



**GEOTECHNICAL EXPLORATION REPORT  
THREE KIDS MINE SITE MIXED-USE DEVELOPMENT  
SEC LAKE MEAD PARKWAY AND LAKE LAS VEGAS PARKWAY  
HENDERSON, NEVADA**

**PROJECT NO.: 22004  
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## **1.0 INTRODUCTION**

This report presents the results of our geotechnical exploration for the proposed mixed-use development to be located at the Three Kids Mine Site. The site is located at the southeast corner of Lake Mead Parkway and Lake Las Vegas Parkway in Henderson, Nevada. The general location of the site is shown on Figure No. 1, Vicinity Map.

The purpose of our services was to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- General geology of the area
- Foundation design and construction
- Retaining wall design and construction
- Floor slab design and construction
- Pavement design and construction
- Earthwork

This report is for the purpose of providing geotechnical engineering and/or testing information and requirements. The scope of our services for this project did not include any environmental assessment or investigation for the presence or absence of hazardous or toxic material in structures, soil, surface water, groundwater or air, below or around this site.

## **2.0 PROJECT INFORMATION**

The site consists of approximately 519 acres and will be used for mixed-use development. The proposed development is anticipated to include residential, commercial, schools, and parks. It is assumed that structures will be one and/or two stories in height, of wood-frame construction with concrete slab-on-grade lower floors. Structural loads for the proposed buildings were not provided. We have assumed maximum dead- plus live-loads for columns and wall loading at approximately 68 kips and 2 kips per lineal foot, respectively. There will be on-site paved areas. Final grades will require significant cuts and fills to attain (in excess of 200 to 300 feet). It is our understanding that the on-site mining tailings will be placed at the bottom of the central excavation/pit. The City of Henderson will require that final street sections be verified based on R-value tests taken at subgrade during construction.



### **3.0 SITE EXPLORATION**

The scope of our services for this project included a subsurface exploration program. The subsurface exploration program consisted of drilling eighty-one (81) borings and excavating twenty-seven (27) test pits. The depths of the explorations ranging from approximately 2 to 110 feet below existing site grades. The explorations were logged during drilling by graduate geologists and samples were obtained to aid in material classification and for possible laboratory testing. The approximate locations of the explorations are shown on Figure No. 2, Site Map. The locations of the borings were determined in the field using a handheld GPS device. The locations of the explorations should be accurate only to the degree implied by the method used. Results of the explorations are presented in the Appendix.

### **4.0 SITE CONDITIONS**

#### **4.1 Surface**

The site is currently vacant with the exception of a boat and RV storage area within the northeastern portion of the site. A large portion of the site consists of a former open-pit mine. Excavations/pits from mine operations are still present at the site, the deepest of which range from approximately 180 to 300 feet in depth (based on topographic data provided to us). Mine tailings and waste rock from mining operations cover much of the site. Some abandoned structures from mining operations remain at the site, including concrete pits and walls. The remainder of the site, particularly its southwestern portion, consists of undeveloped land with varying topographic relief. The site is bound by Lake Mead Parkway to the north and by undeveloped land on all other sides. Site drainage is generally by sheet flow toward the north and west.

#### **4.2 Subsurface**

Fill was encountered in all but 3 of the explorations (borings SS-333-18, SS-333-20, and SS-333-32). The fill generally consisted of approximately ½-foot to over 80 feet of various waste rock, mining tailings, gypsum, silty sand, clayey sand, poorly graded sand, silty gravel, silt, and clay. However, due to previous mining operations at the site there could be deeper and/or poorer quality fill in other areas of the site beyond our explorations.

Natural soils at the site generally consisted of loose to very dense silty gravel, silty sand, clayey sand, poorly graded sand, and gypsum, in addition to soft to very stiff clay and silt. Moderately hard to very hard claystone, gypsiferous claystone, siltstone, and sandstone bedrock were encountered in 68 of the explorations. Bedrock was first encountered at depths ranging from ½-foot to 90 feet below existing site grades. The following table summarizes the depths to bedrock where it was encountered in the explorations:

BORING №	DEPTH TO BEDROCK (feet below existing grade)	BORING №	DEPTH TO BEDROCK (feet below existing grade)
B-1	45	SS-333-02	10
B-2	40	SS-333-03	14
B-3	20.5	SS-333-07	10
B-5	15	SS-333-09	12.5
B-7	65	SS-333-11	2
B-8	34	SS-333-14	17.5
B-9	15	SS-333-17	10
B-10	25	SS-333-18	19
B-12	29	SS-333-20	5
B-13	36	SS-333-25	90
B-14	35.5	SS-333-28	5
B-15	27	SS-333-32	25
B-17	24	SS-334-07	3
B-19	48	SS-334-10	42.5
B-21	10	SS-334-10B	17
B-24	5.5	SS-334-15B	25.5
MM-311-16	46	SS-336-12	14
MM-311-18	59	SS-336-15	19
MM-311-19	62	SS-336-29	10
MM-311-21	35	TA-212-03	62
MM-311-25	16	TA-212-04	40
MM-311-27	27	TP-1	5
MM-321-02	21	TP-2	9.5
MM-321-03	31	TP-3	2.5
MM-321-06	15	TP-5	7.5
MM-321-08	17	TP-7	4
MM-321-10	9	TP-8	9
SS-331-02	4	TP-11	7
SS-331-09	31	TP-12	7
SS-331-11	3	TP-14	0.5
SS-332-03	8	TP-15	5.5
SS-332-07	21	TP-16	8.5
SS-332-09	9	TP-18	6.5
SS-333-01	17.5	TP-19	8.5

Laboratory test results indicate that the on-site materials have a low to critical expansion potential. Groundwater was not encountered within the depths explored. The boring logs, test pit logs, and laboratory test results presented in the Appendix should be referred to for more detailed information.

## 5.0 GEOLOGIC INFORMATION

The site is located southeast of the Las Vegas Valley at the edge of the River Mountains. This location places the site in an area underlain by coarse alluvial deposits and sedimentary bedrock.

The following geologic units have been mapped at the site<sup>1</sup>:

Tmcf: Fine-grained, dominantly gypsiferous siltstone and claystone. Locally manganese-rich.

Tsm: Manganiferous sedimentary rocks of the 3 Kids Mine. Gray to black manganese-rich tuff, tuffaceous sandstone and siltstone. Underlies Tmcf.

The nearest mapped fissure zone is approximately 7 miles southwest of the site.<sup>2</sup> The cumulative evidence indicates that fissures are the result of a subsurface erosional process. The erosional process occurs in tensional fractures at or near the surface in uncemented, relatively fine-grained soils. The nearest mapped fault is approximately ¾-mile southwest of the site.<sup>3</sup>

Liquefaction is defined as the condition when saturated, loose, finer-grained sand-type soils lose their support capabilities because of excessive pore water pressure which develops during a seismic event. Due to the presence of relatively shallow bedrock and the anticipated depth of groundwater, which is expected to be over 100 feet based on the nearest well log (NDWR Log No. 82441), the potential for liquefaction during a design seismic event should be considered low.

## 6.0 RECOMMENDATIONS

### 6.1 General

Our recommendations are based on the assumption that the subsurface conditions are similar to those disclosed by the explorations. If variations are noted during construction or if changes are made in site plan, structural loading, foundation type or floor level, we should be notified so we can supplement our recommendations, as applicable.

The owner must recognize that this site has inherent risks to development due to the expansive nature of the on-site materials. As previously indicated, the on-site materials ranged from having a low to critical expansion potential. Critically expansive materials have the potential to undergo relatively large movements due to increases in moisture content. Materials with critical expansion potentials (greater than 12%) are allowed in fills if they are placed deeper than 5 feet below the bottoms of foundations.

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<sup>1</sup> Bell, John W. and Smith, Eugene I., Geologic Map of the Henderson Quadrangle, Nevada, Nevada Bureau of Mines and Geology, Map 67, 1980

<sup>2</sup> Bell, John W., et. al., 2001, "Las Vegas Valley, 1998 Subsidence Report", Nevada Bureau of Mines and Geology, Open-File Report 01-4, Plate No. 1.

<sup>3</sup> Clark County Geographic Information System Management Office (GISMO), 2016

The on-site gypsum should be considered highly soluble. Gypsum and gypsiferous materials should be overexcavated if they occur within 3 feet below the bottoms of foundations. Gypsum and gypsiferous materials may be used in fills deeper than 3 feet below the bottoms of foundations if they are blended with other non-soluble material at a 1 to 1 ratio.

As indicated, there was fill on-site. All of the on-site fill should be considered uncontrolled fill. All uncontrolled fill should be removed and replaced with properly compacted fill. The uncontrolled fill materials can be re-used for controlled fill if the criteria in the Fill Materials section of this report are met.

Chemical test results indicated some of the soils at the site contain chloride concentrations in excess of 500 mg/kg. When post-tensioned foundations are recommended at the site, additional precaution for corrosion protection will be required as per the Post-Tensioning Institute (PTI), Design and Construction of Post-Tensioned Slabs-On-Ground (3<sup>rd</sup> Edition).

## **6.2 Foundations**

The foundation recommendations presented herein are preliminary. As the development is subdivided, further geotechnical explorations will be required for each subdivision. Lot-by-lot expansion testing will also be necessary for lot-specific foundation recommendations.

If the grading recommendations presented in the Earthwork section of this report are complied with, the proposed structures may be supported by conventional or post-tensioned type foundations. Any proposed retaining walls or block walls may be established on conventional footings. Foundations should be established on properly compacted fill.

Conventional foundations or the thickened edge of post-tensioned foundations should be at least 12 inches wide and the bottom of the foundations should be established at least 18 inches below the lowest adjacent final compacted subgrade (exterior footings) or the top of the finished floor slab (interior footings). Foundations, established as recommended, may be designed to impose a net dead- plus live-load pressure of 2,000 pounds per square foot (psf). The bearing value may be increased by 1,000 psf for each additional 12 inches of embedment, or portion thereof. However, the maximum net bearing value should not exceed 4,000 psf. A one-third increase may be used for wind or seismic loads.

Post-tensioned foundations should be designed for a differential deflection ( $\Delta$ ) of 1  $\frac{3}{4}$  inches between the center and exterior portions of the floor slab (edge lift and center lift) using the Post-Tensioning Institute (PTI), Design and Construction of Post-Tensioned Slabs-On-Ground (3<sup>rd</sup> Edition) method and Table 1808.6.2 of the Southern Nevada Amendments to the 2018 International Building Code. It should be understood that the PTI post-tensioned design methodology reflected in the Southern Nevada Building Code is in part based on the assumption that soil-moisture changes around and beneath the post-tensioned slabs are influenced only by climatological conditions. Soil-moisture change below foundations and floor slabs is the major factor in damages

relating to expansive soil. The PTI design methodology has no consideration for presaturation, homeowner irrigation, or other nonclimate-related influences on the moisture content of subgrade soils. Therefore, it is important the recommendations presented in the Drainage and Moisture Protection Section of this report be strictly adhered to.

Settlement of the proposed structures, supported as recommended, should be within acceptable limits (less than 1 inch). Differential settlement should be less than ½-inch. However, it should be understood that if expansive soils beneath foundations experience an increase in moisture, expansion/heave could occur and cause additional movement of a structure. Therefore, it is important that recommendations presented in the Drainage and Moisture Protection section of this report be adhered to.

### 6.3 Site Class

Based on the information presented on the City of Henderson Site Class Map, a Site Class C may be used at this site for seismic design.

The site is located at approximately the following latitude and longitude:

LATITUDE	LONGITUDE
36.0800°	- 114.9200°

A search of the USGS Earthquake Hazards Program's ASCE 7-16 data, as published by the Applied Technology Council ([hazards.atcouncil.org](http://hazards.atcouncil.org)), indicated the following spectral acceleration parameters for the location indicated above and a Site Class C:

MAPPED ACCELERATION PARAMETERS	
S <sub>s</sub>	0.482 g
S <sub>1</sub>	0.162 g
DESIGN ACCELERATION PARAMETERS	
S <sub>DS</sub>	0.418 g
S <sub>D1</sub>	0.162 g

### 6.4 Lateral Earth Pressures and Retaining Walls

For soils above any free water surface, with level backfill and no surcharge loads, we recommend the following equivalent fluid pressures and coefficient of friction:

- Active ..... 35 pcf
- At-Rest ..... 55 pcf
- Passive ..... 250 pcf
- Coefficient of Friction ..... 0.40
- Unit Weight of Backfill (Native Soils) ..... 135 pcf

Notes:

1. Active pressure assumes unrestrained (cantilever) wall and assumes no loading from heavy compaction equipment.
2. Passive pressure should not exceed a maximum of 3,000 psf. A one-third increase may be used for wind or seismic loads.
3. The passive pressure and the frictional resistance of the soils may be combined without reduction in determining the total lateral resistance.

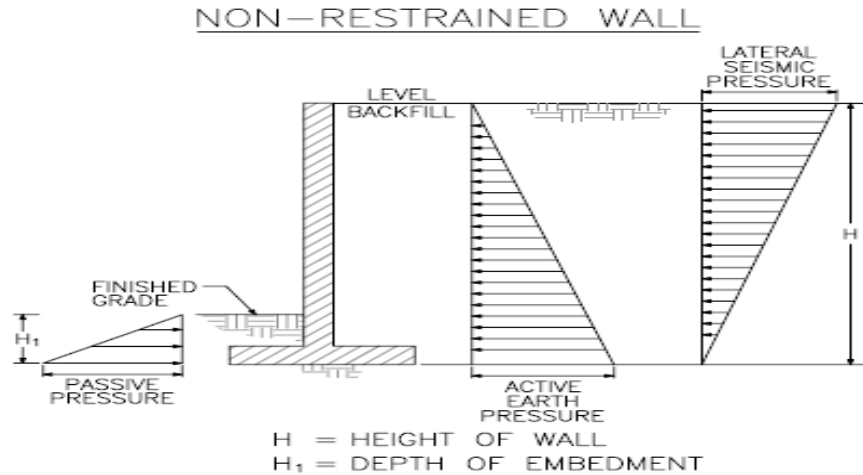
If required by the 2018 IBC, the lateral seismic pressure acting on an unrestrained wall can be estimated by the method presented in Section 1610.1.1 of the Southern Nevada Amendments to the 2018 IBC, where the dynamic (seismic) lateral thrust,  $\Delta P_{AE}$ , per linear foot of wall may be determined as follows:

$$\Delta P_{AE} = \frac{3}{8}(k_h)H^2\gamma$$

- $k_h$  is equal to  $S_{DS}/2.5$
- $H$  is the height of the wall in feet
- $\gamma$  is equal to the unit weight of the backfill material, in pcf

The resultant dynamic force acts at a distance of  $0.6H$  above the base of the wall. This equation applies to level backfill and walls that retain no more than 15 feet.

Where the design includes unrestrained walls, above any free water, with level backfill and no surcharge loads, we recommend the wall be designed to resist an earth pressure with the distribution shown below:



Any surcharge from adjacent loadings should be added to the retaining wall pressures using a factor of 0.30 for non-restrained walls and 0.5 for restrained walls. As indicated, the aforementioned pressures assume that there will be no build-up of hydrostatic pressure. Therefore, if walls will be subject to saturated conditions, we recommend weep holes (if practical) and a wall drainage system. The wall drainage may consist of a minimum of 2 cubic feet of drain rock per foot of length of retaining wall wrapped in filter fabric, Mirafi 140N or equivalent, placed at the base of the wall and discharge to an appropriate outlet. Drain rock should consist of clean, uniformly sized gravel,  $\frac{3}{4}$ -inch in nominal size. The structural fill immediately behind retaining walls (6 to 12 inches) should be granular and free draining. The upper 2 feet of backfill should consist of compacted native soils. As an option, a prefabricated drain may be used behind walls. The wall drainage system is an integral part of the retaining wall design. The retaining wall designer is ultimately responsible for the retaining wall design and shall ensure that the above recommended drainage system is compatible with the design of the wall or select a different drainage system at their discretion. All walls below grade should be waterproofed or at least dampproofed.

Fill against foundations, grade beams and retaining walls should be properly placed and compacted. Backfill should be mechanically compacted in layers (12 inches maximum thickness); flooding should not be permitted. Backfill within a lateral distance equal to the height of retaining walls should be compacted to at least 90 percent of the maximum dry density obtainable by the ASTM D1557 method. Backfill outside this zone should be compacted as outlined in the Fill Placement and Compaction section of this report. Care should be taken when placing backfill so as not to damage the walls. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors. Over-compaction may cause excessive lateral earth pressures which could result in wall movements. Retaining walls should not be backfilled until the concrete or masonry has reached an adequate strength as specified by the wall designer.

## **6.5 Permanent Slopes**

### **6.5.1 Soil Slopes**

Earthwork activities to construct permanent soil slopes at the site should be done in accordance with the following:

- Cut and/or fill slopes should be constructed no steeper than 2 horizontal to 1 vertical.
- If any slope exceeds 30 feet in height, the slope design should include mid-height benches to intercept surface drainage and divert flow from the slope face.
- The surfaces of soil slopes should be compacted (not necessary where rock is exposed) to the minimum specifications recommended in the Earthwork section of this report and until the slopes are stable and there are no loose soils on the slopes. Alternatively, fill slopes could be constructed by over-filling and cutting back to expose fully compacted soil.
- The ground surface adjacent to the top of slopes should be graded to drain away from the slopes. Any required erosion control measures should be provided for all slopes as soon as possible after grading.

### **6.5.2 Rock Slopes**

Rock cut slopes should be constructed no steeper than 0.5 horizontal to 1 vertical and should be evaluated by the geotechnical engineer on a case-by-case basis as grading progresses. Any existing rock slopes shall be evaluated at a later date.

Any excavated rock cut slope faces should be scaled to remove loose material from the face. It is our recommendation that a qualified slope contractor be contacted to provide permanent slope stabilization recommendations and plans.

For development of structures adjacent to rock slopes, the area immediately adjacent to the slopes and 10 feet beyond should be inspected by the geotechnical engineer of record during slope excavation. Scaling and/or stabilization of slopes may be required prior to construction of developments.

The ground surface adjacent to the top of bedrock slopes should be graded to drain away from the slopes. Any required erosion control measures should be provided for all slopes as soon as possible after grading.



