

Location: See Exploration Plan

Latitude: 39.1266° Longitude: -104.8662°

Depth (Ft.) Approximate Elevation: 7332 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7331.5									
2		**CLAYEY SAND (SC)**, fine to coarse grained, reddish brown, to, light gray, medium dense			7-10						
					13-11			4.2	108		
					12-12						
					10-11						
					7-8			11.0	107		
					11-12						
		24.0 7308									
4		25.0 **CLAYEY SANDSTONE**, light gray, to, brown, medium hard 7307			50/8"						
		Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
DG

Boring Started
04-15-2026

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Completed
04-15-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-96

Location: See Exploration Plan

Latitude: 39.1265° Longitude: -104.8657°

Depth (Ft.) Approximate Elevation: 7325 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7324.5									
2		**SILTY SAND (SM)**, fine to coarse grained, dark brown to light brown, very loose to medium dense			3-2	-5.3 @ 500 psf		4.6	97	NP	25.4
					8-10						
					11-10			9.5	121		
					6-5						
		12.0 7313									
		POORLY GRADED SAND (SP), fine to coarse grained, light brown to light gray, medium dense			5-16						
					7-9						
		21.0 7304	▽								
4		**CLAYEY SANDSTONE**, light gray, medium hard	▽								
		25.0 7300			17-33			9.4	124		
		Boring Terminated at 25 Feet									

Depth (Ft.): 5, 10, 15, 20, 25

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
▽ 21 feet while drilling
▽ 24 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Logged by
EYOAB

Boring Started
04-20-2026

Boring Completed
04-20-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-97

Location: See Exploration Plan

Latitude: 39.1262° Longitude: -104.8662°

Depth (Ft.) Approximate Elevation: 7337 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5									
					5-5			4.1	80	NP	22.6
		5			5-8						
					12-15			6.4	120		
		10			7-6						
2		11.0									
		15			10-17			4.4	117		
					11-12						
		20									
4		22.0									
		25			17-18						
		25.0									

SILTY SAND (SM), fine to coarse grained, dark brown to brown, very loose to medium dense

about 6 inches thick 7336.5

11.0 7326

POORLY GRADED SAND (SP), fine to coarse grained, medium dense

22.0 7315

CLAYEY SANDSTONE, light gray, firm

25.0 7312

Boring Terminated at 25 Feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
17 feet while drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Logged by
EYOAB

Boring Started
04-20-2026

Boring Completed
04-20-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-98

Location: See Exploration Plan

Latitude: 39.1261° Longitude: -104.8658°

Depth (Ft.) Approximate Elevation: 7326 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7325.5									
2		**SILTY SAND (SM)**, fine to coarse grained, light brown to yellowish brown, loose to medium dense			2-4					NP	23.9
										NP	27.2
					5-5			12.8	115		
		5			4-7						
					8-8						
		10									
		12.0 7314									
		CLAYEY SAND (SC), fine to coarse grained, yellowish brown to light gray, medium dense			12-9			13.6	120		
		15									
					9-17						
		20									
		21.0 7305									
4		**CLAYEY SANDSTONE**, light gray, medium hard									
		25			50/11"			8.5	130		
		25.0 7301									
		Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
EYOAB

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
04-20-2026

Boring Completed
04-20-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-99

Location: See Exploration Plan

Latitude: 39.1276° Longitude: -104.8675°

Depth (Ft.) Approximate Elevation: 7354 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7353.5									
3		**CLAYEY SAND (SC)**, varies to silty sand, fine to coarse grained, brown, to, light gray			12-14					29-16-13	43.5
					11-13			7.6	106		
					13-18	-0.9 @ 1,000 psf		4.7	112		
					14-17-19 N=36					NP	30.4
					14-14			12.3	116		
5		22.0 7332 **CLAYEY SANDSTONE**, dark brown, to, light gray, very hard to weak cementation			23-50/5"						
		25.0 7329 ***Boring Terminated at 25 Feet***									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
KE

Boring Started
07-17-2026

Boring Completed
07-17-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. B-100

Location: See Exploration Plan

Latitude: 39.1272° Longitude: -104.8674°

Depth (Ft.) Approximate Elevation: 7353 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7352.5									
		SILTY SAND (SM), varies to clayey sand, fine to coarse grained, brown			6-10					NP	34.4
					6-10	+0.9 @ 500 psf		15.0	103		
3		7.0 7346 **POORLY GRADED SAND (SP)**, fine to coarse grained, orangish brown			8-10			10.3	106		
		12.0 7341 **CLAYEY SAND (SC)**, fine to coarse grained, light gray			7-7-8 N=15						
5		17.0 7336 **CLAYEY SANDSTONE**, reddish brown, to, gray, medium hard to very hard to weak cementation			50/11"			11.2	120		
		25.0 7328			23-30-50/5"						
		Boring Terminated at 25 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
KE

Boring Started
07-17-2026

Boring Completed
07-17-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-1

Location: See Exploration Plan

Latitude: 39.1246° Longitude: -104.8675°

Depth (Ft.) Approximate Elevation: 7348 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5									
		TOPSOIL, about 6 inches thick 7347.5									
		SILTY CLAYEY SAND (SC-SM), varies to clayey sand, light brown to reddish brown, loose to medium dense			8-9			8.1	104	24-18-6	45.5
					14-14						
					12-9						
2		11.0 7337									
		CLAYEY SAND (SC), reddish brown, medium dense to very dense			7-9						
					50/10"			13.1	114		
					50/6"						
4		27.0 7321									
		CLAYEY SANDSTONE, pale gray to light gray, very hard			50/7"			8.2	131		
			▽								
					50/6"						
		40.0 7308	▽		50/5"						
		Boring Terminated at 40 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
▽ 32 feet while drilling
▽ 40 feet upon completion of drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Logged by
EYOAB

Boring Started
04-20-2026

Boring Completed
04-20-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-2

Location: See Exploration Plan

Latitude: 39.1246° Longitude: -104.8668°

Depth (Ft.) Approximate Elevation: 7336 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 7335.5 **TOPSOIL**, about 6 inches thick									
2		**CLAYEY SAND (SC)**, fine to coarse grained, dark brown to reddish brown, very loose to dense			1-2			11.6	97	27-22-5	46.0
					8-12			9.4	118		
					9-12			12.0	117		
					8-10						
					17-21					31-22-9	24.2
4		24.0 7312 **CLAYEY SANDSTONE**, light brown to light gray, medium hard to very hard			50/11"			10.7	125		
					50/6"						
					50/6"			10.0	125		
		40.0 7296			50/4"						
		Boring Terminated at 40 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
EYOAB

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
04-20-2026

Boring Completed
04-20-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-3

Location: See Exploration Plan

Latitude: 39.1245° Longitude: -104.8667°

Depth (Ft.) Approximate Elevation: 7338 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 7337.5 **TOPSOIL**, about 6 inches thick									
2		**SILTY SAND (SM)**, fine to coarse grained, brown to light brown, loose to medium dense			4-4			4.9	111	NP	36.1
					13-20						
		6.0 7332 **CLAYEY SAND (SC)**, fine to coarse grained, brown to yellowish brown, medium dense			13-16	-1.5 @ 500 psf		8.8	112		
					10-9						
					11-12						
4		18.0 7320 **SANDSTONE**, with clay, fine to coarse grained, orangish brown to gray brown, hard to very hard			50/10"			11.8	122		
					50/2"						
					50/5"						
					50/3"						
		45.0 7293			50/4"						
		Boring Terminated at 45 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
24 feet while drilling
16.5 feet after 24 hours

Drill Rig
CME 55

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
EYOAB

Boring Started
04-29-2026

Boring Completed
04-29-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-4

Location: See Exploration Plan

Latitude: 39.1244° Longitude: -104.8668°

Depth (Ft.) Approximate Elevation: 7339 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7338.5									
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown to orangish brown, medium dense			6-11					32-24-8	48.7
					11-11	-2.3 @ 500 psf		6.6	108		
		5									
					7-10						
		10									
					11-13			13.6	118		
		15									
		18.0 7321									
4		**SANDSTONE**, light gray to reddish brown, hard to very hard			50/8"						
		20									
					50/1"						
		25									
					50/3"			10.1	125		
		30									
					50/2"						
		35	▽								
					50/3"						
		40									
		45.0 7294			50/3"						
		Boring Terminated at 45 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations

▽ 36 feet after 24 hours

Drill Rig
CME 55

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Logged by
EYOAB

Boring Started
04-29-2026

Boring Completed
04-29-2026

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-5

Location: See Exploration Plan

Latitude: 39.1243° Longitude: -104.8667°

Depth (Ft.) Approximate Elevation: 7342 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5									
		TOPSOIL, about 6 inches thick 7341.5									
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown to reddish brown, loose to medium dense			6-9					NP	29.2
					8-8	-2.3 @ 500 psf		9.4	103		
					4-3			8.2	124		
					6-8						
		21.0 7321			13-23			12.3	124		
4		**CLAYEY SANDSTONE**, light gray, hard to very hard			50/9"						
					50/10"						
					50/3"						
					50/4"						
					50/5"						
		50.0 7292			50/4"						
		Boring Terminated at 50 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
EYOAB

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
04-22-2026

Boring Completed
04-22-2026

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-6

Location: See Exploration Plan

Latitude: 39.1244° Longitude: -104.8666°

Depth (Ft.) Approximate Elevation: 7340 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 7339.5 **TOPSOIL**, about 6 inches thick									
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown, loose to medium dense			3-4			4.5	106	NP	26.0
					10-11						
					10-12			7.9	111		
					6-8						
		17.0 7323									
3		**LEAN CLAY (CL)**, brown to gray, stiff			5-7						
		22.0 7318									
4		**CLAYEY SANDSTONE**, with gravel, light gray to reddish brown, hard to very hard			50/9"						
					50/6"			10.6	124		
					50/5"						
					50/4"						
					50/3"						
		50.0 7290			50/2"						
		Boring Terminated at 50 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
EYOAB

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
04-21-2026

Boring Completed
04-21-2026

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-7

Location: See Exploration Plan

Latitude: 39.1244° Longitude: -104.8664°

Depth (Ft.) Approximate Elevation: 7341 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7340.5									
2		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, brown to light brown, loose to medium dense			2-4			6.4	110	NP	27.6
					7-5						
					10-13			7.2	124		
					13-19						
4		16.0 7325 **CLAYEY SANDSTONE**, reddish brown to dark brown, medium hard									
		20.0 7321 ***Boring Terminated at 20 Feet***			50/11"			12.8	114		

5 10 15 20

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained from Google Earth Aerial Imagery.

Water Level Observations
Groundwater not encountered

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer efficiency: 77.9%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
EYOAB

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
04-21-2026

Boring Completed
04-21-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-8

Location: See Exploration Plan

Latitude: 39.1244° Longitude: -104.8659°

Depth (Ft.) Approximate Elevation: 7350 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7349.5									
3		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, reddish brown, to, gray			11-14	-7.0 @ 500 psf		5.2	102	NP	21.7
		7.0 7343									
5		**CLAYEY SANDSTONE**, gray, to, orangish brown, hard to very hard to weak cementation			50/1"			7.4	118		
					50/9"						
					25-29-40 N=69						
					50/6"			14.1	122		
					29-39-50/4"						
					50/6"						
					34-50/3"						
		40.0 7310			50/4"						
		Boring Terminated at 40 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
KE

Boring Started
07-16-2026

Boring Completed
07-16-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-9

Location: See Exploration Plan

Latitude: 39.1244° Longitude: -104.8657°

Depth (Ft.) Approximate Elevation: 7353 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 7352.5 **TOPSOIL**, about 6 inches thick									
3		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, reddish brown, to, gray			6-9			10.2	100	NP	24.4
		6.0 7347									
5		**CLAYEY SANDSTONE**, gray, to, orangish brown, hard to very hard to weak cementation			50/11"						
					50/11"	-0.7 @ 750 psf		8.2	108		
					15-32-42 N=74						
					50/11"						
					37-50/3"						
					50/9"			11.2	110		
					40-50/3"						
		40.0 7313			50/7"						
		Boring Terminated at 40 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
KE

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
07-16-2026

Boring Completed
07-16-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-10

Location: See Exploration Plan

Latitude: 39.1243° Longitude: -104.8659°

Depth (Ft.) Approximate Elevation: 7356 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7355.5									
3		**SILTY SAND (SM)**, varies to clayey sand, fine to coarse grained, orangish brown, to, light gray 4.0 7352			12-19					NP	30.4
5		**CLAYEY SANDSTONE**, dark gray, to, reddish brown, firm to very hard to weak cementation			22-22	-0.3 @ 500 psf		6.7	122		
					15-30						
					20-30			10.7	119		
					16-31						
					50/8"			12.4	113		
					50/6"						
					50/6"						
					45-50/5"						
		40.0 7316			50/5"						
		Boring Terminated at 40 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Logged by
KE

Abandonment Method
Boring backfilled with excess auger cuttings

Boring Started
07-16-2026

Boring Completed
07-16-2026

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. U-11

Location: See Exploration Plan

Latitude: 39.1243° Longitude: -104.8657°

Depth (Ft.) Approximate Elevation: 7357 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Unconfined Compressive Strength (psf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.5 **TOPSOIL**, about 6 inches thick 7356.5									
3		**CLAYEY SAND (SC)**, varies to silty sand, fine to coarse grained, brown, to, light gray			13-25			6.9	119		
		4.0 7353									
		CLAYEY SANDSTONE, orangish brown, to, light gray, firm to very hard to weak cementation			50/8"						
		5				-1.1 @ 750 psf		7.4	111	24-14-10	38.3
		10			13-31						
		15			22-30-45 N=75						
		20			50/10"			10.9	118		
5		25			18-29-37 N=66						
		30			50/8"						
		35			9-37-50/3"						
		40			50/5"			11.1	100		
		45.0 7312			50/6"						
		Boring Terminated at 45 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
Groundwater not encountered

Drill Rig
CME 55

Hammer Type
Automatic Hammer efficiency: 83.5%

Driller
Terracon

Logged by
KE

Boring Started
07-16-2026

Boring Completed
07-17-2026

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Buc-ee's Monument

Interstate 25 and Palmer Divide Avenue | Monument, Colorado

Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. S-1

Location: See Exploration Plan

Latitude: 39.1269° Longitude: -104.8650°

Approximate Future Grade Elevation: 7335.0 (Ft.) +/-

Depth (Ft.) | Elevation: 7315.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
1		0.3 7314.75 **TOPSOIL**, about 3 inches thick								
		SILTY SAND (SM), with gravel, fine to coarse grained, brown to orangish brown, loose to medium dense			10-10		4.3	99	NP	29
					9-11					
		8.0 7307								
2		**CLAYEY SAND (SC)**, fine to coarse grained, brown to orangish brown, loose to medium dense	▽		6-8		14.5	96		
					5-9		12.3	93		
		19.0 7296								
4		**SANDSTONE**, fine to coarse grained, orange, light gray, dark brown, pink, and white, medium hard to very hard, strong cementation			50/6"		11.9	113		
					15-28-50/6"		6.9			

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 10 feet while drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-15-2024

Boring Completed
07-15-2024

Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

Boring Log No. S-1

Model Layer	Graphic Log	Location: See Exploration Plan Latitude: 39.1269° Longitude: -104.8650° Depth (Ft.) Elevation: 7315.0 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Swell (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI	Percent Fines
4		**SANDSTONE**, fine to coarse grained, orange, light gray, dark brown, pink, and white, medium hard to very hard, strong cementation *(continued)*	30			50/4"		15.1			
			35			50/4"					
			40			50/2"		4.2			
			45			50/6"					
		50.0 7265	50			50/4"		8.2			
		Boring Terminated at 50 Feet									

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Approximate ground surface elevation was obtained by interpolation from Kimley Horn Grading Plan, dated 7/8/2025.

Water Level Observations
▽ 10 feet while drilling

Drill Rig
Mobile B-57

Hammer Type
Automatic Hammer
efficiency: 83.5%

Driller
Terracon

Logged by
DG

Boring Started
07-15-2024

Boring Completed
07-15-2024

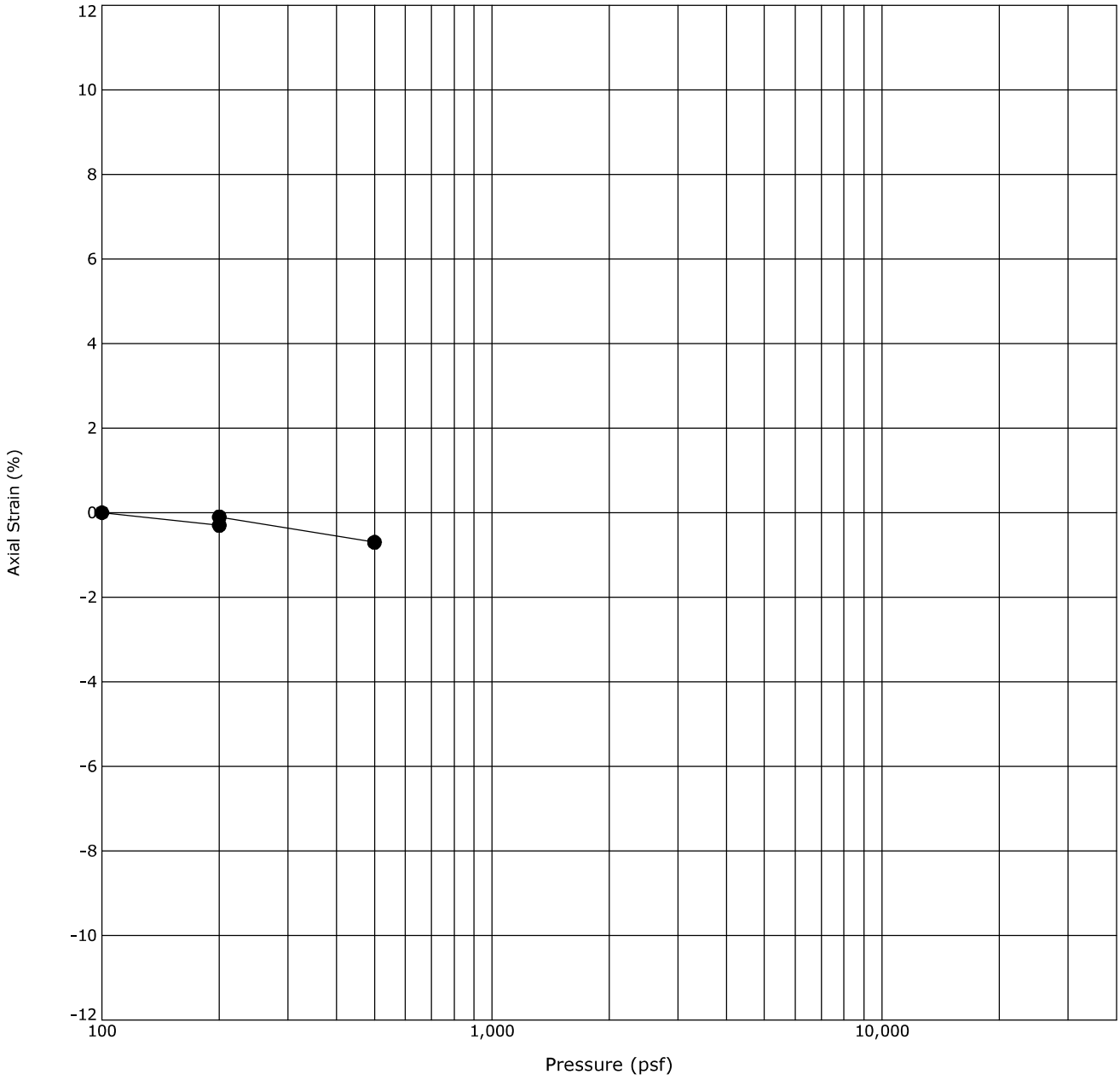
Notes

Advancement Method
4-inch, solid-stem, continuous flight, power auger

Abandonment Method
Boring backfilled with excess auger cuttings

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

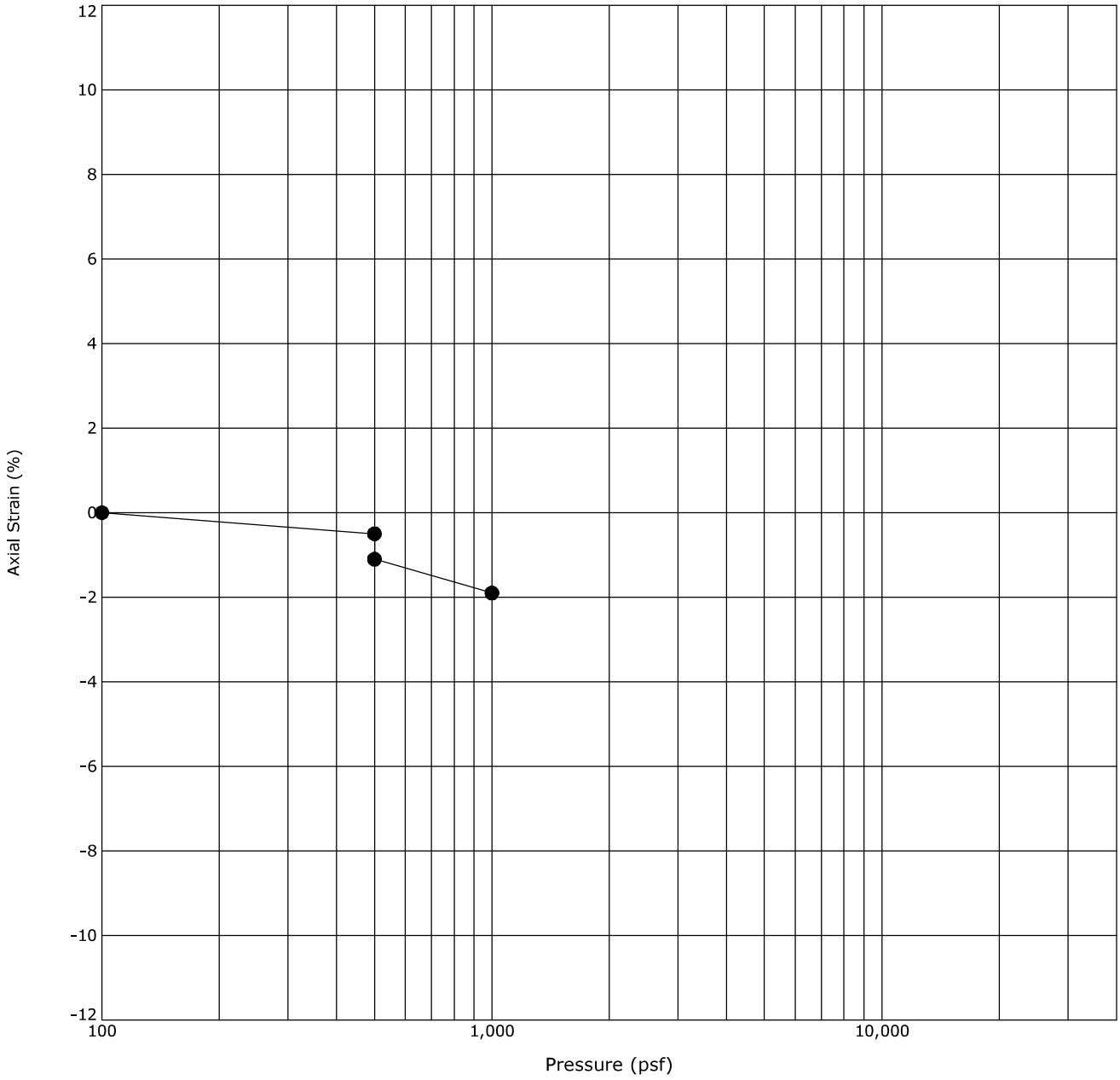


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-3	2 - 3	CLAYEY SAND	SC	113	13.2

Notes: Sample exhibited 0.2 percent expansion when wetted at an applied pressure of 200 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

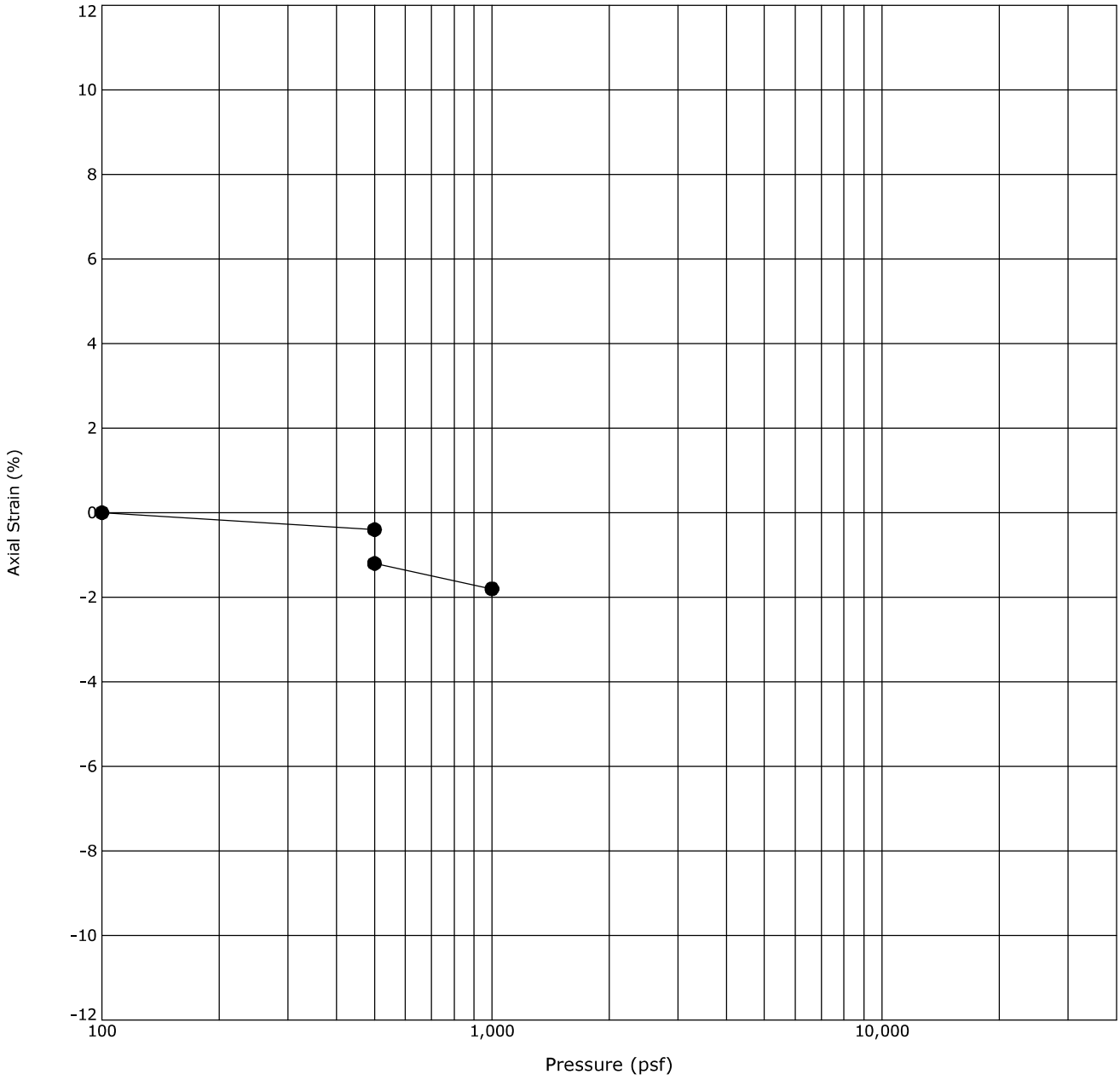


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-5	4 - 5	CLAYEY SAND	SC	113	7.8

Notes: Sample exhibited 0.6 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

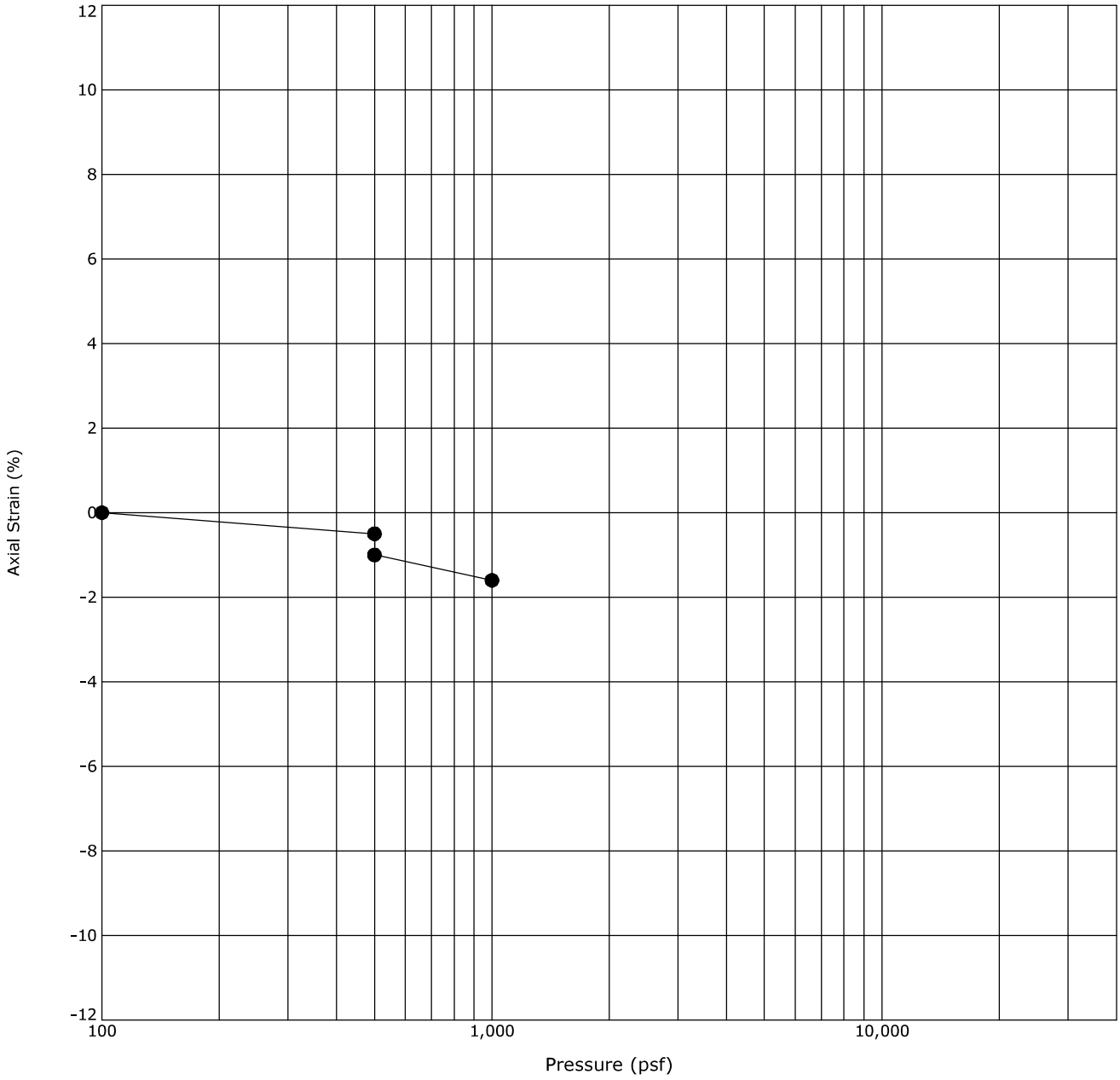


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-8	4 - 5	SILTY SAND	SM	117	7.5

Notes: Sample exhibited 0.8 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

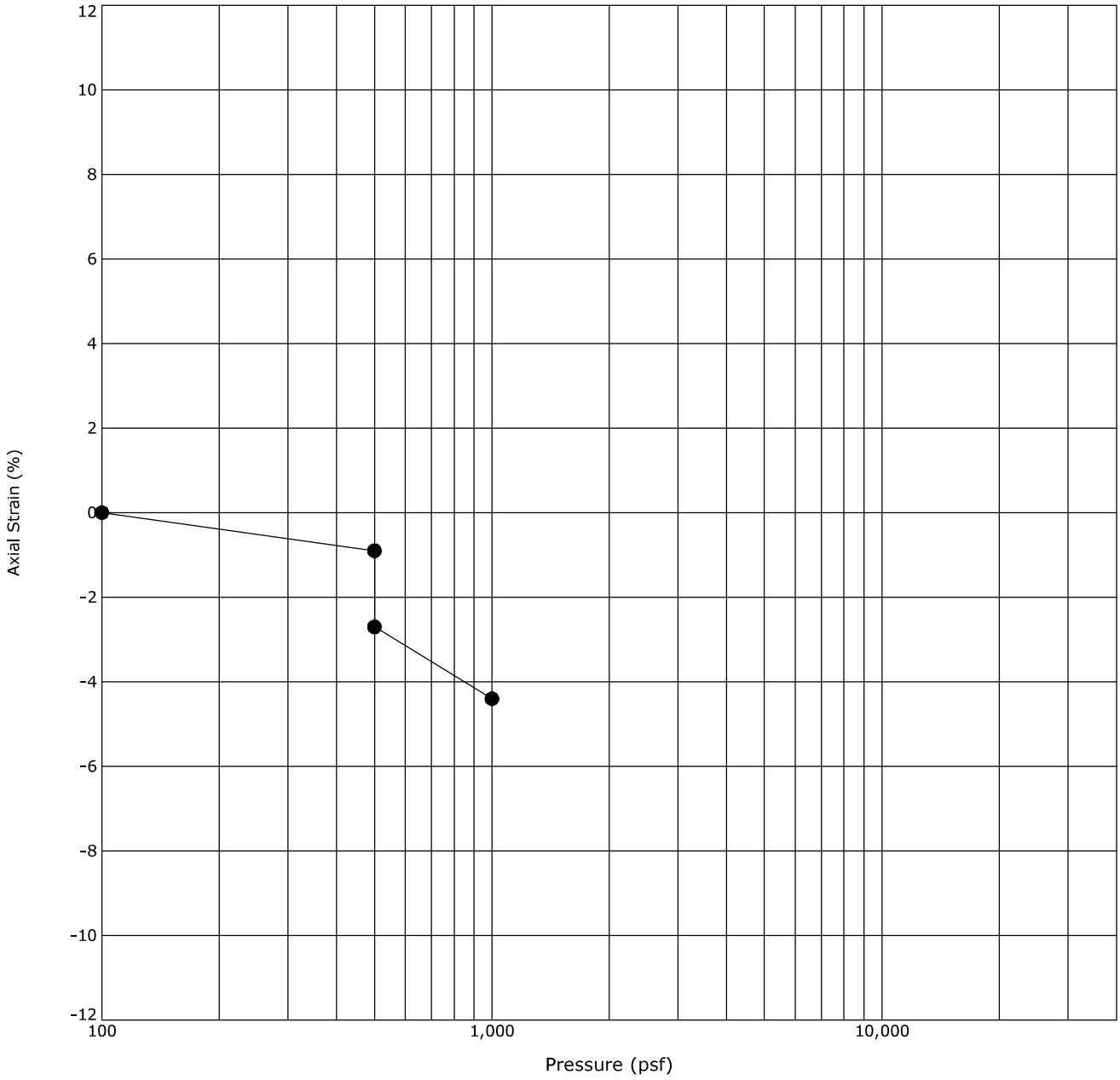


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-10	9 - 10	SANDY LEAN CLAY	CL	111	13.6

Notes: Sample exhibited 0.5 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

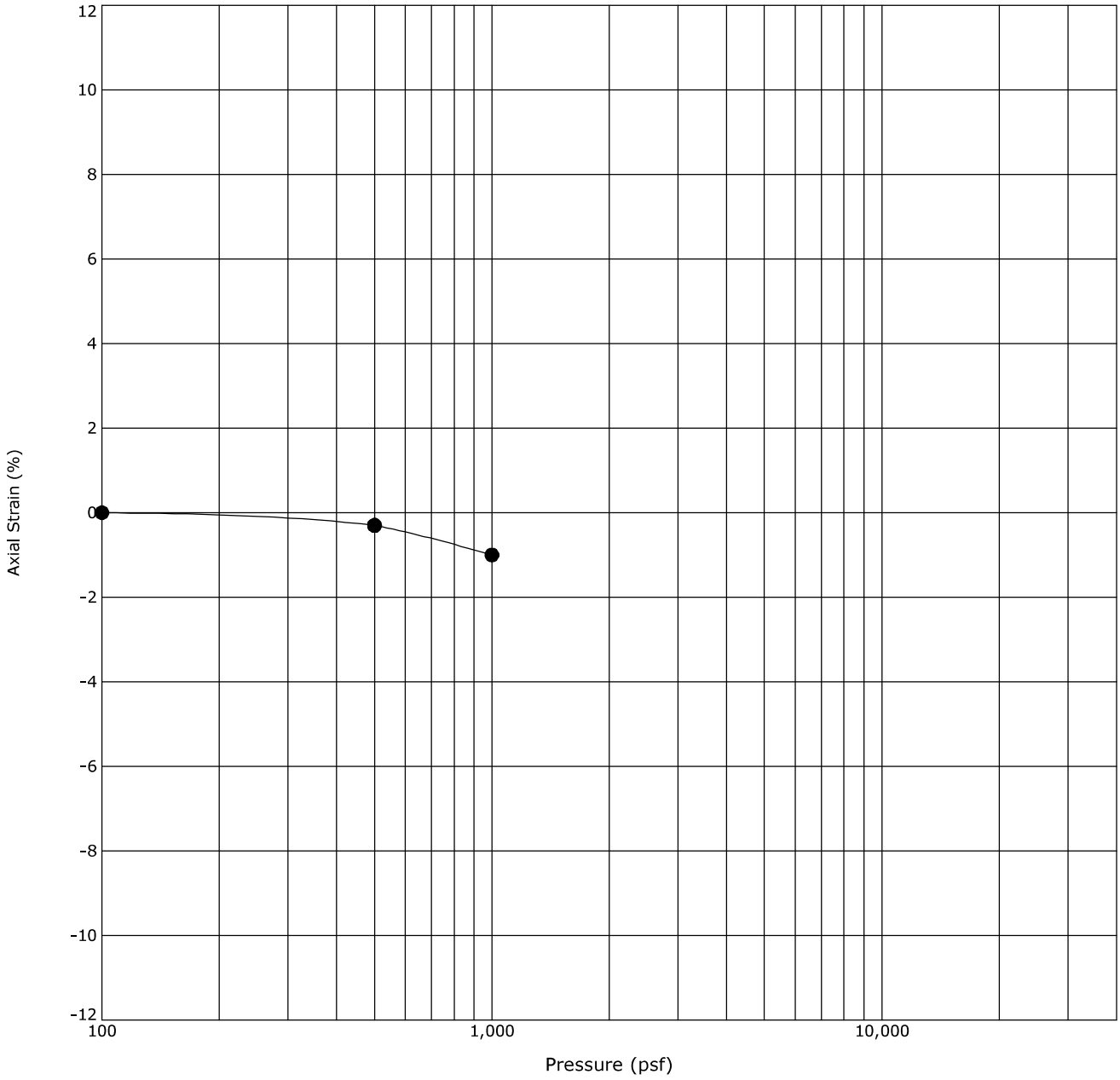


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-13	9 - 10	SANDY LEAN CLAY	CL	111	11.7

Notes: Sample exhibited 1.8 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

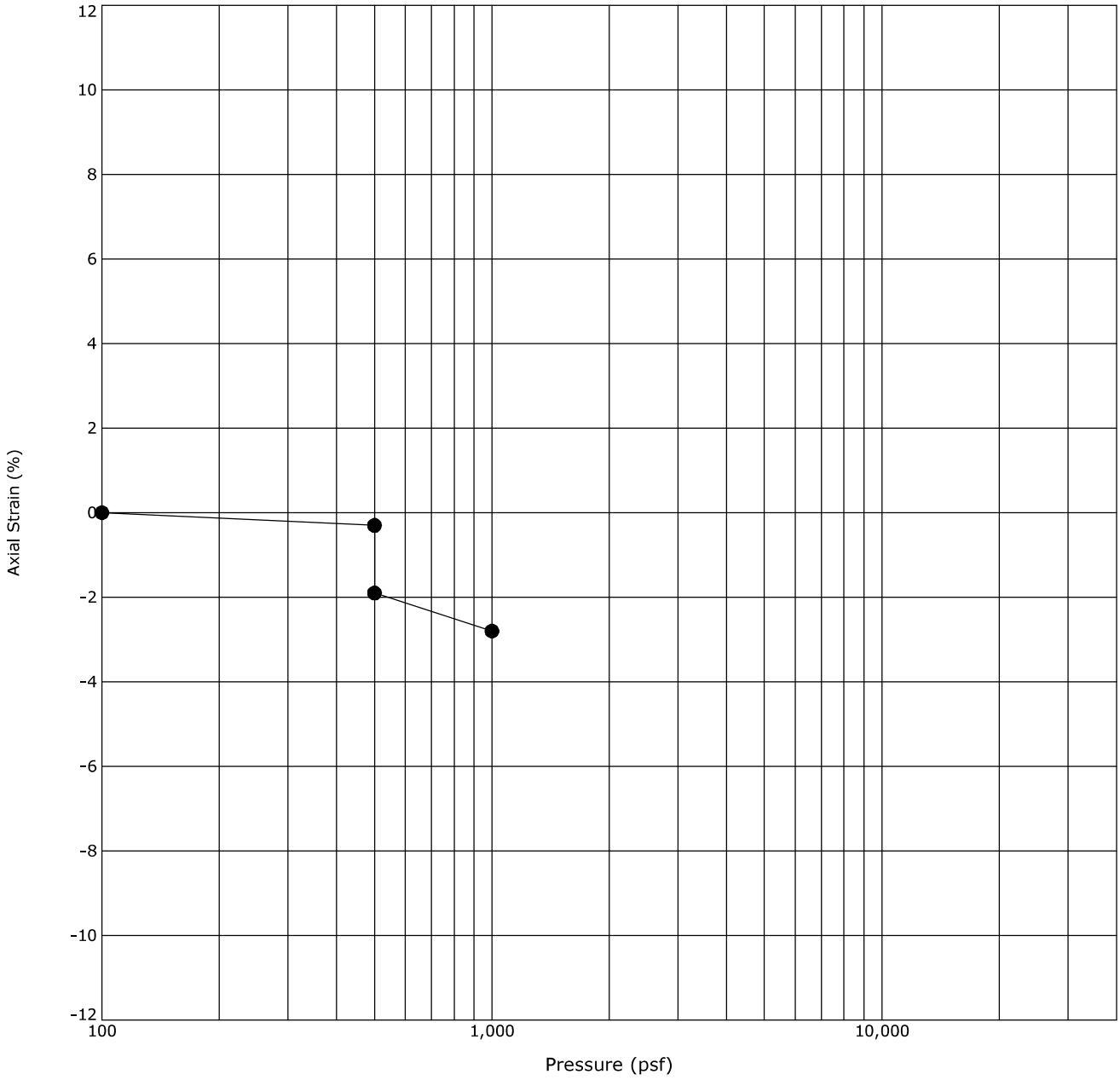


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-15	4 - 5	SANDY LEAN CLAY	CL	109	15.2

Notes: Sample exhibited 0.0 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

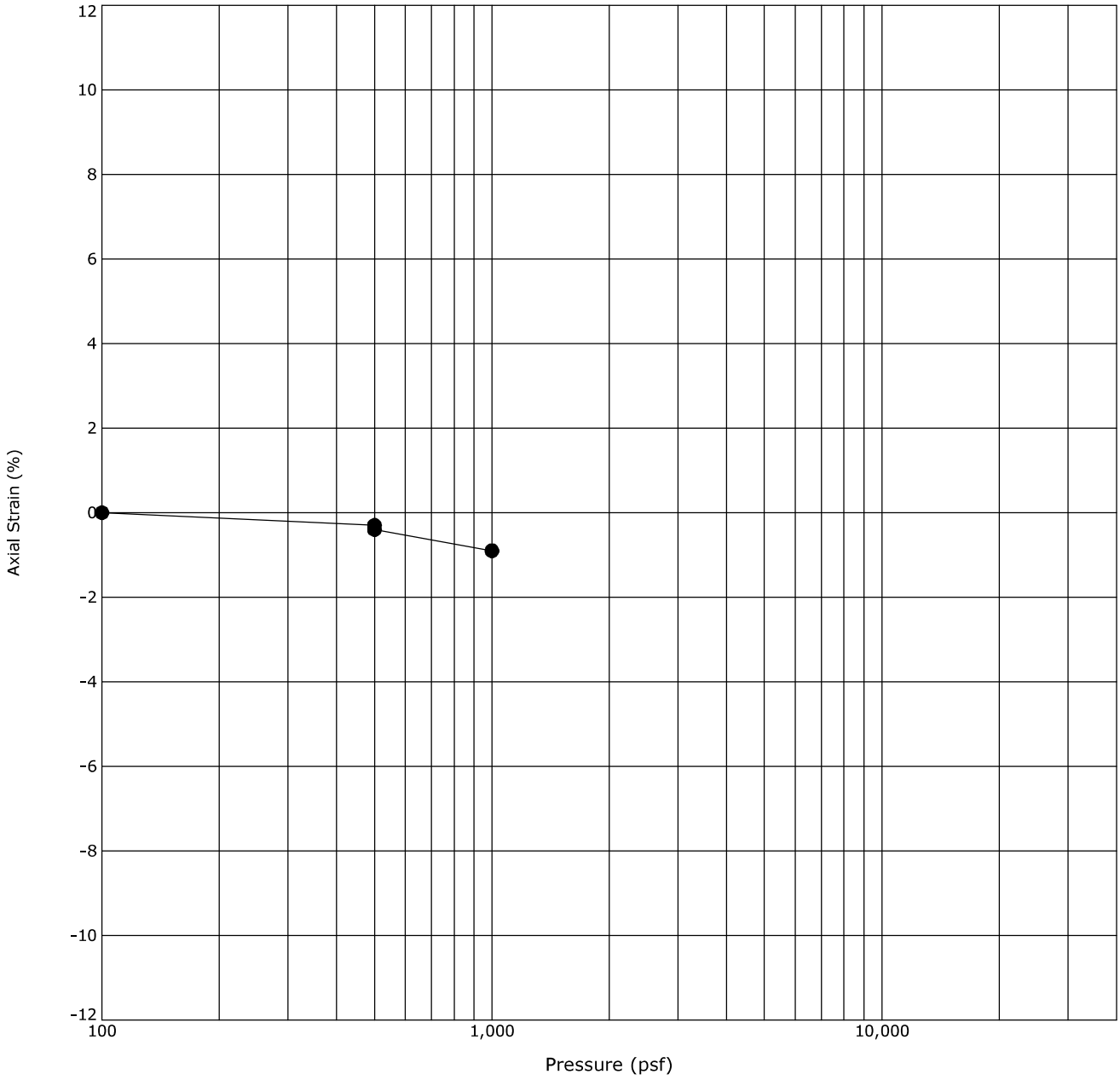


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-19	4 - 5	SILTY SAND	SM	110	4.9

Notes: Sample exhibited 1.6 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

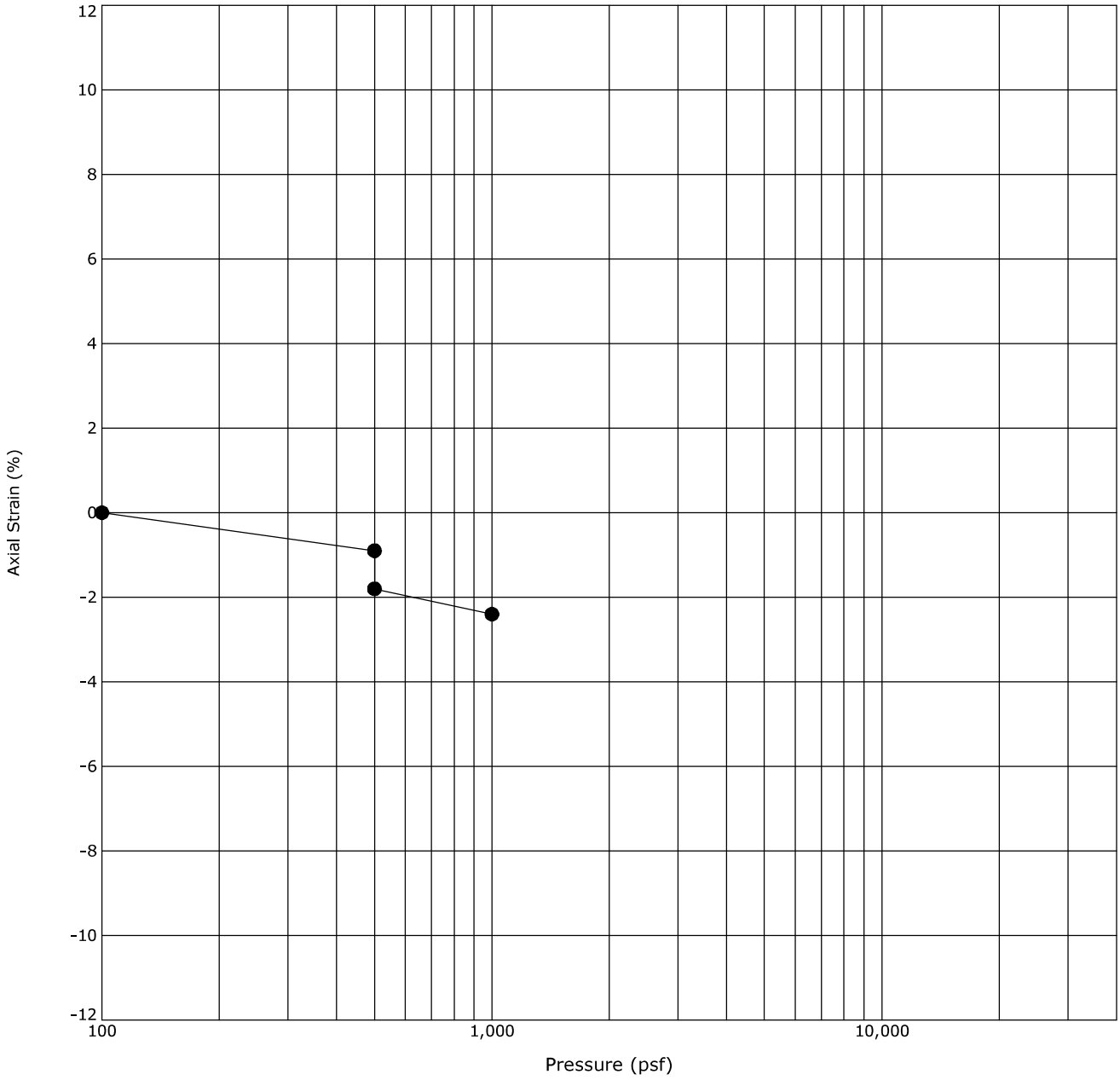


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-31	9 - 10	CLAYEY SAND	SC	109	16.7

Notes: Sample exhibited 0.1 percent compression when wetted at an applied pressure of 500 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

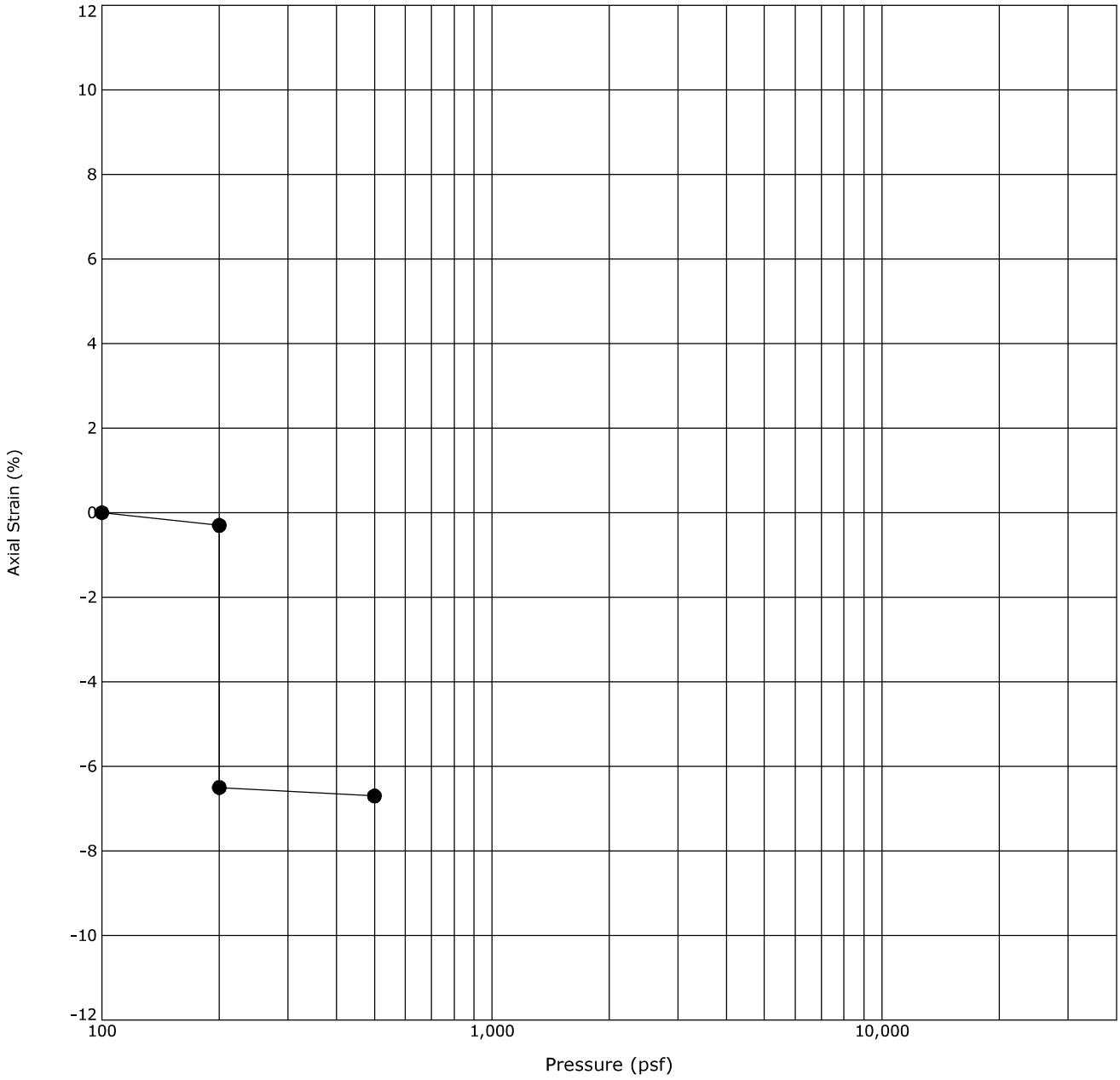


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-32	4 - 5	CLAYEY SAND	SC	105	16.7

Notes: Sample exhibited 0.9 percent compression when wetted at an applied pressure of 200 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

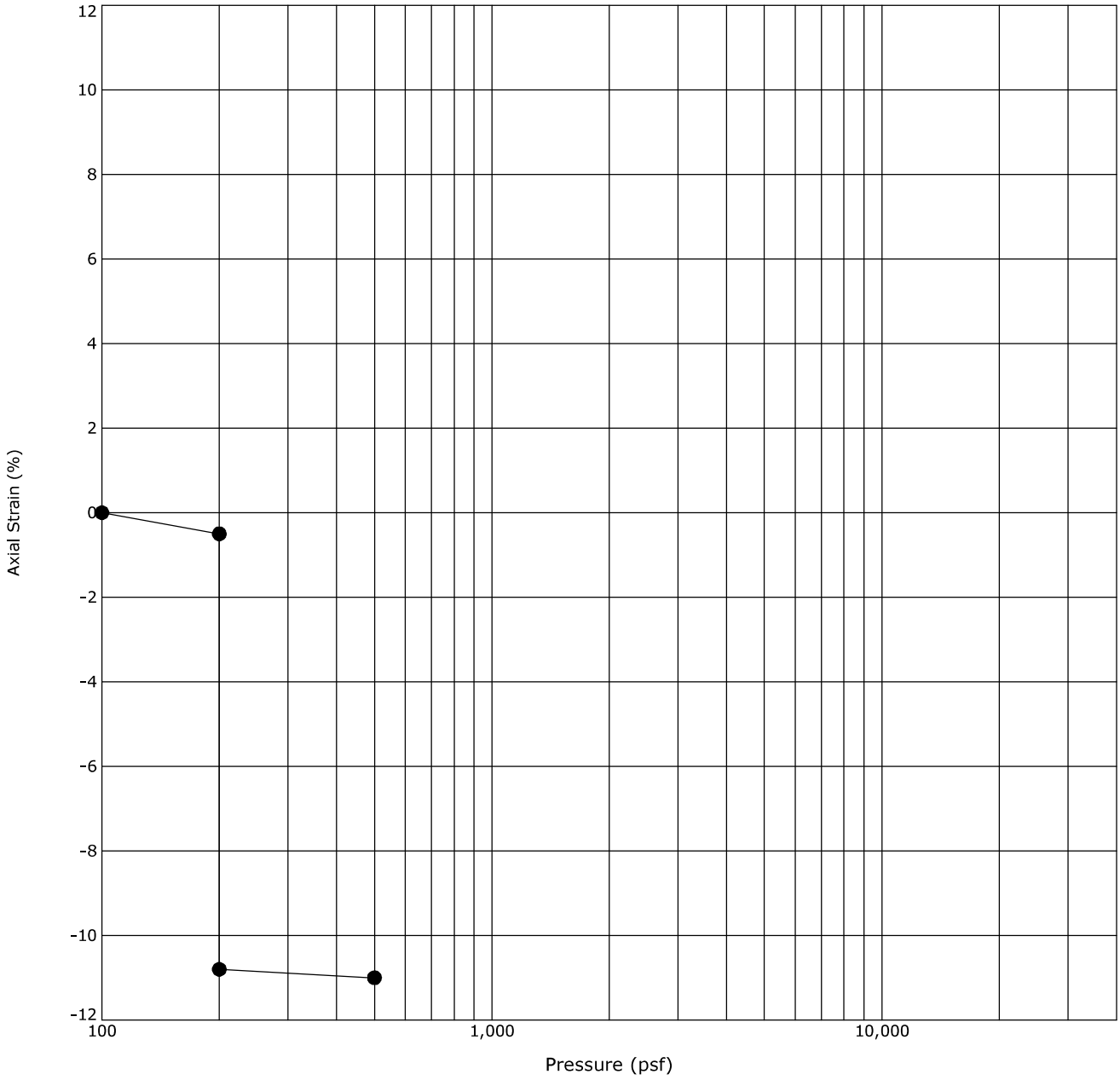


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-36	2 - 3	SILTY SAND	SM	100	9.3

Notes: Sample exhibited 6.2 percent compression when wetted at an applied pressure of 200 psf. (Sample disturbed)

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

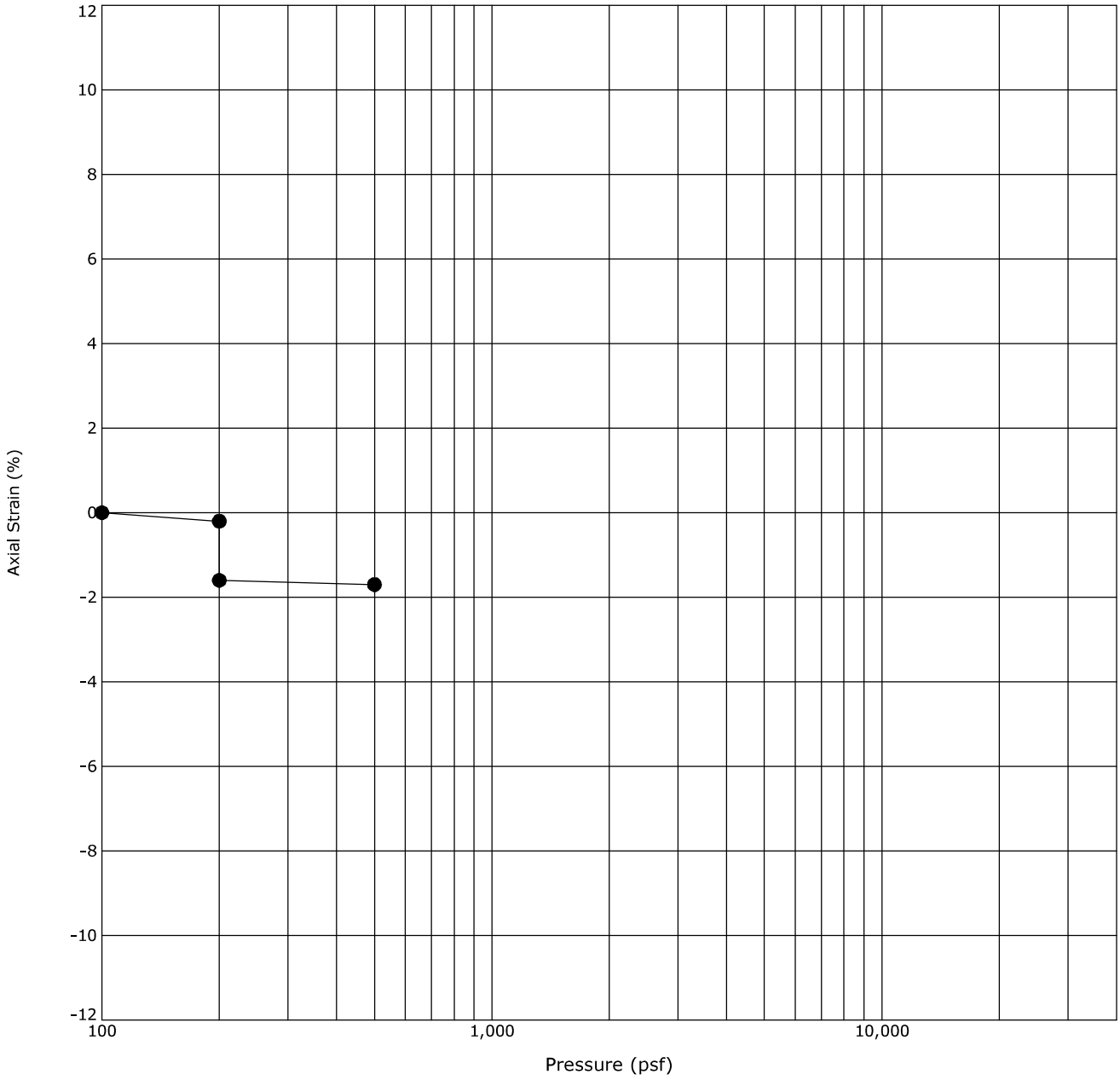


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-37	2 - 3	SILTY SAND	SM	96	8.6

Notes: Sample exhibited 10.3 percent compression when wetted at an applied pressure of 200 psf. (Sample disturbed)

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

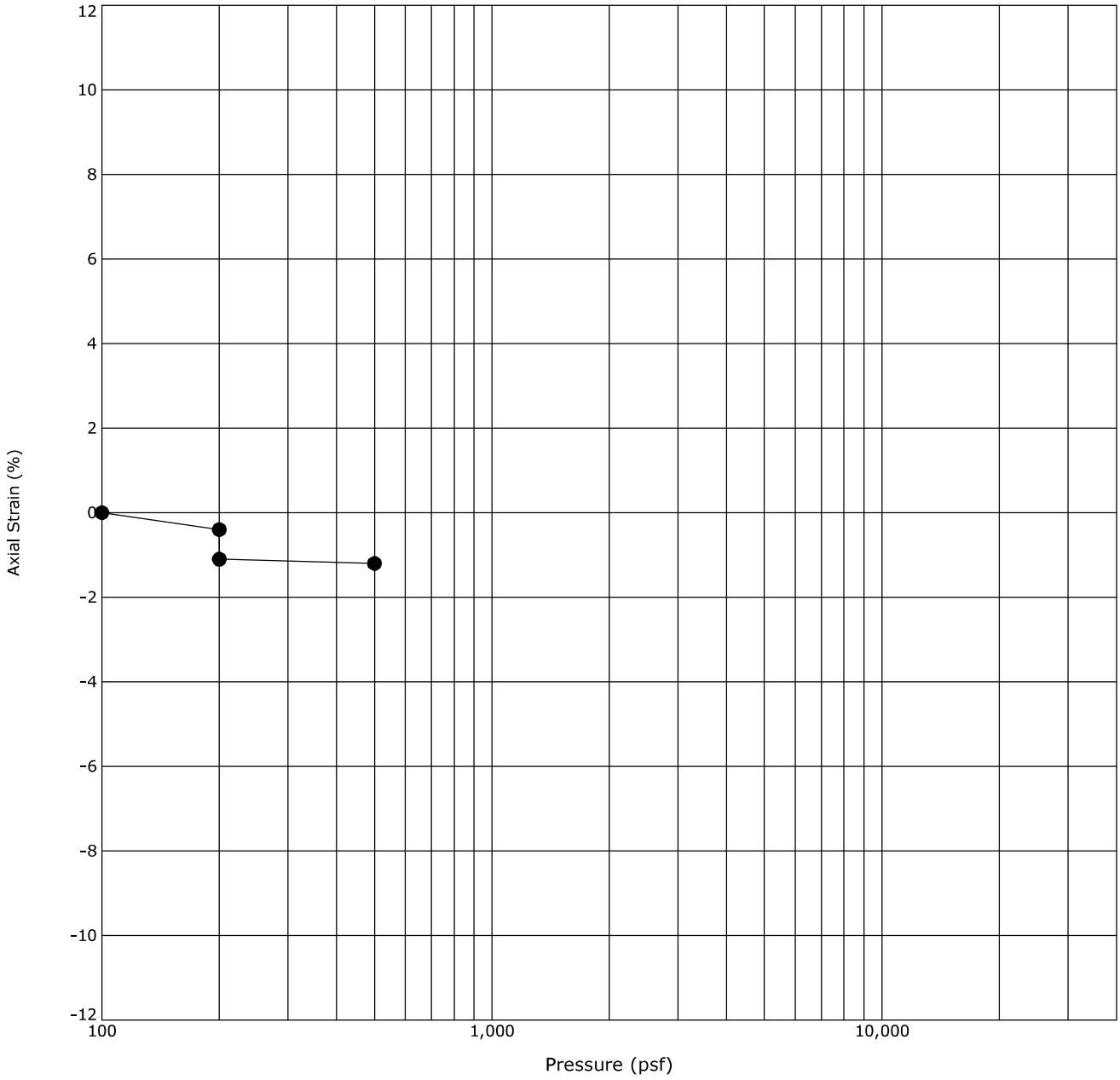


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-39	2 - 3	SILTY SAND	SM	102	7.6

Notes: Sample exhibited 1.4 percent compression when wetted at an applied pressure of 200 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

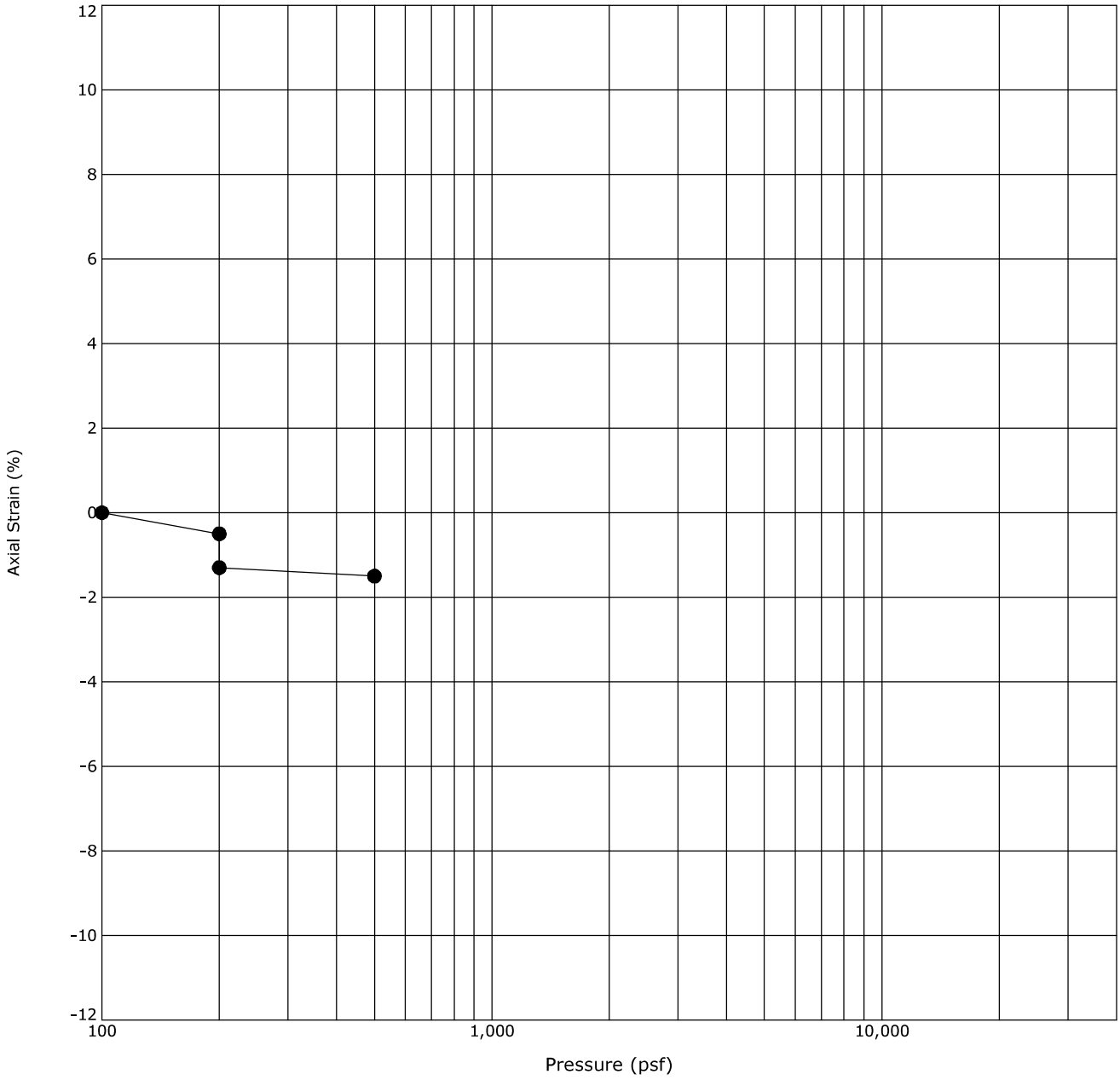


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-40	4 - 5	SILTY SAND	SM	116	12.0

Notes: Sample exhibited 0.7 percent compression when wetted at an applied pressure of 200 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

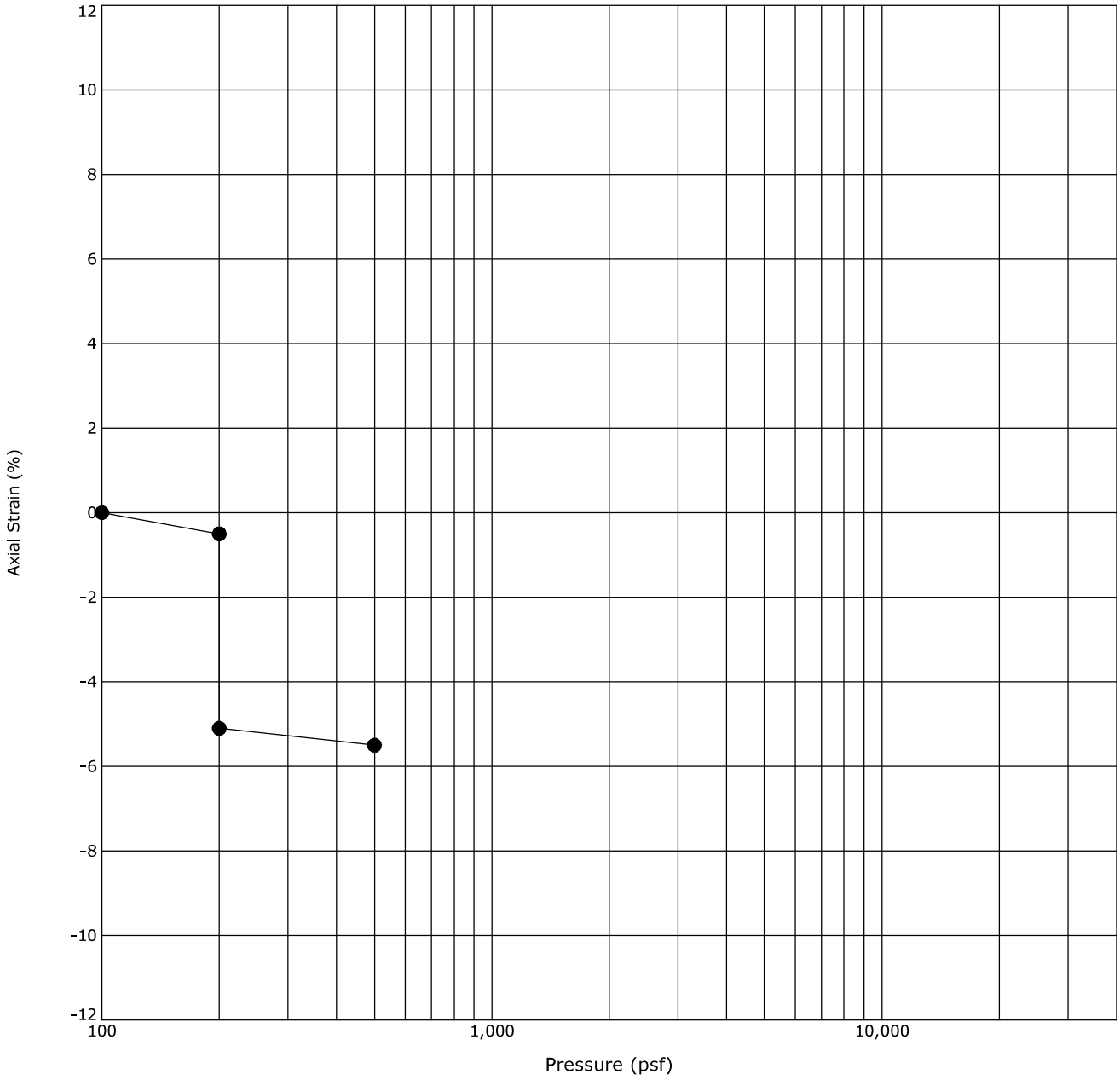


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-43	2 - 3	CLAYEY SAND	SC	108	13.0

Notes: Sample exhibited 0.8 percent compression when wetted at an applied pressure of 200 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

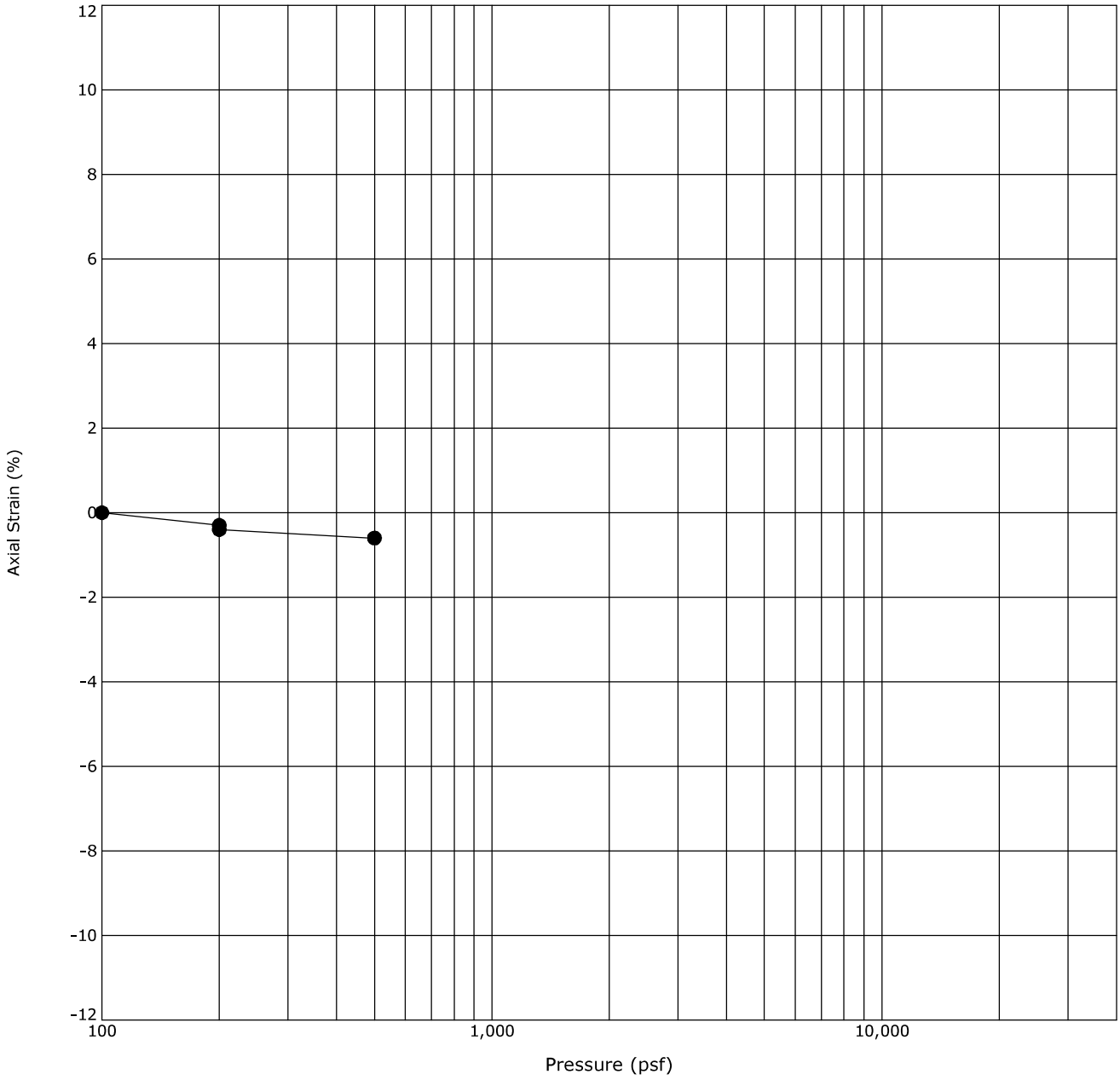


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-44	2 - 3	SILTY SAND	SM	103	5.5

Notes: Sample exhibited 4.6 percent compression when wetted at an applied pressure of 200 psf. (Sample disturbed)

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

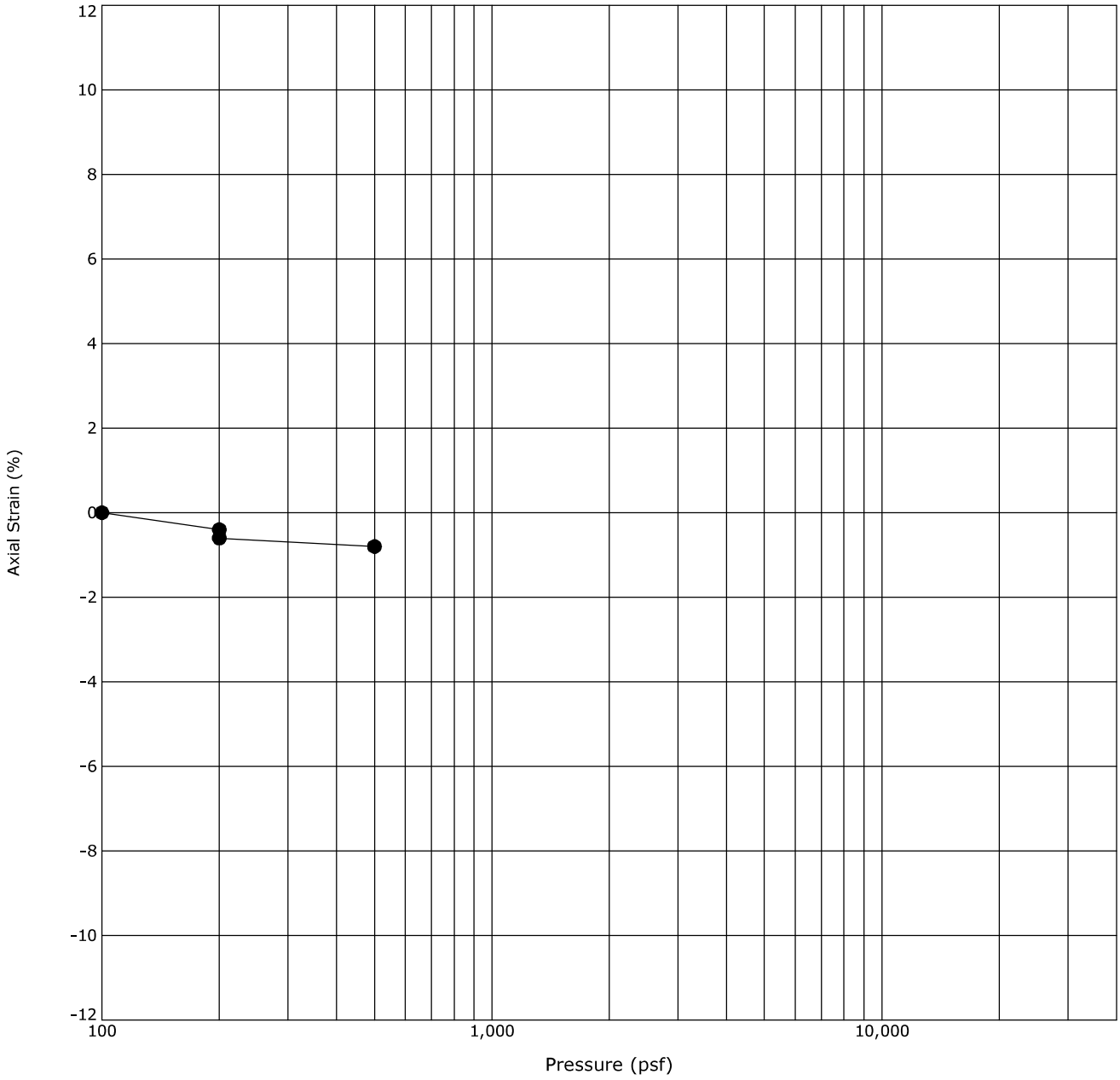


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-53	4 - 5	SANDY LEAN CLAY	CL	108	13.8

Notes: Sample exhibited 0.1 percent compression when wetted at an applied pressure of 200 psf.