## **6.6 Earthwork**

### **6.6.1 General**

- All earthwork should be performed in accordance with the guidelines presented in Chapter 18 of the 2018 IBC and the Southern Nevada Amendments to the 2018 IBC, except where specific recommendations are presented in this report. It is recommended that contractors perform their own reconnaissance of the site. If the contractors have any questions regarding site conditions, site preparation or recommendations in this report, they should contact a representative of Centurion Consultants.

### **6.6.2 Site Clearing**

- Strip and remove existing vegetation, debris, uncontrolled fill, disturbed natural soils, and other deleterious materials from proposed building areas, adjacent walks, slabs, and areas to be paved. Excavations should extend at least 5 feet beyond the areas to be improved in plan view. Uncontrolled fill is defined as any existing fill that was not properly placed, observed, and tested.
- All exposed surfaces should be free of mounds and depressions which could prevent uniform compaction.
- If unexpected fills or abandoned structures/improvements are encountered during site clearing, such features should be removed and the excavation thoroughly cleaned and backfilled. All excavations should be observed by the geotechnical engineer prior to backfill placement.
- Demolition of existing structures/improvements should include removal of any foundation system and utilities. Any excavations as a result of demolition and removal should be properly filled.

### **6.6.3 Excavation**

- It is anticipated that excavation of the on-site natural soil deposits for the proposed project can be accomplished with conventional earthmoving equipment.
- Excavations penetrating moderately hard bedrock should be able to be excavated using heavy-duty equipment. Excavations penetrating hard or very hard bedrock will require special consideration where they are to be performed.
- Contractors should satisfy themselves as to the hardness of materials and equipment required.
- Temporary unsurcharged construction excavations should be sloped or shored. Temporary slopes should not be steeper than 1 horizontal to 1 vertical. Slopes may need to be flattened

depending on conditions exposed during construction. Exposed slopes should be kept moist (but not saturated) during construction. If there is not enough space for sloped excavations, shoring should be used. Traffic and surcharge loads should be kept back at least 10 feet from the top of the excavation.

- Excavation, trenching and shoring should be conducted in accordance with the U.S. Department of Labor Occupational Safety and Health Administration's (OSHA) Excavation and Trenching Standard, Title 29 of the Code of Federal Regulation (CFR), Part 1926.650. Safety of construction personnel is the responsibility of the contractor.

#### **6.6.4 Overexcavation**

- As indicated, the on-site gypsum should be considered highly soluble. Gypsum and gypsiferous materials should be overexcavated if they occur within 3 feet below the bottoms of foundations. Gypsum and gypsiferous materials may be used in fills deeper than 3 feet below the bottoms of foundations if they are blended with other non-soluble material at a 1 to 1 ratio.
- Some of the on-site materials, particularly the native claystone, are critically expansive. Materials with critical expansion potentials (greater than 12%) are allowed in fills if they are placed deeper than 5 feet below the bottoms of foundations.
- If blasting is performed, we recommend a minimum of 7 feet (assumes a blast depth of 10 ft.) of blasted material be excavated, and as necessary, to ensure that there is at least 3 feet of compacted fill below foundations. The overexcavation may be terminated before the aforementioned depth if competent undisturbed natural materials are encountered. In areas where all blasted material is not removed, we recommend that the remaining blasted material be heavily watered and compacted using at least a 10-ton steel vibratory roller.
- Building pads with fill differentials (below foundations) that exceed 3 feet should be avoided. Therefore, building pads with this condition should be overexcavated so that the fill differential beneath foundations does not exceed 3 feet.

#### **6.6.5 Fill Materials**

- During grading, it is anticipated that material excavated on the site and placed in mass-graded fills will likely fall into one of two categories: (1) soil fill or (2) soil-rock fill. These fill categories are differentiated by the size of the fill material.
- Soil fills are fills where the majority of the material (85 to 90 percent) is 6 inches or less in the maximum dimension, a maximum size of 12 inches in the maximum dimension, and comprised of at least 40 percent by weight (of the minus 6-inch material) of material finer than 3/4-inch in size.

- On-site soils meeting the following criteria, as determined by visual observation by the 3<sup>rd</sup> party inspector, may be used in required soil fills:
  - the majority of the material (85 to 90 percent) is 6 inches or less in maximum dimension.
  - the minus 6-inch material is comprised of at least 40 percent by weight of material finer than 3/4-inch in size.
  - the material is free of almost all debris and organic matter.
- Soil-rock fill should contain a sufficient matrix of soil to allow for compaction of soil around oversized material and to ensure that there are no nesting or voids present.
- In general, material greater than 12 inches in diameter should not be used in fills within 5 feet below the bottom of the footing within building pad areas.
- Fill containing material greater than 6 inches in diameter should not be used in any utility trenches, behind retaining walls or against foundations or grade beams.
- The fine-grained tailings from the settling ponds may be placed in the bottom of the central excavation/pit if they are blended with coarse-grained materials (i.e., waste rock) at a 1 to 1 ratio. This ratio may need to be reevaluated based on conditions encountered in the field.
- Imported material should be compatible with on-site soils in addition to being suitable for its intended use. All imported materials should be approved by the geotechnical firm providing testing during construction prior to importing. In general, imported soils should have an expansion potential of less than 12.0%, a maximum solubility of 1.0%, a sulfate content of less than 0.50%, and a sodium sulfate content of less than 0.20%. Imported soils with expansion potentials greater than 12% are allowed in fills if they are placed deeper than 5 feet below the bottoms of foundations. If post-tensioned slabs are used, then imported soils should also have a chloride content of less than 500 mg/Kg.
- Select free draining granular materials should be used as backfill immediately behind retaining walls (6 to 12 inches). As an option, a prefabricated drain may be used and should be installed in accordance with the manufacturer's recommendations.

#### **6.6.6 Fill Placement and Compaction**

- After performing required excavations, the exposed soils should be carefully observed to verify removal of all unsuitable deposits. Exposed soils should then be scarified to a depth of 6 inches (not necessary if rock exposed), watered as necessary, and compacted as recommended.
- Fill materials should be placed on a horizontal plane unless otherwise accepted by the geotechnical engineer.

- Where the slope ratio of the original ground is steeper than 5 horizontal to 1 vertical, the slope should be benched to create near-level areas for the placement of fill. The maximum allowable height of the bench is 3 feet. Bench excavation should be continued to the top of the existing slope in structural fill areas or the daylight (cut/fill) contact.
- All required fill should be placed in loose lifts. The lift thickness will depend on the size of the material used.
- Soil fills should be compacted to the following:

MATERIAL	PERCENT COMPACTION (ASTM D1557)	MOISTURE CONTENT
Fine – grained	90 minimum	optimum (minimum)
Granular	95 minimum	-2 percent of optimum (minimum)

Note: For the purpose of compaction, fine-grained soils are soils with at least 30 percent passing the No. 200 sieve and/or soils having an expansion greater than 4 percent.

All fill placed deeper than 5 feet below final grade should be compacted to a minimum of 95 percent at a moisture content of optimum or greater.

Street/pavement subgrade and retaining wall backfill only need to be compacted to a minimum of 90 percent.

Materials with an expansion potential greater than 12% must be placed deeper than 5 feet below the bottoms of footings.

- Clayey soils should not be allowed to dry out such that cracking occurs during or after grading. Sufficient moisture contents should be maintained, to prevent cracking, at least until foundations, floor slabs, flatwork and pavements are constructed. Any significantly dried or cracked soils could be wetted until they reach acceptable moisture contents or they could be excavated and replaced with acceptable properly compacted fill.
- Structural fill should be observed and tested as necessary to determine compliance with the compaction requirements presented in this report. In general, one compaction test should be performed for approximately every 2,000 cubic yards of soil fill, one for one foot of soil fill placed, or change in material.
- The layer thickness of soil-rock fill shall not exceed one and one-third times the vertical dimension of the maximum size material.

- Heavy rollers, vibrators, or other heavy compaction equipment shall compact each soil-rock fill layer full width with a minimum of three complete passes for each layer. Compaction should be done in a longitudinal direction along the fill layer.
- Concrete demolition debris may be utilized in fills if there is no rebar protruding from individual pieces of concrete. Concrete particles shall be treated as rock and may be used in soil fill or soil-rock fill depending on the size of the particles. Particles up to 5 feet in vertical dimension may be used at depths of greater than 10 feet below finished pad grade, particles up to 2 feet in vertical dimension may be used at depths of greater than 5 feet below footings. No concrete debris shall be used at depths above 5 feet below footings.
- Subsequent layers of fill should not be placed until the previous layer of fill is compacted to the degree that no further appreciable deflection is evidenced under the action of the compaction equipment.
- Soil-rock fill should be heavily watered.
- All soil-rock fill placements should be continuously observed during placement by representatives of Centurion. All soil-rock fill that is placed should be treated as structural fill. No assumptions should be made as to where structures will be located laterally.
- Soil-rock fill is not allowed within 5 feet below foundation bottoms for any structure.

## **6.7 Restoring Mine Pits**

The three deep mine pits will require special grading procedures to restore. We understand that the current plan is to place alternating lifts of tailing and waste rock. Depending on the moisture content of the tailings it may be difficult to compact the tailings layers. We recommend that the contractor be prepared to blend the tailings and waste rock if compaction difficulties occur. An initial blending ratio of one-part tailings to one-part waste rock may be used. However, this ratio may be adjusted in either direction, based on the performance of the blended material once construction begins. The pit filling operations should be monitored on a continuous basis by a third-party inspector with a G-B designation by the Clark County Building Department.

Based on the relatively fine-grained nature of the tailings material and the depths of fill being approximately 300 feet, we anticipate total settlement of the fill to be on the order of several feet. Most of the settlement will occur during construction as the weight of fill is progressively increased. Post construction settlement of one half to one foot are anticipated. As such, we recommend that settlement markers be installed and monitored on at least a weekly basis by surveying the elevation of the markers. We recommend one settlement marker for every acre of surface area above the pits. We recommend that the markers be protected from being disturbed by continued construction activities. We estimate that it may take up to 6 months for the settlement to drop to a slow enough rate for construction to continue. Based on the possibility for long-term creep

settlement of the tailing fill, we recommend that the areas above the pits be reserved for parks or similar appurtenances that will not be damaged by expected long term movement.

## 6.8 Pavement

The pavement area subgrade should be properly prepared as outlined in the Earthwork section of this report before placing any asphalt or base materials. Proper drainage of the paved areas should be provided to increase the pavement life. In addition, pavements must be maintained for durability and integrity during their life. Therefore, periodic seal coating, crack sealing, and/or patching may be required.

Based on the soil classifications and assumed traffic volumes, the following minimum preliminary pavement sections are recommended for on-site paved areas:

TRAFFIC AREA	ASPHALT (Inches)	TYPE II BASE COURSE (Inches)
Automobile Parking	2.0	7.0
Main Corridors and Truck Access	3.0	10.0

Based on our experience, the on-site soils should have an R-value on the order of 30. Therefore, based on the Pavement Structure Design Guideline Chart (DWG. Nos. 200 and 200.1) in the Uniform Standard Drawings for Clark County Area, Nevada, the following preliminary pavement sections will be applicable:

ROADWAY TYPE	PAVEMENT SECTION (Inches)	
	ASPHALT CONCRETE	TYPE II BASE
Residential	2.5	6.5
Minor Collector	3.5	7.5
Major Collector	4.5	13.0
Arterial	5.5	17.5

As indicated, all pavement sections presented are preliminary. On-site pavement sections will be dependent upon the actual soil conditions encountered at subgrade after grading. In addition, the City of Henderson will require that final street sections be based on R-value tests performed at subgrade. Therefore, final pavement sections may vary depending on those R-value test results.

Asphalt and base course materials and compaction should meet the criteria set forth in the Uniform Standard Specifications for Public Works' Construction, Off-Site Improvements, Clark County Area, Nevada. Subgrade should be compacted to a minimum of 90 percent (ASTM D1557). Field and laboratory testing of asphalt and base materials should be performed to determine whether specified requirements have been met.

The performance of the pavement can be enhanced by minimizing excess moisture which can reach the subgrade soils. The following recommendations should be followed, where possible:

- Site grading at a minimum 2% grade away from the pavements.
- Compaction of any utility trenches for landscaped areas to the same criteria as the pavement subgrade.
- Landscaped areas should have cutoff walls/moisture barriers adjacent to pavement areas to minimize or prevent moisture migration to subgrade soils.
- Consideration should be given to using "desert" landscaping and/or minimizing watering to help prevent surface runoff.
- Placing compacted backfill against the exterior side of curb and gutter.

## **6.9 Drainage and Moisture Protection**

Foundation soils should generally not be allowed to become saturated during or after construction, except when necessary to increase moisture contents prior to construction. Infiltration of water into foundation or utility excavations should be prevented during construction. Utility lines should be properly installed and the backfill properly compacted to avoid possible sources for subsurface saturation.

Positive drainage away from the buildings should be provided during construction and maintained throughout the life of the buildings. Any downspouts, roof drains or scuppers should discharge into splash blocks or extensions and away from the buildings. Backfill against footings, exterior walls, and in utility trenches should be properly compacted and free of all construction debris to reduce the possibility of moisture infiltration.

As previously indicated the soils are expansive. Performance of the foundation system recommended in this report is dependent on the ability to keep moisture from penetrating the soils below foundations and slabs. Therefore, we recommend the following:

- Positive drainage should be maintained away from the buildings. Positive drainage of 5% minimum shall be maintained for areas adjacent to the buildings that are not covered by concrete or asphalt. Areas where concrete or asphalt abut the buildings should be sloped a minimum of 2% away from the buildings. Positive drainage of 1% minimum shall be maintained for areas adjacent to block walls. Positive drainage should be maintained for a distance of 10 feet. If physical obstructions or lot lines prohibit 10 feet of horizontal distance, the slope should be provided to an approved alternate method of drainage.

- No landscaping or sprinklers should be allowed within 5 feet of the buildings or block walls. If landscaping or sprinklers are placed within this area, they should be in sealed planters.
- Landscape watering should be kept to a minimum.

It should be understood that if the above recommendations are not followed there would be an increased risk/potential for increasing moisture below foundations and slabs which could result in additional movement and distress to structures and slabs.

## **6.10 Floor Slabs**

If grading recommendations are complied with, concrete floor slabs may be supported on a 4-inch layer of Type II. If the potential for a damp floor slab is a concern, moisture protection should be provided by a relatively impervious vapor barrier/retarder placed beneath interior slabs. The vapor barrier/retarder should be a Class A vapor barrier at least 10 mils in thickness, meeting the requirements of ASTM E1745, and should conform to and be placed in accordance with the requirements of the project structural engineer or architect. If the concrete is to be placed directly on Type II or sand, the Type II or sand should be moistened (but not saturated) prior to placement of concrete.

Recommendations presented by the American Concrete Institute (ACI 302) for slabs-on-grade should be complied with for all concrete placement and curing operations. Improper curing techniques and/or excessive slump (water-cement ratio) could cause excessive drying/shrinkage resulting in random cracking and/or slab curling. Concrete slabs should be allowed to cure adequately before placing vinyl or other moisture sensitive floor coverings.

## **6.11 Corrosivity**

Based on test results and Table 19.3.1.1 of ACI 318-14 Section 19.3, the on-site soils classify as having a **S2** sulfate exposure. Please refer to Table 19.3.2.1 for concrete requirements by exposure class.

Consideration should be given to providing protection to buried metal pipes or use of nonmetallic pipe where permitted by local building codes. Non-corrosive backfill, protective coatings and wrappings, sacrificial anodes, or a combination of these methods could be considered. It should be understood that Centurion personnel are not experts regarding corrosion and/or corrosion protection and that we recommend a "Corrosion Engineer" be consulted for actual recommendations regarding the necessity and/or method of cathodic protection.

## **7.0 OTHER SERVICES**

Centurion Consultants should be retained to provide a general review of final design plans and specifications in order that grading and foundation recommendations may be interpreted and implemented. In the event that any changes of the proposed project are planned, the conclusions



and recommendations contained in this report should be reviewed and the report modified or supplemented as necessary.

Centurion Consultants should also be retained to provide services during excavation, grading, foundation and construction phases of work. Observation of foundation excavations should be performed prior to placement of reinforcing and concrete to confirm that satisfactory bearing materials are present. Field and laboratory testing of concrete and soils should be performed to determine whether applicable requirements have been met. In addition, the level of special inspection required for soils should not be less than **4b** as specified in the Southern Nevada Amendments to the 2018 IBC, Table 1705.6.

The analyses and recommendations in this report are based in part upon data obtained from the field exploration. The nature and extent of variations beyond the locations of the explorations may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations of this report.

## 8.0 CLOSURE

Our professional services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers practicing in this or similar localities. No warranties, either expressed or implied, are intended or made. We prepared this report as an aid in design of the proposed project. This report is not a bidding document. Any contractor reviewing this report must draw his own conclusions regarding site conditions and specific construction techniques to be used on this project.

### Centurion Consultants

Prepared by:



Tyrell Farnes, P.E.  
Business Unit Manager

Reviewed by:



Brian Eller, P.E.  
Principal

## **APPENDIX**

### **Site Exploration**

The subsurface exploration program consisted of drilling eighty-one (81) borings and excavating twenty-seven (27) test pits. The depths of the explorations ranging from approximately 2 to 110 feet below existing site grades. Borings were drilled using sonic and hollow stem auger drill rigs.

Soils were logged during drilling by graduate geologists and engineers, and samples were obtained to aid in material classification and for possible laboratory testing. Exploration logs are presented on Plates 1 through 108. The number of blows required to drive a 2-inch diameter sampler (SPT) 12 inches using a 140-pound weight dropped 30 inches are shown on the logs. The soils are generally classified by the Unified Soil Classification System. Plate 109 presents an explanation of material classifications used in this report.

### **Laboratory Testing**

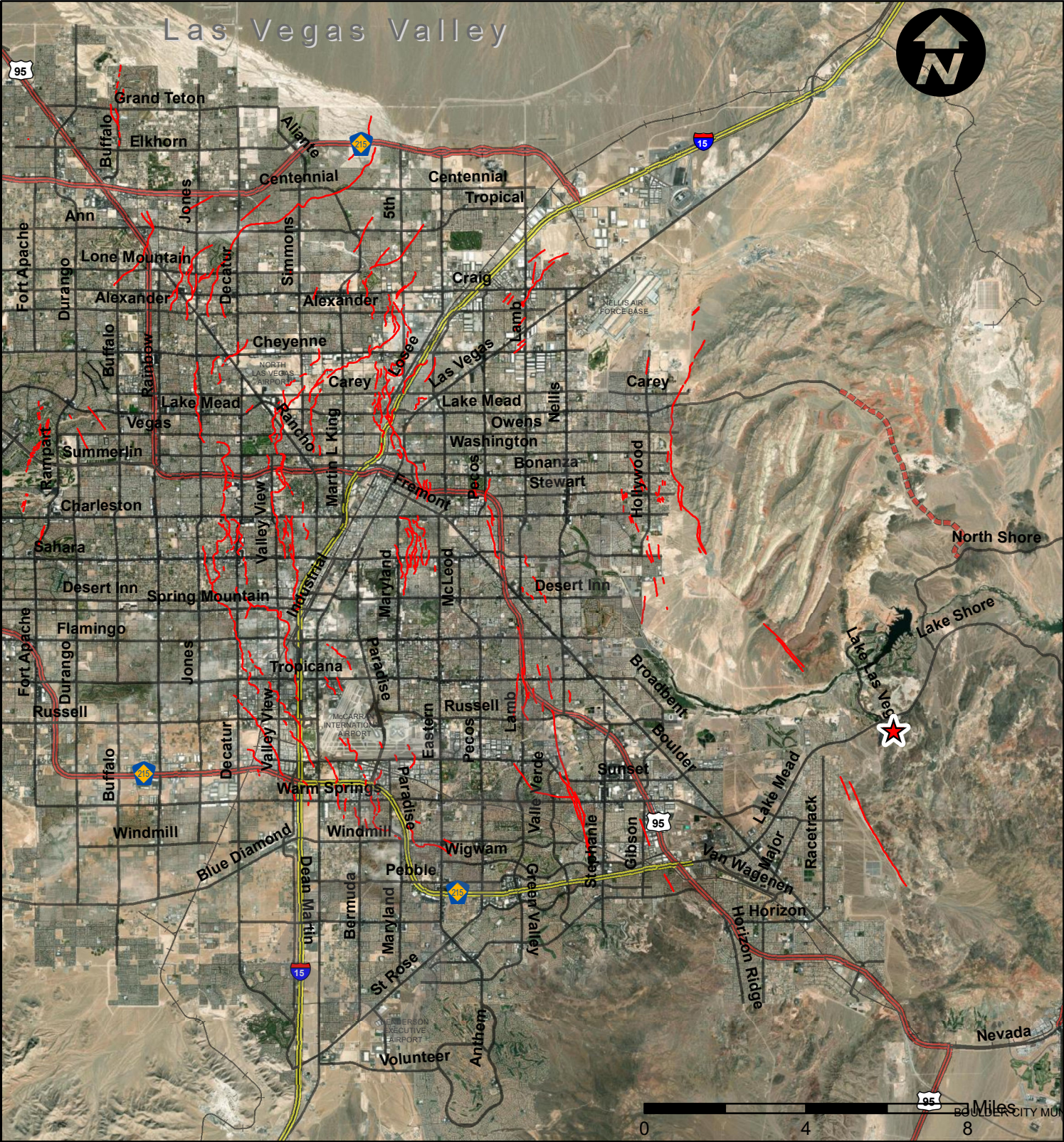
Laboratory testing was performed on selected samples of on-site soils. Tests were performed in general accordance with applicable ASTM or local standards.

Expansion tests were performed on remolded samples of the on-site materials. The tests were performed from oven-dried moisture content to near saturated condition with a 60 psf surcharge load. The test results are presented on Plate 110.

Sieve analyses and Atterberg Limits were performed to determine the grain-size distribution and soil classification of representative materials. The test results are presented on Plates 111a through 111ay.

Chemical tests were performed on representative samples by Silver State Analytical Laboratories. Tests were performed to determine the percent chloride, water soluble sodium, sulfate and sodium sulfate, as well as the soil solubility. Test results are presented on Plates 112a through 112ap.





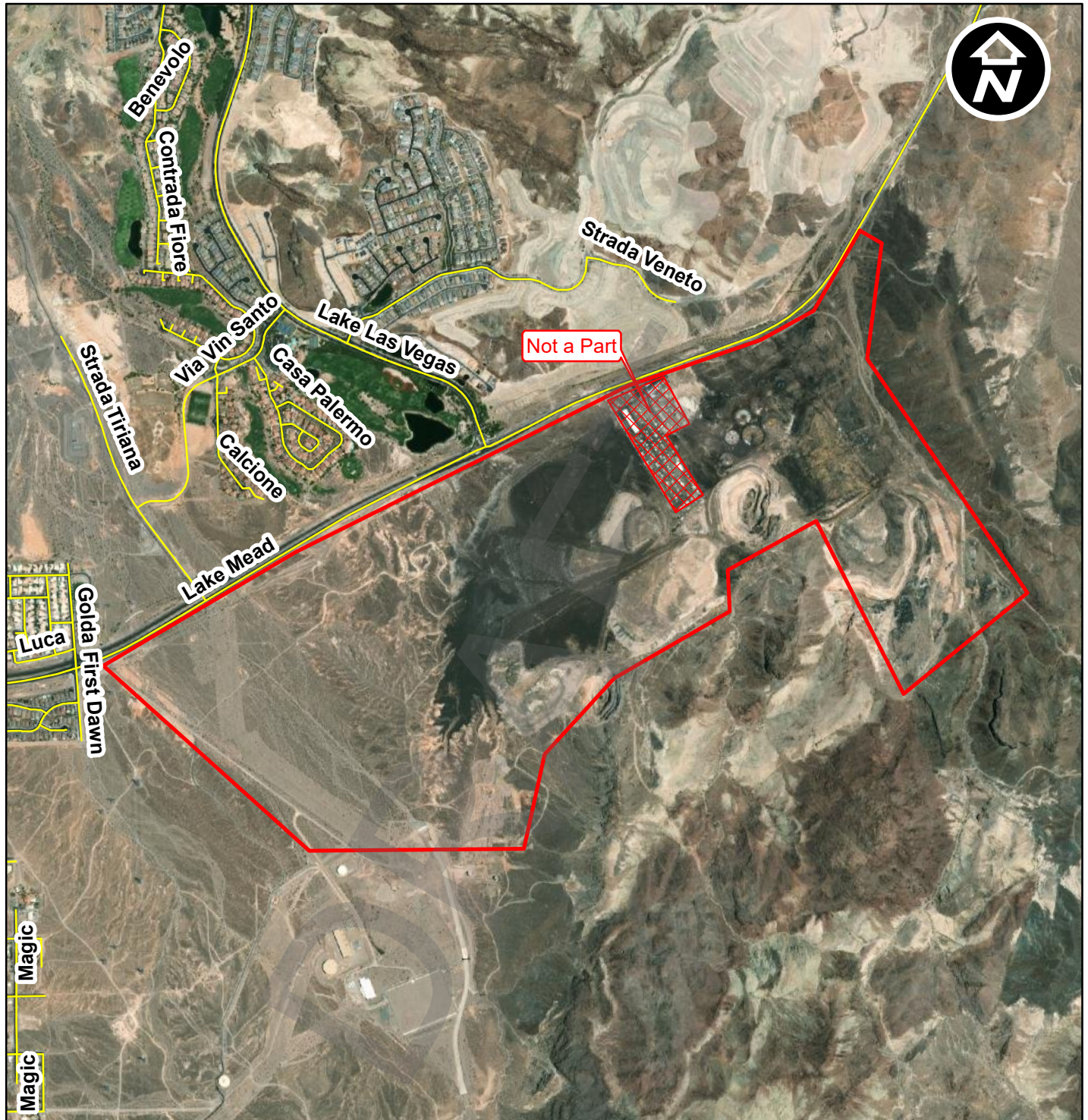
**Legend**

- ★ Approximate Project Site
- Las Vegas Faults (CCBD GISMO, 2016)

The presented layers were obtained from various sources including ESRI, USGS, USDA, CCBD GISMO, CCFCD, GIS User Community among others. The GIS information is presented for reference only. No warranties, either expressed or implied, are intended or made. If you have any questions regarding this information, please contact Centurion.

CENTURION CONSULTANTS	PROJECT: <b>Three Kids Mine Site Mixed-Use Development</b>	<b>VICINITY MAP</b>	
	CLIENT: <b>Pulte Homes</b>	PROJECT NO: 22004	FIGURE NO: 1





## Legend

Approximate Project Site Boundary

0 1,000 2,000 3,000 4,000 5,000 Feet

The presented layers were obtained from various sources including ESRI, USGS, USDA, CCBG GISMO, CCFCD, GIS User Community among others. The GIS information is presented for reference only. No warranties, either expressed or implied, are intended or made. If you have any questions regarding this information, please contact Centurion.

**CENTURION  
CONSULTANTS**

PROJECT:

**Three Kids Mine Site  
Mixed-Use Development**

CLIENT:

**Pulte Homes**

**SITE MAP  
OVERVIEW**

PROJECT NO:

22004

FIGURE NO:

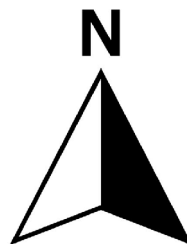
**2**





## Legend

- Approximate Project Site Boundary
- Approximate Boring Location
- Approximate Test Pit Location



CENTURION  
CONSULTANTS

PROJECT:

**Three Kids Mine Site  
Mixed-Use Development**

CLIENT:

**Pulte Homes**

**EXPLORATION  
MAP - EAST**

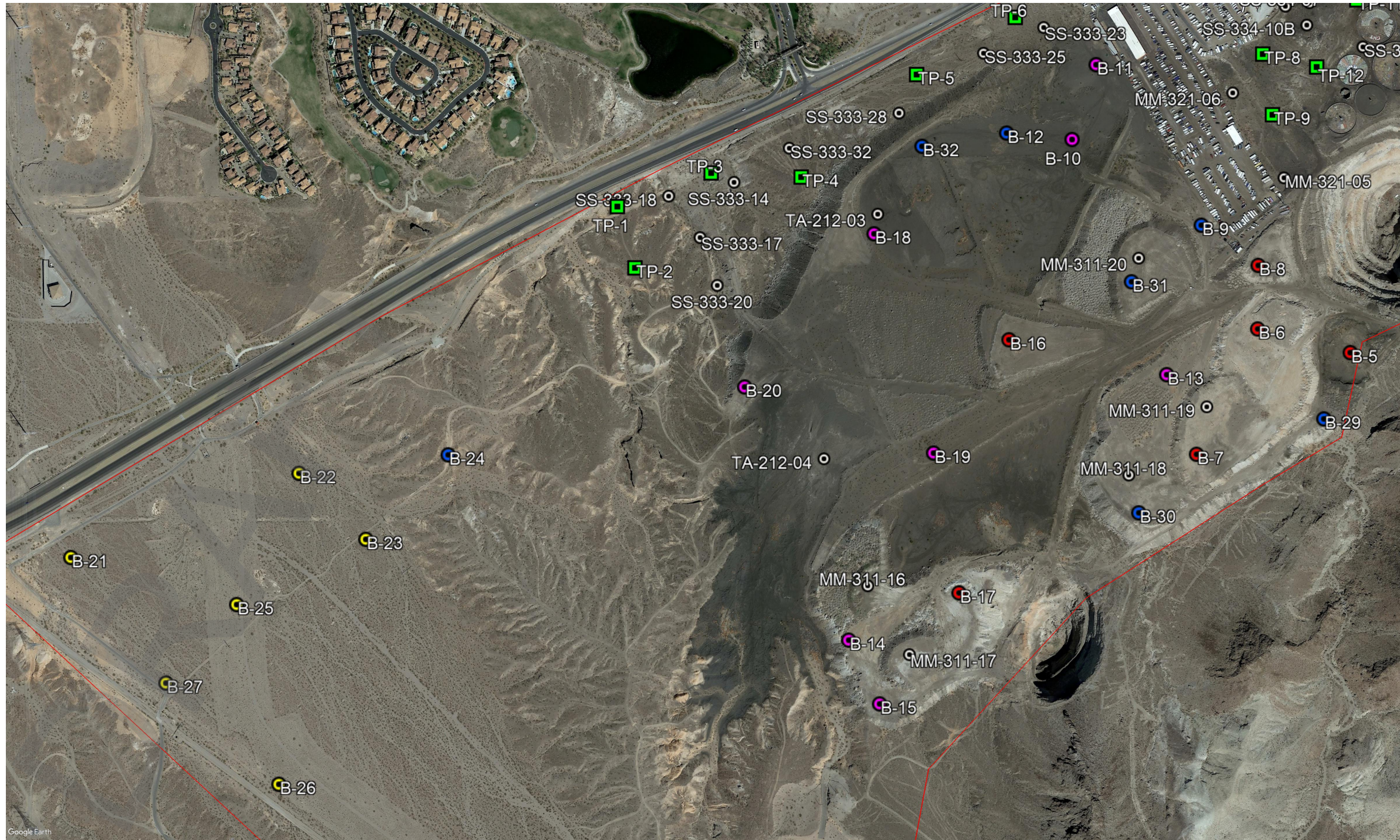
PROJECT NO:

22004

FIGURE NO:

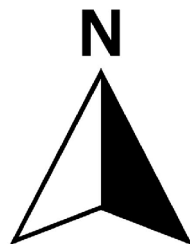
**2a**





## Legend

- Approximate Project Site Boundary
- Approximate Boring Location
- Approximate Test Pit Location



CENTURION CONSULTANTS	PROJECT: <b>Three Kids Mine Site Mixed-Use Development</b>	EXPLORATION MAP - WEST	
	CLIENT: <b>Pulte Homes</b>	PROJECT NO: 22004	FIGURE NO: <b>2b</b>



# BORING LOG B-1

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, brown	
					1				
					2				
					3				
					4				
					5				
		SPT		17	6				
					7				
					8				
					9				
					10				
		SPT		10	11				
					12				
					13				
					14				
					15			-FILL: Sandy SILT, slightly moist, light gray	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				02/22/2022		1 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		1	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-1

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		16	16	FILL		-FILL: Sandy SILT, slightly moist, light gray	
					17				
					18				
					19				
					20				
		SPT		41	21				
					22				
					23				
					24				
					25				
		SPT		34	26				
					27				
					28				
					29				
					30				
		SPT		23	31				


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/22/2022		2 of 4
					PROJECT NO.:		PLATE NO.:
					22004		1

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-1

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		63/11"	31	FILL		FILL: Sandy SILT, slightly moist, light gray	
		SPT		50/5"	32				
		SPT		50/2"	33				
		SPT			34				
		SPT			35				
		SPT			36				
		SPT			37				
		SPT			38				
		SPT			39				
		SPT			40				
		SPT			41				
		SPT			42				
		SPT			43				
		SPT			44				
		SPT			45				
		SPT			46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		1

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-1

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/1"	47			CLAYSTONE, dry, brown	Mod. Hard
					48				
					49				Hard
					50			Bottom of Boring at 50.1 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		1

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-2

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, brown	
					1				
					2				
					3				
					4				
					5				
		SPT		11	6				
					7				
					8				
					9				
					10				
		SPT		35	11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					22004		2

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-2

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	SEE SITE MAP	ELEVATION (ft):	N/A
		SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		31	16	FILL		FILL: Silty SAND with gravel, slightly moist, brown	
					17				
					18				
					19				
		SPT		23	20				
					21				
					22				
					23				
					24				
		SPT		29	25				
					26				
					27				
					28				
					29				
					30				
		SPT		11	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	2

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-2

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		43	31	FILL		FILL: Silty SAND with gravel, slightly moist, brown	
					32				
					33				
					34				
		SPT			35				
					36				
					37				
					38				
					39				
		SPT		83/10"	40			SILTSTONE, decomposed, dry, light gray	Mod. Hard
					41				
					42				
					43				
					44				
		SPT		55	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/22/2022		3 of 4
					PROJECT NO.:		PLATE NO.:
					22004		2

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-2

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		15	47 48 49 50 51			SILTSTONE, highly decomposed, dry, light gray	Mod. Hard
								Bottom of Boring at 51.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 02/22/2022		PAGE NO: 4 of 4
					PROJECT NO.: 22004		PLATE NO.: 2

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-3

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	





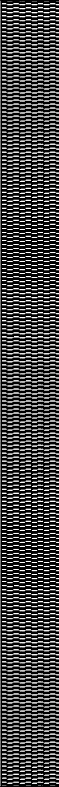

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT, slightly moist, black and brown	
					1				
					2				
					3				
					4				
					5				
		SPT		6	6				
					7				
					8				
					9				
		SPT		9	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		02/22/2022	1 of 2
		PROJECT NO.:	PLATE NO.:
		22004	3

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-3

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		26	16	FILL		FILL: Sandy SILT, slightly moist, black and brown	
		SPT		80/8"	20				
		SPT		26	25			SILTSTONE, highly decomposed, dry, light gray-brown	Mod. Hard
		SPT		50/4"	30				
Bottom of Boring at 30.3 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.				DATE DRILLED:	PAGE NO:
						02/22/2022	2 of 2
						PROJECT NO.:	PLATE NO.:
						22004	3

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-4

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT, slightly moist, black	
					1			-brown	
					2				
					3				
					4				
		SPT		7	5				
					6				
					7				
					8				
					9				
		SPT		7	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		02/22/2022	1 of 2
		PROJECT NO.:	PLATE NO.:
		22004	4

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-4

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		38	16	FILL		FILL: Sandy SILT, slightly moist, black	
					17				
					18				
					19				
		SPT		10	20				
					21				
					22				
					23				
					24				
		SPT		13	25				
					26				
					27				
					28				
		SPT		26	29				
					30				
Bottom of Boring at 30 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/22/2022		2 of 2
					PROJECT NO.:		PLATE NO.:
					22004		4

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-5

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, black and gray	
					1				
					2				
					3				
					4				
		SPT		32	5				
					6				
					7				
					8				
					9				
		SPT		18	10				
					11				
					12				
					13				
					14				
					15			GYPSIFEROUS CLAYSTONE, dry, brown	Mod. Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				02/23/2022		1 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		5	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-5