Terracon
4172 Center Park Dr
Colorado Springs, CO

One-Dimensional Swell or Collapse

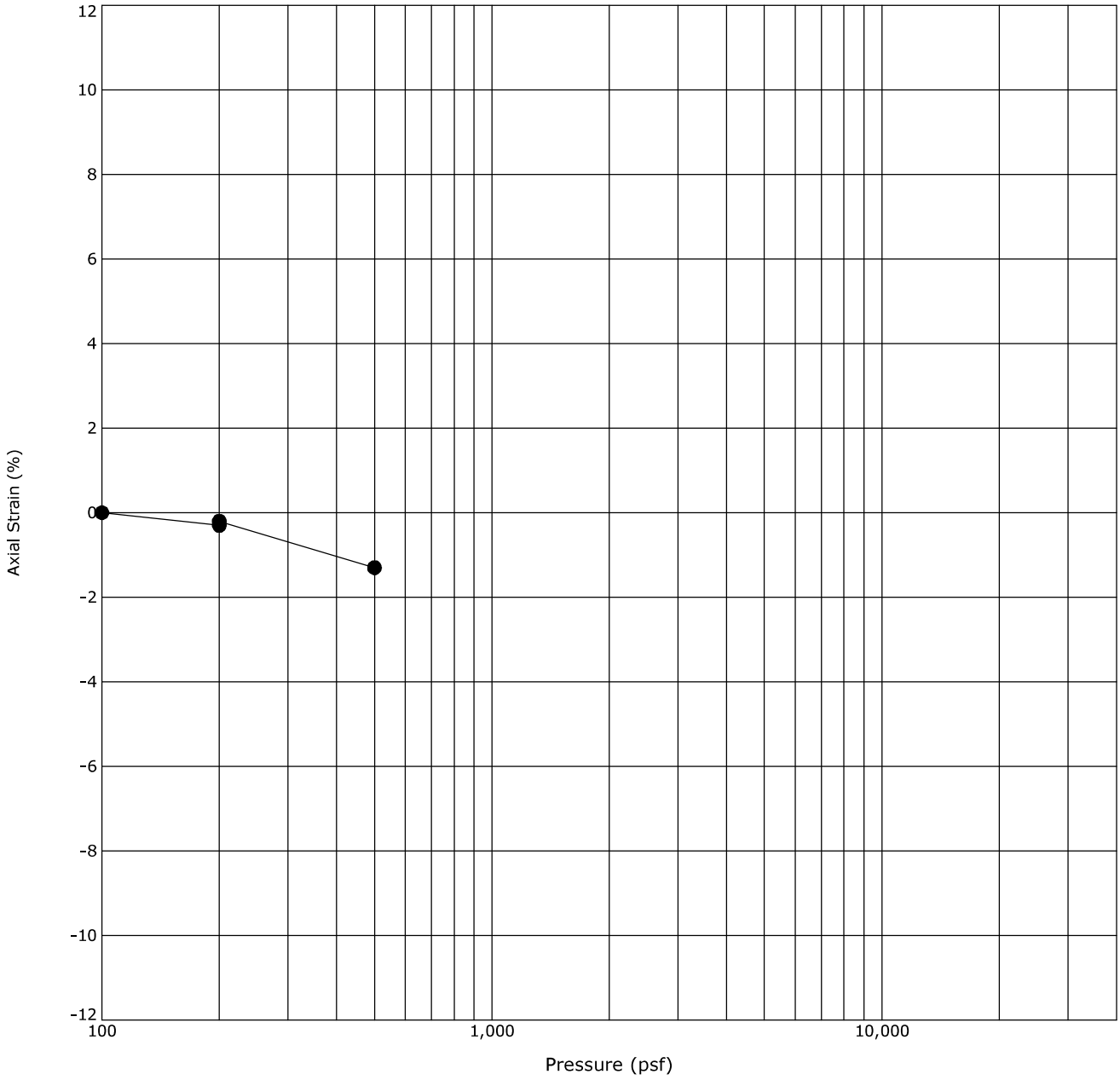


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-58	2 - 3	CLAYEY SAND	SC	114	11.4

Notes: Sample exhibited 0.2 percent compression when wetted at an applied pressure of 200 psf.

Terracon
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Colorado Springs, CO

One-Dimensional Swell or Collapse

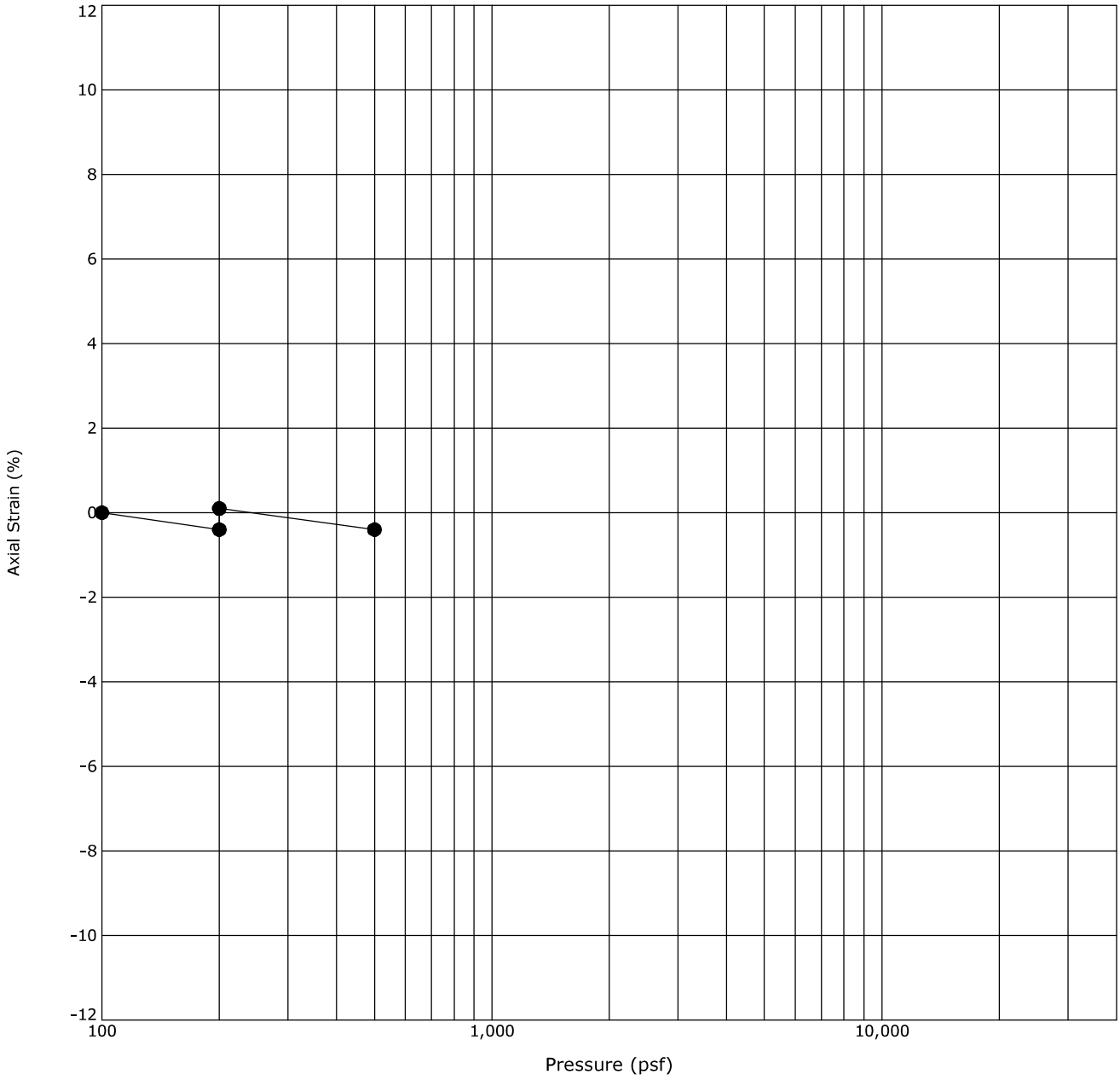


Boring ID	Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
● B-59	2 - 3	CLAYEY SAND	SC	113	13.6

Notes: Sample exhibited 0.1 percent expansion when wetted at an applied pressure of 200 psf.

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One-Dimensional Swell or Collapse

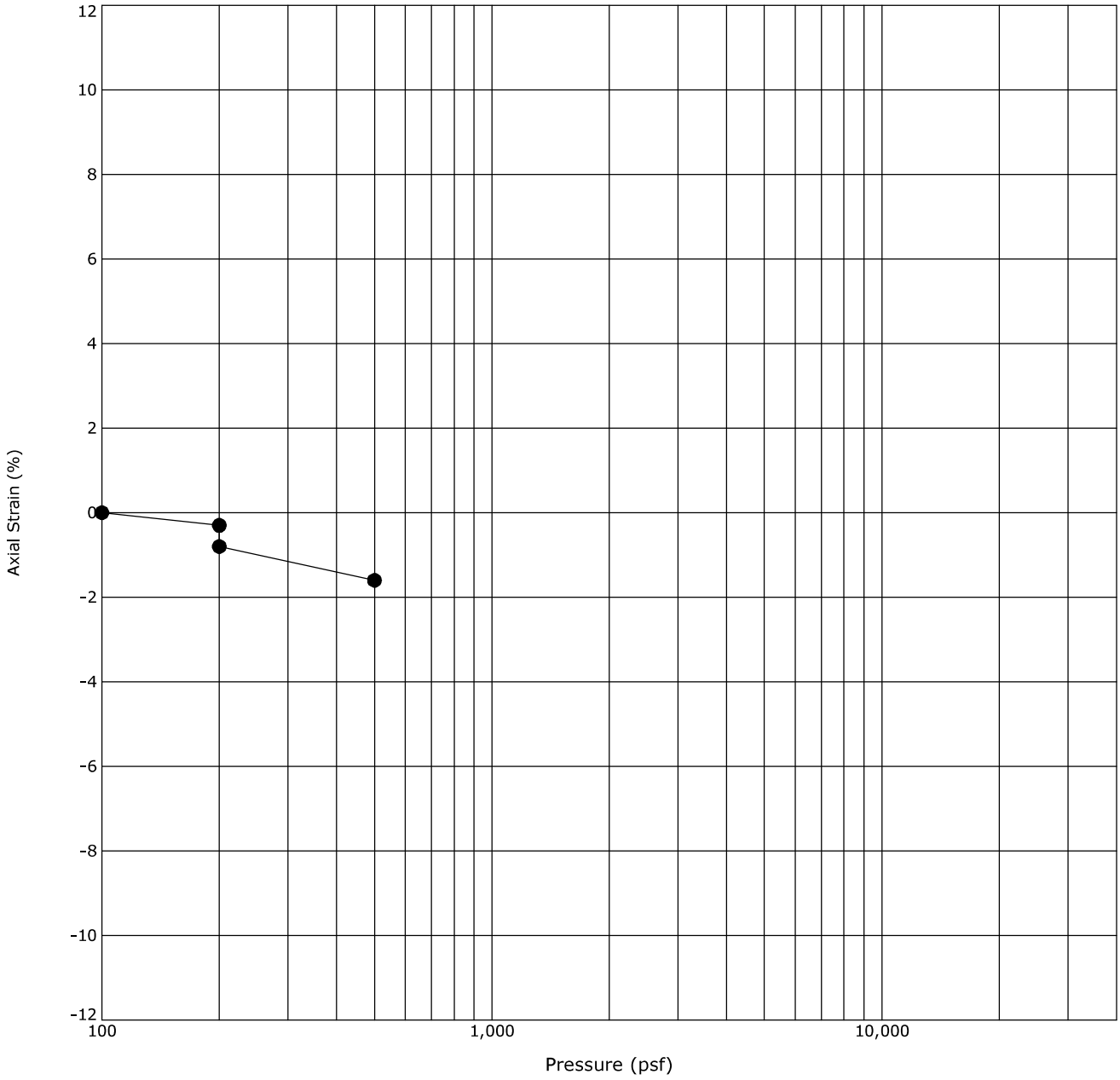


Boring ID	Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
● B-61	4 - 5	SANDY LEAN CLAY	CL	108	15.8

Notes: Sample exhibited 0.5 percent expansion when wetted at an applied pressure of 200 psf.

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One-Dimensional Swell or Collapse

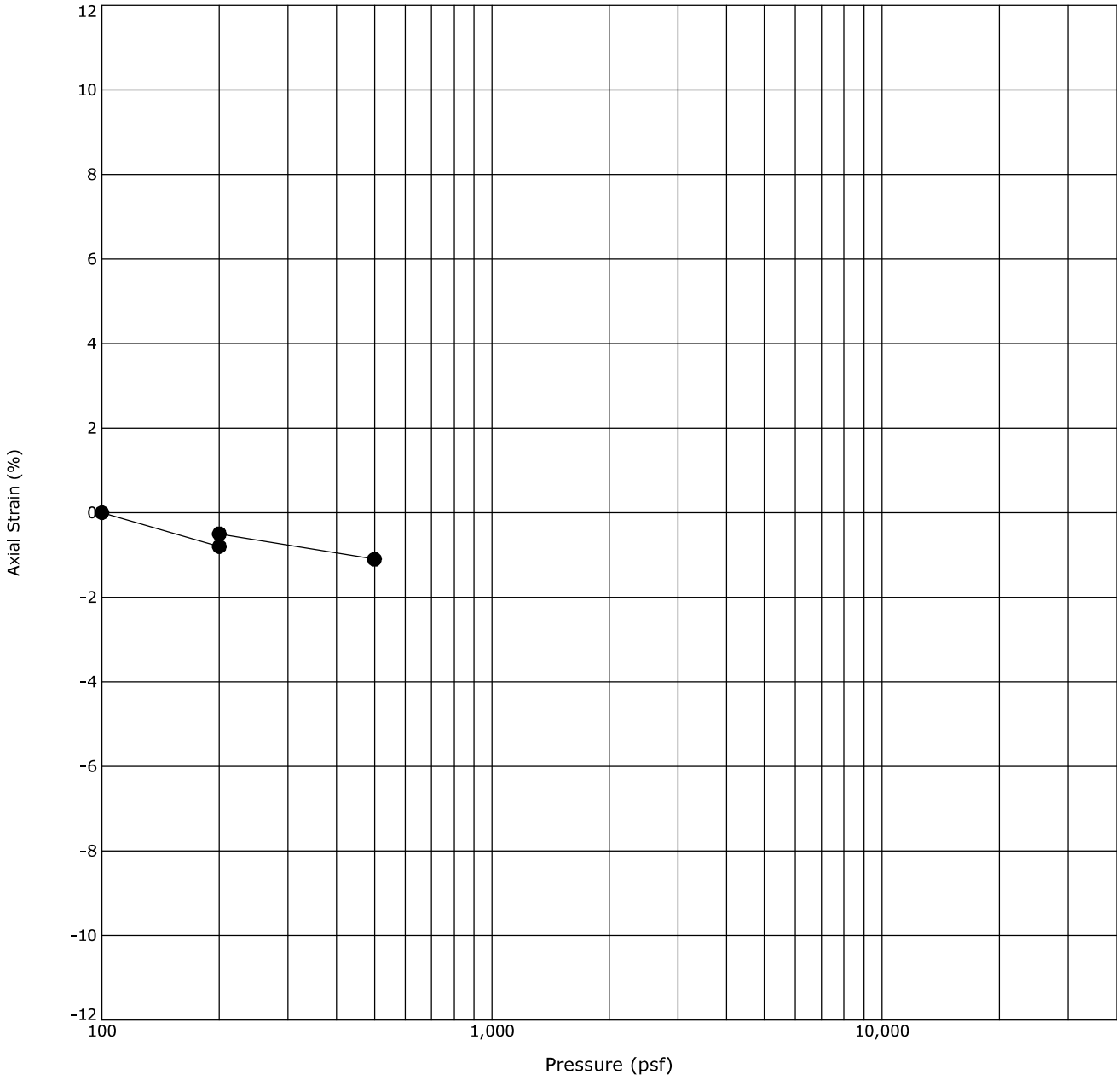


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-68	2 - 3	CLAYEY SAND	SC	105	14.4

Notes: Sample exhibited 0.5 percent compression when wetted at an applied pressure of 200 psf.

Terracon
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One-Dimensional Swell or Collapse

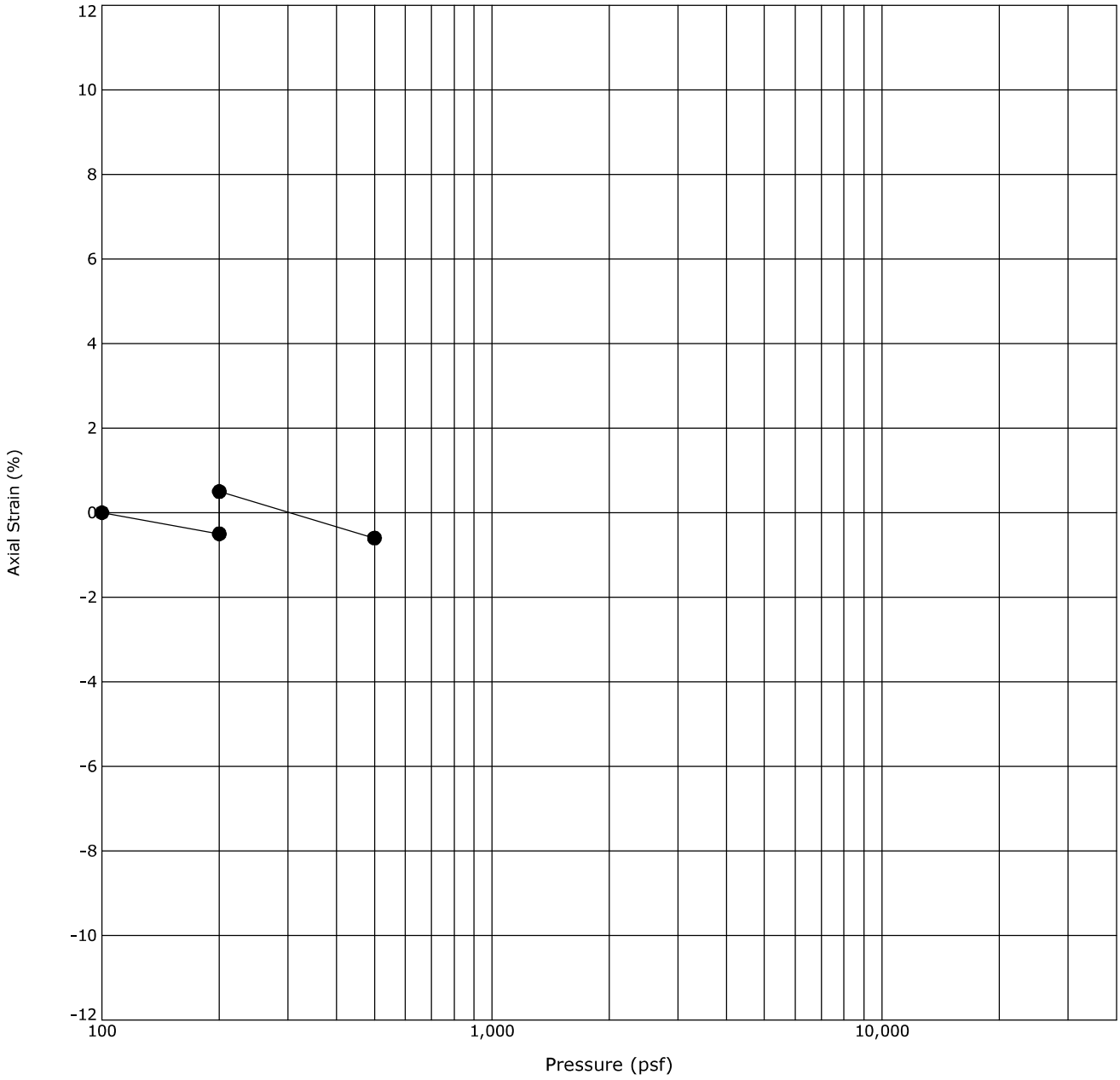


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-70	4 - 5	SANDY LEAN CLAY	CL	115	8.7

Notes: Sample exhibited 0.3 percent expansion when wetted at an applied pressure of 200 psf.

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One-Dimensional Swell or Collapse

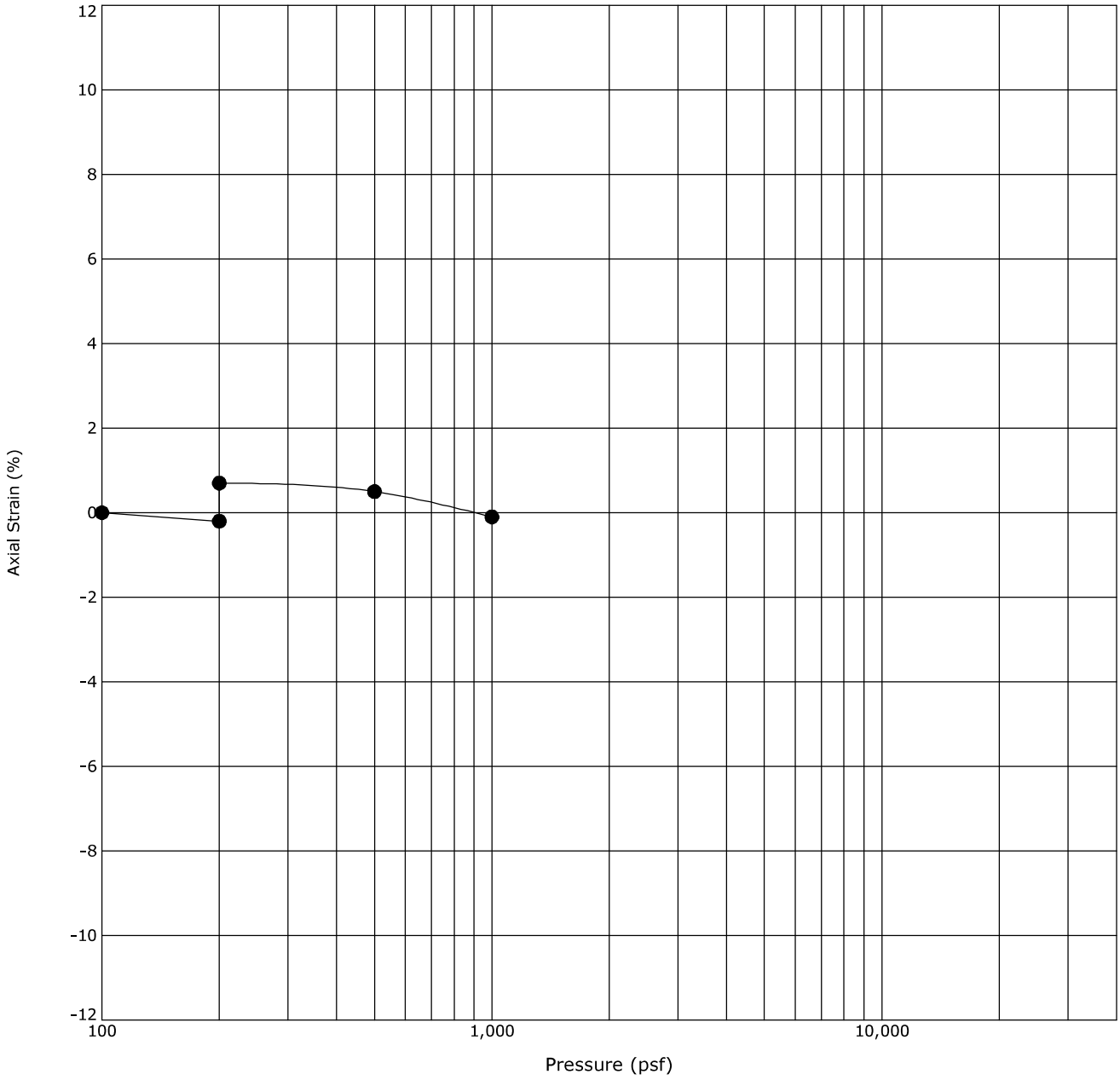


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-75	2 - 3	CLAYEY SAND	SC	107	6.6

Notes: Sample exhibited 1.0 percent expansion when wetted at an applied pressure of 200 psf.

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One-Dimensional Swell or Collapse

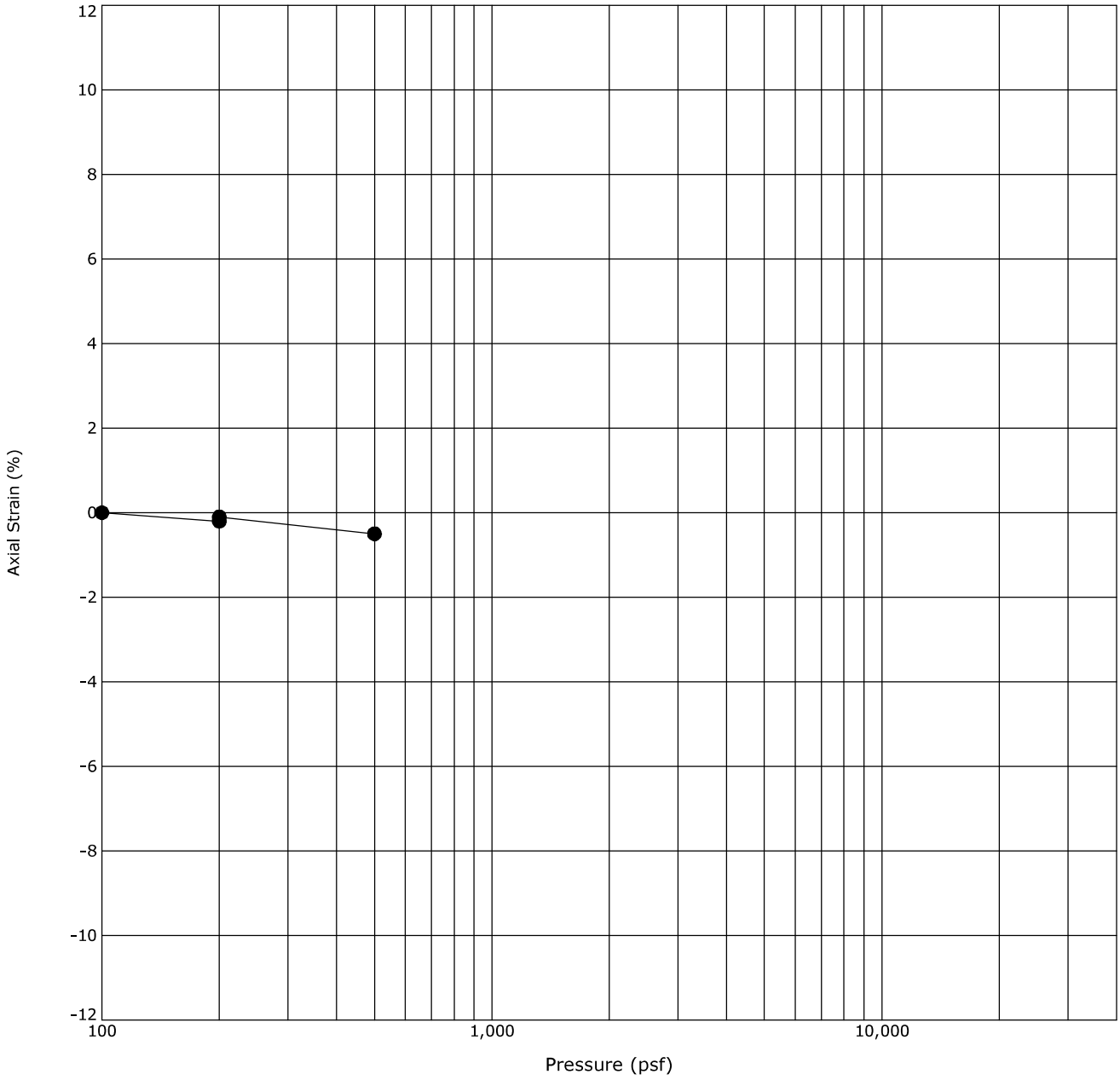


Boring ID	Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
● B-76	2 - 3	CLAYEY SAND	SC	121	7.2

Notes: Sample exhibited 0.9 percent expansion when wetted at an applied pressure of 200 psf.

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One-Dimensional Swell or Collapse

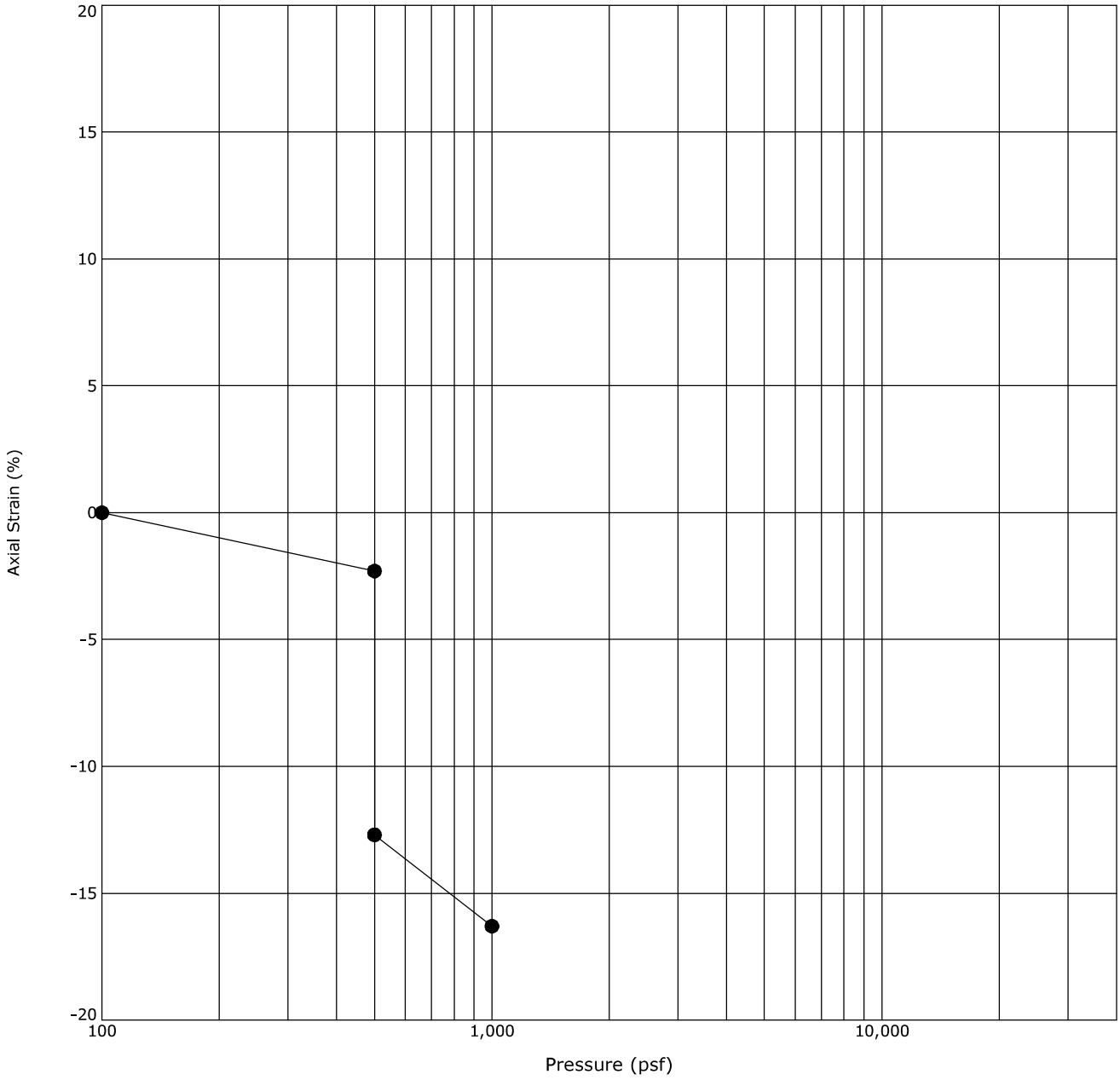


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-87	4 - 5	CLAYEY SAND	SC	109	12.1

Notes: Sample exhibited 0.1 percent expansion when wetted at an applied pressure of 200 psf.

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One-Dimensional Swell or Collapse

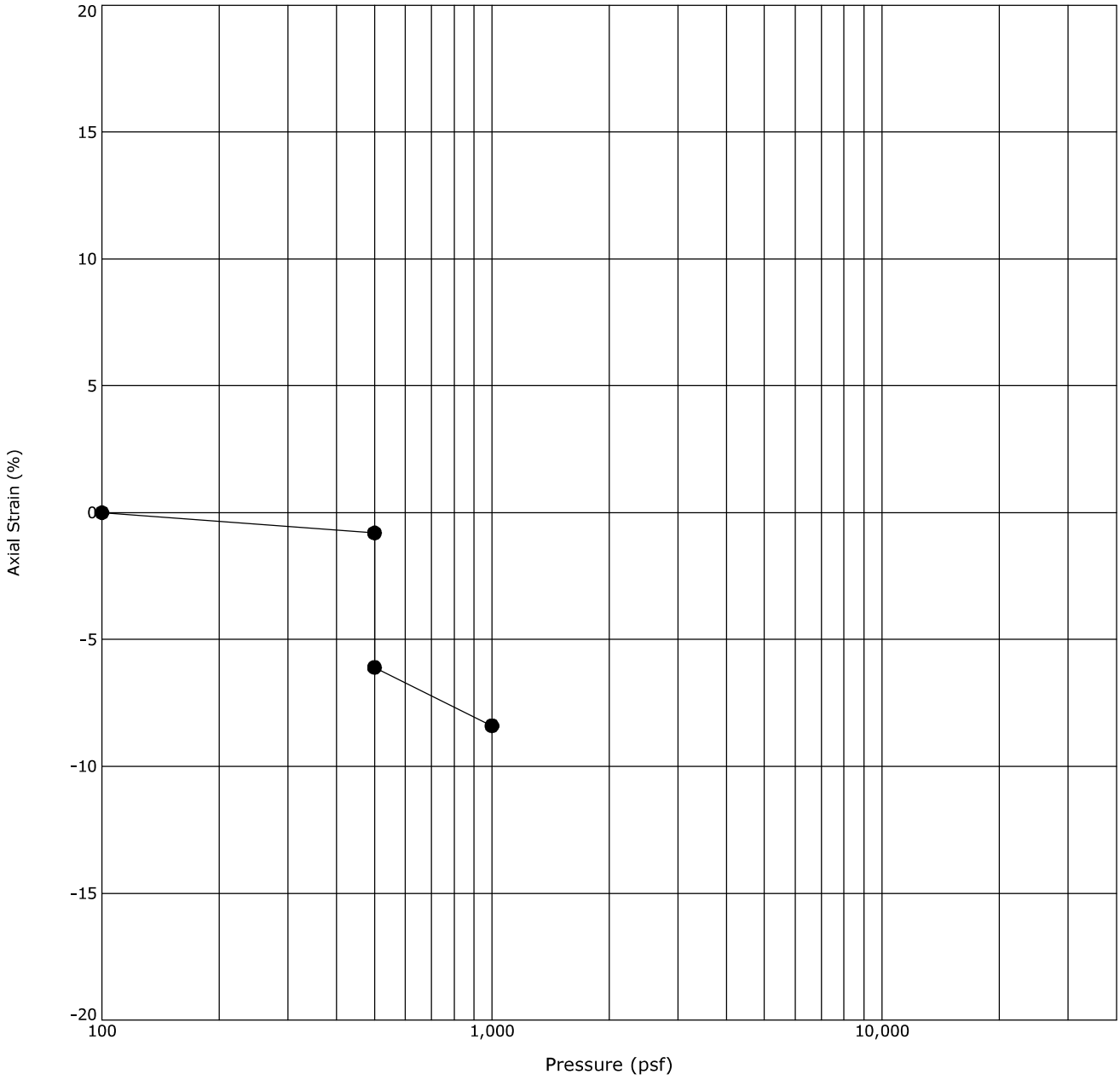


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-93	4 - 5	CLAYEY SAND	SC	96	4.2

Notes: Sample exhibited 10.4 percent compression when wetted at an applied pressure of 500 psf.

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One-Dimensional Swell or Collapse

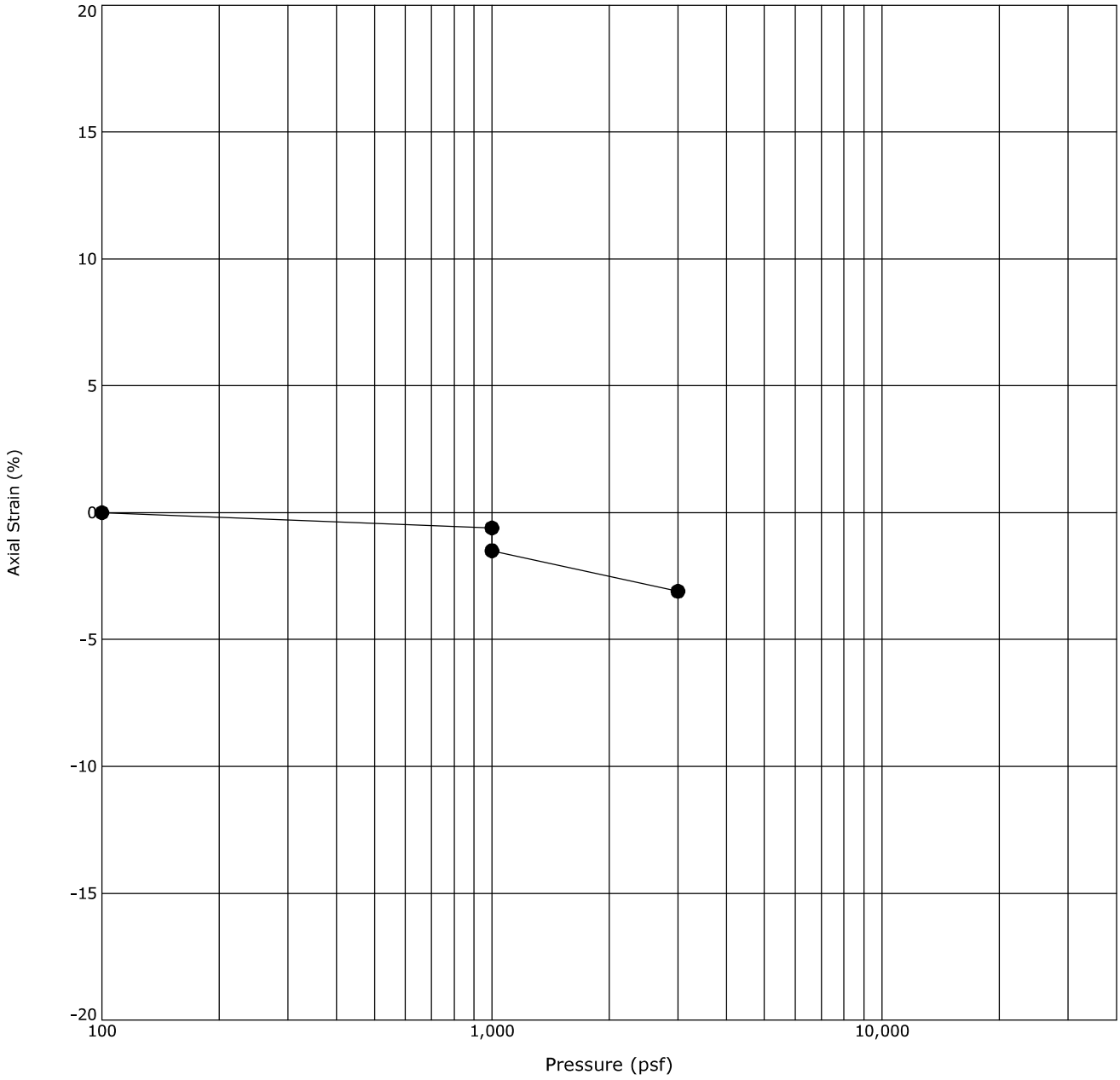


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-96	2 - 3	SILTY SAND	SM	97	4.6

Notes: Sample exhibited 5.3 percent compression when wetted at an applied pressure of 500 psf.

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One-Dimensional Swell or Collapse

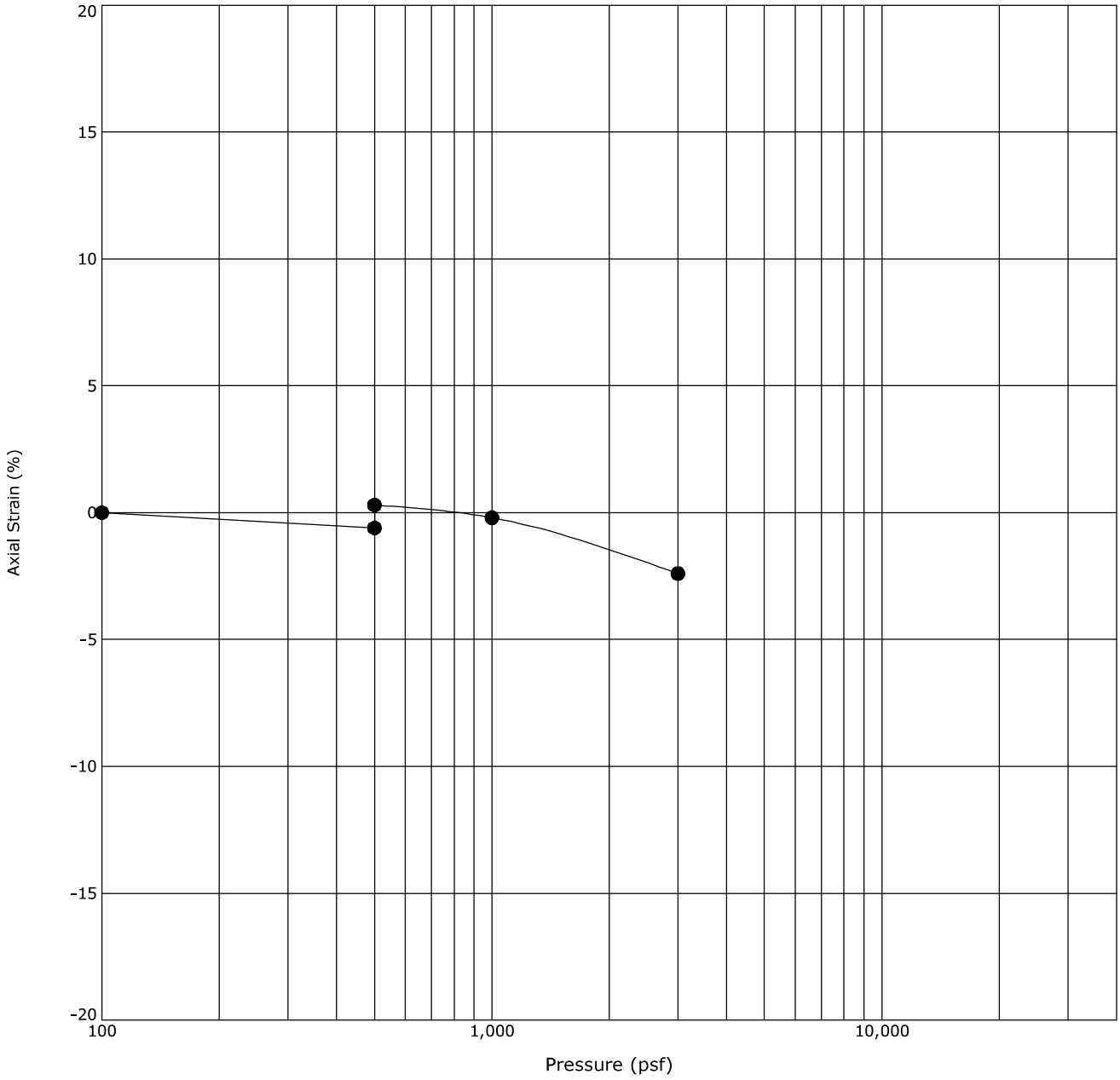


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-99	9 - 10			112	4.7

Notes: Sample exhibited 0.9 percent compression when wetted at an applied pressure of 1,000 psf.

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One-Dimensional Swell or Collapse

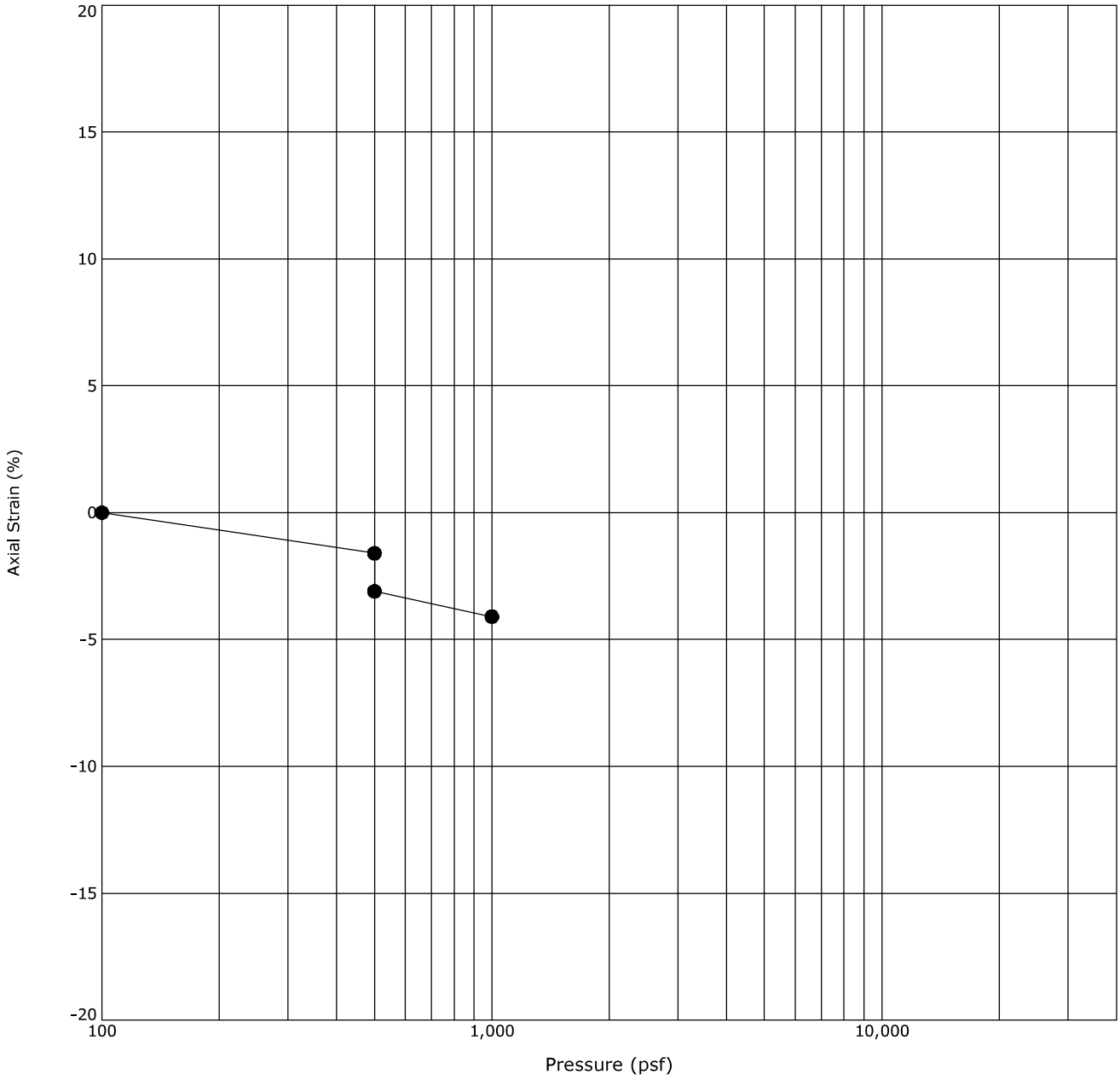


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	B-100	4 - 5			103	15.0

Notes: Sample exhibited 0.9 percent swell when wetted at an applied pressure of 500 psf.

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One-Dimensional Swell or Collapse

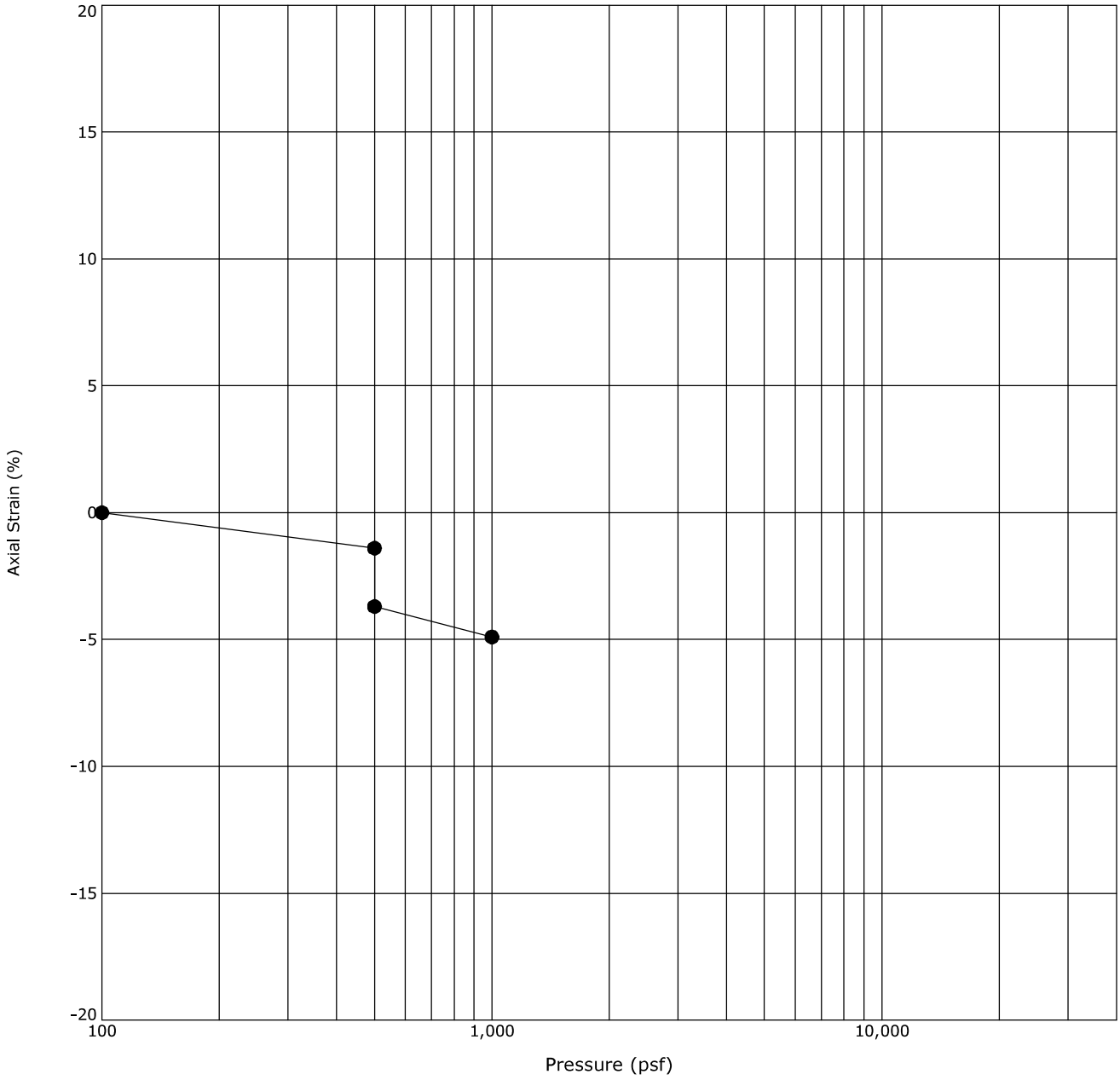


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-3	7 - 8	SILTY SAND	SM	112	8.8

Notes: Sample exhibited 1.5 percent compression when wetted at an applied pressure of 500 psf.

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One-Dimensional Swell or Collapse

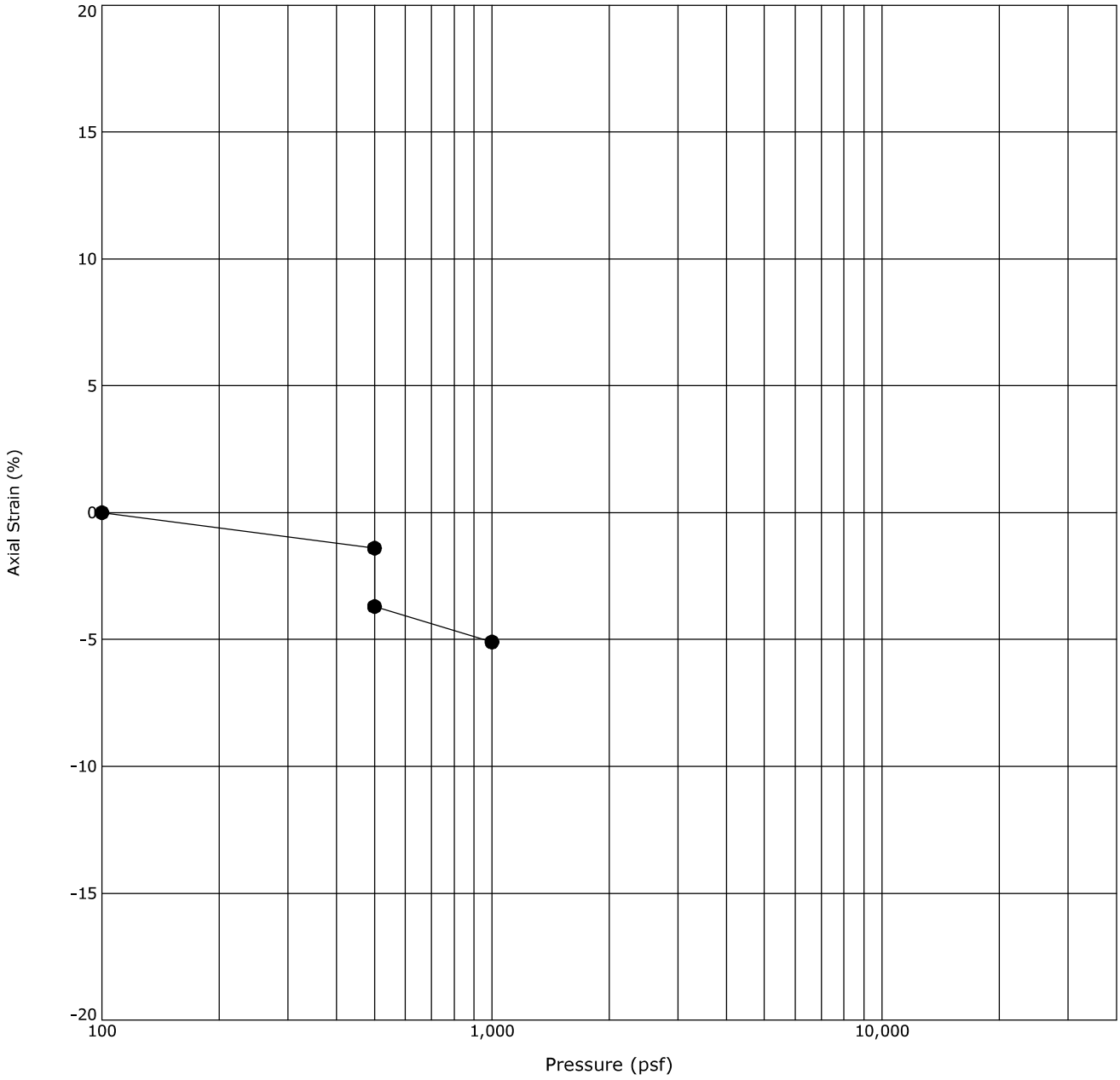


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-4	4 - 5	SILTY SAND	SM	108	6.6

Notes: Sample exhibited 2.3 percent compression when wetted at an applied pressure of 500 psf.

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One-Dimensional Swell or Collapse

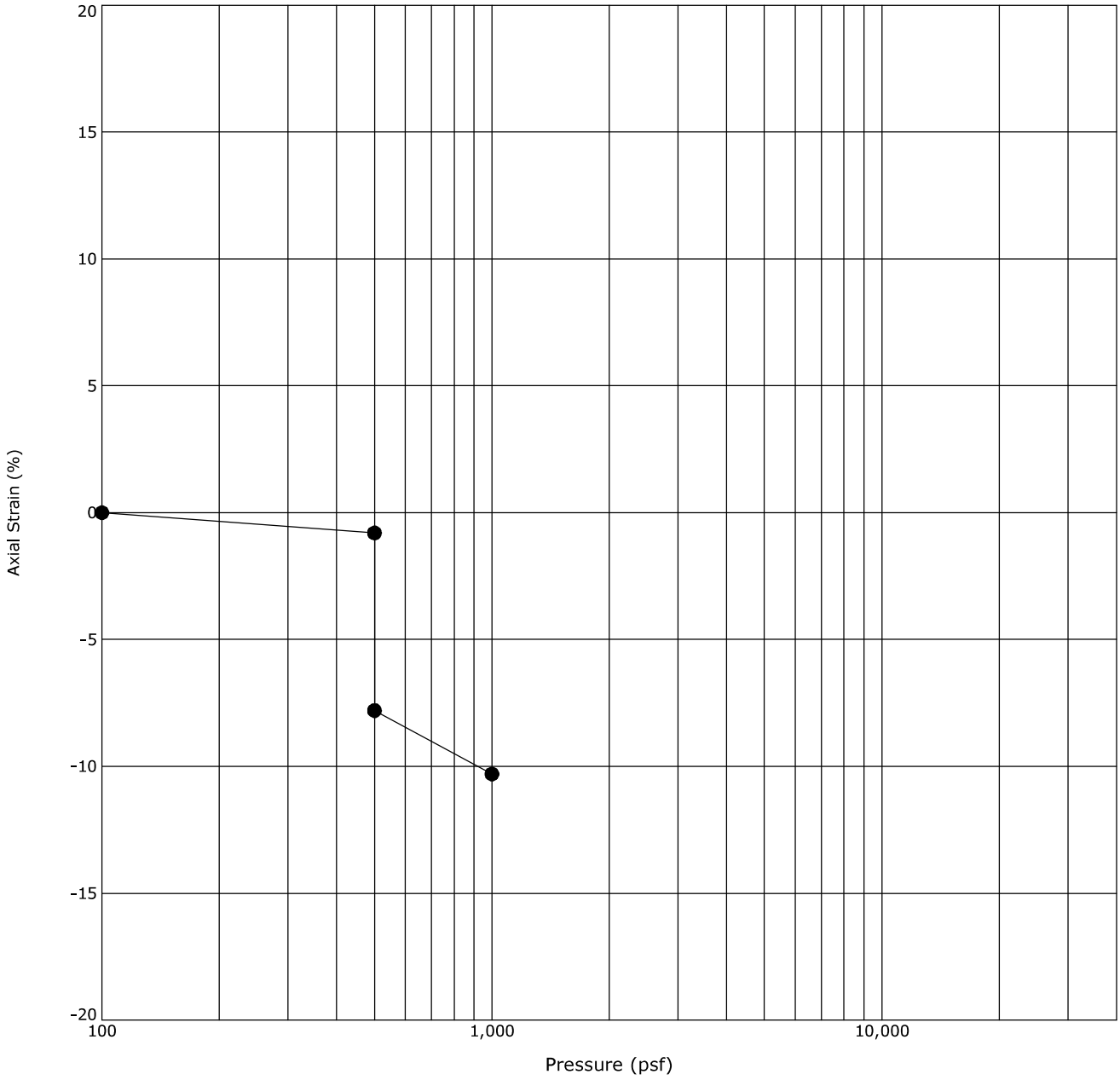


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-5	4 - 5	SILTY SAND	SM	103	9.4

Notes: Sample exhibited 2.3 percent compression when wetted at an applied pressure of 500 psf.

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One-Dimensional Swell or Collapse

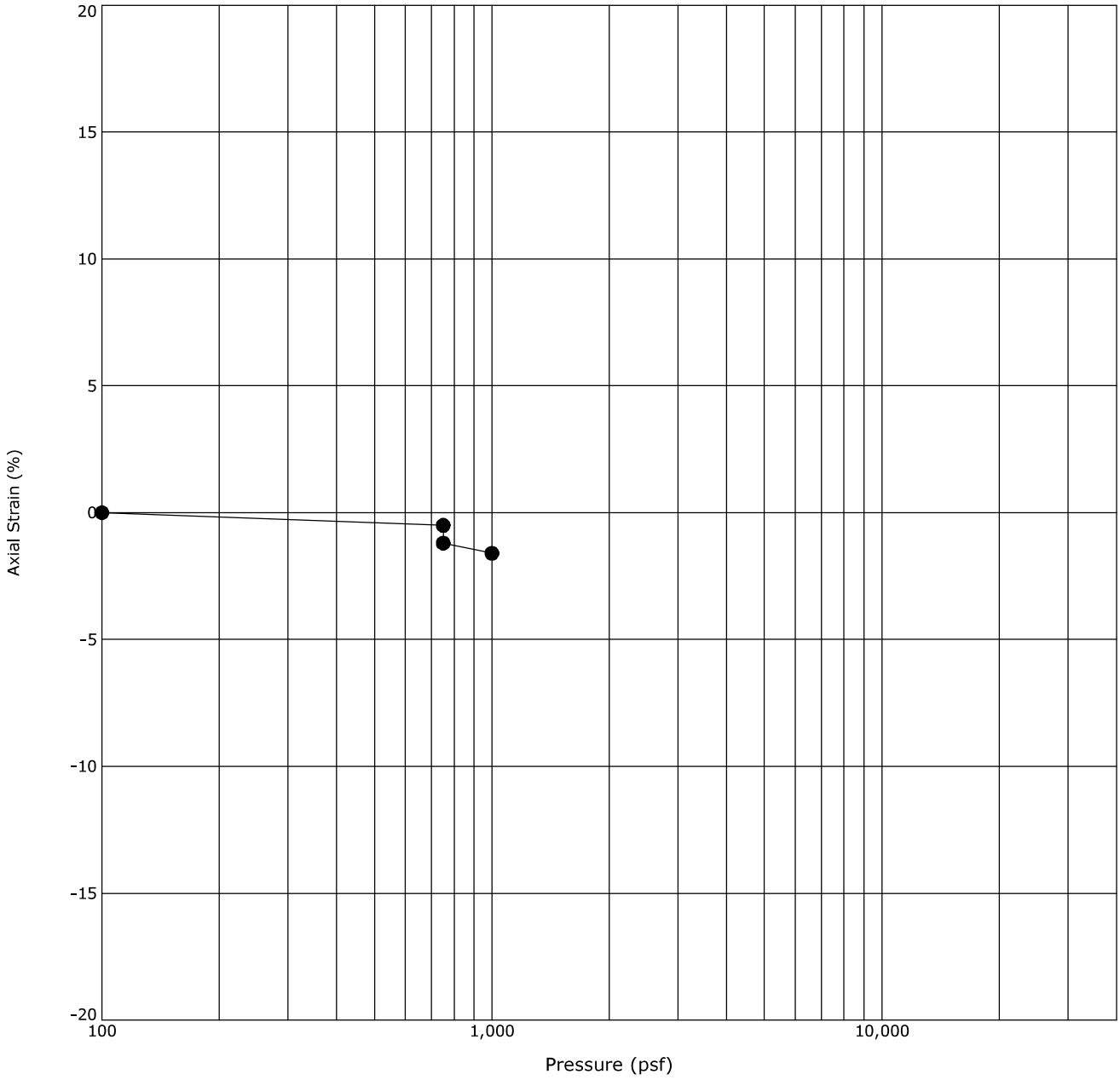


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-8	3 - 5			102	5.2

Notes: Sample exhibited 7.0 percent compression when wetted at an applied pressure of 500 psf.

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Colorado Springs, CO

One-Dimensional Swell or Collapse

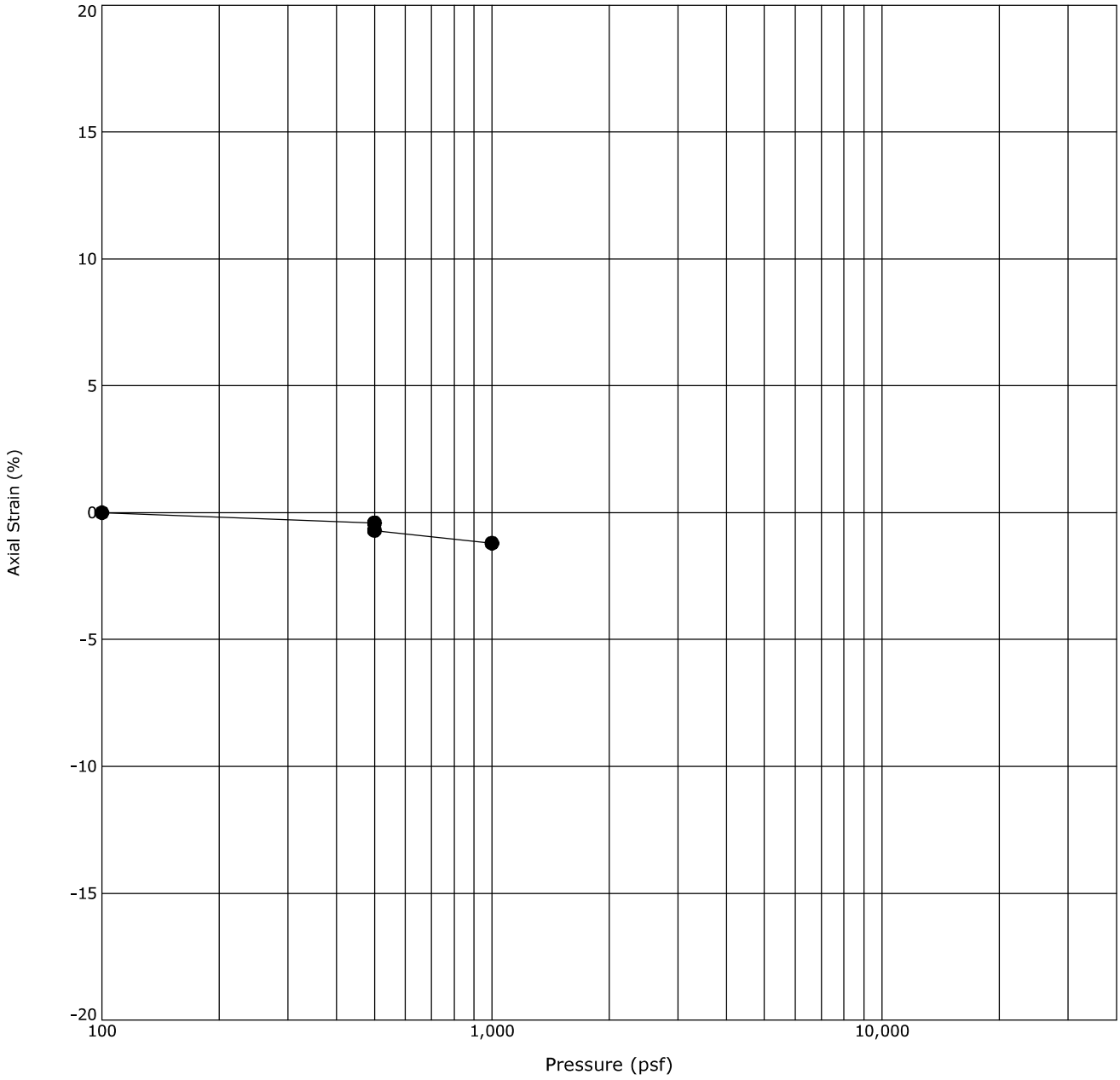


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-9	9 - 10			108	8.2

Notes: Sample exhibited 0.7 percent compression when wetted at an applied pressure of 750 psf.

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Colorado Springs, CO

One-Dimensional Swell or Collapse

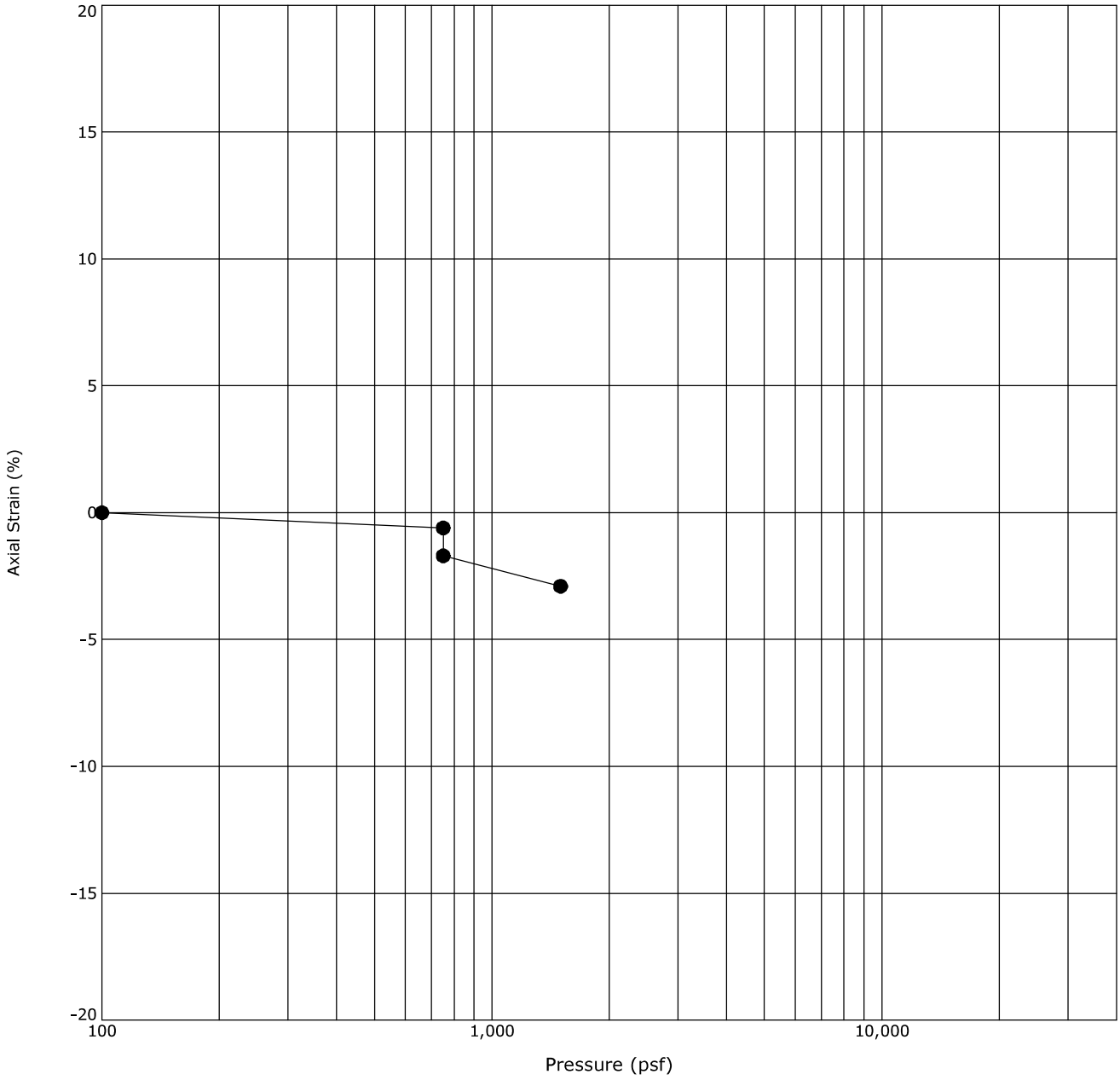


Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-10	4 - 5			122	6.7

Notes: Sample exhibited 0.3 percent compression when wetted at an applied pressure of 500 psf.