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		69/11"	16			GYPSIFEROUS CLAYSTONE, dry, brown	Mod. Hard
					17				
					18				
					19				
		SPT		69/9"	20				
					21				
		B			22				
					23				
					24				
		SPT		50/3"	25				
					26				
					27				
					28				
					29				
					30				
		SPT		77/8"	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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22004

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

BORING LOG B-5										
CLIENT: Pulte Homes					PROJECT: Three Kids Mine Site Mixed-Use Development					
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.					
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY	
		SPT		50/2"	31			GYPSIFEROUS CLAYSTONE, dry, brown	Mod. Hard	
					32					
					33					
					34					
					35				Hard	
								Bottom of Boring at 35.5 feet Auger refusal on CLAYSTONE		
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.					* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE					
CENTURION CONSULTANTS			NOTES: Groundwater not encountered in the depth drilled.				DATE DRILLED:		PAGE NO:	
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							PROJECT NO.: 22004		PLATE NO.: 5	

# BORING LOG B-6

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					1				
					2				
					3				
					4				
		SPT		5	5				
					6				
					7				
					8				
					9				
		SPT		2	10			-voids throughout	
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					22004		6

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-6

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		6	16	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					17				
					18				
					19				
					20				
		SPT		34	21				
					22				
					23				
					24				
					25				
		SPT		33	26				
					27				
					28				
					29				
					30				
		SPT		20	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		6

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-6

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					32				
					33				
					34				
					35				
		SPT		33	36				
					37				
					38				
					39				
					40				
		SPT		23	41				
					42				
					43				
					44				
					45				
		SPT		29	46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		6

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-6

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		36	47 48 49 50 51				
								Bottom of Boring at 51.5 feet Too many voids; unable to maintain boring.	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				PROJECT NO.:		PLATE NO.:	
				22004		6	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-7

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					1				
					2				
					3				
					4				
		SPT		8	5			-voids throughout	
					6				
					7				
					8				
					9				
		SPT		6	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					22004		7

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-7

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		43	16	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					17				
					18				
					19				
		SPT		13	20				
					21				
					22				
					23				
					24			-voids throughout	
		SPT		7	25				
					26				
					27				
					28				
					29				
		SPT		18	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-7

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		10	31	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					32				
					33				
					34				
		SPT		13	35				
					36				
					37				
					38				
					39				
		SPT		7	40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		7

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-7

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



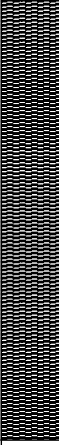

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT	50/2"		47	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
		SPT	17		56				
					57				
					58				
					59				
					60				
		SPT	67		61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		7

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-7

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					63				
					64				
		SPT		50/2"	65			SILTSTONE, dry, light gray	Mod. Hard
					66				
					67				
					68				
					69				
		SPT		50/4"	70				Hard
								Bottom of Boring at 70.5 feet Auger refusal on SILTSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
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					22004	7	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-8

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					1				
					2				
					3				
					4				
		SPT		6	5				
					6				
					7				
					8				
					9				
		SPT		8	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				22004		8	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-8

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		19	16	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					17				
					18				
					19				
					20				
		SPT		11	21				
					22				
					23				
					24				
					25				
		SPT		14	26				
					27				
					28				
					29				
					30				
		SPT		12	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-8

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, gray	
					32				
					33				
					34				
					35			SANDSTONE, dry, light gray	Mod. Hard
		SPT		50/3"	36				
					37				
					38				
					39				
		SPT		50/2"	40				
					41				
					42				
					43				
					44				
		SPT		50/3"	45				
Bottom of Boring at 45.5 feet Auger refusal on SANDSTONE									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					22004		8

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-9

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

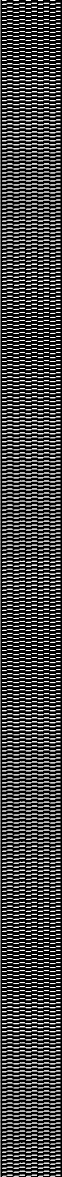
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, gray	
					1				
					2				
					3				
					4				
					5				
		SPT		21	6				
		B			7				
					8				
					9				
					10				
		SPT		13	11				
					12				
					13				
					14				
					15				
		SPT		50/3"				SILTSTONE, dry, light gray	Mod. Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				22004		9	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-9

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			SILTSTONE, dry, light gray	Mod. Hard
				17					
				18					
				19					
		SPT		50/5"	20				
				21					
				22					
				23					
				24					
		SPT		50/2"	25				
				26					
				27					
				28					
				29					
		SPT		50/2"	30				
Bottom of Boring at 30.2 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.				DATE DRILLED:	PAGE NO:
						02/24/2022	2 of 2
						PROJECT NO.:	PLATE NO.:
						22004	9

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Tailings - Sandy SILT, slightly moist, black	
					1				
					2				
					3				
					4				
					5				
		SPT		3	6				
					7				
					8				
					9				
					10				
		SPT		13	11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		15	16	FILL		FILL: Tailings - Sandy SILT, slightly moist, black	
					17				
					18				
					19				
					20				
		SPT		22	21			SILTSTONE, dry, light brown	Mod. Hard
					22				
					23				
					24				
					25				
		SPT		50/3"	26				
					27				
					28				
					29				
					30				
		SPT		50/3"	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/4"	31			SILTSTONE, dry, light brown	Mod. Hard
					32				
					33				
					34				
					35				
					36				Hard
					37			Bottom of Boring at 37 feet Auger refusal on SILTSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Tailings - Sandy SILT, slightly moist, dark gray	
					1				
					2			-black	
					3				
					4				
					5				
		SPT		9	6				
		B			7				
					8				
					9				
					10				
		SPT		5	11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-11

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		4	16			FILL: Tailings - Sandy SILT, slightly moist, black	
					17				
					18				
					19				
		SPT		23	20			-some gray	
					21				
					22				
					23				
					24				
		SPT		32	25				
					26				
					27				
					28				
					29				
		SPT		22	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		18	31	FILL		FILL: Tailings - Sandy SILT, slightly moist, black	
					32				
					33				
					34				
		SPT		15	35				
					36				
					37				
					38				
		SPT		22	39				
					40				
					41				
					42				
					43				
					44				
		SPT			45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-11

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:


SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT	50/2"		47	FILL		FILL: Tailings - Sandy SILT, slightly moist, black	
					48				
					49				
					50		*****	GYPSUM, crystalline, dry, gray-white	Hard
								Bottom of Boring at 50.2 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-12

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B		2	0	FILL		FILL: Tailings - Sandy SILT, slightly moist, dark gray	
		SPT		2	1			-black	
		SPT		2	2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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



12

CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-12

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		2	16	FILL		FILL: Tailings - Sandy SILT, slightly moist, black	
					17				
					18				
					19				
		SPT		24	20			-FILL: Tailings - Sandy lean CLAY, slightly moist, black	
					21				
					22				
					23				
					24				
		SPT		32	25				
					26				
					27				
					28				
		SPT		75	29			SANDSTONE, dry, light gray	Mod. Hard
					30			-with gypsum	
Bottom of Boring at 30.5 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-13

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, brown	
					1				
					2				
					3				
					4				
		SPT		49	5				
					6				
					7				
					8				
					9				
		SPT		15	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-13

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	SEE SITE MAP	ELEVATION (ft):	N/A
		SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		7	16	FILL		FILL: Silty SAND with gravel and various waste rock, slightly moist, brown	
					17				
					18				
					19				
		SPT		29	20			-FILL: Clayey SAND with various waste rock, gypsum, slightly moist, light brown	
					21				
					22				
					23				
					24				
		SPT		8	25				
					26				
					27				
					28				
					29				
					30			-FILL: Sandy lean CLAY, slightly moist, brown	
		SPT		48	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-13

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:



SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		69	31	FILL		FILL: Sandy lean CLAY, slightly moist, brown	
					32				
					33				
					34				
					35				
					36			CLAYSTONE, dry, brown	Hard
					37			Bottom of Boring at 37 feet Auger refusal on CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:

Groundwater not encountered in the depth drilled.

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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-14

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT, slightly moist, gray	
		B			1				
					2				
					3			-FILL: Clayey SAND (Claystone waste rock), slightly moist, brown	
					4				
					5			-with gypsum	
		SPT		7	6				
					7				
					8				
					9				
					10				
		SPT		10	11				
					12				
					13				
					14				
					15				






THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		4	16	FILL		FILL: Clayey SAND (Claystone waste rock), slightly moist, brown	
					17				
					18				
					19				
		SPT		8	20			-FILL: Silty SAND with gravel, slightly moist, brown	
					21				
					22				
					23				
					24				
		SPT		5	25				
					26				
					27				
					28				
					29				
		SPT		58	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				02/25/2022		2 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		14	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/3"	31	FILL		FILL: Silty SAND with gravel, slightly moist, brown	
					32				
					33				
					34				
		SPT		50/2"	35				
					36			SILTSTONE, dry, light brown	Mod. Hard
					37				
					38				
					39				
		SPT		50/2"	40				
					41				
					42				
					43				
					44				
		SPT		50/5"	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/2"	47 48 49 50 51			SILTSTONE, dry, light brown	Mod. Hard
								Bottom of Boring at 51.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		14

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT and various waste rock, slightly moist, gray	
					1				
					2				
					3				
					4				
		SPT		7	5				
					6				
					7				
					8				
					9				
		SPT		15	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/25/2022		1 of 4
					PROJECT NO.:		PLATE NO.:
					22004		15

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		13	16	FILL		FILL: Sandy SILT and various waste rock, slightly moist, gray	
					17				
					18				
					19				
					20				
		SPT		18	21				
					22				
					23				
					24				
					25				
		SPT		31	26			SILTSTONE, dry, gray	Mod. Hard
					27				
					28				
					29				
					30				
		SPT		95/11"	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/25/2022		2 of 4
					PROJECT NO.:		PLATE NO.:
					22004		15

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-15

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

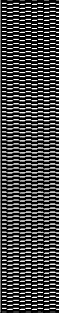
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			SILTSTONE, dry, dark gray	Mod. Hard
					32				
					33				
					34				
		SPT		50/2"	35			-light gray	
					36				
					37				
					38				
					39				
		SPT		50/2"	40			-light brown	
					41				
					42				
					43				
					44				
		SPT		50/3"	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		02/25/2022 PROJECT NO.:	3 of 4 PLATE NO.:
		22004	15

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/5"	47 48 49 50			SILTSTONE, dry, gray	Mod. Hard
								Bottom of Boring at 50.4 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.: 22004	PLATE NO.: 15

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT with various waste rock, slightly moist, gray	
					1				
					2				
					3				
					4				
		SPT		4	5				
					6				
					7				
					8				
					9				
		SPT		46	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		16

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-16

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		55/11"	16	FILL		FILL: Sandy SILT with various waste rock, slightly moist, gray	
					17				
					18				
					19				
		SPT		36	20				
					21				
					22				
					23				
					24				
		SPT		17	25				
					26				
					27				
					28				
					29				
					30			-gypsum	
		SPT		32	31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

DATE DRILLED:

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PROJECT NO.:

22004

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16

CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		21	31	FILL		FILL: Sandy SILT with various waste rock, slightly moist, gray	
					32				
					33				
					34				
		SPT		26	35				
					36				
					37				
					38				
					39				
		SPT		24	40			-FILL: Sandy lean CLAY with various waste rock, slightly moist, brown	
					41				
					42				
					43				
					44				
		SPT		24	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		16

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-16

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

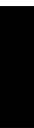

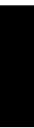
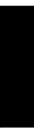
SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		8	47	FILL		FILL: Sandy lean CLAY with various waste rock, slightly moist, brown	
		SPT		6	55			-FILL: Sandy SILT with various waste rock, slightly moist, black	
		SPT		12	60				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

DATE DRILLED:

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PROJECT NO.:

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62	FILL		FILL: Sandy SILT with various waste rock, slightly moist, black	
					63				
					64				
		SPT		29	65				
					66				
					67				
					68				
					69				
		SPT		29	70				
					71				
					72				
					73				
					74				
					75				
		SPT		65	76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/28/2022		5 of 6
					PROJECT NO.:		PLATE NO.:
					22004		16

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/2"	78 79 80	FILL		FILL: Sandy SILT with various waste rock, slightly moist, black	
								Bottom of Boring at 80.8 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	16

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		





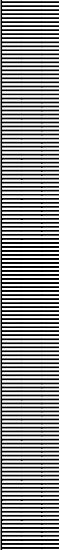

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Clayey SAND and various waste rock, slightly moist, gray	
					1				
					2				
					3				
					4				
		SPT		13	5				
					6				
					7				
					8				
					9				
		SPT		31	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				PROJECT NO.:		PLATE NO.:	
				22004		17	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-17

CLIENT:	Pulte Homes		PROJECT:	Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:	SEE SITE MAP		ELEVATION (ft):	N/A	
			SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		10	16	FILL		FILL: Clayey SAND and various waste rock, slightly moist, gray	
					17				
					18				
					19				
		SPT		2	20			-voids	
					21				
					22				
					23				
					24				
		SPT		50/3"	25			CLAYSTONE, dry, light gray	Mod. Hard
					26				
					27				
					28				
					29				
		SPT		50/2"	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, dry, light gray	Mod. Hard
					32				
					33				
					34				
		SPT	█	50/2"	35				
					36				
					37				
					38				
					39				
		SPT	█	50/2"	40				
					41				
					42				
					43				
					44				
		SPT	█	50/2"	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/28/2022		3 of 6
					PROJECT NO.:		PLATE NO.:
					22004		17

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			CLAYSTONE, dry, light gray	Mod. Hard
					48				
					49				
		SPT		50/2"	50				
					51				
					52				
					53				
					54				
		SPT		50/2"	55				
					56				
					57				
					58				
					59				
		SPT		50/3"	60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/28/2022		4 of 6
					PROJECT NO.:		PLATE NO.:
					22004		17

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			CLAYSTONE, dry, light gray	Mod. Hard
					63				
					64				
		SPT		50/4"	65				
					66				
					67				
					68				
					69				
		SPT		50/3"	70				
					71				
					72				
					73				
					74				
		SPT		50/3"	75				
					76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					02/28/2022		5 of 6
					PROJECT NO.:		PLATE NO.:
					22004		17

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			CLAYSTONE, dry, light gray Bottom of Boring at 78 feet Auger refusal on CLAYSTONE	Mod. Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				02/28/2022		6 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		17	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-18

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT, slightly moist, black	
					1				
					2				
					3				
					4				
		SPT		3	5				
					6				
					7				
					8				
					9				
		SPT		4	10				
					11				
					12				
					13				
					14				
					15			-FILL: Silty SAND, gypsum, slightly moist, light gray	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-18

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	SEE SITE MAP	ELEVATION (ft):	N/A
		SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		11	16	FILL		FILL: Silty SAND, gypsum, slightly moist, light gray	
					17				
					18				
					19				
		SPT		9	20				
					21				
					22				
					23				
					24				
		SPT		11	25				
					26				
					27				
					28				
					29				
		SPT		12	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		22004	18

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-18

CLIENT:	Pulte Homes		PROJECT:	Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:	SEE SITE MAP		ELEVATION (ft):	N/A	
			SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Silty SAND, gypsum, slightly moist, light gray	
					32				
					33				
					34				
		SPT		21	35				
					36	SM		Silty SAND, slightly moist, light brown	Med. Dense
					37				
					38				
					39				
		SPT		20	40				
					41				
					42				
					43				
					44				
		SPT		26	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:  
Groundwater not encountered in the depth drilled.

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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

BORING LOG B-18										
CLIENT: Pulte Homes					PROJECT: Three Kids Mine Site Mixed-Use Development					
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.					
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY	
		SPT		32	47	SM		Silty SAND, slightly moist, light brown	Med. Dense	
					48					
					49					
					50				Dense	
					51			Bottom of Boring at 51.5 feet		
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.						* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE				
CENTURION CONSULTANTS			NOTES: Groundwater not encountered in the depth drilled.				DATE DRILLED:		PAGE NO:	
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# BORING LOG B-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND, slightly moist, brown	
					1				
					2				
					3				
					4				
		SPT		7	5	SC		Clayey SAND, gypsum, slightly moist, light brown	Loose
					6				
					7				
					8				
					9				
		SPT		11	10				Med. Dense
					11				
					12				
					13				
					14				
					15			-abundant gypsum	Dense

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-19

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	SEE SITE MAP	ELEVATION (ft):	N/A
		SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		49	16	SC		Clayey SAND with gypsum, slightly moist, light brown	Dense
					17				
					18				
					19				
		SPT		11	20	CL		Sandy lean CLAY, gypsum, slightly moist, light brown	Stiff
					21				
					22				
					23				
					24				
		SPT		17	25				V. Stiff
					26				
					27				
					28				
					29				
		SPT		17	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		





MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	CL		Sandy lean CLAY, gypsum, slightly moist, light brown	V. Stiff
					32				
					33				
					34				
					35				
		SPT		19	36				
					37				
					38				
					39				
					40				
		SPT		15	41				
					42				
					43				
					44				
					45				Soft
		SPT		2	46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					PROJECT NO.:		PLATE NO.:
					22004		19

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		50/4"	47	CL		Sandy lean CLAY, gypsum, slightly moist, light brown	Soft
					48			CLAYSTONE, dry, brown	Mod. Hard
					49				
					50				
								Bottom of Boring at 50.9 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.






\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B		4	0	FILL		FILL: Sandy SILT, slightly moist, black	
		SPT			1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
		SPT		3	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-20

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:






SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		4	16	FILL		FILL: Sandy SILT, slightly moist, black	
					17				
					18				
					19				
		SPT		4	20			-petroleum odor	
					21				
					22				
					23				
					24				
		SPT		4	25			-FILL: Sandy lean CLAY, slightly moist, black	
					26				
					27				
					28				
					29				
		SPT		7	30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Sandy lean CLAY, slightly moist, black	
					32				
					33				
					34				
		SPT		5	35				
					36				
					37				
					38				
					39				
		SPT		10	40				
					41				
					42				
					43				
					44				
		SPT		12	45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		





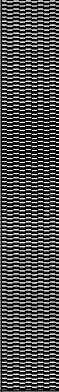

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		15	47 48 49 50 51	FILL		FILL: Sandy lean CLAY, slightly moist, black	
								Bottom of Boring at 51.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-21

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND, slightly moist, light gray	
		B			1	GM		Silty GRAVEL with sand, slightly moist, light gray	Med. Dense
		SPT		23	2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
		SPT		43	10			SILTSTONE, dry, light brown	Mod. Hard
					11				
					12				
					13				
		SPT		75	14				
					15				
Bottom of Boring at 15 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

## NOTES:

Groundwater not encountered in the depth drilled.