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Colorado Springs, CO

One-Dimensional Swell or Collapse



Boring ID		Depth (Ft)	Description	USCS	γ_d(pcf)	WC (%)
●	U-11	7 - 9	CLAYEY SAND (SC)	SC	111	7.4

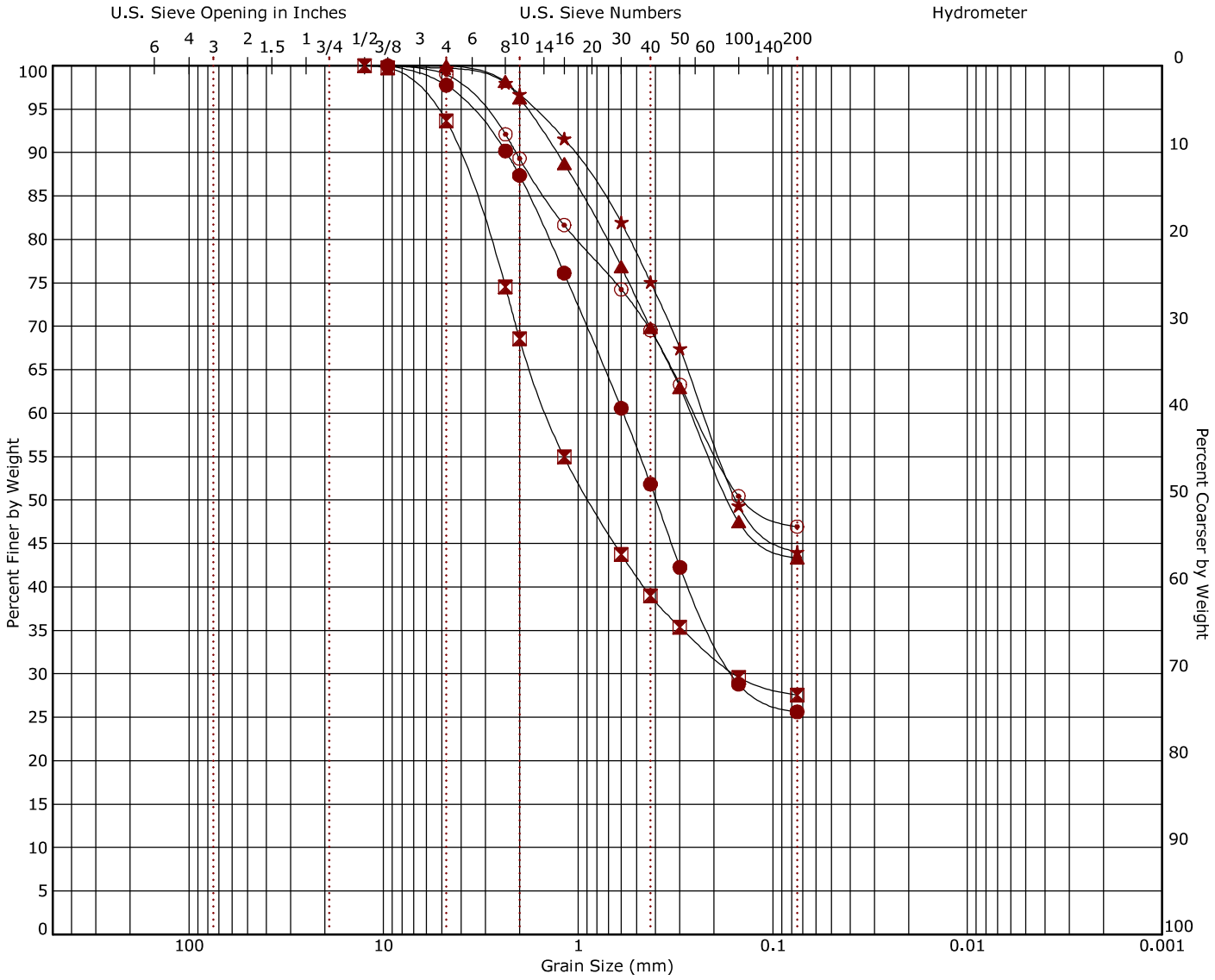
Notes: Sample exhibited 1.1 percent compression when wetted at an applied pressure of 750 psf.

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-1	14 - 15.5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-2	19 - 20	CLAYEY SAND	SC	A-2-6 (1)	38	22	16		
▲	B-3	2 - 3	CLAYEY SAND	SC	A-6 (5)	38	14	24		
★	B-4	9 - 10	CLAYEY SAND	SC	A-6 (2)	29	16	13		
⊙	B-5	1 - 4	CLAYEY SAND	SC	A-6 (3)	29	16	13		

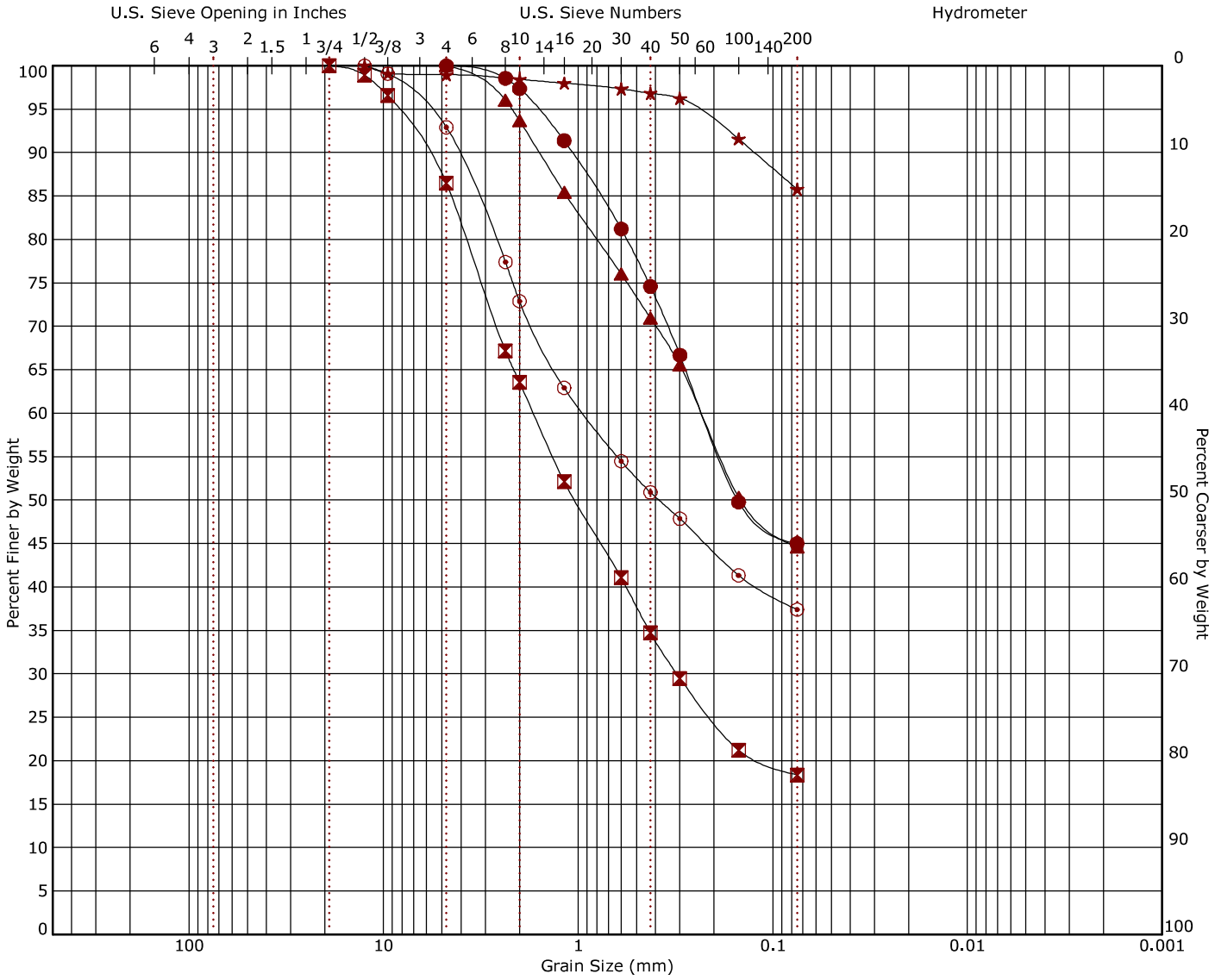
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-1	14 - 15.5	9.5	0.587	0.159		0.0	2.2	72.1	25.6		
⊠	B-2	19 - 20	12.5	1.435	0.157		0.0	6.4	66.1	27.5		
▲	B-3	2 - 3	4.75	0.263			0.0	0.0	56.7	43.3		
★	B-4	9 - 10	9.5	0.226			0.0	0.3	55.7	44.0		
⊙	B-5	1 - 4	9.5	0.251			0.0	1.0	52.0	46.9		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

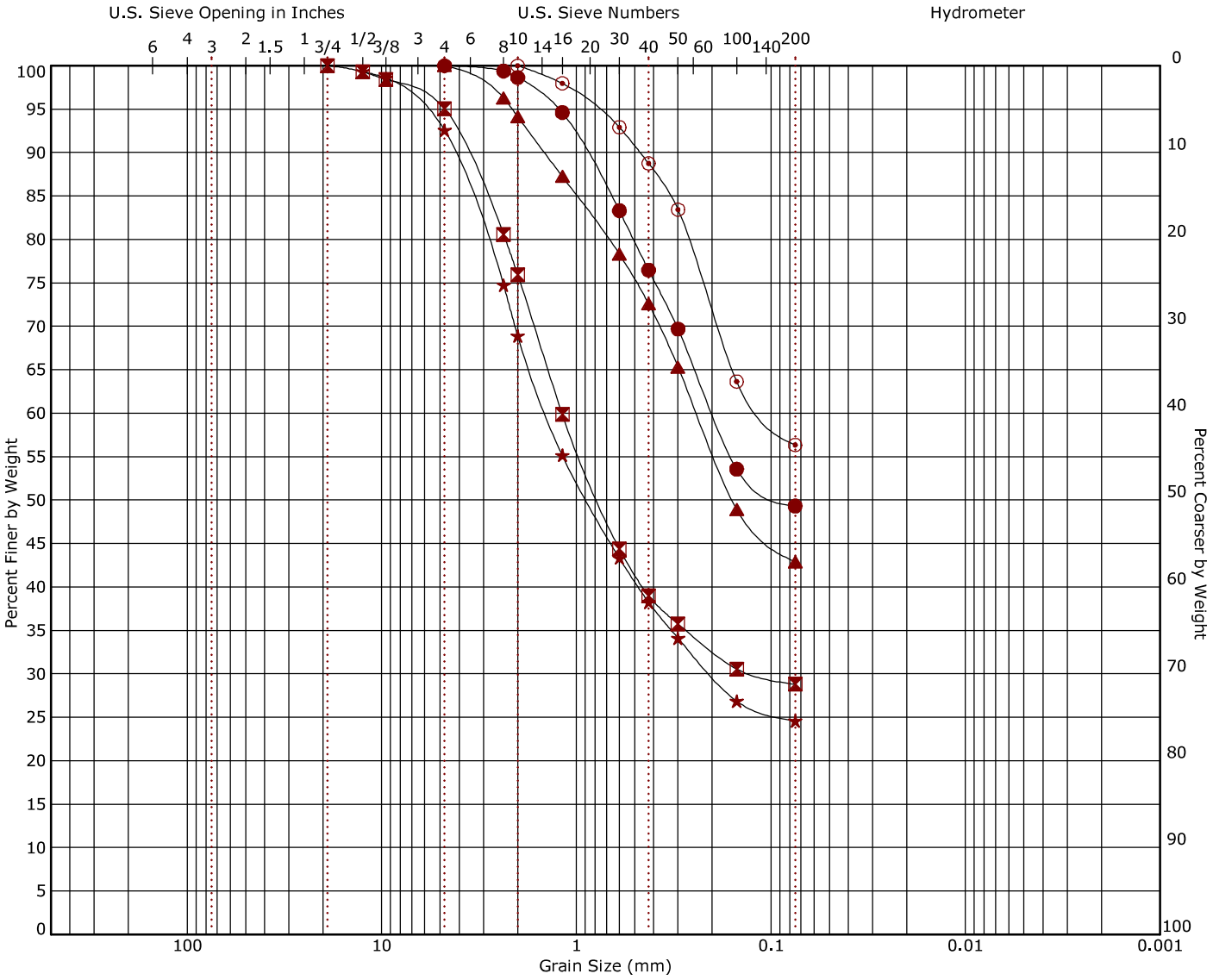
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-6	9 - 10	CLAYEY SAND	SC	A-6 (2)	27	15	12		
⊠	B-7	19 - 20	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
▲	B-8	4 - 5	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
★	B-9	19 - 20	LEAN CLAY	CL	A-6 (13)	38	24	14		
⊙	B-10	14 - 15	CLAYEY SAND	SC	A-7-6 (3)	45	22	23		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-6	9 - 10	4.75	0.228			0.0	0.0	55.0	45.0		
⊠	B-7	19 - 20	19	1.697	0.31		0.0	13.5	68.1	18.4		
▲	B-8	4 - 5	4.75	0.233			0.0	0.0	55.4	44.6		
★	B-9	19 - 20	12.5				0.0	1.0	13.2	85.8		
⊙	B-10	14 - 15	12.5	0.934			0.0	7.1	55.5	37.4		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-11	9 - 10	CLAYEY SAND	SC	A-6 (3)	30	16	14		
⊠	B-12	9 - 10	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-13	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
★	B-14	14 - 15	CLAYEY SAND	SC	A-2-6 (1)	37	19	18		
⊙	B-15	4 - 5	SANDY LEAN CLAY	CL	A-6 (4)	30	18	12		

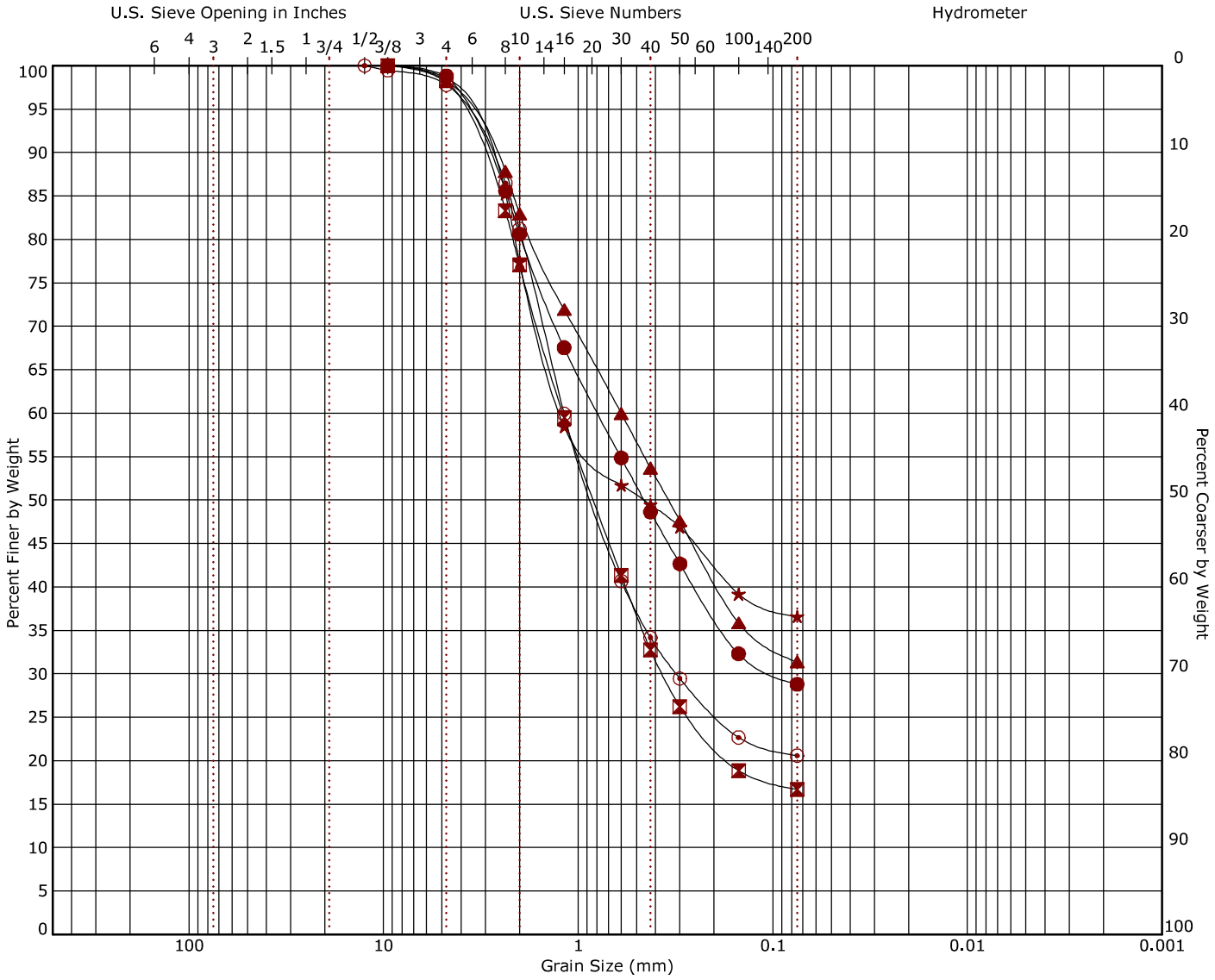
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-11	9 - 10	4.75	0.198			0.0	0.0	50.7	49.3		
⊠	B-12	9 - 10	19	1.185	0.12		0.0	4.9	66.2	28.8		
▲	B-13	1 - 4	4.75	0.24			0.0	0.0	57.1	42.9		
★	B-14	14 - 15	12.5	1.421	0.203			6.8	68.0	24.6		
⊙	B-15	4 - 5	2	0.106			0.0	0.0	43.7	56.3		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

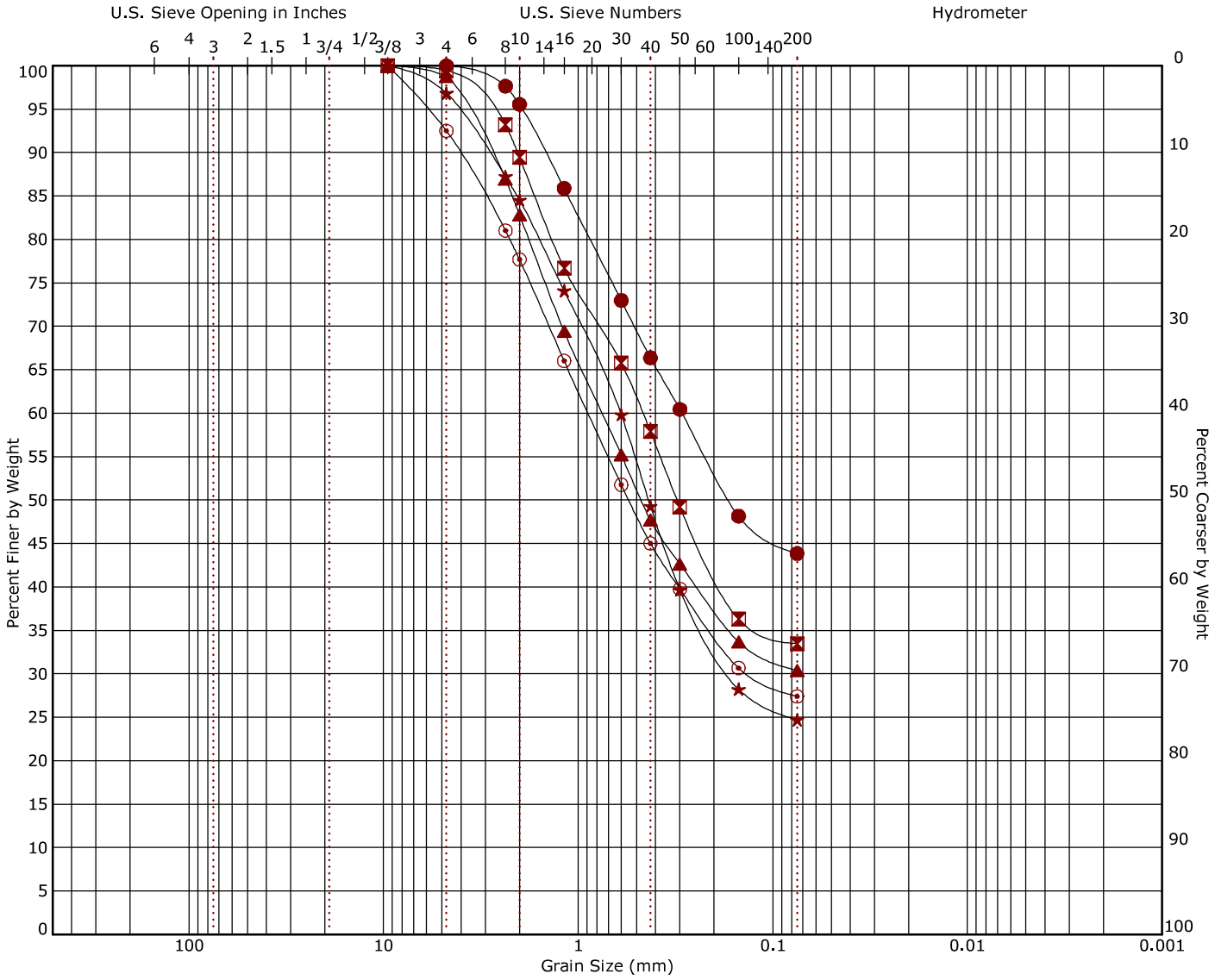
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-16	19 - 20	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-17	9 - 10	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
▲	B-18	14 - 15.5	CLAYEY SAND	SC	A-2-6 (1)	34	18	16		
★	B-19	9 - 10	CLAYEY SAND	SC	A-6 (2)	33	16	17		
⊙	B-20	14 - 15	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-16	19 - 20	9.5	0.789	0.095		0.0	1.2	70.0	28.8		
⊠	B-17	9 - 10	9.5	1.199	0.367		0.0	1.7	81.6	16.7		
▲	B-18	14 - 15.5	9.5	0.6			0.0	1.8	66.8	31.4		
★	B-19	9 - 10	9.5	1.232			0.0	1.4	61.9	36.6		
⊙	B-20	14 - 15	12.5	1.182	0.312		0.0	2.2	77.2	20.6		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

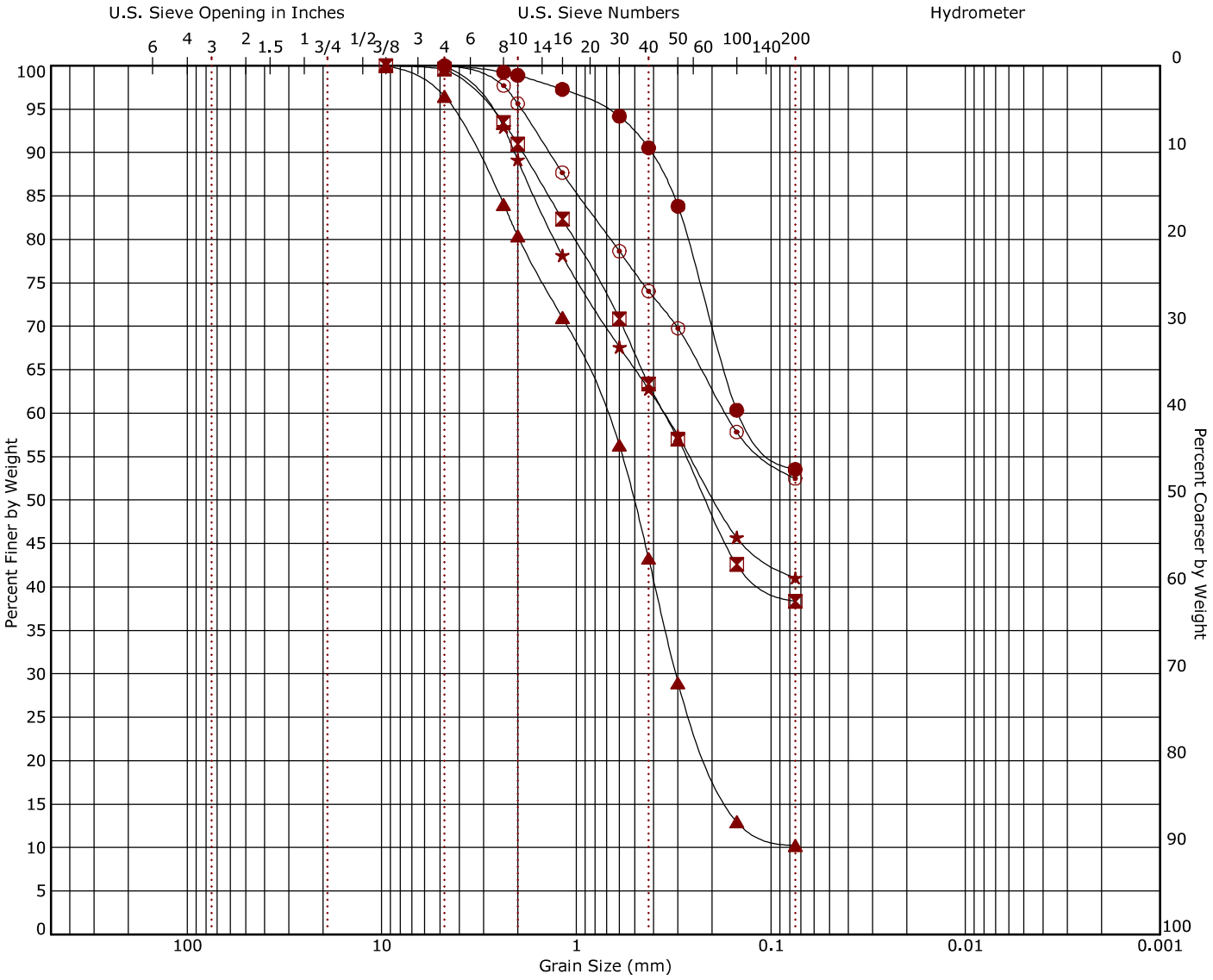
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-21	9 - 10	CLAYEY SAND	SC	A-4 (1)	22	13	9		
⊠	B-22	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-23	2 - 3	CLAYEY SAND	SC	A-2-6 (1)	31	16	15		
★	B-24	19 - 20.5	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
⊙	B-25	14 - 15.5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-21	9 - 10	4.75	0.293			0.0	0.0	56.1	43.9		
⊠	B-22	1 - 4	9.5	0.466			0.0	0.6	66.0	33.5		
▲	B-23	2 - 3	9.5	0.753			0.0	1.2	68.4	30.4		
★	B-24	19 - 20.5	9.5	0.604	0.167		0.0	3.2	72.1	24.7		
⊙	B-25	14 - 15.5	9.5	0.887	0.13		0.0	7.5	65.1	27.4		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-26	19 - 20	SANDY LEAN CLAY	CL	A-6 (4)	32	19	13		
⊠	B-27	4 - 5	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
▲	B-28	9 - 10	WELL-GRADED SAND with SILT	SW-SM	A-1-b (0)	NP	NP	NP	1.89	10.06
★	B-29	1 - 4	CLAYEY SAND	SC	A-4 (0)	21	13	8		
⊙	B-30	4 - 5	SANDY LEAN CLAY	CL	A-6 (3)	27	15	12		

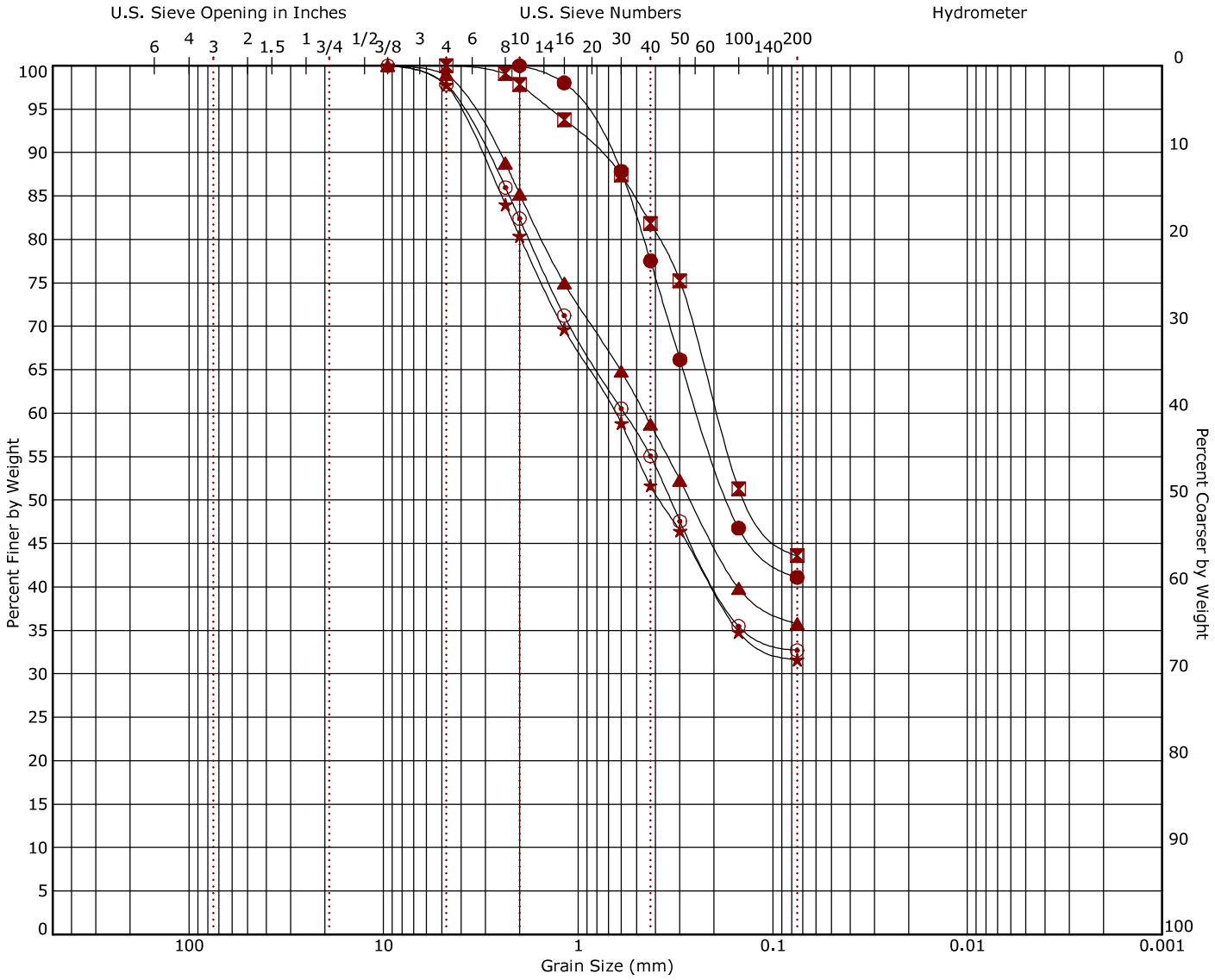
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-26	19 - 20	4.75	0.145			0.0	0.0	46.5	53.5		
⊠	B-27	4 - 5	9.5	0.353			0.0	0.4	61.2	38.3		
▲	B-28	9 - 10	9.5	0.711	0.308		0.0	3.5	86.2	10.2		
★	B-29	1 - 4	4.75	0.355			0.0	0.0	58.9	41.1		
⊙	B-30	4 - 5	4.75	0.17			0.0	0.0	47.5	52.5		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-31	9 - 10	CLAYEY SAND	SC	A-6 (2)	29	15	14		
⊠	B-32	4 - 5	CLAYEY SAND	SC	A-6 (2)	28	15	13		
▲	B-33	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
★	B-34	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	B-35	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

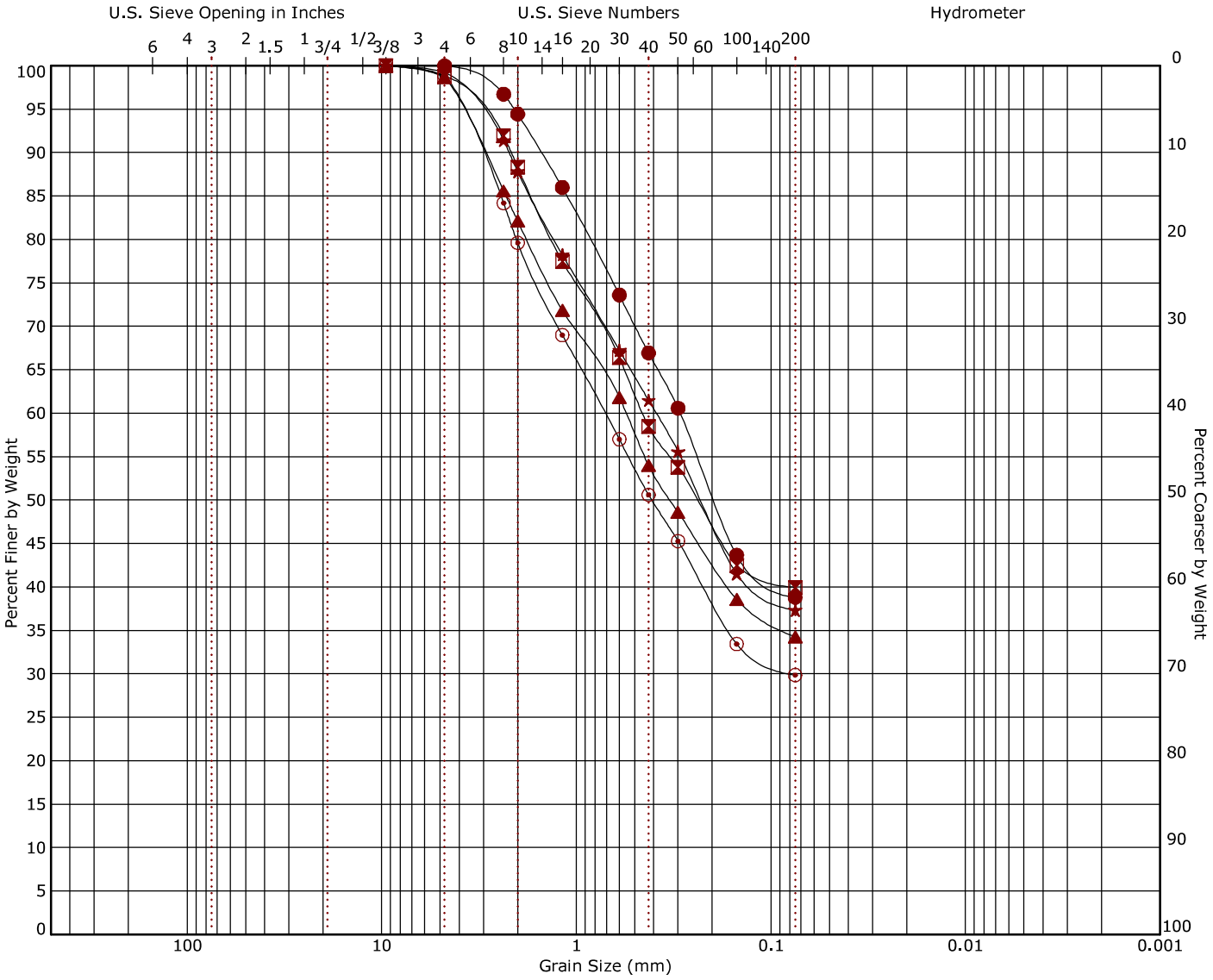
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-31	9 - 10	2	0.241			0.0	0.0	58.9	41.1		
⊠	B-32	4 - 5	4.75	0.193			0.0	0.0	56.4	43.6		
▲	B-33	1 - 4	9.5	0.457			0.0	1.0	63.2	35.8		
★	B-34	1 - 4	9.5	0.645			0.0	2.2	66.2	31.6		
⊙	B-35	1 - 4	9.5	0.58			0.0	2.2	65.1	32.7		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-36	2 - 3	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
⊠	B-37	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
▲	B-38	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
★	B-39	2 - 3	CLAYEY SAND	SC	A-6 (2)	28	12	16		
⊙	B-40	4 - 5	CLAYEY SAND	SC	A-2-6 (1)	30	14	16		

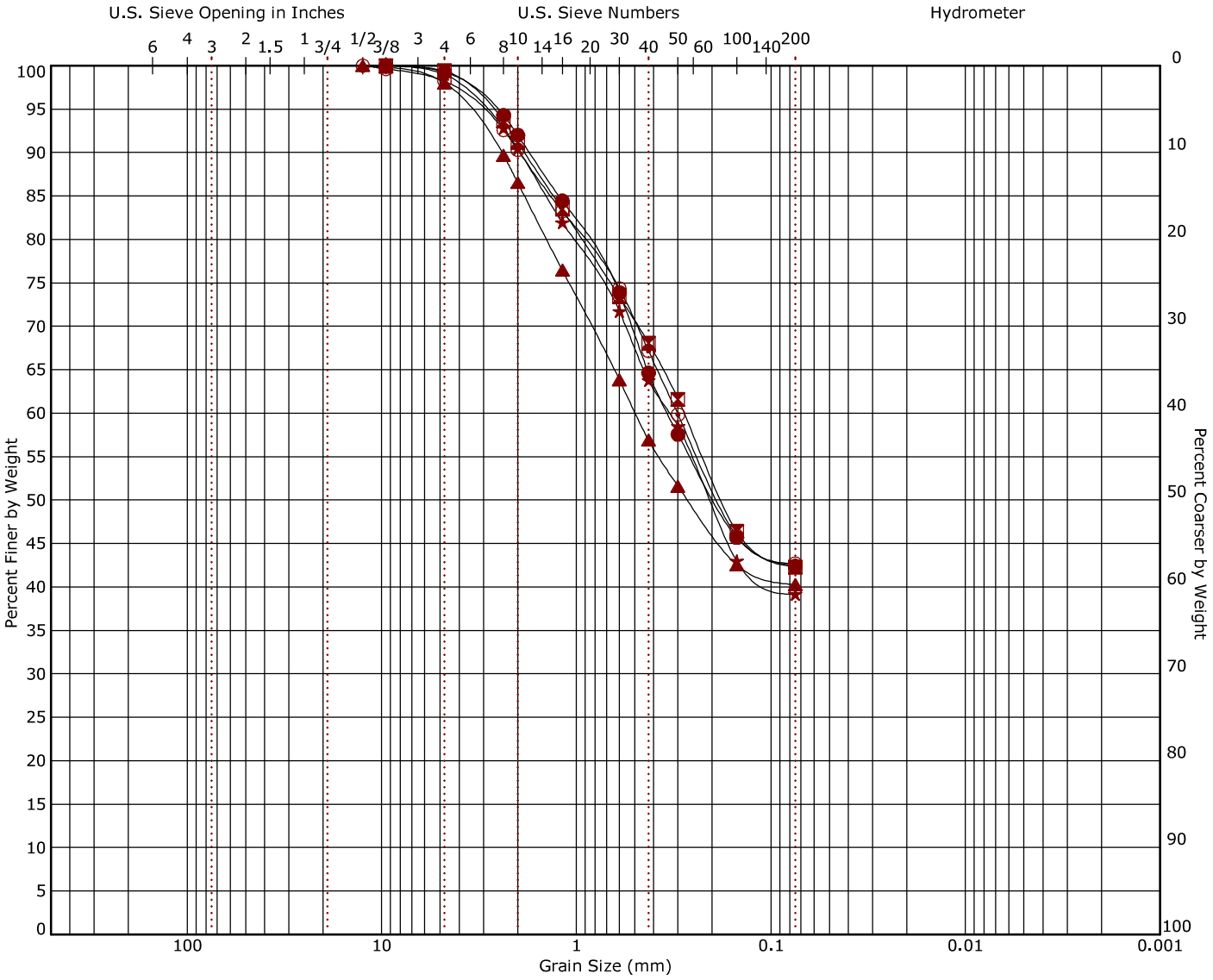
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-36	2 - 3	4.75	0.293			0.0	0.0	61.2	38.8		
⊠	B-37	1 - 4	9.5	0.454			0.0	1.2	58.9	40.0		
▲	B-38	1 - 4	9.5	0.553			0.0	1.4	64.4	34.3		
★	B-39	2 - 3	9.5	0.389			0.0	0.8	61.9	37.3		
⊙	B-40	4 - 5	9.5	0.711	0.077		0.0	1.2	69.0	29.9		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

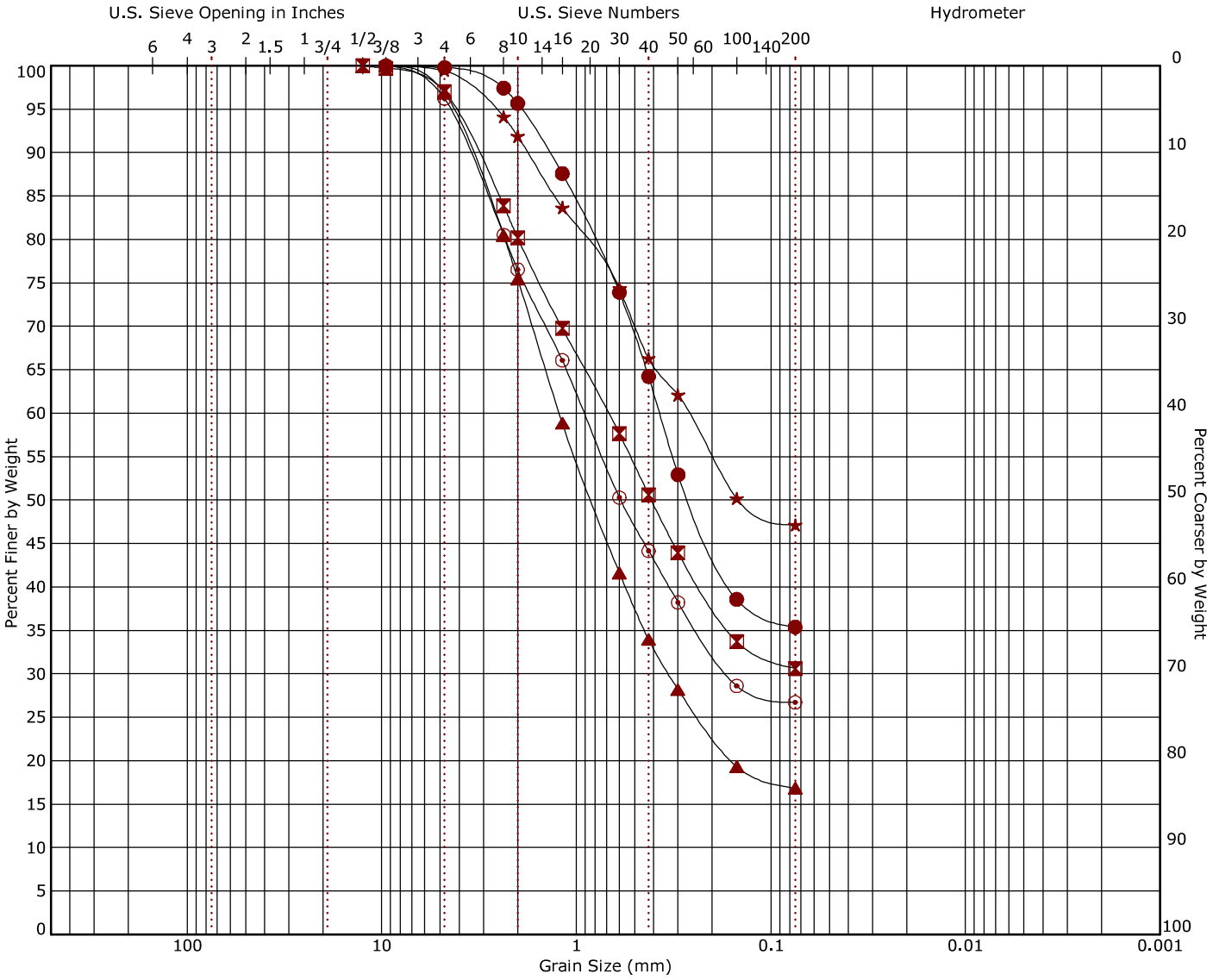
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-41	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
⊠	B-42	1 - 4	CLAYEY SAND	SC	A-6 (3)	29	13	16		
▲	B-43	1 - 4	CLAYEY SAND	SC	A-6 (2)	29	15	14		
★	B-44	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
⊙	B-45	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-41	1 - 4	9.5	0.338			0.0	0.7	56.9	42.4		
⊠	B-42	1 - 4	9.5	0.279			0.0	0.6	57.1	42.3		
▲	B-43	1 - 4	12.5	0.496			0.0	2.0	57.7	40.3		
★	B-44	1 - 4	9.5	0.331			0.0	1.0	59.9	39.2		
⊙	B-45	1 - 4	12.5	0.302			0.0	1.8	55.5	42.7		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

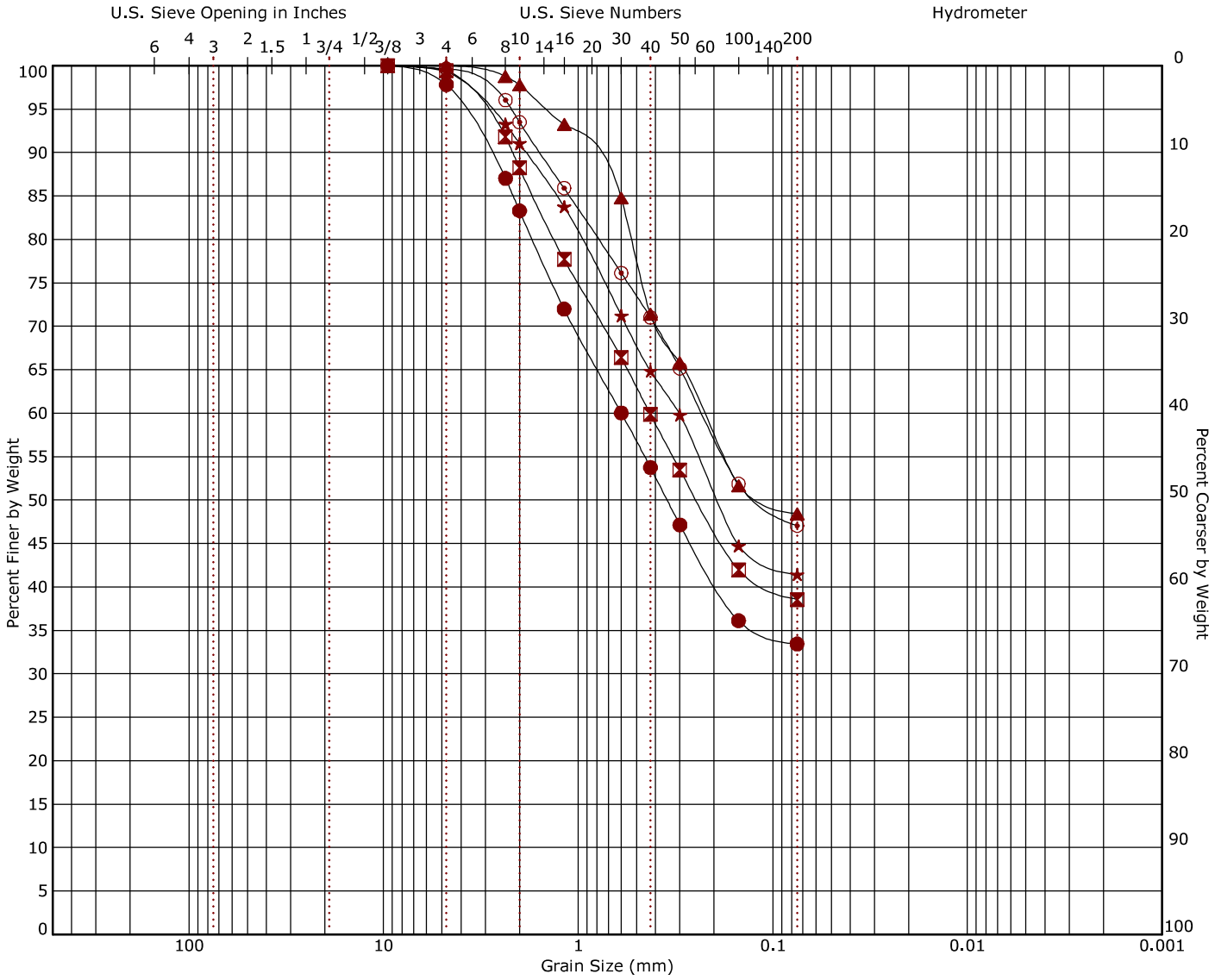
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-46	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-47	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-48	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
★	B-49	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
⊙	B-50	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-46	1 - 4	9.5	0.373			0.0	0.2	64.4	35.4		
⊠	B-47	1 - 4	12.5	0.684			0.0	3.0	66.4	30.6		
▲	B-48	1 - 4	9.5	1.224	0.335		0.0	3.1	80.0	16.9		
★	B-49	1 - 4	9.5	0.265			0.0	0.5	52.3	47.1		
⊙	B-50	1 - 4	9.5	0.91	0.166		0.0	3.8	69.5	26.7		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-51	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-52	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
▲	B-53	1 - 4	CLAYEY SAND	SC	A-4 (1)	23	14	9		
★	B-54	1 - 4	CLAYEY SAND	SC	A-4 (1)	25	15	10		
⊙	B-55	1 - 4	CLAYEY SAND	SC	A-6 (4)	30	14	16		

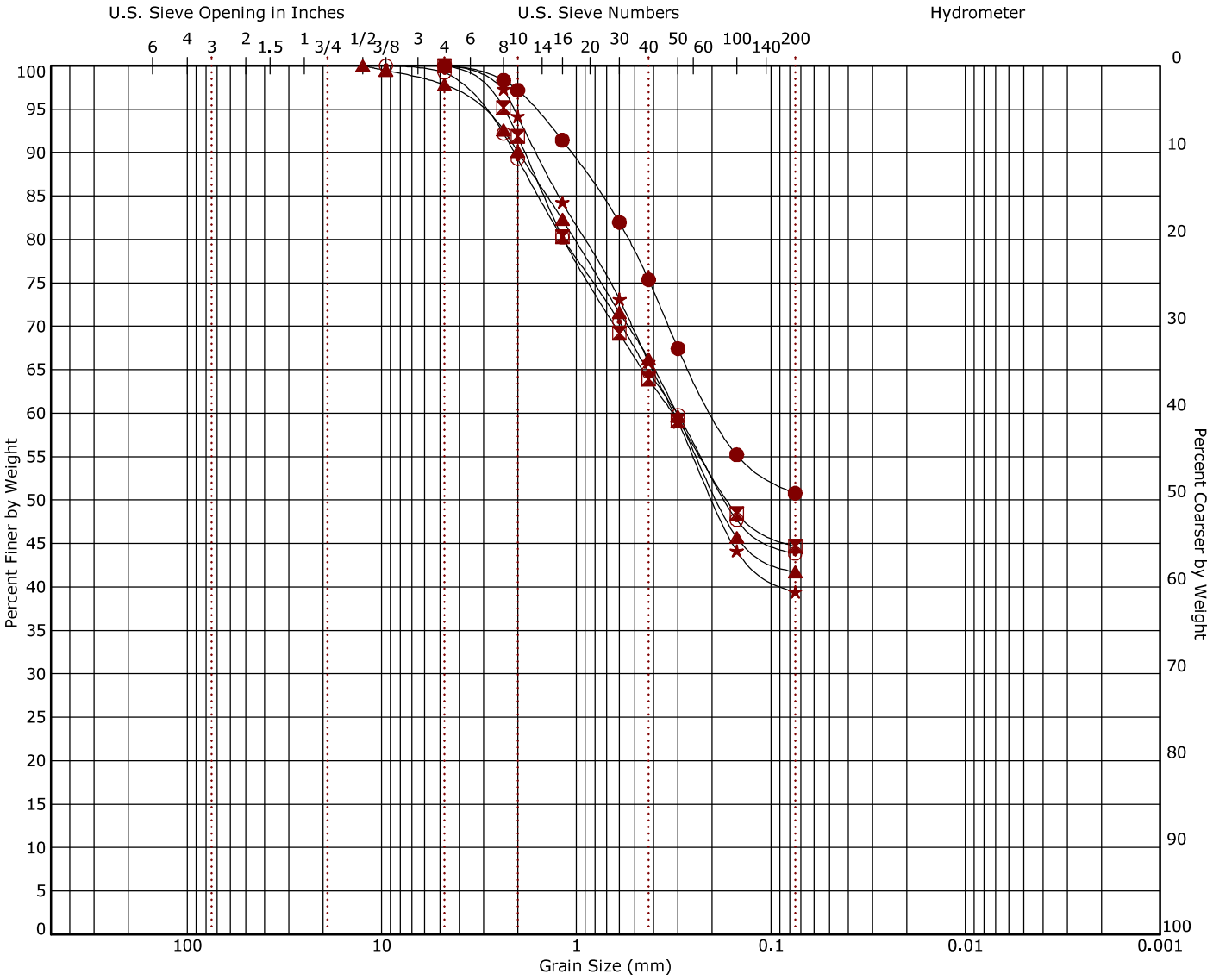
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-51	1 - 4	9.5	0.599			0.0	2.2	64.4	33.4		
⊠	B-52	1 - 4	9.5	0.428			0.0	0.6	60.9	38.6		
▲	B-53	1 - 4	4.75	0.225			0.0	0.0	51.6	48.4		
★	B-54	1 - 4	9.5	0.304			0.0	0.7	57.9	41.4		
⊙	B-55	1 - 4	9.5	0.229			0.0	0.4	52.6	47.1		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-56	1 - 4	SANDY SILT	ML	A-4 (0)	NP	NP	NP		
⊠	B-57	1 - 4	CLAYEY SAND	SC	A-4 (1)	22	13	9		
▲	B-58	2 - 3	CLAYEY SAND	SC	A-6 (2)	29	15	14		
★	B-59	2 - 3	CLAYEY SAND	SC	A-6 (2)	32	15	17		
⊙	B-60	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		

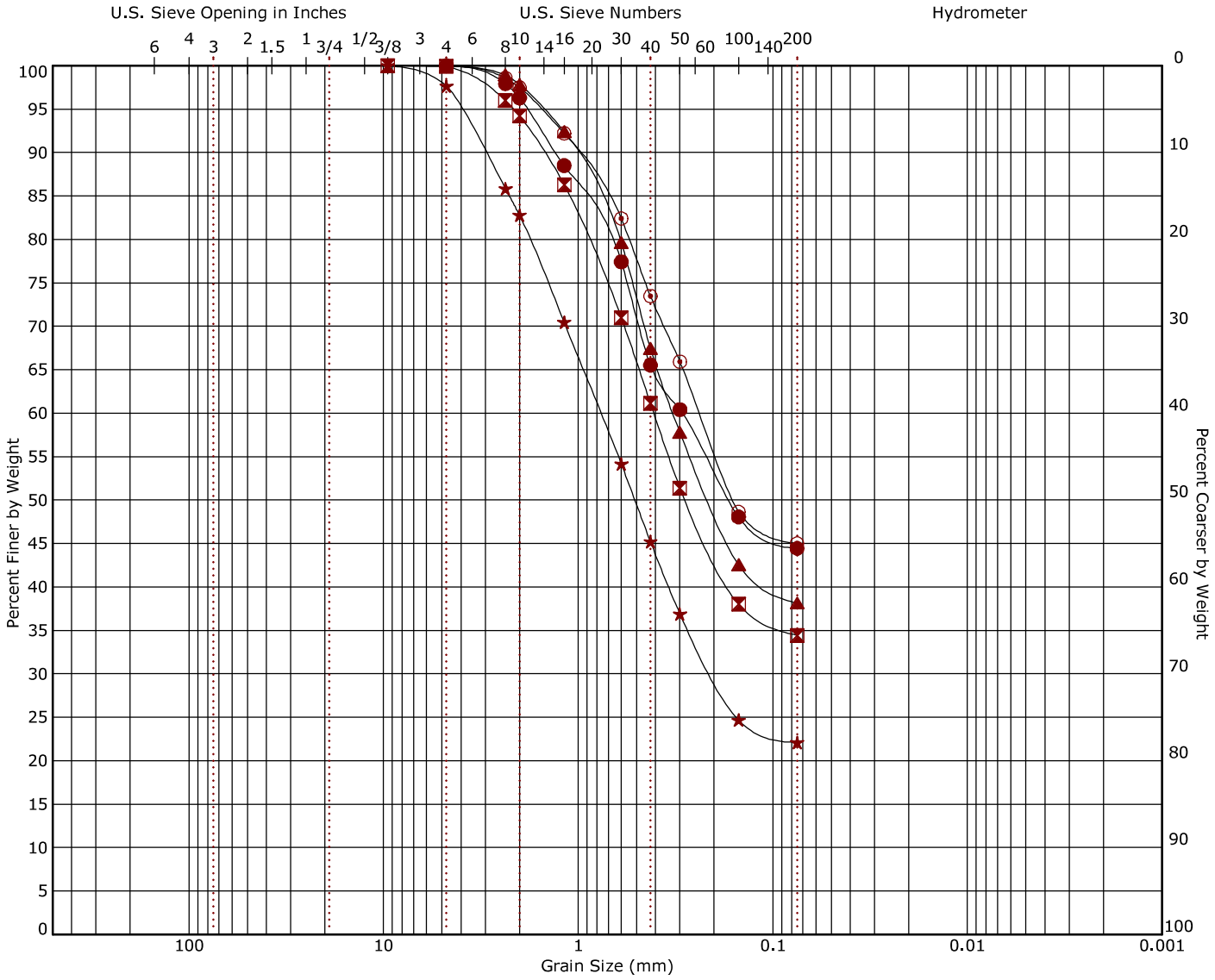
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-56	1 - 4	4.75	0.197			0.0	0.0	49.2	50.8		
⊠	B-57	1 - 4	4.75	0.32			0.0	0.0	55.3	44.7		
▲	B-58	2 - 3	12.5	0.306			0.0	2.2	56.1	41.7		
★	B-59	2 - 3	4.75	0.316			0.0	0.0	60.6	39.4		
⊙	B-60	1 - 4	9.5	0.305			0.0	0.8	55.4	43.8		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-61	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
⊠	B-62	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-63	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
★	B-64	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
⊙	B-65	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		

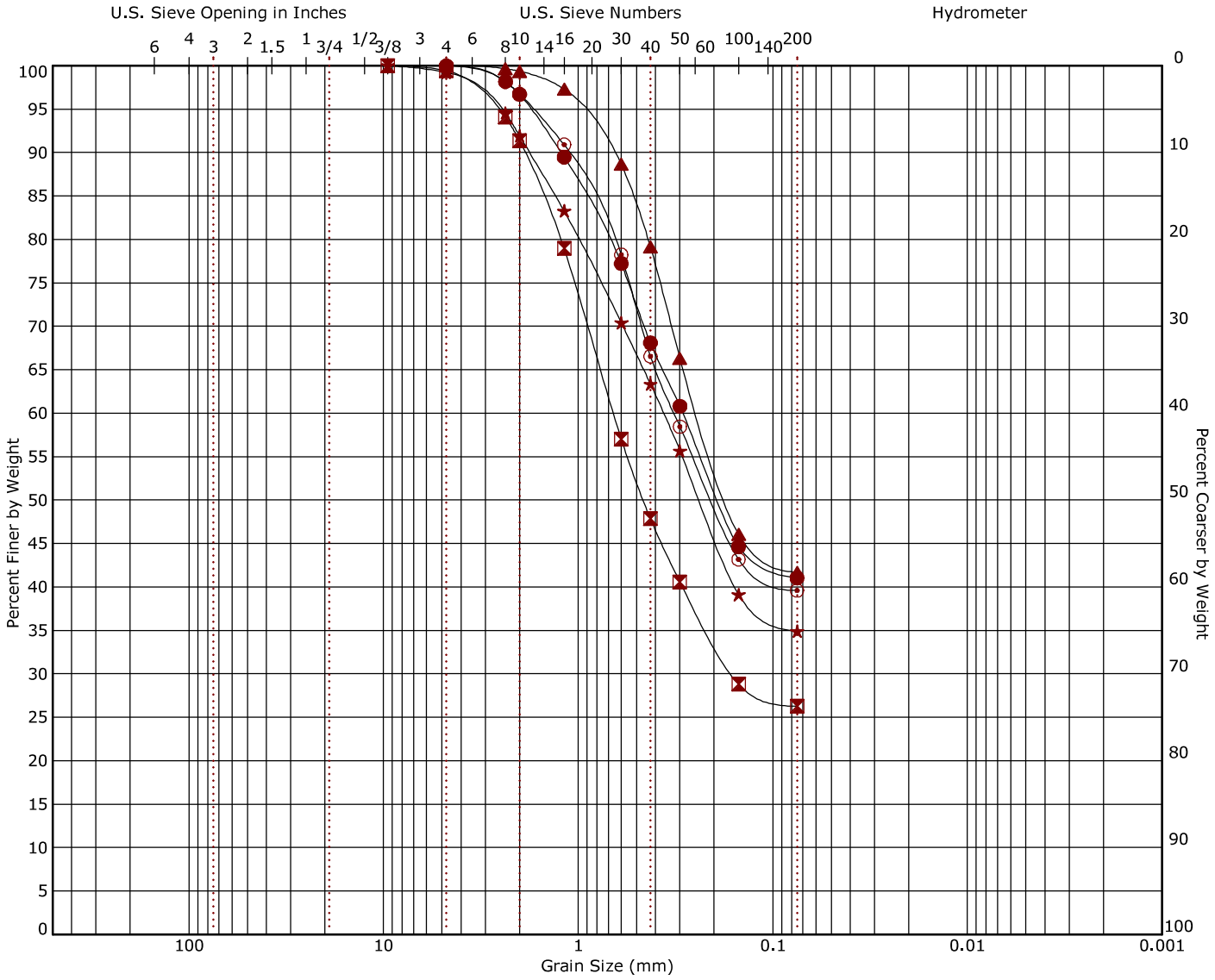
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-61	1 - 4	4.75	0.293			0.0	0.0	55.6	44.4		
⊠	B-62	1 - 4	9.5	0.408			0.0	0.1	65.5	34.4		
▲	B-63	1 - 4	4.75	0.325			0.0	0.0	61.8	38.2		
★	B-64	1 - 4	9.5	0.764	0.203		0.0	2.3	75.6	22.1		
⊙	B-65	1 - 4	4.75	0.237			0.0	0.0	55.0	45.0		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069A

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

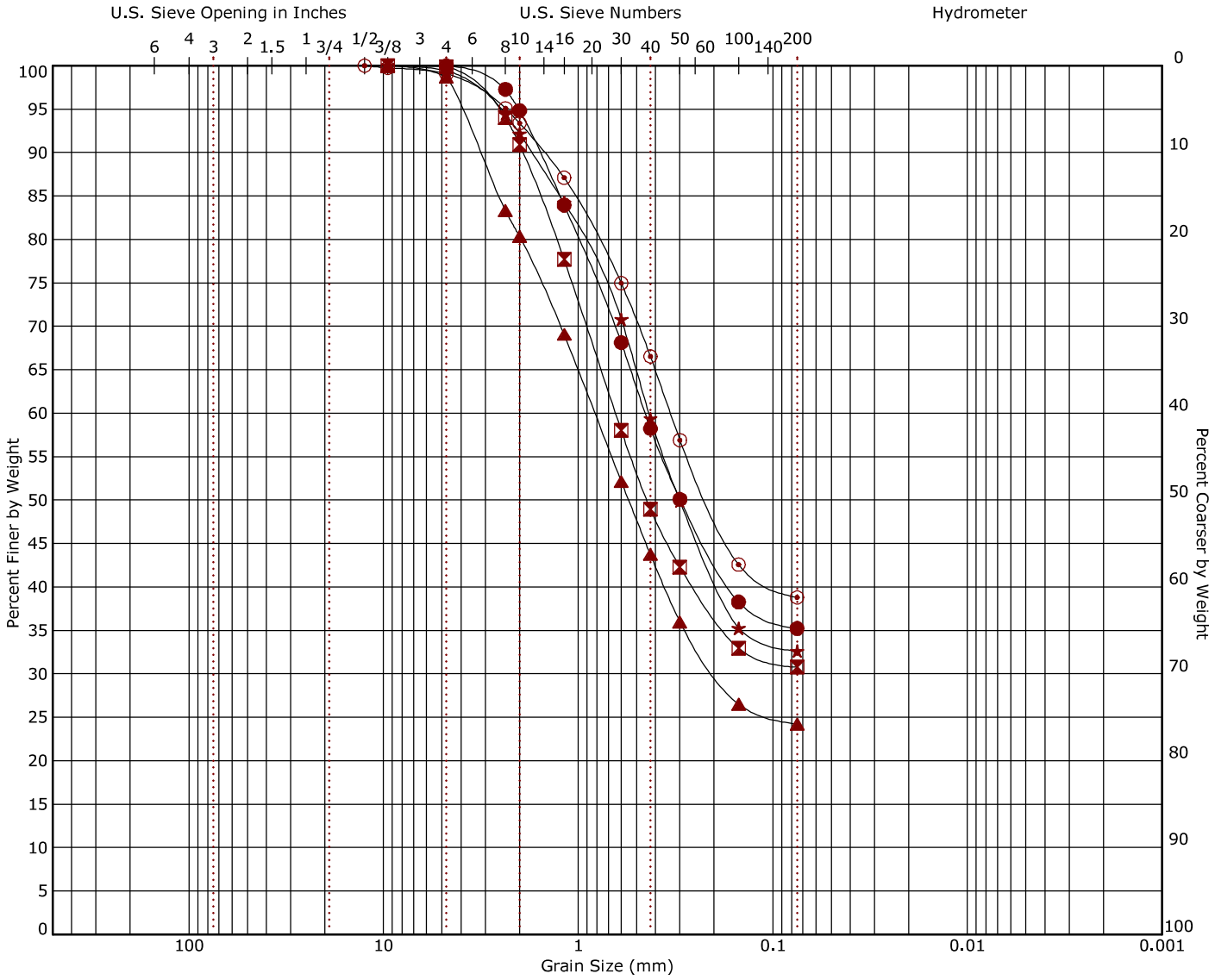
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-66	1 - 4	CLAYEY SAND	SC	A-6 (1)	26	14	12		
⊠	B-67	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-68	2 - 3	CLAYEY SAND	SC	A-6 (1)	26	14	12		
★	B-69	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	B-70	1 - 4	CLAYEY SAND	SC	A-4 (0)	24	15	9		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-66	1 - 4	4.75	0.29			0.0	0.0	59.0	41.0		
⊠	B-67	1 - 4	9.5	0.658	0.161		0.0	0.6	73.2	26.3		
▲	B-68	2 - 3	4.75	0.242			0.0	0.0	58.3	41.7		
★	B-69	1 - 4	9.5	0.365			0.0	0.8	64.3	34.9		
⊙	B-70	1 - 4	4.75	0.321			0.0	0.0	60.4	39.6		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-71	1 - 4	CLAYEY SAND	SC	A-2-6 (0)	25	13	12		
⊠	B-72	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-73	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
★	B-74	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	B-75	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		

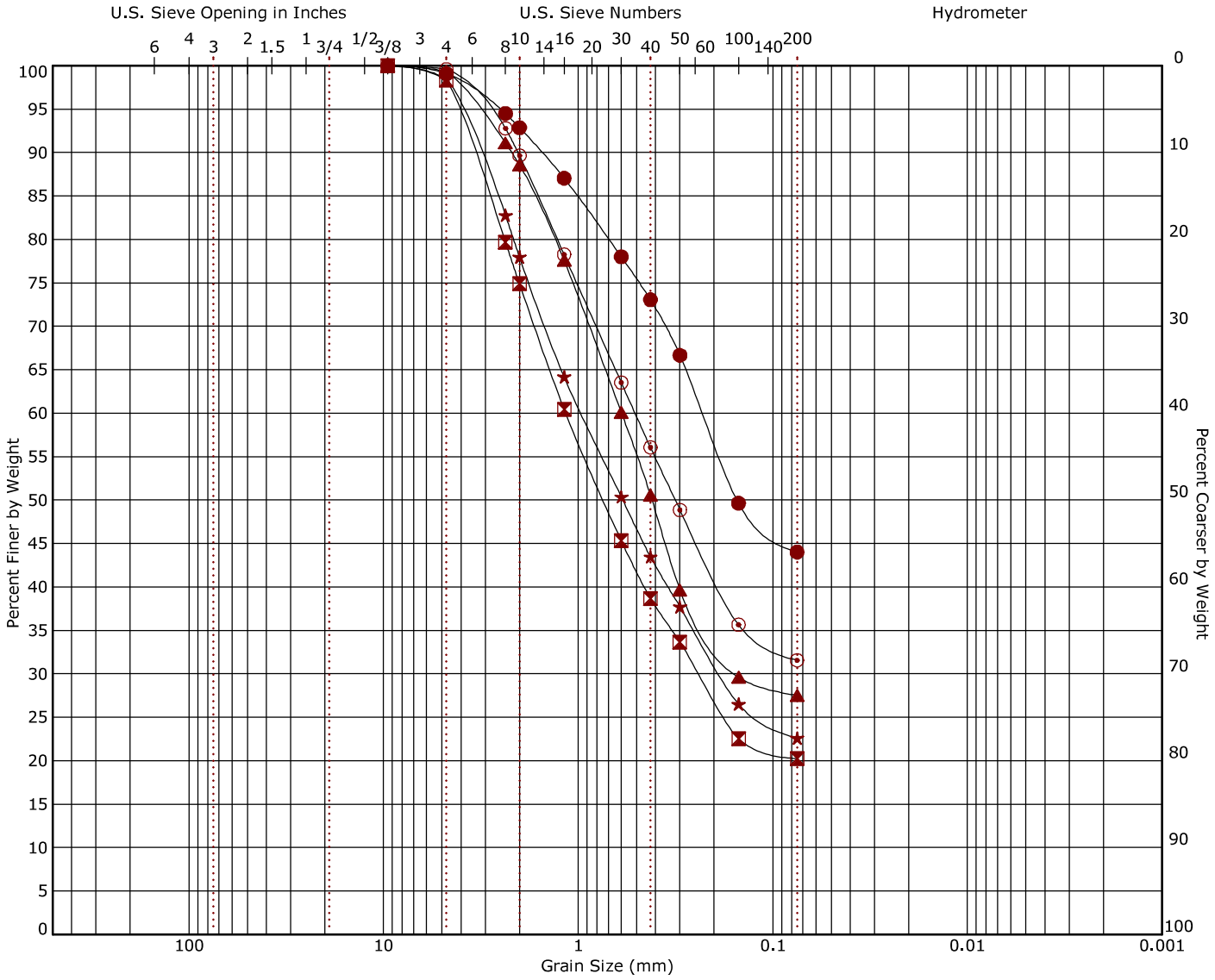
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-71	1 - 4	4.75	0.452			0.0	0.0	64.8	35.2		
⊠	B-72	1 - 4	9.5	0.642			0.0	0.1	69.1	30.8		
▲	B-73	1 - 4	9.5	0.821	0.193		0.0	1.3	74.5	24.2		
★	B-74	1 - 4	9.5	0.433			0.0	0.6	66.8	32.6		
⊙	B-75	1 - 4	12.5	0.336			0.0	0.9	60.3	38.8		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

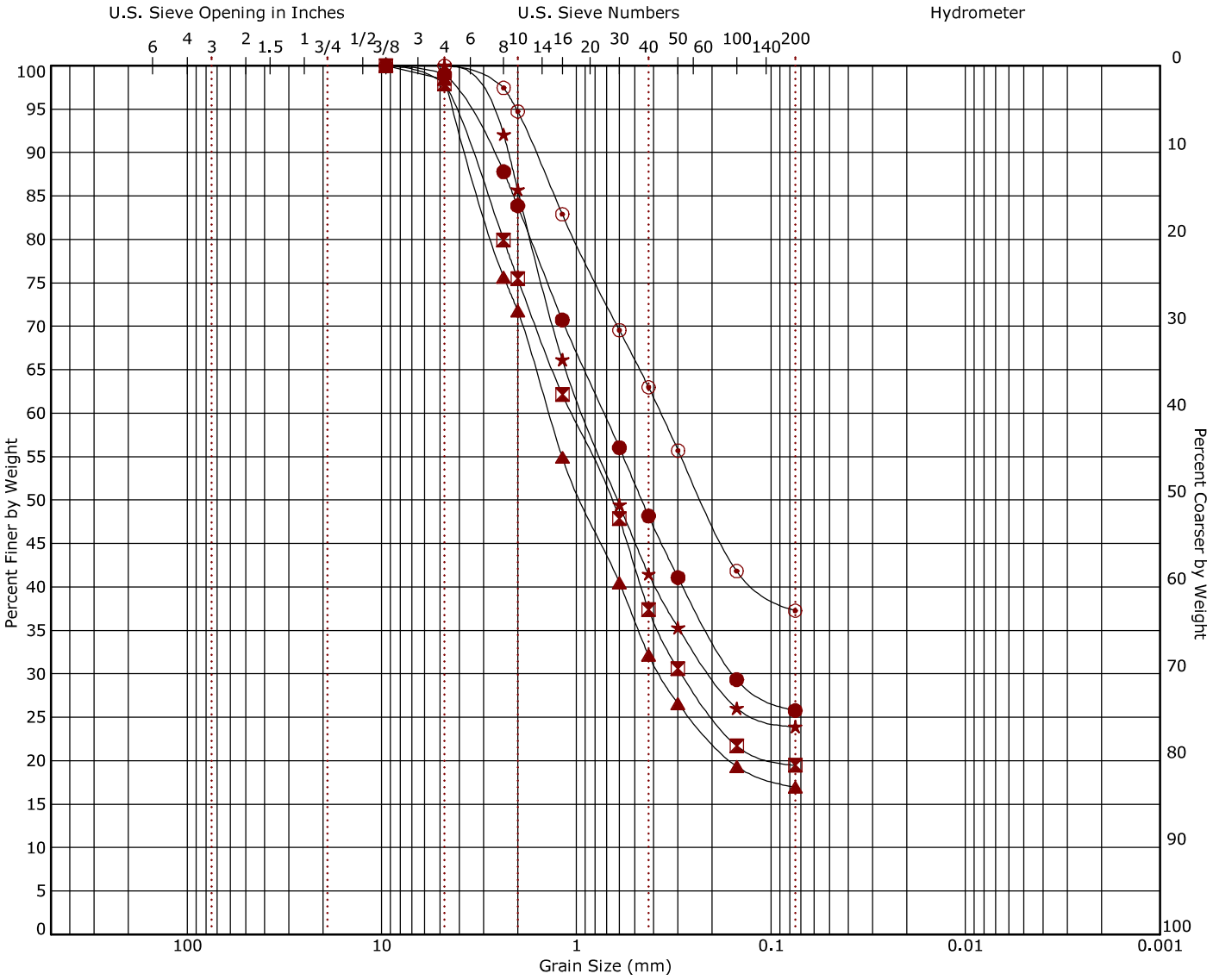
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-76	2 - 3	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
⊠	B-77	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
▲	B-78	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
★	B-79	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
⊙	B-80	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-76	2 - 3	9.5	0.229			0.0	0.9	55.1	44.0		
⊠	B-77	1 - 4	9.5	1.156	0.239		0.0	1.7	78.1	20.2		
▲	B-78	1 - 4	9.5	0.598	0.154		0.0	0.7	71.7	27.5		
★	B-79	1 - 4	9.5	0.961	0.186		0.0	1.5	75.9	22.6		
⊙	B-80	1 - 4	9.5	0.51			0.0	0.4	68.0	31.6		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-81	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-82	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
▲	B-83	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
★	B-84	1 - 4	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
⊙	B-85	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		

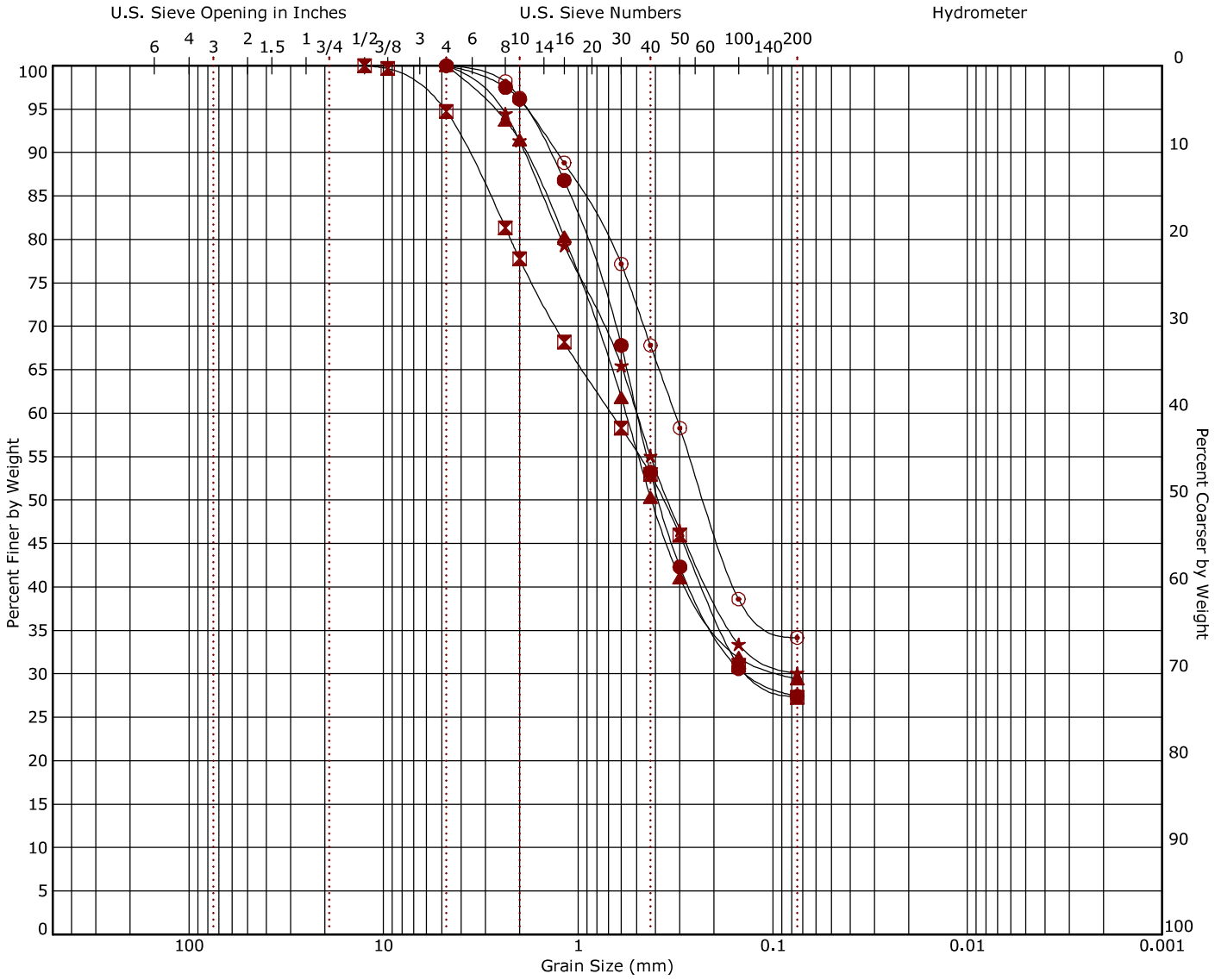
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-81	1 - 4	9.5	0.72	0.156		0.0	1.0	73.2	25.8		
⊠	B-82	1 - 4	9.5	1.065	0.287		0.0	2.1	78.4	19.5		
▲	B-83	1 - 4	9.5	1.384	0.371		0.0	1.6	81.5	17.0		
★	B-84	1 - 4	4.75	0.919	0.202		0.0	0.0	76.1	23.9		
⊙	B-85	1 - 4	4.75	0.368			0.0	0.0	62.7	37.3		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