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




**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-22

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		








MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, light gray	
					1	SM		Silty SAND, slightly moist, light gray	Med. Dense
		B			2				
		SPT		12	3				
					4				
					5				
		SPT		17	6				
					7				
					8				
					9				
					10				
		SPT		95	11				
					12				
					13				
					14				V. Dense
					15			Bottom of Boring at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-23

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND, slightly moist, light gray	
		B			1	SM			Med. Dense
					2				
					3				
					4				
		SPT		56	5				V. Dense
					6				
					7				
					8				
					9				
		SPT		50/5"	10	SC		Clayey SAND, slightly moist, brown	
					11				
					12				
					13				
		SPT		56	14				
					15				
Bottom of Boring at 15 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

## NOTES:

Groundwater not encountered in the depth drilled.

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




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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-24

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND, slightly moist, light gray	
		B			1	SM		Silty SAND, slightly moist, light gray	Med. Dense
					2				
					3				
					4				
		SPT		97/9"	5				
					6			SILTSTONE, highly decomposed, dry, light gray	Mod. Hard
					7	SC		Clayey SAND, slightly moist, light brown	V. Dense
					8				
					9	ML		Sandy SILT, slightly moist, light gray	V. Stiff
		SPT		62	10				
					11			SILTSTONE, dry, light brown	Mod. Hard
					12				
					13				
					14				
		SPT		50/5"	15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-24

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


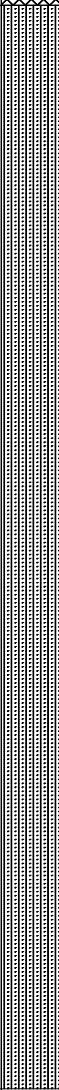



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT	50/4"		16			SILTSTONE, dry, light brown	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
		SPT	50/3"		26				
					27				
					28				
					29				
		SPT	50/3"					Bottom of Boring at 29.8 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-25

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND, slightly moist, light gray	
					1				
					2	SM		Silty SAND, slightly moist, light gray	Med. Dense
					3				
					4				
					5				
		SPT		25					
					6				
					7				
					8				
					9				
					10				
		SPT		13					
					11				
					12				
					13				
					14				
		SPT		30					
					15				
Bottom of Boring at 15 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
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					22004		25

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-26

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, light gray	
					1				
					2	SM		Silty SAND with gravel, slightly moist, light gray	Med. Dense
					3				
					4				
					5				
		SPT		19	6				
					7				
					8				
					9				
					10				
		SPT		34	11				Dense
					12				
					13				
					14				
		SPT		21	15				Med. Dense
								Bottom of Boring at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		03/02/2022	1 of 1
		PROJECT NO.:	PLATE NO.:
		22004	26

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-27

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, light gray	
					1	SM		Silty SAND with gravel, slightly moist, light gray	Med. Dense
		B			2				
		SPT		29	3				
					4				
					5				
		SPT		25	6				
					7				
					8				
					9				
		SPT		40	10				
					11				
					12				
					13				
		SPT			14				Dense
					15			Bottom of Boring at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		03/02/2022 PROJECT NO.: 22004	1 of 1 PLATE NO.: 27

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-28

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark gray	
					1			-light gray	
		B			2				
					3				
					4				
		SPT		6	5				
					6				
					7				
					8				
					9				
		SPT		5	10				
					11				
					12				
					13				
					14				
					15				




THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-28

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		6	16	FILL		FILL: Silty SAND with gravel, slightly moist, light gray	
					17	GM		Silty GRAVEL with sand, slightly moist, light gray-brown	Med. Dense
		SPT		26	20				
					21				
		SPT		27	25				
					26				
					27				
					28				
					29				
		SPT		50/5"	30			GYPSUM, dry, white	V. Dense
								Bottom of Boring at 30.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-29

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP			ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	







MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Sandy SILT, slightly moist, black	
					1				
					2				
					3				
					4				
		SPT		4	5				
					6				
					7				
					8				
					9				
		SPT		7	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-29

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		4	16	FILL		FILL: Sandy SILT, slightly moist, black	
					17				
					18				
					19				
		SPT		31	20	SM		Silty SAND with gravel, slightly moist, light gray	Dense
					21				
					22				
					23				
					24				
		SPT		25	25				Med. Dense
					26				
					27				
					28				
		SPT		21	29				
					30				
Bottom of Boring at 30.5 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:  
Groundwater not encountered in the depth drilled.

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






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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-30

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B		10	0	FILL		FILL: Silty GRAVEL with sand - various waste rock, slightly moist, brown and gray	
		SPT		8	1			-gypsum	
		SPT			2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10			-Claystone (waste rock)	
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL. \* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:  
Groundwater not encountered in the depth drilled.

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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-30

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		9	16	FILL		FILL: Claystone (waste rock)	
					17				
					18				
					19				
		SPT		10	20				
					21				
					22				
					23				
					24				
		SPT		18	25				
					26				
					27				
					28				
		SPT		22	29				
					30				
Bottom of Boring at 30.5 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-31

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND with gravel - various waste rock, slightly moist, dark gray	
					1				
					2				
					3				
					4				
		SPT		8	5				
					6				
					7				
		SPT		7	10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-31

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

BORING LOCATION:

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		11	16			FILL: Silty SAND with gravel - various waste rock, slightly moist, dark gray	
					17				
					18				
					19				
					20				
		SPT		43	21				
					22				
					23				
					24				
					25				
		SPT		8	26				
					27				
					28				
					29				
		SPT		15	30				
								-gypsum	
								Bottom of Boring at 30.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth drilled.

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG B-32

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Tailings - Sandy SILT, slightly moist, black	
					1				
					2				
					3				
					4				
		SPT		5	5				
					6				
					7				
					8				
					9				
		SPT		4	10				
					11				
					12				
					13				
					14				
					15				


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				22004		32	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG B-32

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		SPT		5	16	FILL		FILL: Tailings - Sandy SILT, slightly moist, dark gray	
					17				
					18				
					19				
		SPT		9	20				
					21				
					22				
					23				
					24				
		SPT		23	25				
					26				
					27				
					28				
					29				
		SPT		11	30				
Bottom of Boring at 30.5 feet									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					03/03/2022		2 of 2
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark gray-brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		22004	33

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Silty SAND with gravel, slightly moist, light gray	
					17				
					18				
					19				
					20				
					21			-some reddish-brown claystone (waste rock)	
					22			-dark brown	
					23				
					24			-reddish-brown gypsiferous claystone (waste rock)	
					25				
					26				
					27				
					28			-gray breccia, dacite, and claystone (waste rock)	
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/06/2022 PROJECT NO.:	2 of 6 PLATE NO.:	
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: gray breccia, dacite, and claystone (waste rock)	
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					43				
					44				
					45				
					46			CLAYSTONE, highly decomposed, dry, light brown	Mod. Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/06/2022	3 of 6	
					PROJECT NO.:	PLATE NO.:	
					22004	33	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			CLAYSTONE, highly decomposed, dry, light brown	Mod. Hard
					48				
					49				
					50			SANDSTONE, fine-grained, dry, light gray	
					51				
					52				
					53				
					54				
					55				
					56			CLAYSTONE, some gypsum, dry, brown	
					57				
					58				
					59				
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.


\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022 PROJECT NO.: 22004	4 of 6 PLATE NO.: 33

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			CLAYSTONE, some gypsum, dry, brown	Mod. Hard
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75				
					76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/06/2022		5 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		33	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			CLAYSTONE, some gypsum, dry, brown	Mod. Hard
					79				
					80				
								Bottom of Boring at 80 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/06/2022		6 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		33	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		1 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		34	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-311-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					17			-breccia and tuff, gray	
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30			-FILL: crystalline gypsum	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL. \* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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2 of 4

PROJECT NO.:

PLATE NO.:


22004

34

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-17

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
			B		31	FILL		FILL: Crystalline gypsum	
					32			-FILL: Silty SAND with gravel, light brown	
					33				
					34				
					35				
					36			-darker brown	
					37				
					38			-light brown	
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46			-FILL: Claystone and sandstone, trace gypsum (waste rock)	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	34

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47	FILL		FILL: Claystone and sandstone, trace gypsum (waste rock)	
					48				
					49				
					50			-breccia and basalt clasts, gray	
					51				
					52				
					53				
					54			-FILL: Silty SAND with gravel (broken up waste rock), brown-gray	
					55				
					56				
					57				
					58			Bottom of Boring at 58 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.


\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022 PROJECT NO.: 22004	4 of 4 PLATE NO.: 34

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-18

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

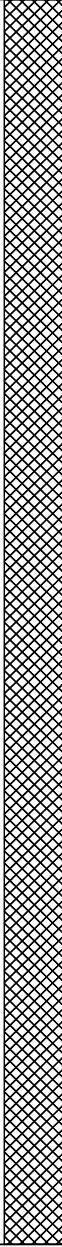
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		1 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		35	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-18

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					17				
					18				
					19				
					20				
					21				
					22	-clasts of crystalline gypsum			
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022 PROJECT NO.: 22004	2 of 6 PLATE NO.: 35

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-18

CLIENT:				PROJECT:			
Pulte Homes				Three Kids Mine Site Mixed-Use Development			
BORING LOCATION:				ELEVATION (ft):		SITE:	
SEE SITE MAP				N/A		SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		3 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		35	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-18

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, olive gray	Hard
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/12/2022	4 of 6	
					PROJECT NO.:	PLATE NO.:	
					22004	35	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-18

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			GYPSSIFEROUS CLAYSTONE, moderately decomposed, dry, olive gray	Hard
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75				
					76				
					77				


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		5 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		35	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-311-18

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, olive gray	Hard
					79				
					80				
					81				
					82				
					83				
					84				
					85			Bottom of Boring at 85 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		6 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		35	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-19

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

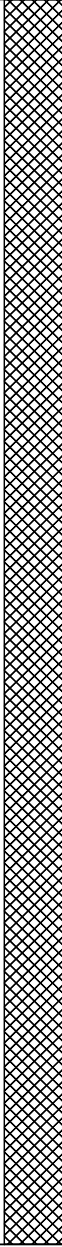
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15			-mostly gypsiferous claystone (waste rock)	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022 PROJECT NO.: 22004	1 of 6 PLATE NO.: 36

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-19

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022 PROJECT NO.:	2 of 6 PLATE NO.:
		22004	36

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		3 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		36	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-19

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			47	FILL		FILL: Various waste rock - claystone, gypsum, and volcanics, gray, black, and brown	
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	4 of 6
		PROJECT NO.:	PLATE NO.:
		22004	36

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			GYPHSIFEROUS CLAYSTONE, highly decomposed, dry, light brown and white	Mod. Hard
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75				
					76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		5 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		36	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			GYPSIFEROUS CLAYSTONE, highly decomposed, dry, light brown and white	Mod. Hard
					79				
					80			-olive-brown	
					81				
					82				
					83			-olive-gray	
					84				
					85				
					86				
					87				
					88				
					89				
					90			Bottom of Boring at 90 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 01/12/2022		PAGE NO: 6 of 6
					PROJECT NO.: 22004		PLATE NO.: 36

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-20

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Various waste rock - Claystone, gypsum, and volcanics, brown, gray, and black	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				
								-large clasts of crystalline gypsum	



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022 PROJECT NO.:	1 of 5 PLATE NO.:
		22004	37

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-311-20

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

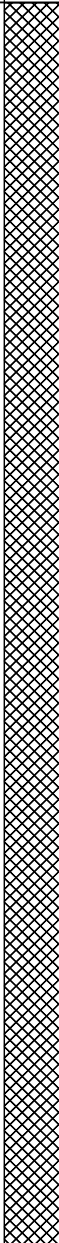
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			16	FILL		FILL: Various waste rock - Claystone, gypsum, and volcanics, brown, gray, and black	
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022	2 of 5
		PROJECT NO.:	PLATE NO.:
		22004	37

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-20

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Various waste rock - Claystone, gypsum, and volcanics, brown, gray, and black	
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022 PROJECT NO.:	3 of 5 PLATE NO.:
		22004	37

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

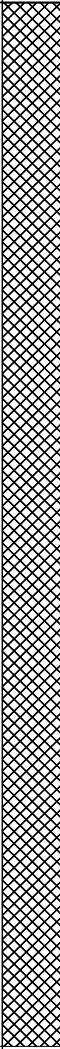
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47	FILL		FILL: Various waste rock - Claystone, gypsum, and volcanics, brown, gray, and black	
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/17/2022		4 of 5	
				PROJECT NO.:		PLATE NO.:	
				22004		37	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-20

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62	FILL		FILL: Various waste rock - Claystone, gypsum, and volcanics, brown, gray, and black	
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75				
					Bottom of Boring at 75 feet				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022 PROJECT NO.:	5 of 5 PLATE NO.:
		22004	37

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-21

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

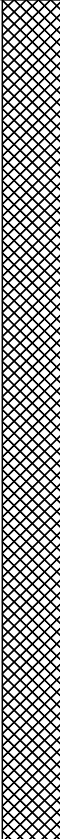

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, light brown and gray	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	1 of 4
		PROJECT NO.:	PLATE NO.:
		22004	38

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-21

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Silty GRAVEL with sand, slightly moist, light brown and gray	
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	2 of 4
		PROJECT NO.:	PLATE NO.:
		22004	38

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-21

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	
















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					32				
					33			GYPSUM, fine-grained with some crystals, dry, white	
					34				
					35			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	38

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-21

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPSEIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					48				
					49				
					50				
					51				
					52				
					53			-olive-gray	
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
								Bottom of Boring at 61.5 feet	



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	4 of 4
		PROJECT NO.:	PLATE NO.:
		22004	38

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-311-25

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, black and brown	
					1				
					2	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	1 of 3
		PROJECT NO.:	PLATE NO.:
		22004	39

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-25

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					18				
					19				
					20				
					21				
					22				
					23			GYPsUM, crystalline, gray and white	Hard
					24				
					25				
					26				
					27				
					28				
					29				
					30			GYPsIFEROUS CLAYSTONE, dry, brown and white	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/21/2022	2 of 3	
					PROJECT NO.:	PLATE NO.:	
					22004	39	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-25

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


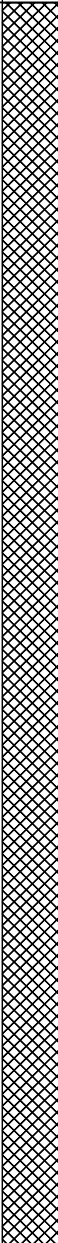
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, dry, brown and white	Hard
					32				
					33				
					34				
					35				
					36				
								Bottom of Boring at 36 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	3 of 3
		PROJECT NO.:	PLATE NO.:
		22004	39

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-26

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND with gravel, various rock clasts, slightly moist, brown and gray	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022 PROJECT NO.: 22004	1 of 4 PLATE NO.: 40

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-26

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Silty SAND with gravel, various rock clasts, slightly moist, brown and gray	
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	2 of 4
		PROJECT NO.:	PLATE NO.:
		22004	40

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-26

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Silty SAND with gravel, various rock clasts, slightly moist, brown and gray	
					32				
					33				
					34				
					35				
					36				
					37	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46			GYPSUM, crystalline, dry, light gray and white	Mod. Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

PAGE NO:

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PROJECT NO.:

PLATE NO.:

22004

40

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-26

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

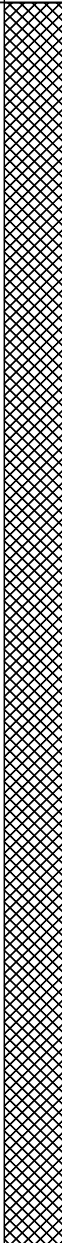
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPSUM, crystalline, dry, light gray and white	Mod. Hard
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60			Bottom of Boring at 60 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		4 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		40	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-27

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, various rock, dark gray and black	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				
								-FILL: Silty SAND with gravel, light brown	


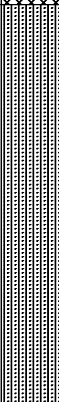

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022 PROJECT NO.:	1 of 3 PLATE NO.:
		22004	41

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-311-27

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP			ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Silty SAND with gravel, light brown	
					17				
					18			-larger gravel	
					19				
					20				
					21				
					22	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					23				
					24				
					25				
					26				
					27			GYPsIFEROUS CLAYSTONE, highly decomposed, dry, olive brown and white	Mod. Hard
					28				
					29			-slightly more competent	
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

PAGE NO:

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PROJECT NO.:

PLATE NO.:

22004


41

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-311-27

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

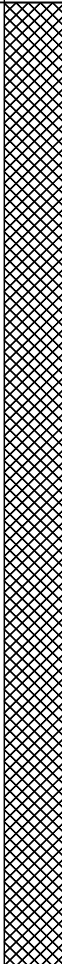

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPHSIFEROUS CLAYSTONE, moderately decomposed, dry, olive brown and white	Mod. Hard
					32				
					33				
					34				
					35				
					36			Bottom of Boring at 36 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		41	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-313-02

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.













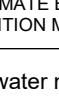

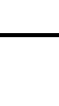
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5	-trace cobbles, light brown			
					6				
					7				
					8				
					9				
					10	-FILL: Silty GRAVEL with sand, slightly moist, light brown			
					11				
					12	SM		-FILL: Silty SAND with gravel, some cobbles, slightly moist, light brown	Med. Dense
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:  12/23/2021	PAGE NO:  1 of 3
		PROJECT NO.:  22004	PLATE NO.:  42

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-313-02

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, some cobbles, slightly moist, light brown	Dense
					17				
					18				
					19				
					20			-light brown to light grayish-brown	
					21				
					22				
					23	GM		Silty GRAVEL with sand, slightly moist, light brown	
					24				
					25	SM		Silty SAND with gravel, slightly moist, light brown	
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					12/23/2021	2 of 3	
					PROJECT NO.:	PLATE NO.:	
					22004	42	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-313-02

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	SM		Silty SAND with gravel, slightly moist, light brown to light grayish-brown	Dense
					32				
					33			-trace cobbles	
					34				
					35	CL		Sandy CLAY, slightly moist, light grayish-brown	V. Stiff
								Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					12/23/2021		3 of 3
					PROJECT NO.:		PLATE NO.:
					22004		42

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-02

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022	1 of 3
		PROJECT NO.:	PLATE NO.:
		22004	43

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-02

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	SEE SITE MAP	ELEVATION (ft):	N/A
		SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17				
					18			-some clasts of gypsiferous claystone	
					19				
					20			-brown and white	
					21			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, light brown and white	Hard
					22				
					23				
					24				
					25			-highly decomposed, less gypsum, light brown	Mod. Hard
					26			-gypsiferous, light brown and white, more competent	Hard
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022	2 of 3
		PROJECT NO.:	PLATE NO.:
		22004	43

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-02

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPHSIFEROUS CLAYSTONE, moderately decomposed, dry, light brown and white	Hard
					32				
					33				
					34				
					35			-trace gypsum	
					36			Bottom of Boring at 36 feet	



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022	3 of 3
		PROJECT NO.:	PLATE NO.:
		22004	43

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-321-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, trace cobbles, slightly moist, brown to dark brown	
					1				
					2				
					3				
					4				
					5			- brown	
					6				
					7				
					8	SM		Silty SAND with gravel, slightly moist, brown to light brown	Med. Dense
					9				
					10				
					11				
					12				
					13			-trace gypsum, light brown	
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.


\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/20/2021	1 of 3
		PROJECT NO.: 22004	PLATE NO.: 44

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, trace gypsum, slightly moist, light brown	Med. Dense
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				Dense
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/20/2021		2 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		44	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, dry, light grayish brown to light gray	Hard
					32				
					33				
					34			SILTSTONE, moderately decomposed, dry, light brown	Mod. Hard
					35			Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/20/2021		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		44	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-05

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7			-light brown	
					8				
					9				
					10				
					11				
					12				
					13			-dark brown	
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		1 of 2	
				PROJECT NO.:		PLATE NO.:	
				22004		45	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-05

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			16	FILL SM		FILL: Silty SAND with gravel, slightly moist, dark brown	
					17			Silty SAND with gravel, slightly moist, light brown	Med. Dense
					18				
					19				
					20				
					21				
					22				
					23			-with gypsum	
					24				
					25				
								Bottom of Boring at 25 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	45

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-06

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		Poorly graded SAND with silt and gravel, slightly moist, brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10	SM		Silty SAND with gravel, slightly moist, brown	Med. Dense
					11				
					12				
					13				
					14				
					15			SANDSTONE with Siltstone and Claystone horizons...	Mod. Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-06

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			SANDSTONE with Siltstone and Claystone horizons, moderately decomposed, dry, light brown	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25			Bottom of Boring at 25 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		2 of 2	
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				22004		46	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-08

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG MM-321-08

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17			GYPSIFEROUS CLAYSTONE, dry, brown and white	Mod. Hard
					18				
					19				
					20				
					21			-gypsum more crystalline	Hard
					22				
					23				
					24				
					25				
					26				
					27			-no gypsum	
					28				
					29				
					30			-gypsiferous	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
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					PROJECT NO.:	PLATE NO.:	
					22004	47	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-08

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


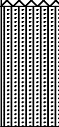

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, dry, brown and white	Hard
					32				
					33				
					34				
					35				
					36			Bottom of Boring at 36 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				PROJECT NO.:		PLATE NO.:	
				22004		47	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, some cobbles, trace boulders, slightly moist, brown to dark brown	
					1				
					2				
					3				
					4			- brown	
					5				
					6	SM		Silty SAND, trace gravel, some gypsum, slightly moist, light brown	Med. Dense
					7				
					8	CL		Sandy lean CLAY, some gypsum, severely decomposed CLAYSTONE, slightly moist, light reddish-brown	V. Stiff
					9				
					10			GYPSIFEROUS CLAYSTONE, moderately decomposed, light reddish-brown	Mod. Hard
					11			-slightly decomposed	Hard
					12				
					13			-undecomposed, light grayish-brown to light gray	V. Hard
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSIFEROUS CLAYSTONE, undecomposed, dry, light grayish-brown to light gray	V. Hard
					17				
					18			-moderately decomposed, light reddish brown	Mod. Hard
					19				
					20				
					21				
					22			-undecomposed, some gypsum, light reddish-brown to light gray	V. Hard
					23				
					24			-moderately decomposed, light reddish- brown	Mod. Hard
					25				
					26				
					27				
					28				
					29			-slightly decomposed	Hard
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 12/20/2021		PAGE NO: 2 of 3
					PROJECT NO.: 22004		PLATE NO.: 48

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, some gypsum, slightly decomposed, dry, light reddish-brown	Hard
					32				
					33			-moderately to severely decomposed	Mod. Hard
					34				
					35			Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/20/2021		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		48	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15			-large clasts of crystalline gypsum	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/17/2022		1 of 2	
				PROJECT NO.:		PLATE NO.:	
				22004		49	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG MM-321-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17				
					18				
					19				
					20				
					21				
					22			GYP SUM, crystalline, dry, gray	Hard
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					Bottom of Boring at 30 feet				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/17/2022		2 of 2	
				PROJECT NO.:		PLATE NO.:	
				22004		49	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-02

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					2				
					3				
					4			CLAYSTONE to Sandstone, dry, light gray	Mod. Hard
					5				
					6				
					7				
					8				
					9				
					10				Hard
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		22004	50

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-331-02

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


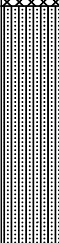


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			CLAYSTONE to Sandstone, dry, light gray	Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				Mod. Hard
					26				
					27				
					28				
					29				
					30			Bottom of Boring at 30 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED: 01/17/2022		PAGE NO: 2 of 2	
				PROJECT NO.: 22004		PLATE NO.: 50	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, trace cobbles and debris, slightly moist, dark brown to brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7			-brown	
					8				
					9	SM		Silty SAND, some gravel and gypsum thin interbedded layers of clay and silt, slightly moist, light brown to light grayish-brown	Dense
					10				
					11				
					12	SC		Clayey SAND with gravel, trace gypsum, slightly moist, light grayish-brown	
					13				
					14	CL		Sandy CLAY with gravel, some gypsum and cobbles, severely decomposed CLAYSTONE, slightly moist, light gray	V. Stiff
					15			-trace gypsum, trace gravel, light grayish-brown to light reddish-brown	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

## NOTES:

Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	CL		Sandy CLAY, trace gypsum and gravel, slightly moist, severely decomposed CLAYSTONE, light grayish-brown to light reddish-brown	V. Stiff
					17				
					18				
					19			-some sand, reddish-brown	
					20				
					21				
					22				
					23			-some gypsum	
					24			-abundant gypsum	
					25	CH		FAT CLAY, trace gypsum, severely decomposed CLAYSTONE, slightly moist, reddish-brown	
					26				
					27	CL		Sandy CLAY, some gypsum, severely decomposed CLAYSTONE, slightly moist, reddish-brown to light reddish-brown	
					28				
					29			-light grayish-brown	
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, some gypsum, undecomposed, dry, light gray to white	V. Hard
					32				
					33				
					34				
					35				
					36			-slightly decomposed	Hard
					37				
					38				
					39				
					40			Bottom of Boring at 40 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/10/2021		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		51	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-11

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3			GYPSIFEROUS CLAYSTONE, with horizons of crystalline gypsum, dry, light olive-gray and white	Mod. Hard
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022 PROJECT NO.:	1 of 4 PLATE NO.:
		22004	52

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPsIFEROUS CLAYSTONE, with horizons of crystalline gypsum, dry, light olive-gray and white	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25			GYPsUM, crystalline, dry, white and gray	
					26				
					27				
					28				
					29				
					30			GYPsIFEROUS CLAYSTONE, with horizons of crystalline gypsum, dry, light olive-gray and white	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022	2 of 4
		PROJECT NO.:	PLATE NO.:
		22004	52

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-11

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPHSIFEROUS CLAYSTONE, with horizons of crystalline gypsum, dry, light olive-gray and white	Mod. Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45			-brown and white	
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	52

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-331-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPHSIFEROUS CLAYSTONE, with horizons of crystalline gypsum, dry, light brown and white	Mod. Hard
					48			-olive-gray and white	
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
								Bottom of Boring at 60 feet	




THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022	4 of 4
		PROJECT NO.:	PLATE NO.:
		22004	52

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-332-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					4				
					5				
					6				
					7				
					8			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/21/2022	1 of 4	
					PROJECT NO.:	PLATE NO.:	
					22004	53	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-03

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	2 of 4
		PROJECT NO.:	PLATE NO.:
		22004	53

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-03

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	53

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-03

CLIENT:				PROJECT:			
Pulte Homes				Three Kids Mine Site Mixed-Use Development			
BORING LOCATION:				ELEVATION (ft):		SITE:	
SEE SITE MAP				N/A		SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
								Bottom of Boring at 61.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	4 of 4
		PROJECT NO.:	PLATE NO.:
		22004	53

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-07

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, some cobbles and debris, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7	SM		Silty SAND with gravel, slightly moist, brown	Med. Dense
					8				
					9				
					10			- light brown	
					11				
					12				
					13				Dense
					14				
					15			-trace gravel, light brown to light grayish-brown	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/14/2021	1 of 3
		PROJECT NO.:	PLATE NO.:
		22004	54

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND, trace gravel, light brown to light grayish-brown	Dense
					17	CL		Sandy lean CLAY, trace gravel, severely decomposed CLAYSTONE, slightly moist, light gray	V. Stiff
					18				
					19				
					20				
					21			CLAYSTONE, slightly decomposed, dry, light gray	Hard
					22				
					23			-gypsiferous	
					24				
					25			-more competent, light gray to white	V. Hard
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 12/14/2021		PAGE NO: 2 of 3
					PROJECT NO.: 22004		PLATE NO.: 54

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


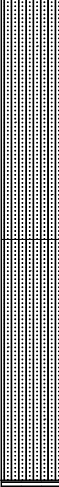
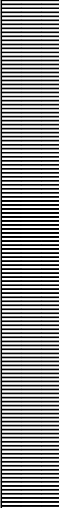
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, some gypsum, moderately decomposed, dry, reddish-brown	Hard
					32				
					33				
					34			-abundant gypsum, light grayish-brown	
					35			Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/14/2021		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		54	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-332-09

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3	SM		Silty SAND, slightly moist, light brown	Med. Dense
					4				
					5				
					6				
					7				
					8				
					9			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					10				
					11				
					12				
					13				
					14				
					15				











THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	1 of 2
		PROJECT NO.:	PLATE NO.:
		22004	55

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-332-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
								Bottom of Boring at 25 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		2 of 2	
				PROJECT NO.:		PLATE NO.:	
				22004		55	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-01

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					14				
					15			-larger gravel	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:  01/05/2022	PAGE NO:  1 of 4
		PROJECT NO.:  22004	PLATE NO.:  56

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-01

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17				
					18			CLAYSTONE, gypsum veins, highly decomposed, dry, light brown	Mod. Hard
					19				
					20			-gypsiferous, moderately decomposed, light brown and white	
					21				
					22				
					23				
					24				
					25			-gypsum more crystalline	Hard
					26				
					27				
					28				
					29				
					30			-more competent	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					01/05/2022		2 of 4
					PROJECT NO.:		PLATE NO.:
					22004		56

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-01

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, dry, brown and white	Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/05/2022	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	56

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-01

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPSSIFEROUS CLAYSTONE, dry, brown and white	Hard
					48				
					49				
					50			Bottom of Boring at 50 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/05/2022		4 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		56	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-02

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, some cobbles, trace boulders, slightly moist, brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9			-dark brown	
					10			CLAYSTONE, some gypsum, slightly decomposed, dry, light gray to white	Hard
					11			-moderately to severely decomposed, brown to reddish-brown	
					12				Mod. Hard
					13				
					14			-gypsiferous, brown to dark brown	
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
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					PROJECT NO.:	PLATE NO.:	
					22004	57	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-02

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			CLAYSTONE, some gypsum, moderately decomposed, dry, reddish-brown	Mod. Hard
					17				
					18				
					19				
					20			-gypsiferous	
					21				
					22				
					23				
					24			-moderately decomposed, light reddish brown	
					25				
					26			-moderately to severely decomposed, some gypsum, light brown to light reddish-brown	
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					12/20/2021	2 of 4	
					PROJECT NO.:	PLATE NO.:	
					22004	57	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-02

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, some gypsum, moderately decomposed, dry, light brown to light reddish-brown	Mod. Hard
					32				
					33				
					34				
					35			-gypsiferous, reddish-brown	
					36				
					37				
					38				
					39				
					40			-light grayish-brown	
					41				
					42			-some gypsum, light brown to light reddish-brown	
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/20/2021	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	57

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-333-02

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			CLAYSTONE, some gypsum, moderately decomposed, dry, light brown	Mod. Hard
					48				
					49				
					50			-slightly decomposed	
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59			-more competent, trace gypsum	Hard
					60			Bottom of Boring at 60 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 12/20/2021		PAGE NO: 4 of 4
					PROJECT NO.: 22004		PLATE NO.: 57

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-03

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	SEE SITE MAP	ELEVATION (ft):	N/A
		SITE:	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					6				
					7				
					8				
					9				
					10			GYPSUM, dry, white	
					11				
					12	SM		Silty SAND with gravel, slightly moist, light brown	
					13				
					14			CLAYSTONE, some gypsum, highly decomposed, dry, light brown	Mod. Hard
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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22004

















58

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			CLAYSTONE, some gypsum, highly decomposed, dry, light brown	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26			GYPSUM, trace claystone, dry, white	
					27			CLAYSTONE, little gypsum, dry, light brown	Hard
					28				
					29				
					30			-more gypsum	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/05/2022	2 of 3	
					PROJECT NO.:	PLATE NO.:	
					22004	58	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-03

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.





MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, some gypsum, dry, light brown	Hard
					32				
					33				
					34				
					35				
					36			-less gypsum, black and light brown	
					37			-gypsiferous, light brown and white	
					38				
					39				
					40			-dark gray and white	
					41				
					42				
					43				
					44				
					45			Bottom of Boring at 45 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
		B			2				
					3				
					4			-gypsum, claystone, and siltstone clasts, light brown and gray	
					5				
					6				
					7				
					8				
					9				
					10			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, light brown	Mod. Hard
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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22004

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-07

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, light brown	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, moderately decomposed, dry, light brown	Mod. Hard
					32				
					33				
					34				
					35				
								Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/17/2022		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		59	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Clayey SAND, trace gravel, dark brown	
					1			-light brown	
					2			-FILL: Sandy CLAY, trace gravel, slightly moist, light grayish-brown	
					3			-some gravel, light grayish-brown to light gray	
					4				
					5			some sand	
					6				
					7				
					8			-claystone cobbles	
					9				
					10				
					11	CL		Sandy CLAY, abundant gypsum, severely decomposed CLAYSTONE, slightly moist, light grayish-brown to tan	V. Stiff
					12				
					13			CLAYSTONE, moderately decomposed, dry, light grayish-brown to tan	Mod. Hard
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-333-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			CLAYSTONE, abundant gypsum, moderately decomposed, dry, light grayish-brown to tan	Mod. Hard
					17				
					18			-slightly decomposed	Hard
					19				
					20			-moderately decomposed	Mod. Hard
					21				
					22				
					23			-slightly decomposed, light grayish-brown	Hard
					24				
					25			-slightly to undecomposed, light grayish-brown to light gray	V. Hard
					26			-trace gypsum	
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					12/13/2021		2 of 3
					PROJECT NO.:		PLATE NO.:
					22004		60

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-09

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



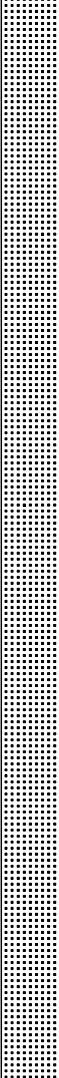
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			-slightly decomposed, light grayish-brown	Hard
					32				
					33				
					34			-slightly to undecomposed, light grayish brown to light gray	V. Hard
					35			-slightly decomposed, light brown to light grayish-brown	Hard
					36				
					37				
					38			-light grayish-brown to light gray	
					39				
					40				
					41				
					42				
					43			-light brown to light grayish-brown	
					44				
					45			-light grayish-brown	
								Bottom of Boring at 45 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					12/13/2021		3 of 3
					PROJECT NO.:		PLATE NO.:
					22004		60

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-11

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND, few gravel, slightly moist, dark brown	
					1				
					2			SANDSTONE and Siltstone, dry, light gray	Mod. Hard
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	1 of 3
		PROJECT NO.:	PLATE NO.:
		22004	61

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		
















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			SANDSTONE and Siltstone, dry, light gray	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28			CLAYSTONE, moderately decomposed, dry, olive and gray	
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 01/21/2022		PAGE NO: 2 of 3
					PROJECT NO.: 22004		PLATE NO.: 61

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


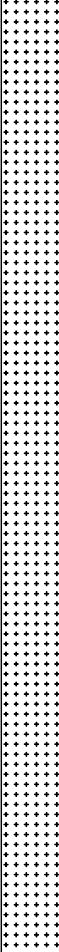
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, moderately decomposed, dry, olive and gray	Mod. Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42			-with Sandstone and Siltstone	
					43				
					44				
					45				
								Bottom of Boring at 45 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		61	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

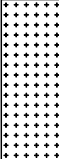



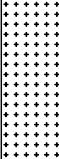

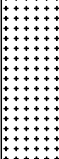

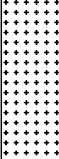
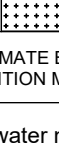


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4			GYPSUM, crystalline, dark gray and white	Mod. Hard
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/06/2022		1 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		62	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



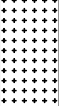


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSUM, crystalline, dry, dark gray and white	Mod. Hard
					17				
					18			GYPSIFEROUS CLAYSTONE, highly decomposed, dry, light and dark gray	
					19				
					20			GYPSUM, crystalline, dark gray and white	
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/06/2022	2 of 3	
					PROJECT NO.:	PLATE NO.:	
					22004	62	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYP SUM, crystalline, dark gray and white	Mod. Hard
					32				
					33				
					34				
					35				
								Bottom of Boring at 35 feet	