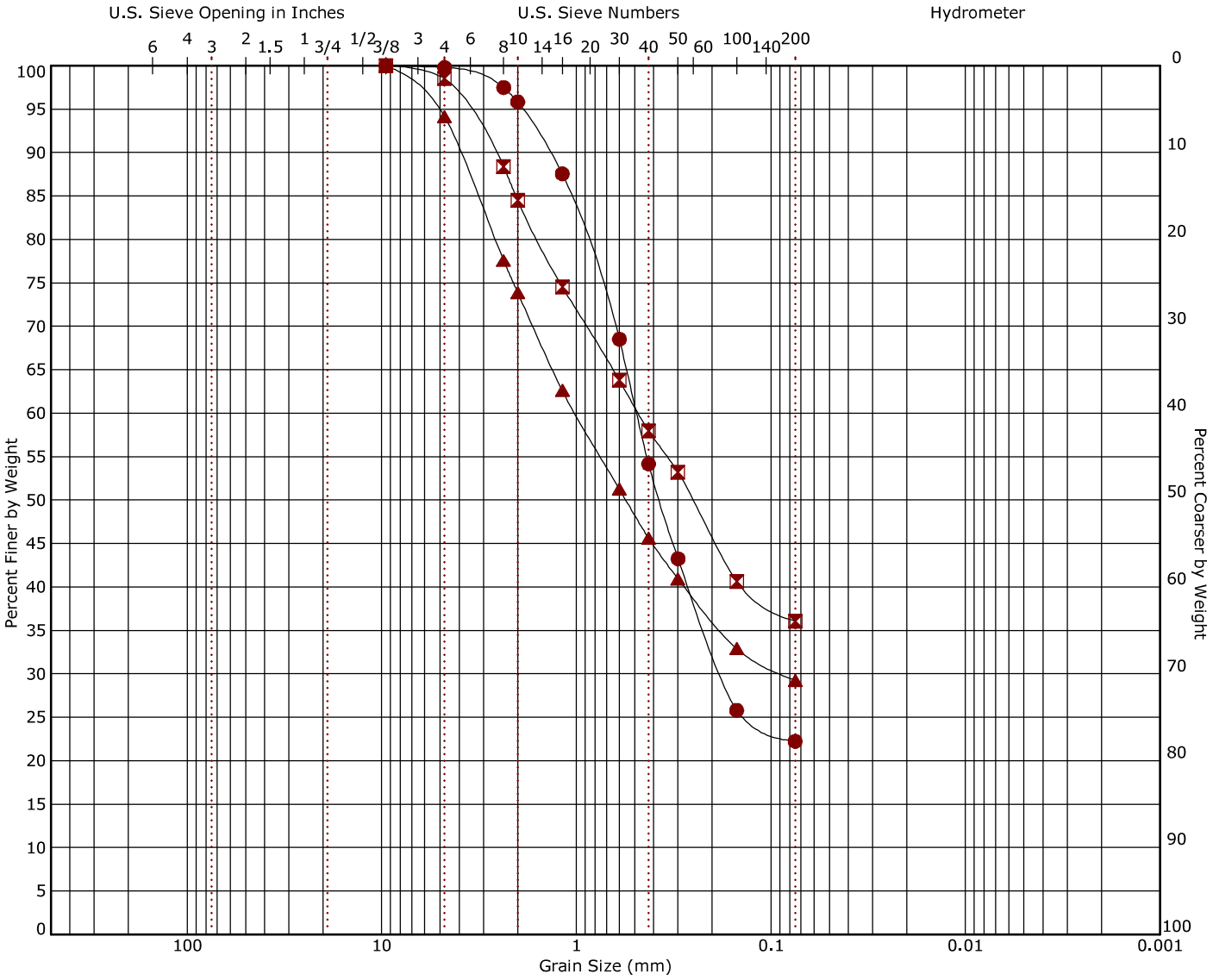
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-86	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-87	4 - 5	CLAYEY SAND	SC	A-2-6 (0)	27	15	12		
▲	B-88	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
★	B-89	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	B-90	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-86	1 - 4	4.75	0.499	0.132		0.0	0.0	72.6	27.4		
⊠	B-87	4 - 5	12.5	0.674	0.125		0.0	5.3	67.4	27.3		
▲	B-88	1 - 4	4.75	0.568	0.088		0.0	0.0	70.6	29.4		
★	B-89	1 - 4	4.75	0.5			0.0	0.0	69.9	30.1		
⊙	B-90	1 - 4	4.75	0.319			0.0	0.0	65.8	34.2		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-91	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	B-92	1 - 4	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
▲	S-1	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

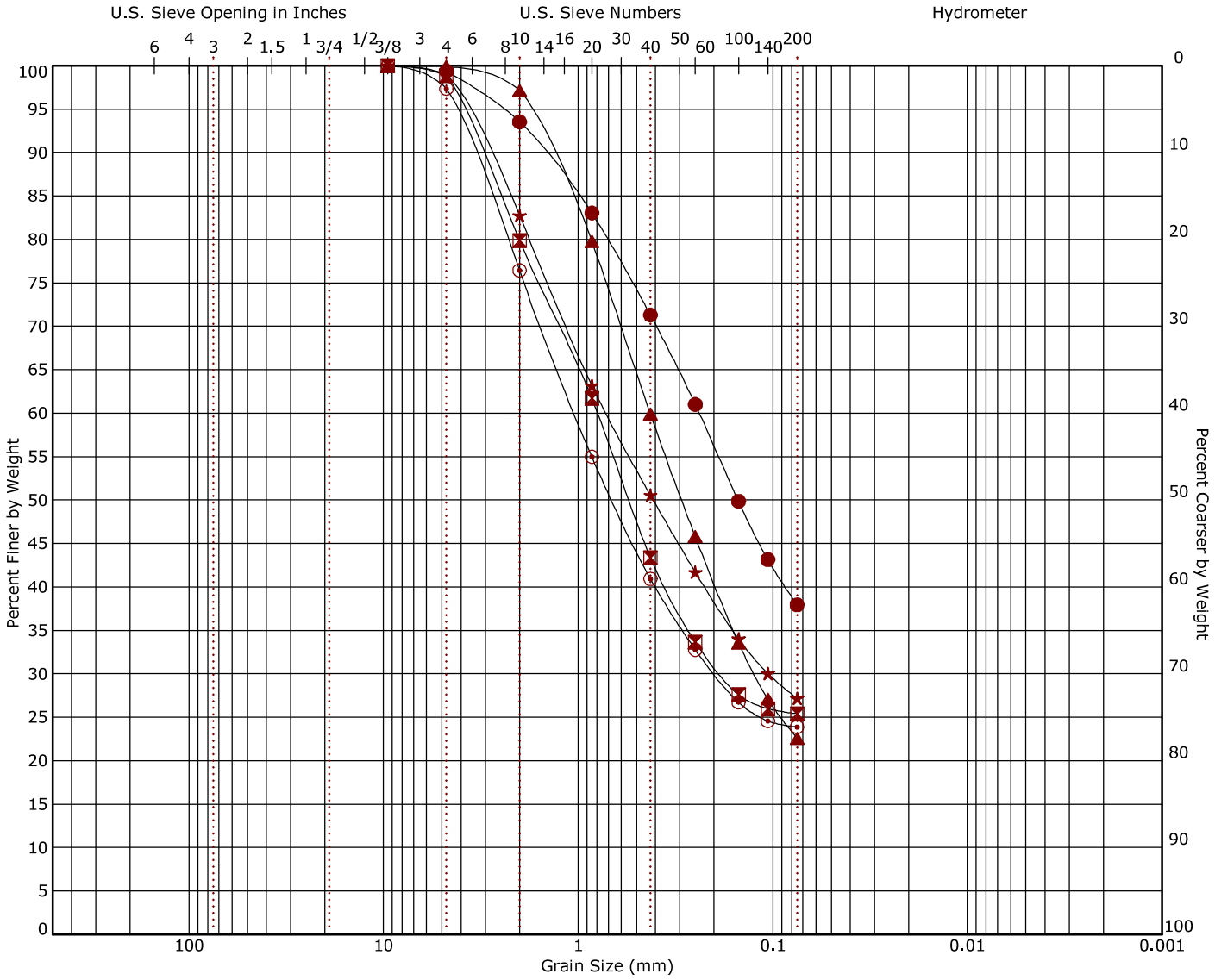
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-91	1 - 4	9.5	0.489	0.177		0.0	0.2	77.6	22.2		
⊠	B-92	1 - 4	9.5	0.479			0.0	1.5	62.4	36.1		
▲	S-1	1 - 4	9.5	1.01	0.086		0.0	5.9	64.9	29.3		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

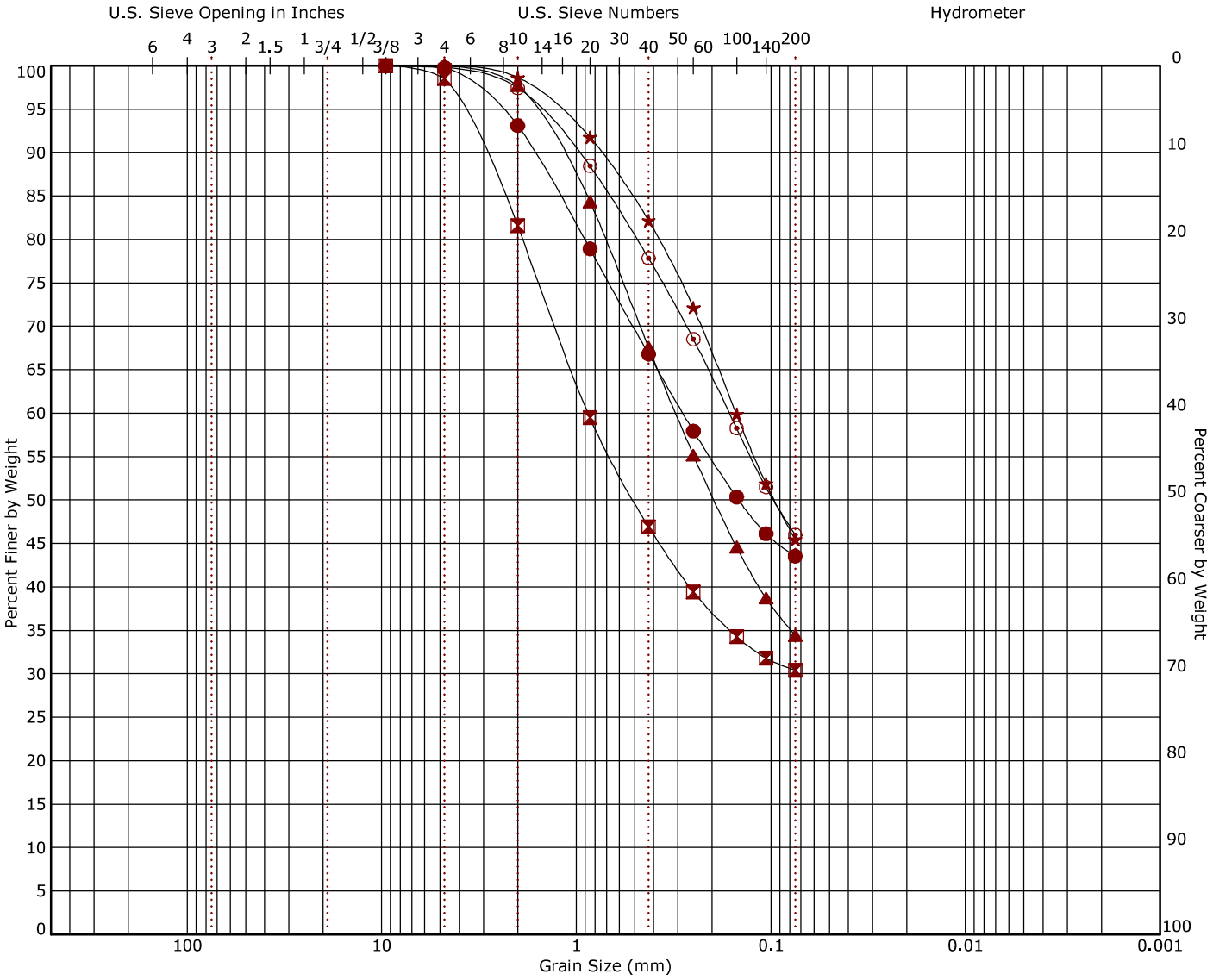
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-93	1 - 5	SILTY, CLAYEY SAND	SC-SM	A-4 (0)	22	18	4		
⊠	B-96	1 - 5	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
▲	B-97	1 - 5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
★	B-98	1 - 5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	B-98	2 - 3	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-93	1 - 5	4.75	0.239					61.4	37.9		
⊠	B-96	1 - 5	9.5	0.796	0.184		0.0	1.2	73.4	25.4		
▲	B-97	1 - 5	9.5	0.426	0.124		0.0	0.1	77.3	22.6		
★	B-98	1 - 5	9.5	0.714	0.105		0.0	1.0	71.8	27.2		
⊙	B-98	2 - 3	9.5	1.038	0.198		0.0	2.6	73.5	23.9		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	B-99	1 - 5	CLAYEY SAND	SC	A-6 (2)	29	16	13		
⊠	B-99	14 - 15.5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
▲	B-100	1 - 4	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
★	U-1	1 - 5	SILTY, CLAYEY SAND	SC-SM	A-4 (0)	24	18	6		
⊙	U-2	1 - 5	SILTY SAND	SM	A-4 (0)	27	22	5		

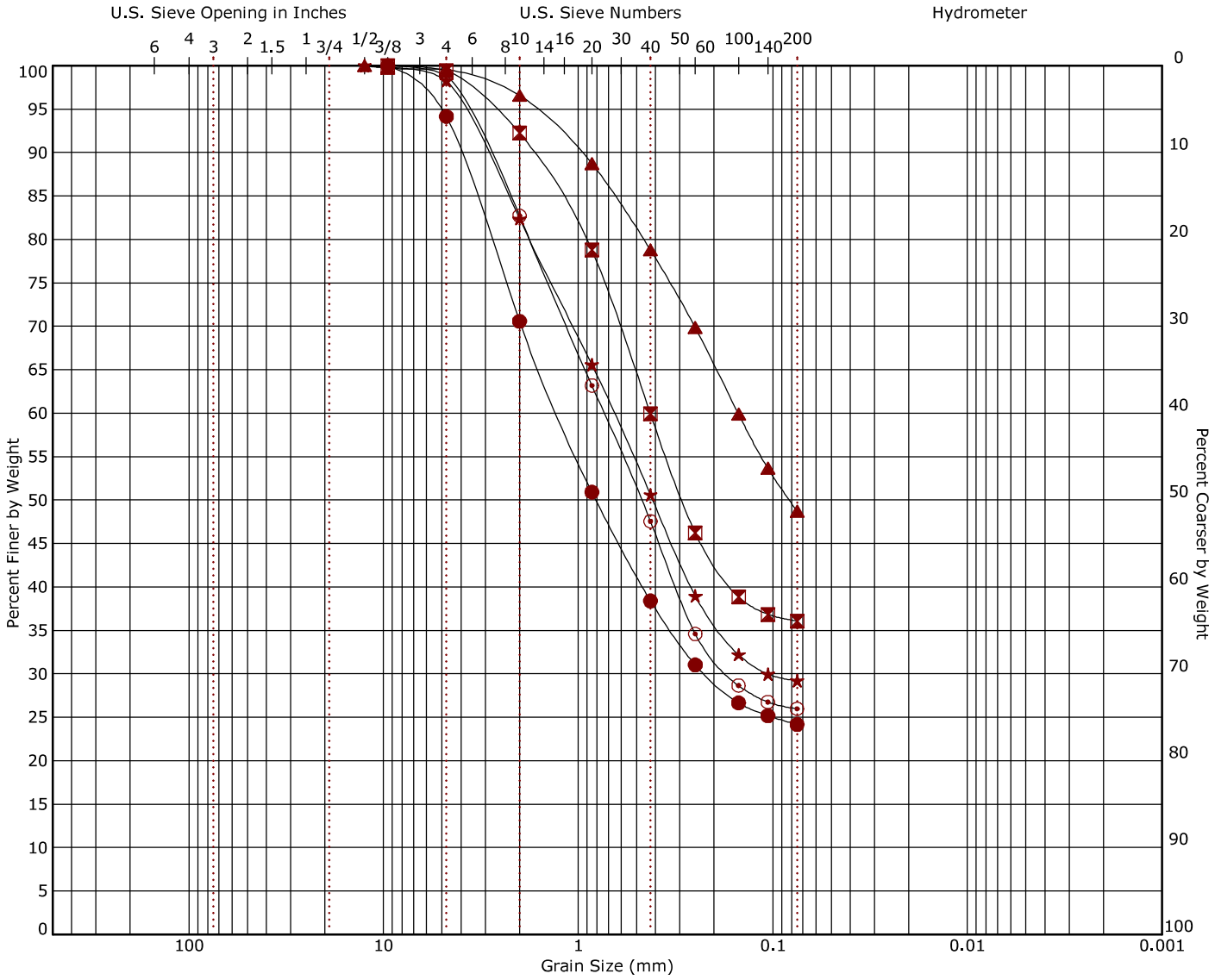
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	B-99	1 - 5	9.5	0.283			0.0	0.2	56.2	43.5		
⊠	B-99	14 - 15.5	9.5	0.867			0.0	1.5	68.1	30.4		
▲	B-100	1 - 4	4.75	0.307			0.0	0.0	65.6	34.4		
★	U-1	1 - 5	4.75	0.151			0.0	0.0	54.5	45.5		
⊙	U-2	1 - 5	9.5	0.163			0.0	0.2	53.8	46.0		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	U-2	19 - 20	CLAYEY SAND	SC	A-2-4 (0)	31	22	9		
⊠	U-3	1 - 5	SILTY SAND	SM	A-4 (0)	NP	NP	NP		
▲	U-4	1 - 5	SILTY SAND	SM	A-4 (2)	32	24	8		
★	U-5	1 - 5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	U-6	1 - 5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		

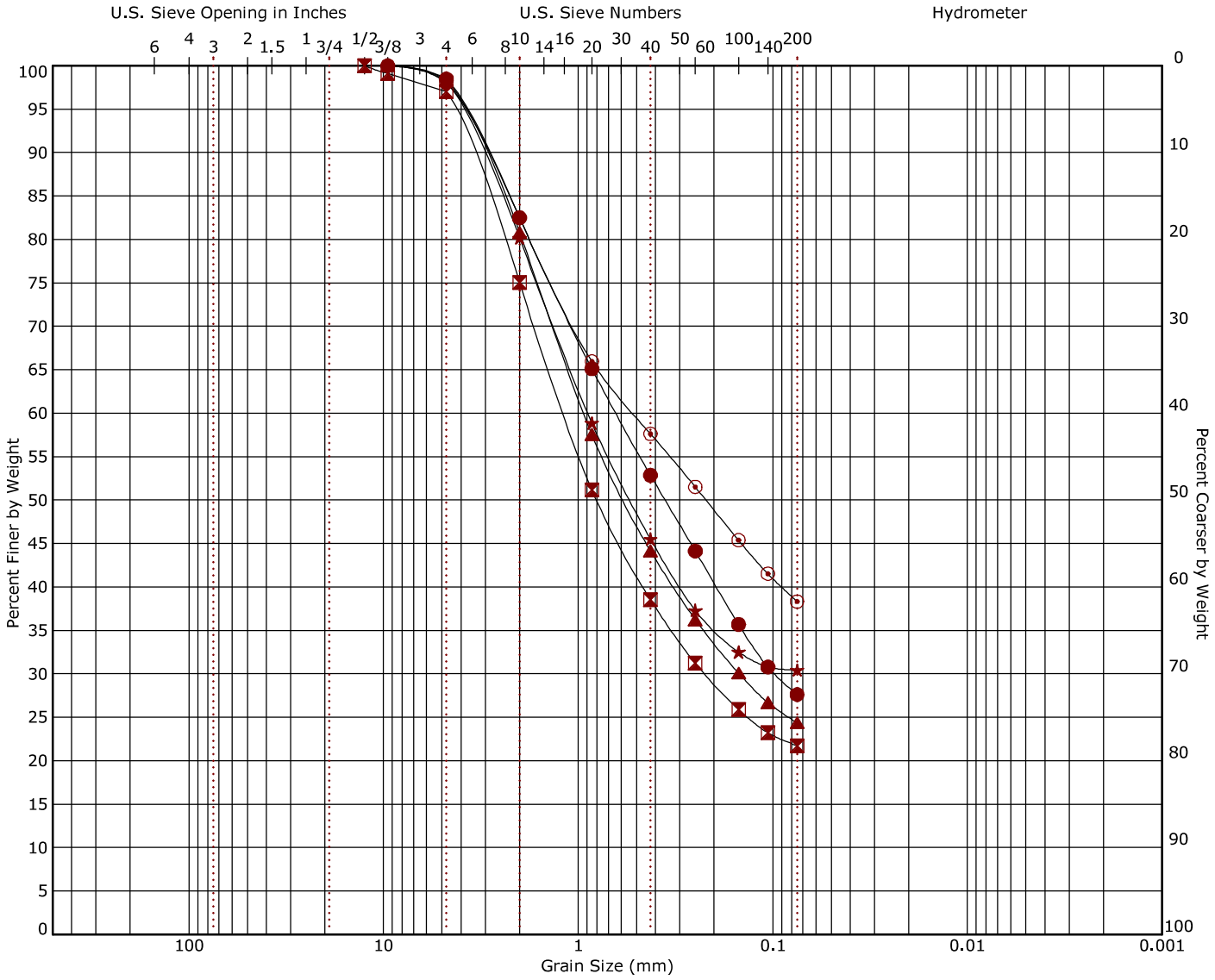
Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	U-2	19 - 20	9.5	1.262	0.222		0.0	5.8	70.0	24.2		
⊠	U-3	1 - 5	9.5	0.426			0.0	0.5	63.4	36.1		
▲	U-4	1 - 5	12.5	0.151			0.0	0.5	50.8	48.7		
★	U-5	1 - 5	12.5	0.656	0.106		0.0	1.7	69.1	29.2		
⊙	U-6	1 - 5	9.5	0.738	0.168		0.0	1.1	73.0	26.0		

Buc-ee's Monument
Interstate 25 and Palmer Divide Avenue | Monument, Colorado
Terracon Project No. 23245069

Terracon
4172 Center Park Dr
Colorado Springs, CO

Grain Size Distribution

ASTM D422 / ASTM C136



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

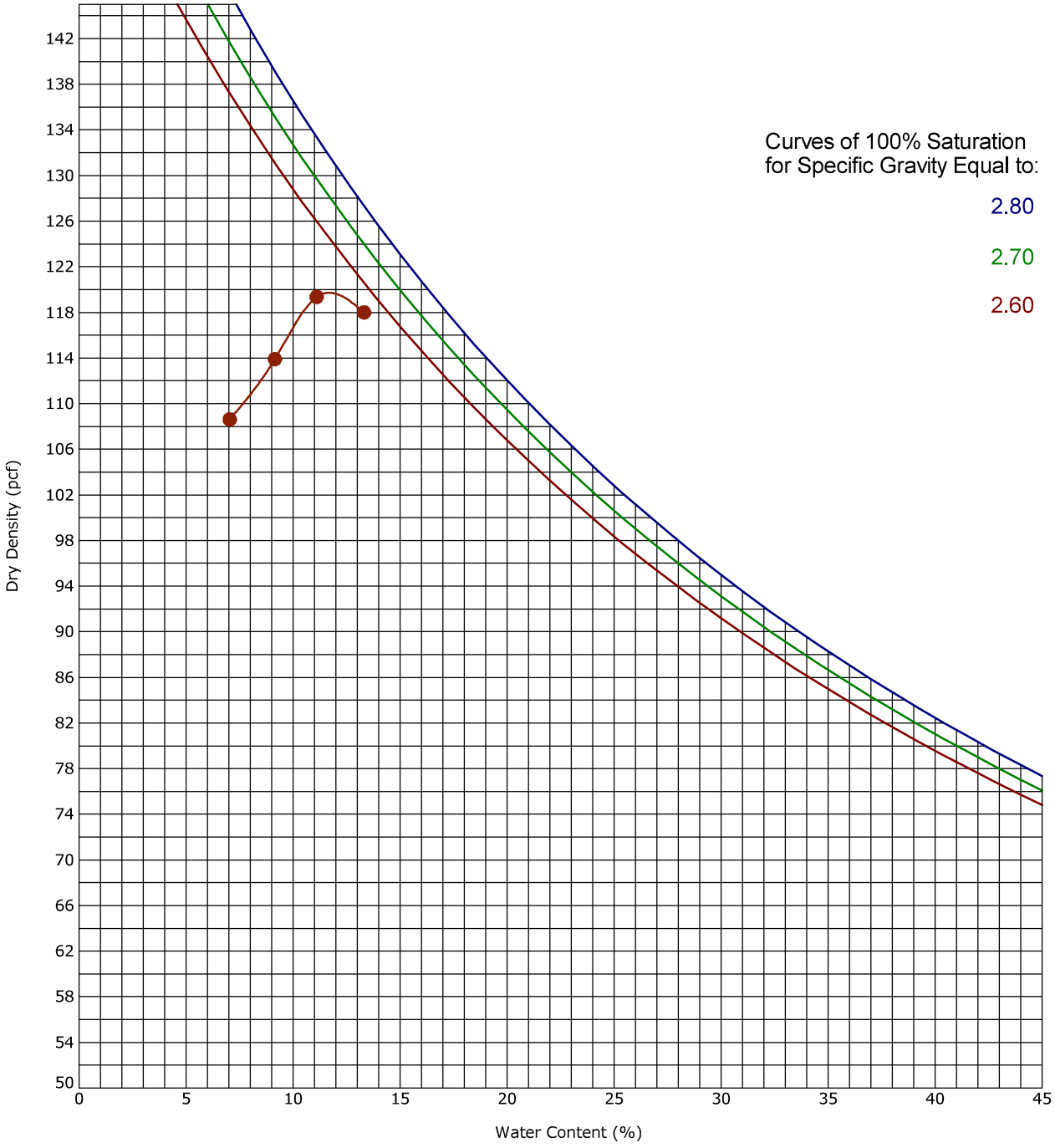
Boring ID		Depth (Ft)	USCS Classification	USCS	AASHTO	LL	PL	PI	Cc	Cu
●	U-7	1 - 5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊠	U-8	1 - 5	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
▲	U-9	1 - 5	SILTY SAND	SM	A-1-b (0)	NP	NP	NP		
★	U-10	1 - 5	SILTY SAND	SM	A-2-4 (0)	NP	NP	NP		
⊙	U-11	7 - 9	CLAYEY SAND	SC	A-4 (0)	24	14	10		

Boring ID		Depth (Ft)	D_{100}	D_{60}	D_{30}	D_{10}	%Cobbles	%Gravel	%Sand	%Fines	%Silt	%Clay
●	U-7	1 - 5	9.5	0.636	0.097		0.0	1.5	70.8	27.6		
⊠	U-8	1 - 4	12.5	1.166	0.222		0.0	3.0	75.3	21.7		
▲	U-9	1 - 4	9.5	0.93	0.149		0.0	1.7	73.9	24.4		
★	U-10	1 - 4	9.5	0.889			0.0	1.9	67.7	30.4		
⊙	U-11	7 - 9	9.5	0.518			0.0	1.9	59.7	38.3		

Terracon
4172 Center Park Dr
Colorado Springs, CO

Moisture-Density Relationship

ASTM D698-Method B



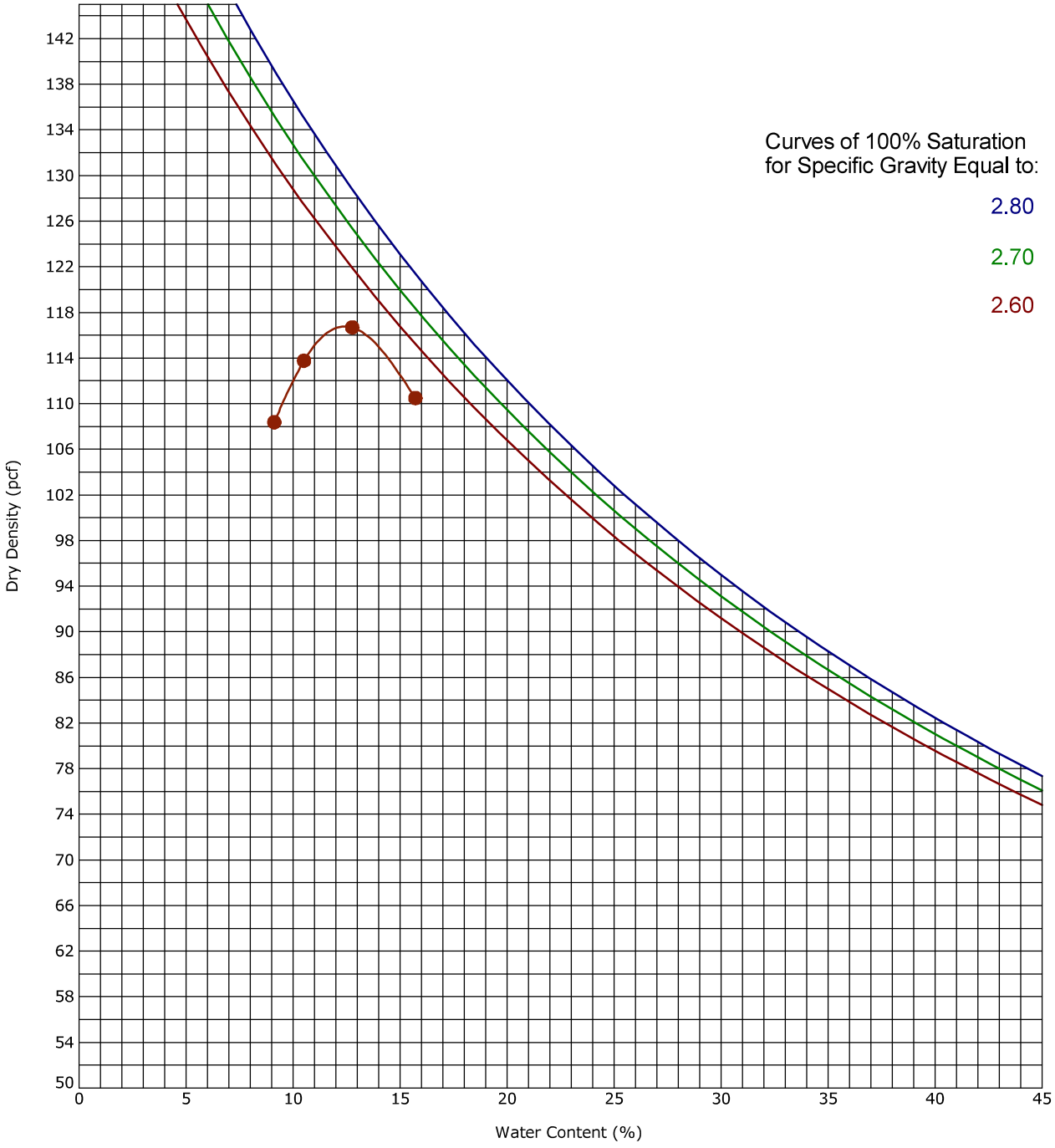
Boring ID	Depth (Ft)	Description of Materials
B-43	1 - 4	CLAYEY SAND (SC)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
40	0.0	29	15	14	ASTM D698-Method B	119.7	11.7

Terracon
4172 Center Park Dr
Colorado Springs, CO

Moisture-Density Relationship

ASTM D698-Method B



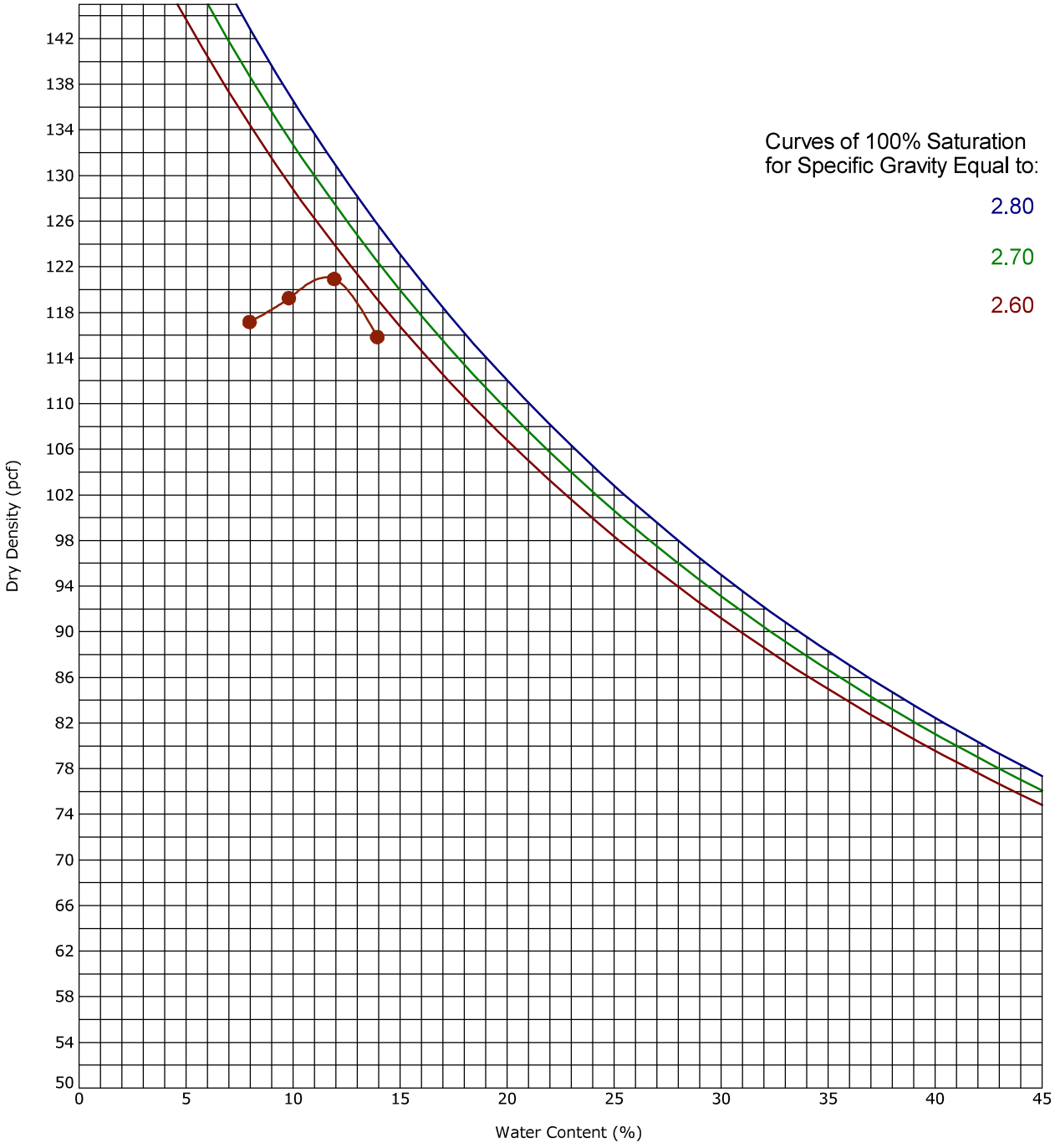
Boring ID	Depth (Ft)	Description of Materials
B-55	1 - 4	CLAYEY SAND (SC)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
47	0.0	30	14	16	ASTM D698-Method B	116.8	12.4

Terracon
4172 Center Park Dr
Colorado Springs, CO

Moisture-Density Relationship

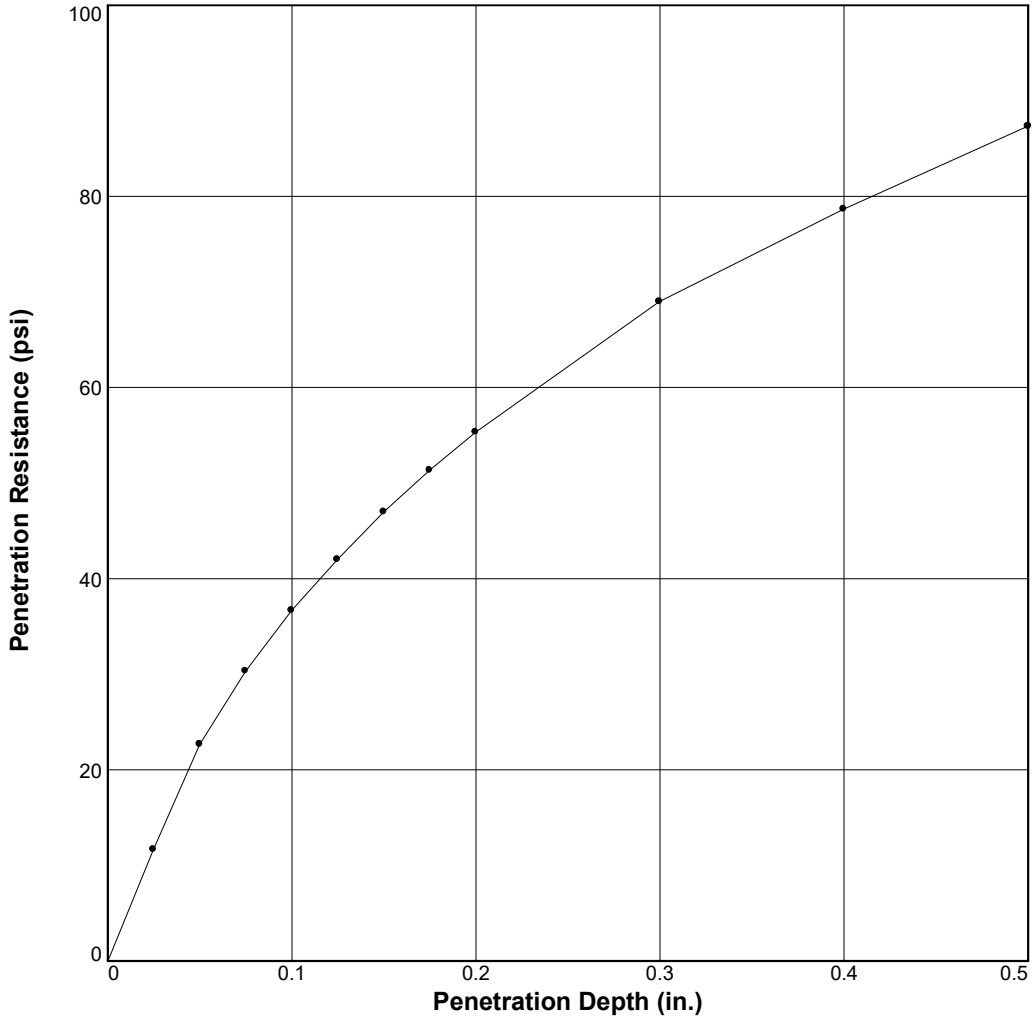
ASTM D698-Method B



Boring ID	Depth (Ft)	Description of Materials
B-75	1 - 4	SILTY SAND (SM)

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
39	0.0	NP	NP	NP	ASTM D698-Method B	121.1	11.6

BEARING RATIO TEST REPORT
ASTM D1883-16



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	114.0	95.2	13.5	113.3	94.7	14.8	3.7	3.7	0.000	10	0.6
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
SC, Clayey Sand	SC	119.7	11.7	29	14

Project No: 23245069A

Project: Buc-ee's Monument

Location: B-43

Depth: 1' - 4'

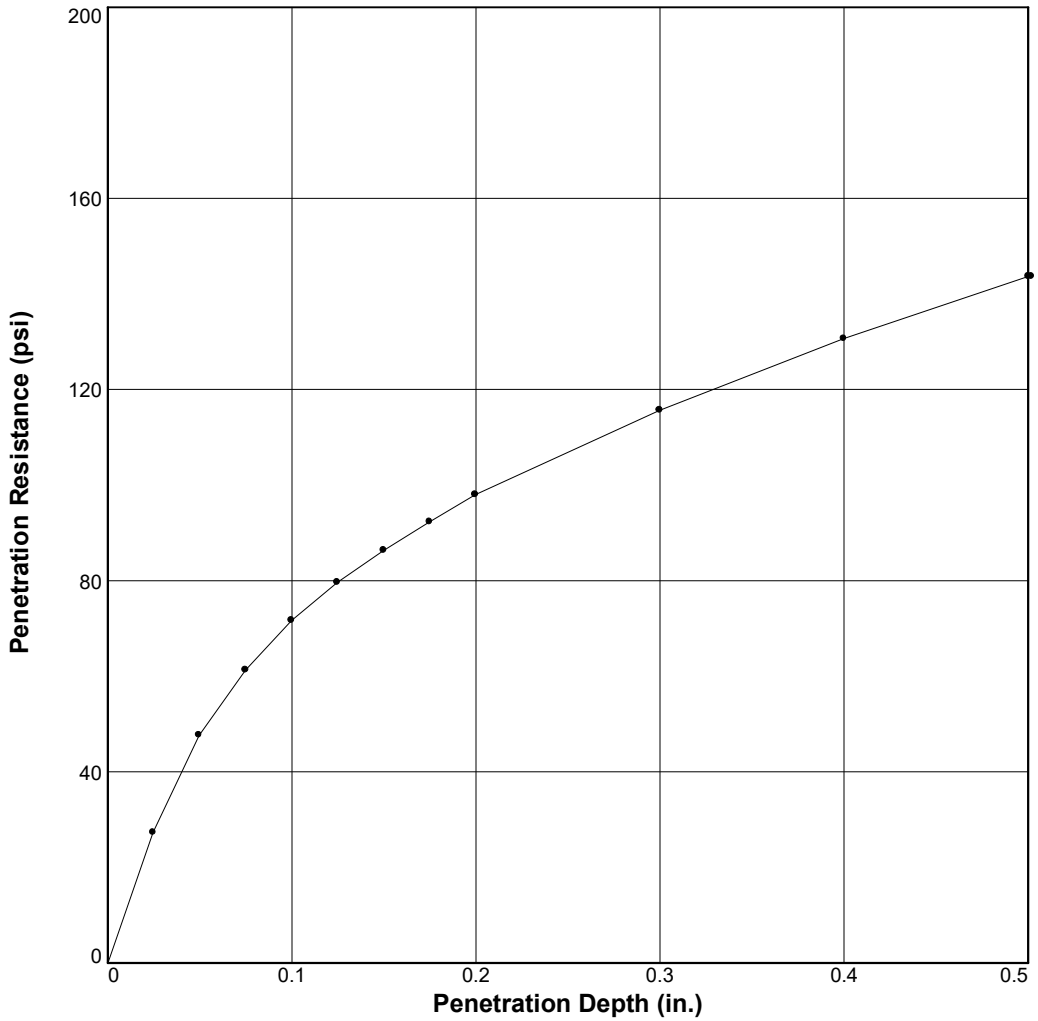
Test Description/Remarks:

Prepared according to D698 compaction efforts.