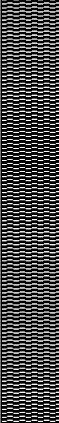
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/06/2022		3 of 3	
				PROJECT NO.: 22004		PLATE NO.: 62	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-333-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP			ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, gray	
					1				
					2				
					3	SM		Silty SAND with gravel, slightly moist, light gray	Med. Dense
					4				
					5				
					6				
					7				
					8			-brown	
					9				
					10			SILTSTONE/SANDSTONE, highly decomposed, dry, light brown-gray	Mod. Hard
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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22004

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			SILTSTONE/SANDSTONE, highly decomposed, dry, light brown-gray	Mod. Hard
					17				
					18				
					19			SANDSTONE, highly decomposed, dry, light gray	
					20			SILTSTONE/SANDSTONE, highly decomposed, dry, light brown-gray	
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30			CLAYSTONE, intermittent sandstone beds, dry, light brown	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					01/06/2022		2 of 3
					PROJECT NO.:		PLATE NO.:
					22004		63

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	





MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, intermittent sandstone beds, dry, light brown	Mod. Hard
					32				
					33				
					34				
					35				
								Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/06/2022		3 of 3	
				PROJECT NO.: 22004		PLATE NO.: 63	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-18

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	SM		Silty SAND with gravel, slightly moist, light brown	Loose
			1	SC		Clayey SAND, some gypsum, slightly moist, light gray	Med. Dense		
			2						
			3						
			4						
			5	SM		Silty SAND with gravel, slightly moist, light brown			
			6						
			7	SC		Clayey SAND, some gypsum, slightly moist, light gray			
			8						
			9						
			10						
			11						
			12						
			13						
			14						
		15							

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022	1 of 3
		PROJECT NO.:	PLATE NO.:
		22004	64

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-18

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SC		Clayey SAND, some gypsum, slightly moist, light gray	Med. Dense
					17				
					18				
					19			GYPSIFEROUS CLAYSTONE, dry, olive and white	Hard
					20				
					21				
					22				
					23				
					24				
					25			-brown and white	
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022	2 of 3
		PROJECT NO.:	PLATE NO.:
		22004	64

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-18

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, dry, brown and white	Hard
					32				
					33				
					34				
					35	-olive gray and white			
					36				
					37				
					38				
					39				
					40				
								Bottom of Boring at 40 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/06/2022 PROJECT NO.:	3 of 3 PLATE NO.:
		22004	64

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	CL		Sandy lean CLAY, trace gypsum, slightly moist, light brown	V. Stiff
					1				
					2				
					3	GM		Silty GRAVEL with sand, slightly moist, brown	Dense
					4	CL		Sandy lean CLAY, trace gypsum, slightly moist, light brown	V. Stiff
					5			CLAYSTONE, trace gypsum, moderately decomposed, light brown	Mod. Hard
					6				
					7				
					8			-sandy	
					9				
					10			-light gray	
					11			-light brown	
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
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					PROJECT NO.:	PLATE NO.:	
					22004	65	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-20

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			CLAYSTONE, trace gypsum, moderately decomposed, light brown	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25			-more sandy, light gray	
					26				
					27				
					28				
					29				
					30			-light brown	
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	2 of 4
		PROJECT NO.:	PLATE NO.:
		22004	65

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-333-20

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE, trace gypsum, moderately decomposed, light brown	Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40			-light gray-brown	
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	3 of 4
		PROJECT NO.:	PLATE NO.:
		22004	65

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			CLAYSTONE, trace gypsum, moderately decomposed, light gray-brown	Hard
					48				
					49				
					50			Bottom of Boring at 50 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		4 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		65	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-23

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



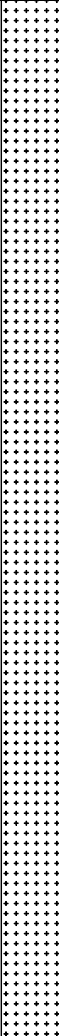
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown and gray	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	1 of 4
		PROJECT NO.:	PLATE NO.:
		22004	66

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-23

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17				
					18			GYPSUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	2 of 4
		PROJECT NO.:	PLATE NO.:
		22004	66

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-23

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYP SUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		3 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		66	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-23

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYP SUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
								Bottom of Boring at 60 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		4 of 4	
				PROJECT NO.:		PLATE NO.:	
				22004		66	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-25

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5	SM		Silty SAND with gravel, slightly moist, light brown-gray	Med. Dense
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	1 of 7
		PROJECT NO.:	PLATE NO.:
		22004	67

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-25

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown-gray	Med. Dense
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30			GYPSUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/12/2022	2 of 7	
					PROJECT NO.:	PLATE NO.:	
					22004	67	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-333-25

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYP SUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	3 of 7
		PROJECT NO.:	PLATE NO.:
		22004	67

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-25

CLIENT:				PROJECT:			
Pulte Homes				Three Kids Mine Site Mixed-Use Development			
BORING LOCATION:				ELEVATION (ft):		SITE:	
SEE SITE MAP				N/A		SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYP SUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	4 of 7
		PROJECT NO.:	PLATE NO.:
		22004	67

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-25

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

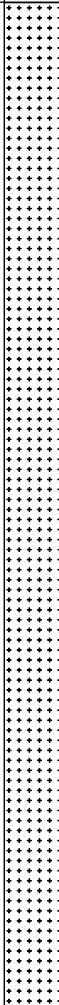

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			GYP SUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75				
					76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		5 of 7	
				PROJECT NO.:		PLATE NO.:	
				22004		67	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-25

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			GYPSUM, crystalline, with horizons of CLAYSTONE, dry, light gray	Hard
					79				
					80				
					81				
					82				
					83				
					84				
					85				
					86				
					87				
					88				
					89				
					90				
					91			CLAYSTONE, some gypsum, dry, gray	
					92				
					93				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022 PROJECT NO.: 22004	6 of 7 PLATE NO.: 67

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-25

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



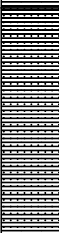
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					93			CLAYSTONE, some gypsum, dry, gray	Hard
					94				
					95				
					96				
					97				
					98				
					99				
					100				
								Bottom of Boring at 100 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		7 of 7	
				PROJECT NO.:		PLATE NO.:	
				22004		67	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-28

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND, some gravel, some cobbles, trace boulders, slightly moist, brown to dark brown	
					1			-trace gravel, light brown to light grayish-brown	
					2				
					3				
					4				
					5			CLAYSTONE, slightly to moderately decomposed, dry, light grayish-brown	Mod. Hard
					6			-moderately decomposed, light brown to light grayish-brown	
					7				
					8			Partially welded TUFF, dry, intermittently welded and unwelded layers, light grayish-brown	V. Hard
					9				
					10				
					11			-some lithic fragments	Hard
					12				
					13				
					14			-thin chemical alterations, pale green and dark reddish-brown	Mod. Hard
					15			-some partially collapsed pumice	Hard

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					12/21/2021	1 of 5	
					PROJECT NO.:	PLATE NO.:	
					22004	68	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-28

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			Intermittently welded TUFF, some gray lithic fragments and partially collapsed white pumice fragments, dry, pale pinkish to greenish-white	Hard
					17				
					18			-unwelded	Mod. Hard
					19				
					20				
					21			-thin intermittent welded layers	
					22				
					23			-slightly welded, no lithic or pumice fragments, light grayish-brown to light gray	Hard
					24				
					25			-unwelded, trace iron nodules, light grayish-brown	Mod. Hard
					26				
					27				
					28				
					29			-partially welded	Hard
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					12/21/2021		2 of 5
					PROJECT NO.:		PLATE NO.:
					22004		68

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-28

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			Partially welded TUFF, trace iron nodules, dry, light grayish-brown	Hard
					32				
					33				
					34			-light gray and greenish-gray banding	Mod. Hard
					35				
					36				
					37				Hard
					38				
					39				
					40				
					41				
					42			-welded to moderately welded, white	Hard
					43				
					44			-some lithic fragments	
					45				
					46				
















THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/21/2021		3 of 5	
				PROJECT NO.:		PLATE NO.:	
				22004		68	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-333-28

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			Partly welded TUFF, some lithic fragments and chemical alterations, dry, light grayish-brown	Mod. Hard
					48				
					49			-light greenish-gray and white banding	
					50				
					51				
					52				
					53			-light grayish-brown to white	Hard
					54				
					55			SANDSTONE, some reworked tuff fragments, iron alterations, light brown to light grayish-brown	Mod. Hard
					56				
					57				
					58			CLAYSTONE, some white banding, dry, light greenish to grayish-brown	Hard
					59				
					60			SILTSTONE, greenish and reddish-white banding, dry, light grayish-brown	Mod. Hard
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.





\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/21/2021 PROJECT NO.: 22004	4 of 5 PLATE NO.: 68

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-28

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			SILTSTONE, greenish and reddish-white banding, dry, light grayish-brown	Mod. Hard
					63			CLAYSTONE, dry, white	V. Hard
					64				
					65				
								Bottom of Boring at 65 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/21/2021	5 of 5
		PROJECT NO.:	PLATE NO.:
		22004	68

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-32

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	SM		Silty SAND with gravel, slightly moist, light brown	
					1				
					2				
					3				
					4				
					5			-clasts of crystalline gypsum	
					6				
					7				
					8			GYPSUM, crystalline, some sand and clay, dry, gray and brown	Hard
					9				
					10				
					11				
					12			-interbedded with decomposed CLAYSTONE	
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	1 of 6
		PROJECT NO.:	PLATE NO.:
		22004	69

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-32

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSUM, crystalline, interbedded with decomposed CLAYSTONE dry, gray and brown	Hard
					17				
					18			-with sand and clay	
					19				
					20				
					21				
					22				
					23				
					24				
					25			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, olive-gray	Mod. Hard
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/12/2022	2 of 6	
					PROJECT NO.:	PLATE NO.:	
					22004	69	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-32

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, moderately decomposed, dry, olive-gray	Mod. Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	3 of 6
		PROJECT NO.:	PLATE NO.:
		22004	69

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-32

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPSSIFEROUS CLAYSTONE, moderately decomposed, dry, olive-gray	Mod. Hard
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/12/2022	4 of 6
		PROJECT NO.:	PLATE NO.:
		22004	69

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-32

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			GYPHSIFEROUS CLAYSTONE, moderately decomposed, dry, olive-gray	Mod. Hard
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75			-olive-brown and gray	
					76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		5 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		69	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-333-32

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, olive-gray	Mod. Hard
					79				
					80				
								Bottom of Boring at 80 feet	




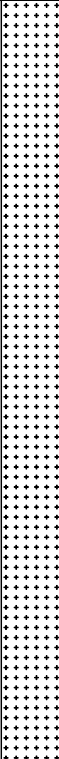
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/12/2022		6 of 6	
				PROJECT NO.:		PLATE NO.:	
				22004		69	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-334-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			0	FILL		FILL: Silty SAND with gravel, dark brown	
					1				
					2				
					3			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					4				
					5				
					6			GYPSUM, crystalline, dry, gray and white	
					7				
					8				
					9				
					10			-with claystone layers 10-17'	
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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22004

70

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		
















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSUM, crystalline, dry, gray and white	Mod. Hard
					17				
					18				
					19				
					20			-olive-gray	
					21				
					22				
					23				
					24				
					25			CLAYSTONE with Siltstone, moderately decomposed, dry, light gray	
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					01/21/2022		2 of 3
					PROJECT NO.:		PLATE NO.:
					22004		70

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-07

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			CLAYSTONE with Siltstone, moderately decomposed, dry, light gray	Mod. Hard
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43			-sandy	
					44				
					45				
								Bottom of Boring at 45 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					01/21/2022		3 of 3
					PROJECT NO.:		PLATE NO.:
					22004		70

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, some cobbles and debris, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8			-FILL: Clayey SAND, some gravel, slightly moist, dark brown	
					9				
					10				
					11				
					12				
					13				
					14			-some debris, dark brown to brown	
					15	SM		Silty SAND with gravel, some cobbles, slightly moist, brown	Med. Dense

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.




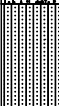




\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/13/2021	1 of 3
		PROJECT NO.: 22004	PLATE NO.: 71

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, some cobbles, slightly moist, brown	Med. Dense
					17	SP-SM		Poorly-graded SAND with silt and gravel, slightly moist, light grayish-brown	
					18			-trace gravel, brown to light grayish brown	
					19				
					20	SM		Silty SAND, thin and intermittent lenses of brown CLAY, slightly moist, light brown to light grayish-brown	Dense
					21	CL		Lean CLAY, some sand, gypsum, and reddish-brown pieces of Fat CLAY, slightly moist, light brown to light reddish-brown	V. Stiff
					22				
					23			-trace sand	
					24				
					25	CH		Fat CLAY, some gypsum, slightly moist, light reddish-brown	
					26				
					27				
					28	CL		Lean CLAY, some sand and gypsum, slightly moist, light reddish-brown to light brown	
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

PAGE NO:

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PROJECT NO.:

PLATE NO.:

22004



71

CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	CL		Lean CLAY, some sand, abundant gypsum, slightly moist, light grayish-brown	V. Stiff
					32				
					33				
					34				
					35				
					36				
					37				
					38			-sandy, trace gypsum	
					39				
					40				
					41				
					42				
					43			CLAYSTONE, some gypsum, slightly moist, light grayish-brown	V. Hard
					44				
					45			Bottom of Boring at 45 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					12/13/2021	3 of 3	
					PROJECT NO.:	PLATE NO.:	
					22004	71	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-10B

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

















MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, claystone and large crystalline gypsum clasts, slightly moist, brown, gray and white	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		1 of 3	
				PROJECT NO.: 22004		PLATE NO.: 72	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-10B

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					17			SANDSTONE, dry, white-gray	Mod. Hard
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31			-with Siltstone	


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED: 01/21/2022		PAGE NO: 2 of 3
					PROJECT NO.: 22004		PLATE NO.: 72

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-334-10B

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			SANDSTONE with Siltstone, dry, white-gray	Mod. Hard
					32				
					33				
					34				
					35			Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	72

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-15

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown and black	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	73

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-15

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown and black	
					17			-light brown	
					18				
					19				
					20			-dark brown and black	
					21				
					22			-light brown	
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					Bottom of Boring at 30 feet				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	2 of 2
		PROJECT NO.:	PLATE NO.:
		22004	73

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-15B

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, some cobbles, boulders, and concrete debris, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				22004		74	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-15B

CLIENT:	Pulte Homes	PROJECT:	Three Kids Mine Site Mixed-Use Development
BORING LOCATION:	ELEVATION (ft):	SITE:	
SEE SITE MAP	N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SP- SM		Poorly-sorted SAND with silt and gravel, some clasts of decomposing rock, slightly moist, brown to light brown	Med. Dense
					17				
					18	GM		Silty GRAVEL with sand, slightly moist, light brown	
					19	SM		Silty SAND with gravel, slightly moist, light brown to light grayish-brown	Dense
					20	CL		Sandy CLAY, nearly partially cemented, some interbedded gypsum and reddish-brown CLAY, slightly moist, light grayish-brown to light gray	V. Stiff
					21				
					22				
					23			-light brown to light grayish-brown	
					24				
					25				
					26			GYPSIFEROUS CLAYSTONE, dry, reddish-brown	Mod. Hard
					27				
					28				
					29			-some gypsum, light gray to white	Hard
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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22004

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CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-15B

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


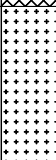



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPHSIFEROUS CLAYSTONE, dry, reddish-brown	V. Hard
					32				
					33				
					34			-light gray to white	
					35			Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/14/2021		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		74	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-20

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
BORING LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5				
					6			GYPSUM, crystalline, dry, gray and white	
					7				
					8	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					9				
					10				
					11				
					12	SP-SM		Poorly graded SAND with silt and gravel, slightly moist, light brown	
					13				
					14	SM		Silty SAND with gravel, slightly moist, light brown	
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		22004	75

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-334-20

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SM		Silty SAND with gravel, slightly moist, light brown	
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24			-larger gravel	
					25				
					26				
					27				
					28				
					29				
					30			Bottom of Boring at 30 feet	




THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	75

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-336-12

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3				
					4				
					5	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
					6				
					7				
					8				
					9				
					10			-with gypsum	
					11				
					12				
					13				
					14			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-12

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26			Bottom of Boring at 26 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				PROJECT NO.:		PLATE NO.:	
				22004		76	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, trace cobbles, slightly moist, brown to dark brown	
					1				
					2				
					3				
					4				
					5				
					6			-some cobbles, brown to light brown	
					7				
					8				
					9				
					10	GM		Silty GRAVEL with sand, some cobbles, slightly moist, light brown	Dense
					11				
					12				
					13			-brown	
					14				
					15	SC		Clayey SAND, some gypsum, slightly moist, light grayish-brown	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

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














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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	SC		Clayey SAND, some gypsum, slightly moist, light grayish-brown	Dense
					17	CL		Sandy CLAY, severely decomposed claystone, trace gypsum, slightly moist, light brown	V. Stiff
					18				
					19				
					20			GYPSIFEROUS CLAYSTONE, slightly decomposed, dry, light brown	Mod. Hard
					21				
					22			-light brown to light grayish-brown	
					23				
					24			-more competent, some thin and intermittent moderately decomposed lenses, light grayish-brown to tan	Hard
					25				
					26				
					27				
					28				
					29				
					30			-gray	V. Hard
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		







MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPSSIFEROUS CLAYSTONE, dry, gray	V. Hard
					32				
					33				
					34				
					35			-light gray	
					36				
					37				
					38			-light gray to white	
					39				
					40			-moderately to severely decomposed, reddish-brown	Mod. Hard
					41				
					42			-moderately decomposed, light reddish-brown	Hard
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-15

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	



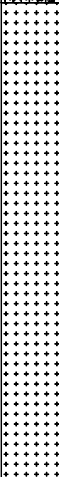
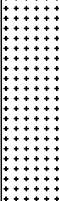
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			GYPHSIFEROUS CLAYSTONE, moderately decomposed, dry, light reddish-brown	Hard
					48				
					49				
					50				
					51				
					52				
								Bottom of Boring at 52 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
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				PROJECT NO.:		PLATE NO.:	
				22004		77	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, dark brown	
					1				
					2				
					3	SP-SM		Poorly graded SAND with silt and gravel, slightly moist, light brown	Med. Dense
					4				
					5				
					6				
					7			GYPSUM, some crystals, dry, white and gray	
					8				
					9				
					10				
					11				
					12				
					13			-more crystalline	Mod. Hard
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		22004	78

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSUM, crystalline, dry, white and gray	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				
								Mod. Hard	

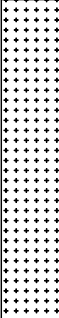
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		2 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		78	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG SS-336-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	




MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYP SUM, crystalline, dry, white and gray	Mod. Hard
					32				
					33				
					34				
					35				
								Bottom of Boring at 35 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		78	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-29

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty SAND with gravel, slightly moist, brown	
					1				
					2				
					3				
					4				
					5				
					6				
					7	SM		Silty SAND with gravel, gypsum, slightly moist, light brown	Med. Dense
					8				
					9				
					10			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					01/21/2022 PROJECT NO.:	1 of 3 PLATE NO.:	
					22004	79	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-29

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16			GYPSIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/21/2022	2 of 3
		PROJECT NO.:	PLATE NO.:
		22004	79

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG SS-336-29

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31			GYPsIFEROUS CLAYSTONE, moderately decomposed, dry, brown and white	Mod. Hard
					32				
								Bottom of Boring at 32.5 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/21/2022		3 of 3	
				PROJECT NO.:		PLATE NO.:	
				22004		79	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
					1				
					2				
					3			-FILL: Silty SAND, some gravel, slightly moist, dark brown	
					4				
					5				
					6			-FILL: Sandy CLAY, slightly moist, dark brown	
					7				
					8				
					9				
					10			-FILL: Silty SAND, slightly moist, dark brown	
					11				
					12			-FILL: Clayey SAND with gravel, slightly moist, dark brown	
					13				
					14				
					15			-FILL: Silty SAND with gravel, some clay, slightly moist, dark brown	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.