BEARING RATIO TEST REPORT

Terracon Consultants, Inc.

BEARING RATIO TEST REPORT
ASTM D1883-16



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	114.5	98	12.4	113.7	97.3	15.1	7.2	6.5	0.000	10	0.7
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
SC, Clayey Sand	SC	116.8	12.4	30	16

Project No: 23245069A

Project: Buc-ee's Monument

Location: B-55

Depth: 1' - 4'

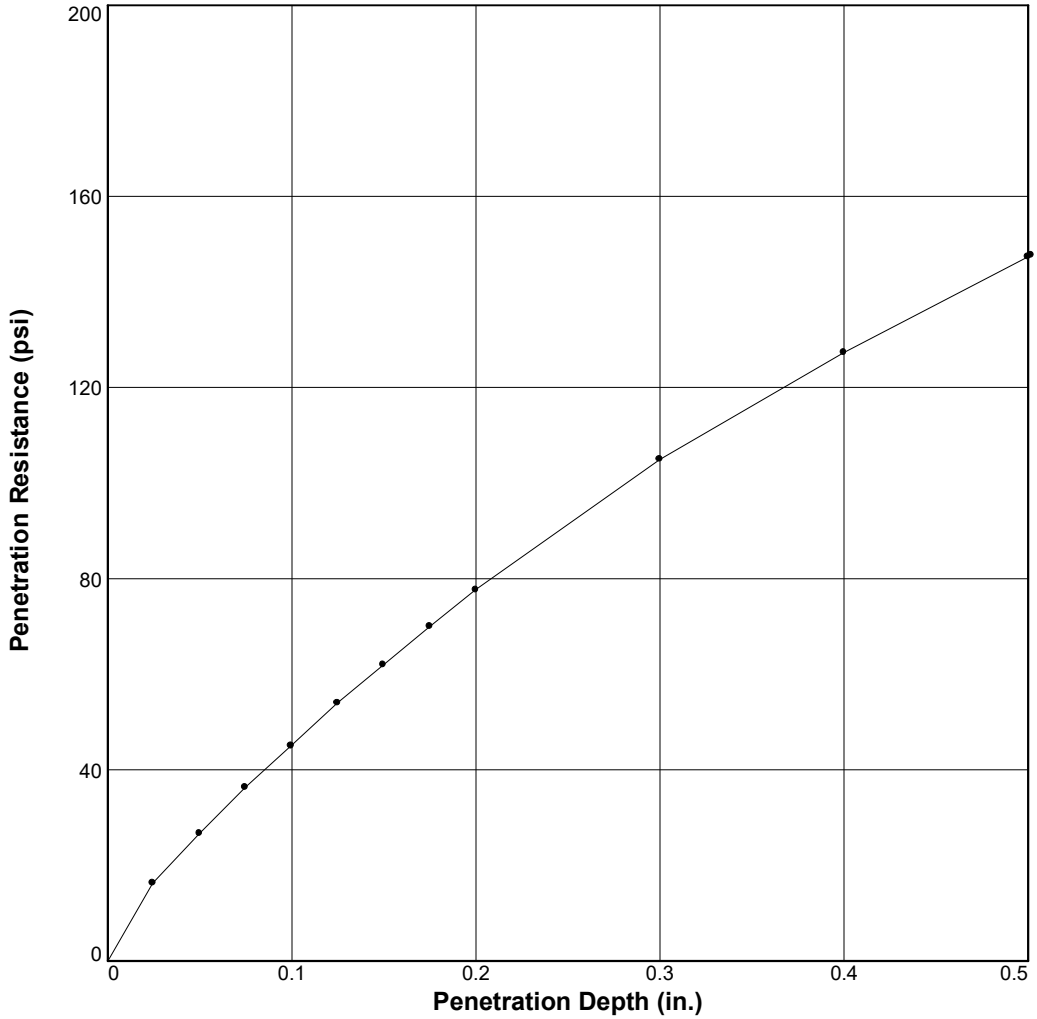
Test Description/Remarks:

Prepared according to D698 compaction efforts.

BEARING RATIO TEST REPORT

Terracon Consultants, Inc.

BEARING RATIO TEST REPORT
ASTM D1883-16



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	115.4	95.2	13.4	115.3	95.1	14.0	4.5	5.2	0.000	10	0.1
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
SM, Silty Sand	SM	121.2	11.6		NP

Project No: 23245069A

Project: Buc-ee's Monument

Location: B-75

Depth: 1' - 4'

Test Description/Remarks:

Prepared according to D698 compaction efforts.

BEARING RATIO TEST REPORT

Terracon Consultants, Inc.

Client
Buc-ee's, Ltd. Lake Jackson, TX

Project
Buc-ee's Monument
23245069

Date Received: 8/12/2024

Results from Corrosion Testing

Sample Location	B-8	B-17	B-20	B-28
Sample Depth (ft.)	1.0-4.0	1.0-4.0	1.0-4.0	1.0-4.0
Water Soluble Sulfate (SO4), AASHTO T290, (%)	<0.10	<0.10	<0.10	<0.10

Analyzed By: Daryl Lee
Laboratory Supervisor

The tests were performed in general accordance with applicable ASTM and AASHTO test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Client
Buc-ee's, Ltd. Lake Jackson, TX

Project
Buc-ee's Monument
23245069

Date Received: 8/12/2024

Results from Corrosion Testing

Sample Location	B-32	B-52	B-82	
Sample Depth (ft.)	1.0-4.0	1.0-4.0	1.0-4.0	
Water Soluble Sulfate (SO4), AASHTO T290, (%)	<0.10	<0.10	<0.10	

Analyzed By: Daryl Lee
Laboratory Supervisor

The tests were performed in general accordance with applicable ASTM and AASHTO test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Client
Buc-ee's Ltd.

Project
Buc-ee's Change Order
23245069
1000026718

Date Received: 7/30/2026

Results from Corrosion Testing

Sample Location	B-99	B-100	U-9	
Sample Depth (ft.)	1-4	24	1-4	
pH Analysis, ASTM D4972	7.46	6.17		
Water Soluble Sulfate (SO4), AASHTO T290, (%)	0	0	0	
Sulfides, ASTM A674 - X1.6, (Negative/Trace/ Present)	Present	Negative		
Chlorides, AASHTO T291, (mg/kg)	13	29		
Red-Ox, ASTM G200, (mV)	+415	+334		
Resistivity (Saturated), ASTM G57, (ohm-cm)	4700	5400		
Total Salts (mg/Kg)	194	90		

Analyzed By: Daryl Lee
Laboratory Supervisor

The tests were performed in general accordance with applicable ASTM and AASHTO test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-1	2	SM	3.1	100																4
B-1	9	SM	5.7	100																4
B-1	14	SM										100	98	87	52	26	NV	NP		
B-1	19	SM	6.9																	
B-2	4	SC	7.5	113																4
B-2	9	SC	7.2	117																4
B-2	19		11.7	118								100	94	69	39	28	38	16		4
B-3	2	SC	13.2	113	0.2	+0.2						100	100	96	70	43	38	24		3,4
B-3	9	SC	7.8	114																4
B-3	14	SC	10.9	118																4
B-3	19		8.6	114																4
B-4	4	SC	7.8	102																4
B-4	9	SC	12.0	117								100	100	97	75	44	29	13		4
B-4	19		9.2	106																4
B-5	1 - 4	SC										100	99	89	70	47	29	13		
B-5	4	SC	7.8	113	0.5	-0.6														3,4
B-5	9	SC	7.7	119																4
B-5	14	SP	7.3	120																4
B-5	19		9.1	106																4
B-5	24		9.2																	
B-6	4	SC	6.0	112																4
B-6	9	SC										100	100	97	75	45	27	12		
B-6	19	SC	11.4	121																4
B-6	24		17.2	112																4
B-7	4	SC	11.0	112																4
B-7	9	SP	10.7	111																4
B-7	19		7.7	116								100	86	64	35	18	NV	NP		4
B-8	1 - 4	SC																	<0.10	3,4
B-8	2	SC	7.9	107																4
B-8	4	SM	7.5	117	0.5	-0.8						100	100	94	71	45	NV	NP		3,4
B-8	14	SC	11.8																	
B-8	19		10.6	118																4
B-9	2	CL	11.2	114																4
B-9	9	SC	11.4	115																4
B-9	14		4.1	125																4
B-9	19		18.6	107								100	99	98	97	86	38	14		4
B-10	2	SM	3.5	101																4
B-10	4	SC	6.2	119																4
B-10	9	CL	13.6	111	0.5	-0.5														3,4
B-10	14		9.3	118								100	93	73	51	37	45	23		4
B-11	4	SP	7.3	115																4

Notes:
Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
* = Partially disturbed sample
- = Compression/settlement
NV = no value
NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

Terracon
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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-11	9	SC	13.9	110								100	100	99	76	49	30	14		4
B-11	14	SC	11.9	114																4
B-12	2	SC	5.8	124																4
B-12	4	SC	7.5	123																4
B-12	9											100	95	76	39	29	NV	NP		
B-12	14		13.6	115																4
B-12	24		12.2	115																4
B-13	1 - 4	SM										100	100	94	73	43	NV	NP		
B-13	4	SC	12.4	104																4
B-13	9	CL	11.7	111	0.5	-1.8														3,4
B-13	14	SP	16.9	108																4
B-14	4	SP	4.4	122																4
B-14	9	SC	6.6	125																4
B-14	14		11.8	118								100	93	69	38	25	37	18		4
B-15	2	SC	7.1	111																4
B-15	4	CL	15.2	109	0.5	0.0						100	100	100	89	56	30	12		3,4
B-15	14	SP	9.9	113																4
B-16	2	SC	5.7	118																4
B-16	9	SC	11.1	115																4
B-16	14		11.0	116																4
B-16	19											100	99	81	49	29	NV	NP		
B-16	24		7.9																	
B-17	1 - 4	SM																	<0.10	3,4
B-17	2	SM	4.7	112																4
B-17	9		10.6	116								100	98	77	33	17	NV	NP		4
B-17	19		11.4																	
B-18	2	SC	7.7	124																4
B-18	4		8.8	119																4
B-18	14		10.6									100	98	83	54	31	34	16		
B-18	19		9.1	100																4
B-19	4	SC	4.9	110	0.5	-1.6														3,4
B-19	9											100	99	77	49	37	33	17		
B-19	14		8.2	117																4
B-20	1 - 4	SM																	<0.10	3,4
B-20	4	SM	7.1	103																4
B-20	14	SM	8.0	120								100	98	81	34	21	NV	NP		4
B-20	24		8.2	114																4
B-21	4	SP	6.6	109																4
B-21	9		4.9	106								100	100	96	66	44	22	9		4
B-21	19		8.2																	
B-22	1 - 4	SM										100	99	89	58	33	NV	NP		

Notes:
Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
* = Partially disturbed sample
- = Compression/settlement
NV = no value
NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-22	2	SM	3.3	116																4
B-22	9	SM	6.6	119																4
B-22	19		8.2																	
B-23	2	SC	5.4	111								100	99	83	48	30	31	15		4
B-23	9	SC	11.4	108																4
B-23	19	SP	8.3																	
B-24	2	SP	4.3	113																4
B-24	4	SP	5.9	120																4
B-24	14	SP	8.2																	
B-24	19		8.8									100	97	85	49	25	NV	NP		
B-25	4	SP	5.7	120																4
B-25	14		8.2									100	92	78	45	27	NV	NP		
B-25	19		9.7	123																4
B-25	24		12.7																	
B-26	2	SP	5.7	122																4
B-26	9	SP	10.8	120																4
B-26	14		9.9																	
B-26	19		13.3									100	100	99	91	54	32	13		
B-26	20		13.2																	
B-27	2	SM	5.3	104																4
B-27	4	SM										100	100	91	63	38	NV	NP		
B-27	9		9.9	124																4
B-27	14		13.1																	
B-27	24		11.6																	
B-28	1 - 4																		<0.10	3,4
B-28	4	SP	1.3	112																4
B-28	9	SM	16.7	101								100	96	80	43	10	NV	NP		4
B-28	14	SP	8.0	119																4
B-29	1 - 4	SC										100	100	89	63	41	21	8		
B-29	2	SC	4.7	102																4
B-29	9	SC	3.0	119																4
B-29	19	SC	11.4																	
B-30	4	SP	3.6	119								100	100	96	74	52	27	12		4
B-30	9	SP	3.3	116																4
B-30	14	SP	5.1																	
B-31	2	SC	7.0	107																4
B-31	9	SC	16.7	109	0.5	-0.1						100	100	100	78	41	29	14		3,4
B-31	14	SC	19.4	109																4
B-31	19	SM	16.3	105																4
B-32	1 - 4	SC																	<0.10	3,4
B-32	2	SC	7.6	117																4

Notes:
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NV = no value
NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-32	4	SC	16.7	105	0.2	-0.9						100	100	98	82	44	28	13		3,4
B-32	9	CL	15.2	113																4
B-32	14	SC	7.2	124																4
B-33	1 - 4	SM										100	99	85	59	36	NV	NP		
B-33	2	SM	3.2	122																4
B-33	4	SM	4.8	122																4
B-34	1 - 4	SM										100	98	80	52	32	NV	NP		
B-34	2	SM	2.8	125																4
B-34	4		4.0	123																4
B-35	1 - 4	SM										100	98	82	55	33	NV	NP		
B-35	2		7.6	124																4
B-35	4		5.5	120																4
B-36	2	SM	10.6	100	0.2	-6.2						100	100	94	67	39	NV	NP		3,4
B-36	4	SM	11.9	117																4
B-37	1 - 4	SM										100	99	88	58	40	NV	NP		
B-37	2	SM	8.6	96	0.2	-10.3														3,4
B-37	4	SM	9.4	116																4
B-38	1 - 4	SM										100	99	82	54	34	NV	NP		
B-38	4	SC	11.1	119																4
B-38	9	SC	8.4	127																4
B-39	2	SC	7.6	102	0.2	-1.3						100	99	88	61	37	28	16		3,4
B-39	9	SC	8.2	122																4
B-40	2	SC	7.6	115																4
B-40	4	SC	12.0	116	0.2	-0.7						100	99	80	51	30	30	16		3,4
B-40	9	SC	10.6	113																4
B-41	1 - 4	SM										100	99	92	65	42	NV	NP		
B-41	2	SM	10.5	108																4
B-41	4	SC	8.3	119																4
B-42	1 - 4	SC										100	99	91	68	42	29	16		
B-42	4	SC	8.4	123																4
B-42	9	SC	15.9	112																4
B-43	1 - 4	SC					119.7	11.7	D698B	3.7	3.7	100	98	87	57	40	29	14		1,3,6
B-43	2	SC	13.0	108	0.2	-0.8														3,4
B-43	4	SC	8.6	109																4
B-44	1 - 4	SM										100	99	90	64	39	NV	NP		
B-44	2	SM	3.3	109	0.2	-0.8														3,4
B-44	4	SC	9.5	120																4
B-45	1 - 4	SM										100	98	90	67	43	NV	NP		
B-45	2	SM	7.0	117																4
B-45	4		6.0	122																4
B-46	1 - 4	SM										100	100	96	64	35	NV	NP		

Notes:
Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
* = Partially disturbed sample
- = Compression/settlement
NV = no value
NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-46	4	SM	7.9	115																4
B-46	9	SC	10.1	122																4
B-47	1 - 4	SM										100	97	80	51	31	NV	NP		
B-47	4	SC	5.8	119																4
B-47	9	CL	9.2	122																4
B-48	1 - 4	SM										100	97	75	34	17	NV	NP		
B-48	2	SM	4.5	105																4
B-48	4	SM	5.6	97																4
B-49	1 - 4	SM										100	99	92	66	47	NV	NP		
B-49	2	SM	7.6	115																4
B-49	4	SC	4.1	100																4
B-50	1 - 4	SM										100	96	77	44	27	NV	NP		
B-50	2	SM	5.1	104																4
B-50	4		6.4	126																4
B-51	1 - 4	SM										100	98	83	54	33	NV	NP		
B-51	2	SM	8.7	120																4
B-51	4	SC	10.7	121																4
B-52	1 - 4	SM										100	99	88	60	39	NV	NP	<0.10	3,4
B-52	2	SM	7.7	121																4
B-52	4	SC	7.7	118																4
B-53	1 - 4	SC										100	100	98	71	48	23	9		
B-53	2	SC	3.7	107																4
B-53	4	CL	13.8	108	0.2	-0.1														3,4
B-54	1 - 4	SC										100	99	91	65	41	25	10		
B-54	2	SC	8.9	119																4
B-54	4	SC	10.5	114																4
B-55	1 - 4	SC					116.8	12.4	D698B	7.2	6.5	100	100	93	71	47	30	16		1,3,6
B-55	2	SC	11.1	112																4
B-55	4	SM	7.1	117																4
B-56	1 - 4	SM										100	100	97	75	51	NV	NP		
B-56	2	SM	9.6	108																4
B-56	4	SC	9.9	115																4
B-57	1 - 4	SC										100	100	92	64	45	22	9		
B-57	4		3.5																	4
B-57	9		10.5	119																4
B-58	2	SC	11.4	114	0.2	-0.2						100	98	90	66	42	29	14		3,4
B-58	4	SC	9.4	114																4
B-58	9	SM	9.4	111																4
B-60	1 - 4	SM										100	100	94	66	44	NV	NP		
B-60	2	SM	4.5	111																4
B-60	4	SM	6.7	120																4

Notes:
Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
* = Partially disturbed sample
- = Compression/settlement
NV = no value
NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-61	1 - 4	SM										100	99	89	65	44	NV	NP		
B-61	2	SM	2.9	100																4
B-61	4	CL	15.8	108	0.2	+0.5														3,4
B-62	1 - 4	SM										100	100	94	61	34	NV	NP		
B-62	2	SM	2.8	107																4
B-62	4	SC	8.3	120																4
B-63	1 - 4	SM										100	100	98	67	38	NV	NP		
B-63	4	SM	5.7	116																4
B-63	9	CL	11.4	120																4
B-64	1 - 4	SM										100	98	83	45	22	NV	NP		
B-64	2	SM	5.1																	4
B-64	4	SM	3.7	121																4
B-65	1 - 4	SM										100	100	97	73	45	NV	NP		
B-65	2	SM	7.1	115																4
B-65	4	SM	7.4	120																4
B-66	1 - 4	SC										100	100	97	68	41	26	12		
B-66	2	SC	5.1	103																4
B-66	4	SC	10.3	118																4
B-67	1 - 4	SM										100	99	91	48	26	NV	NP		
B-67	2	SM	3.6	99																4
B-67	4	SC	7.3	114																4
B-68	2	SC	14.4	105	0.2	-0.5						100	100	99	79	42	26	12		3,4
B-68	4	SC	10.9	124																4
B-68	9	SC	11.6	120																4
B-69	1 - 4	SM										100	99	92	63	35	NV	NP		
B-69	2	SM	7.2	117																4
B-69	4	SC	6.5	123																4
B-70	1 - 4	SC										100	100	97	67	40	24	9		
B-70	2	SC	6.4	116																4
B-70	4	CL	8.7	115	0.2	+0.3														3,4
B-71	1 - 4	SC										100	100	95	58	35	25	12		
B-71	2	SC	8.9	109																4
B-71	4	SC	8.5	120																4
B-72	1 - 4	SM										100	100	91	49	31	NV	NP		
B-72	2	SM	3.5	105																4
B-72	4	SC	6.6	116																4
B-73	1 - 4	SM										100	99	80	44	24	NV	NP		
B-73	2	SM	2.7																	4
B-73	4	SM	6.1	123																4
B-74	1 - 4	SM										100	99	92	59	33	NV	NP		
B-74	2	SM	8.3	109																4

Notes:
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NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-74	4	SM	6.2	121																4
B-75	1 - 4	SM					121.1	11.6	D698B	4.5	5.2	100	99	93	67	39	NV	NP		1,3,6
B-75	2	SM	6.6	107	0.2	+1.0														3,4
B-75	4	SC	7.0	116																4
B-75	9	CL	11.6	111																4
B-76	2	SM	7.2	121	0.2	+0.9						100	99	93	73	44	NV	NP		3,4
B-76	4	SM	13.1	111																4
B-77	1 - 4	SM										100	98	75	39	20	NV	NP		
B-77	2	SM	2.9	114																4
B-77	4	SM	4.6	117																4
B-78	1 - 4	SM										100	99	89	51	28	NV	NP		
B-78	2	SM	3.2	110																4
B-78	4	SM	7.2	119																4
B-79	1 - 4	SM										100	98	78	43	23	NV	NP		
B-79	2	SM	2.0	121																4
B-79	4	SP	8.3	119																4
B-80	1 - 4	SM										100	100	90	56	32	NV	NP		
B-80	2	SM	2.6	117																4
B-80	4	SC	4.7	117																4
B-81	1 - 4	SM										100	99	84	48	26	NV	NP		
B-81	4	SC	5.1	121																4
B-81	9	CL	9.7	116																4
B-82	1 - 4	SM										100	98	75	37	19	NV	NP	<0.10	3,4
B-82	2	SM	3.3	110																4
B-82	4	SM	7.3	123																4
B-83	1 - 4	SM										100	98	72	32	17	NV	NP		
B-83	2	SM	1.3																	4
B-83	4	SM	2.8	125																4
B-84	1 - 4	SM										100	100	86	41	24	NV	NP		
B-84	2	SM	1.3																	4
B-84	4	SC	2.4	118																4
B-85	1 - 4	SM										100	100	95	63	37	NV	NP		
B-85	2	SM	3.7	108																4
B-85	9		3.4	119																4
B-86	1 - 4	SM										100	100	96	53	27	NV	NP		
B-86	2	SM	8.7	108																4
B-86	4	SC	9.8	116																4
B-87	2	SM	6.0	117																4
B-87	4	SC	12.1	109	0.2	+0.1						100	95	78	53	27	27	12		3,4
B-87	9	SC	11.3	115																4
B-88	1 - 4	SM										100	100	91	50	29	NV	NP		

Notes:
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NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Moisture-Density Relationship			CBR (%)		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Remarks
					Surcharge (ksf)	Swell (%)	Maximum Dry Density (pcf)	Optimum Moisture Density (%)	Test Method	0.10 in.	0.20 in.	3/4"	#4	#10	#40	#200	LL	PI		
B-88	2	SM	6.7	121																4
B-88	4	SM	7.9	123																4
B-89	1 - 4	SM										100	100	91	55	30	NV	NP		
B-89	2	SM	2.7	107																4
B-89	4		3.6	125																4
B-90	1 - 4	SM										100	100	96	68	34	NV	NP		
B-90	2	SM	3.8	108																4
B-90	4	SM	4.0	117																4
B-91	1 - 4	SM										100	100	96	54	22	NV	NP		
B-91	2	SM	5.0	111																4
B-91	4	SC	7.2	119																4
B-92	1 - 4	SM										100	99	85	58	36	NV	NP		
B-92	2	SM	4.6	101																4
B-92	4	SM	11.0	119																4
S-1	1 - 4	SM										100	94	74	46	29	NV	NP		
S-1	2	SM	4.3	99																4
S-1	9	SC	14.5	96																4
S-1	14	SC	12.3	93																4
S-1	19		11.9	113																4
S-1	24		6.9																	
S-1	29		15.1																	4
S-1	39		4.2																	4
S-1	49		8.2																	

Notes:
Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
* = Partially disturbed sample
- = Compression/settlement
NV = no value
NP = non-plastic

Remarks:
1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)
2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)
3 Water added to sample
4 Dry density and/or moisture content determined from one ring of a multi-ring sample
5 Minus #200 Only
6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS (Additional Building, Fuel Tank, and Utilities)

Buc-ee's Monument - Monument, Colorado

Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Sulfides (mg/kg) N/T/P	Chlorides (mg/kg)	pH	Red-Ox (mV)	Electrical Resistivity (ohm-cm)	Total Salts (mg/kg)	Remarks
					Surcharge (ksf)	Swell (%)	3/4"	#4	#10	#40	#200	LL	PI								
B-93	1 - 5	SC-SM					100	99	94	71	38	22	4								
B-93	2	SC-SM	7.1	105																	4
B-93	4	SM	4.2	96	0.5	-10.4															3,4
B-93	7	SM	6.6	118																	4
B-93	24	SM	10.2	109																	4
B-94	9	SM	13.3	115																	4
B-95	4	SC	4.2	108																	4
B-95	14	SC	11.0	107																	4
B-96	1 - 5	SM					100	99	80	43	25	NV	NP								
B-96	2	SM	4.6	97	0.5	-5.3															3,4
B-96	7	SM	9.5	121																	4
B-96	24		9.4	124																	4
B-97	1 - 5	SM					100	100	97	60	23	NV	NP								
B-97	2	SM	4.1	80																	4
B-97	7	SM	6.4	120																	4
B-97	14	SM	4.4	117																	4
B-98	1 - 5	SM					100	99	83	51	27	NV	NP								
B-98	2	SM	12.8	115			100	97	76	41	24	NV	NP								4
B-98	4	SM	13.6	120																	4
B-98	14	SM	8.5	130																	4
B-99	1 - 5	SC					100	100	93	67	44	29	13	<0.10	P	13	7.46	+415	4,700	194	
B-99	4		7.6	107																	4
B-99	9		4.7	112	1.0	-0.9															3,4
B-99	14	SM					100	99	81	47	30	NV	NP								
B-99	19		12.3	116																	4
B-100	1 - 5	SM					100	100	98	68	34	NV	NP								
B-100	4		15.0	103	0.5	+0.9															3,4
B-100	9		10.3	107																	4
B-100	19		11.2	121																	4
B-100	24													<0.10	N	29	6.17	+334	5,400	90	
U-1	1 - 5	SC-SM					100	100	99	82	45	24	6								
U-1	2	SC-SM	8.1	104																	4
U-1	19	SC	13.1	114																	4
U-1	29		8.2	131																	4
U-2	1 - 5	SM					100	100	97	78	46	27	5								
U-2	2	SM	11.6	97																	4
U-2	4	SM	9.4	118																	4
U-2	9	SM	12.0	117																	4
U-2	19	SM					100	94	71	38	24	31	9								
U-2	24	SM	10.7	125																	4
U-2	34		10.0	125																	4
U-3	1 - 5	SM					100	99	92	60	36	NV	NP								

Notes:

Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.

* = Partially disturbed sample

\- = Compression/settlement

NV = no value

NP = non-plastic

Remarks:

1 Remolded Compacted density (about 95% of ASTM D698 maximum density near optimum moisture content)

2 Remolded Compacted density (about 95% of ASTM D1557 maximum density near optimum moisture content)

3 Water added to sample

4 Dry density and/or moisture content determined from one ring of a multi-ring sample

5 Minus #200 Only

6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99

7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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SUMMARY OF LABORATORY TEST RESULTS (Additional Building, Fuel Tank, and Utilities)

Buc-ee's Monument - Monument, Colorado
Terracon Project No. 23245069

Boring No.	Depth (ft)	USCS Class.	Initial Water Content (%)	Initial Dry Density (pcf)	Swell/Consolidation		Particle Size Distribution, Percent Passing by Weight					Atterberg Limits		Water Soluble Sulfates (%)	Sulfides (mg/kg) N/T/P	Chlorides (mg/kg)	pH	Red-Ox (mV)	Electrical Resistivity (ohm-cm)	Total Salts (mg/kg)	Remarks
					Surcharge (ksf)	Swell (%)	3/4"	#4	#10	#40	#200	LL	PI								
U-3	2	SM	4.9	111																	4
U-3	7	SM	8.8	112	0.5	-1.5															3,4
U-3	19		11.8	122																	4
U-4	1 -5	SM					100	100	97	79	49	32	8								
U-4	4	SM	6.6	108	0.5	-2.3															3,4
U-4	14	SM	13.6	118																	4
U-4	29		10.1	125																	4
U-5	1 - 5	SM					100	98	98	51	29	NV	NP								
U-5	4	SM	9.4	103	0.5	-2.3															3,4
U-5	9	SM	8.2	124																	4
U-5	19	SM	12.3	124																	4
U-6	1 - 5	SM					100	99	83	48	26	NV	NP								
U-6	2	SM	4.5	106																	4
U-6	9	SM	7.9	111																	4
U-6	29		10.6	124																	4
U-7	1 - 5	SM					100	98	83	53	28	NV	NP								
U-7	2	SM	6.4	110																	4
U-7	9	SM	7.2	124																	4
U-7	19		12.8	114																	4
U-8	1 - 5	SM					100	97	75	39	22	NV	NP								
U-8	3		5.2	102	0.5	-7.0															3,4
U-8	7		7.4	118																	4
U-8	19		14.1	122																	4
U-9	1 - 5	SM					100	98	81	44	24	NV	NP	<0.10							
U-9	2		10.2	101																	4
U-9	9		8.2	108	0.75	-0.7															3,4
U-9	29		11.2	110																	4
U-10	1 - 5	SM					100	98	80	46	30	NV	NP								
U-10	4		6.7	122	0.5	-0.3															3,4
U-10	9		10.7	120																	4
U-10	19		12.4	113																	4
U-11	2		6.9	120																	4
U-11	7		7.4	111	0.75	-1.1	100	98	82	58	38	24	10								3,4
U-11	19		10.9	118																	4
U-11	39		11.1	100																	4

Notes:
Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
* = Partially disturbed sample
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Remarks:
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3 Water added to sample
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6 Moisture-Density Relationship Test Method ASTM D698/AASHTO T99
7 Moisture-Density Relationship Test Method ASTM D1557/AASHTO T180

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Supporting Information

Contents:

General Notes
Unified Soil Classification System
Description of Rock Properties

Note: All attachments are one page unless noted above.

Terracon
4172 Center Park Dr
Colorado Springs, CO

General Notes

Sampling	Water Level	Field Tests
Auger Cuttings Modified California Ring Sampler Standard Penetration Test	Water Initially Encountered Water Level After a Specified Period of Time Water Level After a Specified Period of Time Cave In Encountered Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	N Standard Penetration Test Resistance (Blows/Ft.) (HP) Hand Penetrometer (T) Torvane (DCP) Dynamic Cone Penetrometer UC Unconfined Compressive Strength (PID) Photo-Ionization Detector (OVA) Organic Vapor Analyzer

Descriptive Soil Classification

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

Location And Elevation Notes

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

Strength Terms

Relative Density of Coarse-Grained Soils (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance			Consistency of Fine-Grained Soils (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
Relative Density	**Standard Penetration or N-Value (Blows/Ft.)**	**Ring Sampler (Blows/Ft.)**	**Consistency**	**Unconfined Compressive Strength Qu (psf)**	**Standard Penetration or N-Value (Blows/Ft.)**	**Ring Sampler (Blows/Ft.)**
Very Loose	0 - 3	0 - 5	Very Soft	less than 500	0 - 1	< 3
Loose	4 - 9	6 - 14	Soft	500 to 1,000	2 - 4	3 - 5
Medium Dense	10 - 29	15 - 46	Medium Stiff	1,000 to 2,000	4 - 8	6 - 10
Dense	30 - 50	47 - 79	Stiff	2,000 to 4,000	8 - 15	11 - 18
Very Dense	> 50	≥ 80	Very Stiff	4,000 to 8,000	15 - 30	19 - 36
			Hard	> 8,000	> 30	> 37

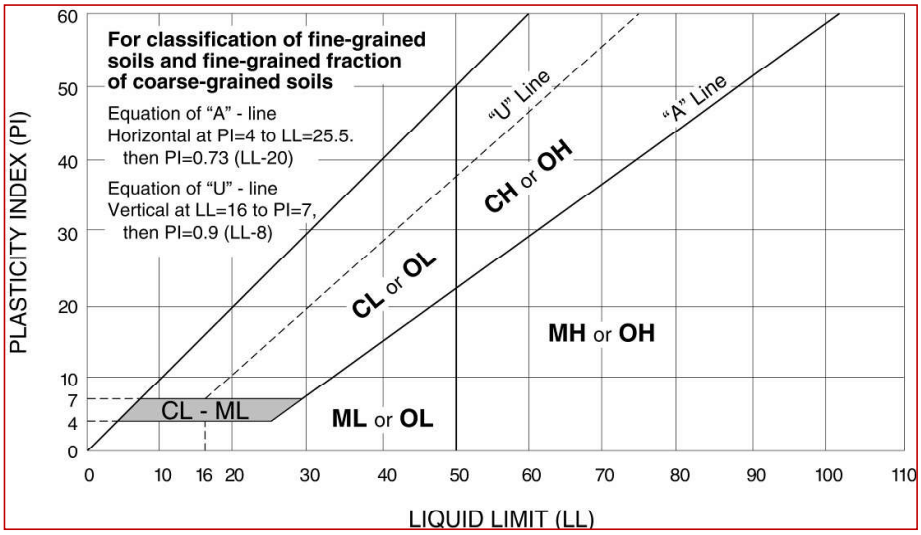
Relevance of Exploration and Laboratory Test Results

Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

Unified Soil Classification System

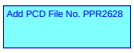
Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]				Soil Classification	
				Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 4 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	Cu≥4 and 1≤Cc≤3 [E]	GW	Well-graded gravel [F]
			Cu<4 and/or [Cc<1 or Cc>3.0] [E]	GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH	GM	Silty gravel [F, G, H]
			Fines classify as CL or CH	GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	Cu≥6 and 1≤Cc≤3 [E]	SW	Well-graded sand [I]
			Cu<6 and/or [Cc<1 or Cc>3.0] [E]	SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH	SM	Silty sand [G, H, I]
			Fines classify as CL or CH	SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots above "A" line [J]	CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]	ML	Silt [K, L, M]
		Organic:	$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OL	Organic clay [K, L, M, N]
					Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line	CH	Fat clay [K, L, M]
			PI plots below "A" line	MH	Elastic silt [K, L, M]
		Organic:	$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OH	Organic clay [K, L, M, P]
					Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.
[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.
[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
[F] If soil contains ≥ 15% sand, add "with sand" to group name.
[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
[H] If fines are organic, add "with organic fines" to group name.
[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.
[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
[N] PI ≥ 4 and plots on or above "A" line.
[O] PI < 4 or plots below "A" line.
[P] PI plots on or above "A" line.
[Q] PI plots below "A" line.



V1_Geotechnical Report.pdf Markup Summary

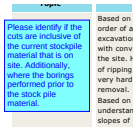
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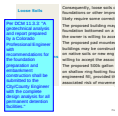
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7 (2)



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Please identify if the cuts are inclusive of the current stockpile material that is on site. Additionally, where the borings performed prior to the stock pile material.



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Per DCM 11.3.3: "A geotechnical analysis and report prepared by a Colorado Professional Engineer with recommendations for the foundation preparation and embankment construction shall be submitted to the City/County Engineer with the complete design analysis for all permanent detention facilities."

8 (1)

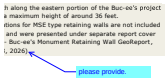


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-Identify any geological hazards or constraints on the site. Refer to ECM Appendix C for guidelines.

-Please provide discussion on the stockpile material that is currently on-site and its suitability for the site especially any use of it on the detention ponds.

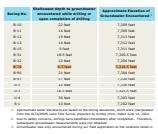
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17 (2)



Subject: SW - Highlight
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B-76 8.5 feet 7,316.5 feet



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B-76 appears to be located in the vicinity of Pond 2. Pond 2 has a bottom elevation of 7314 feet and as a result may require a clay liner or other mitigation to prevent groundwater from impacting the pond.