\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/22/2021 PROJECT NO.: 22004	1 of 8 PLATE NO.: 80

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Silty SAND with gravel, some clay, slightly moist, dark brown	
					17			-trace gravel	
					18				
					19				
					20			-FILL: Clayey SAND, some gravel, slightly moist, dark brown	
					21				
					22			-FILL: Sandy CLAY, slightly moist, dark brown	
					23				
					24			-FILL: Clayey SAND, slightly moist, dark brown	
					25				
					26				
					27				
					28				
					29			-FILL: Silty SAND, slightly moist, dark brown	
					30				
					31				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.




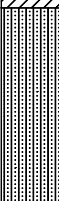
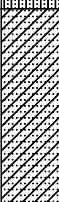

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/22/2021 PROJECT NO.: 22004	2 of 8 PLATE NO.: 80

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		-FILL: Silty SAND, slightly moist, dark brown	
					32				
					33	SC		Clayey SAND, interbedded with light brown sandy CLAY, slightly moist, dark brown	Med. Dense
					34				
					35				
					36	CL		Sandy lean CLAY with gravel, slightly moist, dark brown	V. Stiff
					37				
					38				
					39	SM		Silty SAND, trace gravel and clay, slightly moist, dark brown	Med. Dense
					40				
					41				
					42	SC		Clayey SAND, interbedded with brown Fat CLAY, slightly moist, brown to light brown	
					43				
					44	CH		Fat CLAY, interbedded with brown sandy CLAY, slightly moist, light brown	V. Stiff
					45				
					46			-light brown to light reddish-brown	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.






\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		12/22/2021	3 of 8
		PROJECT NO.: 22004	PLATE NO.: 80

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B			47	CH		Fat CLAY, interbedded with brown sandy CLAY, slightly moist, light brown to light reddish-brown	V. Stiff
					48	CL		Lean CLAY, some thin and intermittent lenses of Silty SAND, trace lenses of light reddish-brown FAT CLAY, slightly moist, dark brown	
					49	SM		Silty SAND, trace lenses of dark brown CLAY, slightly moist, brown	Med. Dense
					50				
					51	CL		Lean CLAY, some sand, dark brown	V. Stiff
					52				
					53	SM		Silty SAND with gravel, some gypsum, trace lenses of dark brown CLAY, slightly moist, brown to light brown	Med. Dense
					54				
					55				
					56				
					57				
					58				
					59			-some cobbles	
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL. \* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE

**CENTURION  
CONSULTANTS**

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			GYPHSIFEROUS CLAYSTONE, slightly moist, light grayish-brown to white	V. Hard
					63			-white	
					64				
					65				
					66				
					67				
					68				
					69				
					70			-light grayish-brown	
					71				
					72			-white	
					73				
					74				
					75			-moderately to severely decomposed, some gypsum, slightly moist, light grayish-brown to white	Mod. Hard
					76				
					77			-abundant gypsum, some sand, light grayish-brown to white	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			GYPSSIFEROUS CLAYSTONE, dry, light grayish-brown	Mod. Hard
					79				
					80			-some gypsum, tan to white	
					81				
					82				
					83				
					84				
					85			-abundant gypsum	
					86				
					87				
					88			-sandy, some gypsum, light reddish-brown	
					89				
					90			-abundant gypsum, slightly decomposed, dry, gray to white	Hard
					91				
					92				
					93				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:	PAGE NO:	
					12/22/2021	6 of 8	
					PROJECT NO.:	PLATE NO.:	
					22004	80	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					93			GYPSIFEROUS CLAYSTONE, slightly to moderately decomposed, dry, light brown to light grayish-brown	Mod. Hard
					94			-slightly decomposed, light grayish-brown to white	Hard
					95				
					96				
					97			-abundant gypsum, undecomposed, gray	V. Hard
					98				
					99			-dark gray	
					100				
					101				
					102			-slightly decomposed, light gray	Hard
					103				
					104				
					105				
					106			-more competent, dark gray	V. Hard
					107				
					108				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:
					12/22/2021		7 of 8
					PROJECT NO.:		PLATE NO.:
					22004		80

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-03

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					109			GYPsIFEROUS CLAYSTONE, dry, dark gray	V. Hard
					110			Bottom of Boring at 110 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				12/22/2021		8 of 8	
				PROJECT NO.:		PLATE NO.:	
				22004		80	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-04


CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					0	FILL		FILL: Tailings - Sandy SILT, slightly moist, dark gray	
					1				
					2				
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				
					13				
					14				
					15				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	81

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG TA-212-04

CLIENT:					PROJECT:				
Pulte Homes					Three Kids Mine Site Mixed-Use Development				
BORING LOCATION:				ELEVATION (ft):	SITE:				
SEE SITE MAP				N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.				
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					16	FILL		FILL: Tailings - Sandy SILT, slightly moist, dark gray	
					17				
					18				
					19				
					20				
					21				
					22				
					23				
					24				
					25				
					26				
					27				
					28				
					29				
					30			-FILL: Tailings - Lean CLAY, slightly moist, dark gray	
					31				
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.						* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS			NOTES: Groundwater not encountered in the depth drilled.			DATE DRILLED:		PAGE NO:	
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						PROJECT NO.: 22004		PLATE NO.: 81	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-04

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					31	FILL		FILL: Tailings - Lean CLAY, slightly moist, dark gray	
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40			CLAYSTONE, dry, light brown	Mod. Hard
					41				
					42				
					43				
					44				
					45				
					46				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth drilled.

DATE DRILLED:

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PROJECT NO.:

PLATE NO.:

22004

81

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-04

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					47			CLAYSTONE, dry, light brown	Mod. Hard
					48				
					49				
					50				
					51				
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
					62				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022	4 of 6
		PROJECT NO.:	PLATE NO.:
		22004	81

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# BORING LOG TA-212-04

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
BORING LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.









MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					62			CLAYSTONE, dry, light brown	Mod. Hard
					63				
					64				
					65				
					66				
					67				
					68				
					69				
					70				
					71				
					72				
					73				
					74				
					75				
					76				
					77				

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth drilled.	DATE DRILLED:	PAGE NO:
		01/17/2022	5 of 6
		PROJECT NO.:	PLATE NO.:
		22004	81

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# BORING LOG TA-212-04

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
BORING LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	






MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	BLOWS/FT	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
					78			CLAYSTONE, dry, light brown	Mod. Hard
					79				
					80				
					81				
					82				
					83				
					84				
					85				
								Bottom of Boring at 85 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth drilled.		DATE DRILLED:		PAGE NO:	
				01/17/2022		6 of 6	
				PROJECT NO.: 22004		PLATE NO.: 81	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-1

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	












MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B		0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	
				3	SM		Silty SAND with gravel, slightly moist, light brown	Mod. Hard
				4				
				5			GYPSIFEROUS CLAYSTONE, dry, brown	
				6			Bottom of Trench at 6.5 feet Refusal on CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
						02/09/2022 PROJECT NO.:	1 of 1 PLATE NO.:
						22004	82

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-2





CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				2				
				3				
				4				Dense
		B		5			-gray-brown -trace gypsum	V. Dense
				6				
				7				
				8				
				9				
							Bottom of Trench at 9.5 feet Refusal on CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
						02/09/2022	1 of 1
						PROJECT NO.:	PLATE NO.:
						22004	83

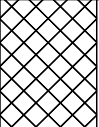


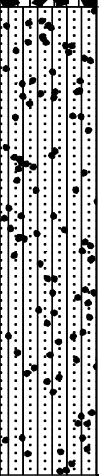
THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

TEST PIT LOG TP-3										
CLIENT: Pulte Homes					PROJECT: Three Kids Mine Site Mixed-Use Development					
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.					
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION		CONSISTENCY	
		B		0	FILL		FILL: Silty SAND with gravel, cobbles, slightly moist, dark brown			
				1						
				2	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense		
				3			GYPSIFEROUS CLAYSTONE, dry, brown	Mod. Hard		
							Bottom of Trench at 4 feet Refusal on CLAYSTONE			
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.					* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE					
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.			DATE EXCAVATED:		PAGE NO:	
							02/09/2022		1 of 1	
							PROJECT NO.:		PLATE NO.:	
							22004		84	

# TEST PIT LOG TP-4

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

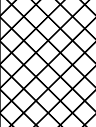
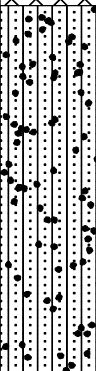
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark gray	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				3				
				4				
				5				
				6				
		B		7				
				8	SM		Silty SAND with gravel, slightly moist, light brown	
				9				
				10				
				11				
				12				
				13				
				14				Dense
							Bottom of Trench at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.			DATE EXCAVATED:		PAGE NO:
					02/09/2022		1 of 1
					PROJECT NO.:		PLATE NO.:
					22004		85

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-5

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
TEST PIT LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

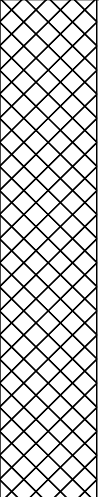
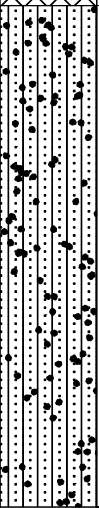
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, gray to dark brown	
				1				
				2	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				3				
				4				
				5				Dense
				6				
				7				V. Dense
							Bottom of Trench at 7.5 feet Refusal on SANDSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
		02/09/2022	1 of 1
		PROJECT NO.:	PLATE NO.:
		22004	86

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-6

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.		

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, gray	
				1				
				2				
				3				
				4				
				5				
				6				
				7				
				8	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				9				Dense
				10				
				11				V. Dense
				12				
				13			-trace gypsum, gray	
				14				
							Bottom of Trench at 15 feet	


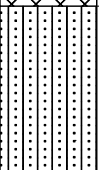



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.			DATE EXCAVATED:		PAGE NO:
					02/09/2022		1 of 1
					PROJECT NO.:		PLATE NO.:
					22004		87

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# TEST PIT LOG TP-7

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
TEST PIT LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.


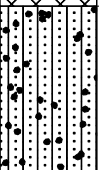

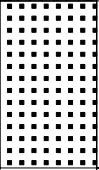
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1				
				2	SM		Silty SAND, slightly moist, light brown	Dense
				3				
				4			GYPSIFEROUS CLAYSTONE, dry, brown	Mod. Hard
		B		5				
							Bottom of Trench at 6 feet Refusal on CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE		
<b>CENTURION CONSULTANTS</b>	NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
			02/09/2022	1 of 1
			PROJECT NO.:	PLATE NO.:
			22004	88

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-8

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

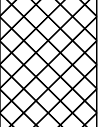

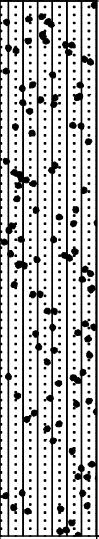
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2	SM		Silty SAND with gravel, slightly moist, light brown	Dense
				3				
				4	GM		Silty GRAVEL with sand, slightly moist, light brown	
				5				
				6				
				7				
				8				
				9				
				10			SANDSTONE, dry, light brown	Mod. Hard
				11				
							Bottom of Trench at 11.5 feet Refusal on SANDSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:		PAGE NO:	
				02/08/2022		1 of 1	
				PROJECT NO.:		PLATE NO.:	
				22004		89	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-9

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	Loose
				3				
				4				
				5				
				6				
				7	SM		Silty SAND with gravel, slightly moist, light brown	Dense
				8				
				9				
				10				
				11				
				12				
				13				
				14				
							Bottom of Trench at 15 feet	

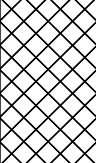
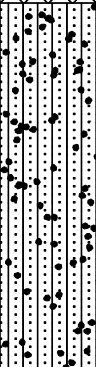

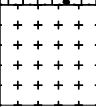
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
--	--	--	--	---	--	--	--

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
		02/08/2022 PROJECT NO.:	1 of 1 PLATE NO.:
		22004	90

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-10

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

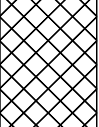
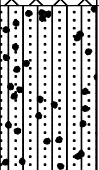

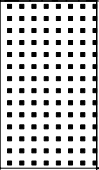
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		Silty GRAVEL with sand, cobbles, slightly moist, dark gray	
				1				
				2				
				3	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				4				
				5				
		B		6			-brown	Dense
				7				
				8			GYPSUM with CLAYSTONE horizons, slightly moist, brown	Mod. Hard
				9				
							Bottom of Trench at 9.5 feet Refusal on GYPSUM and CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
						02/09/2022	1 of 1
						PROJECT NO.:	PLATE NO.:
						22004	91

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-11

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

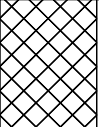
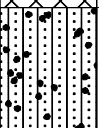
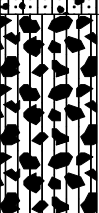
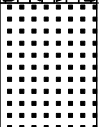
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, light brown	
				1				
				2	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				3				
				4				
				5	GM		Silty GRAVEL with sand, slightly moist, light brown	Mod. Hard
				6				
				7				
				8			SANDSTONE, dry, light brown	Mod. Hard
				9				
							Bottom of Trench at 9.5 feet Refusal on SANDSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
						02/08/2022 PROJECT NO.:	1 of 1 PLATE NO.:
						22004	92

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-12

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown-gray	
				1				
				2	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				3				
				4	GM		Silty GRAVEL with sand, slightly moist, light brown	
				5				
				6				
				7			SANDSTONE, dry, light brown	Mod. Hard
				8			-gray	
				9				
							Bottom of Trench at 10 feet Refusal on SANDSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.




\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
		02/08/2022 PROJECT NO.:	1 of 1 PLATE NO.:
		22004	93

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-13

CLIENT:		PROJECT:	
Pulte Homes		Three Kids Mine Site Mixed-Use Development	
TEST PIT LOCATION:		ELEVATION (ft):	SITE:
SEE SITE MAP		N/A	SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, gray-brown	Loose
				3				
				4				
				5				
				6				
				7				
		B		8				
				9				
				10				
				11				
				12				
							Bottom of Trench at 12.5 feet Refusal on SANDSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
		02/09/2022	1 of 1
		PROJECT NO.:	PLATE NO.:
		22004	94

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-14

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1			SANDSTONE, dry, light brown	Mod. Hard
							Bottom of Trench at 2 feet Refusal on SANDSTONE	


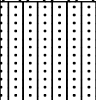


THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:		PAGE NO:	
				02/08/2022		1 of 1	
				PROJECT NO.: 22004		PLATE NO.: 95	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# TEST PIT LOG TP-15

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
TEST PIT LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

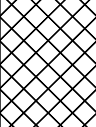

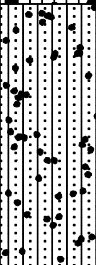
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark gray	
				1	SM		Silty SAND with gravel, slightly moist, light brown	Med. Dense
				2				
				3	GM		Silty GRAVEL with sand, slightly moist, light brown	
				4				
				5				
				6			SANDSTONE, dry, light brown	Mod. Hard
							Bottom of Trench at 6.5 feet Refusal on SANDSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
<h2 style="margin: 0;">CENTURION CONSULTANTS</h2>	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
		02/08/2022 PROJECT NO.:	1 of 1 PLATE NO.:
		22004	96

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-16

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B		0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				3				
				4				
				5	SM		Silty SAND with gravel, slightly moist, light brown	
				6				
				7			-gypsum	
				8				
							Bottom of Trench at 8.5 feet Refusal on CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth excavated.

DATE EXCAVATED:

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22004

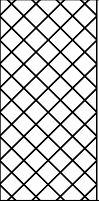

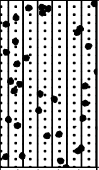

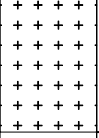
97

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-17

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1				
				2				
				3	GM		Silty GRAVEL with sand, slightly moist, gray-brown	Dense
				4				
				5				
				6	SM		Silty SAND with gravel, slightly moist, brown	
				7				
				8				
		B		9			GYPSUM, dry, gray-white	V. Dense
				10				
							Bottom of Trench at 10.5 feet Refusal on GYPSUM	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth excavated.

DATE EXCAVATED:

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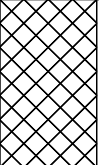

98

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-18

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
TEST PIT LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2				
				3	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				4				
				5				Dense
				6				
							Bottom of Trench at 6.5 feet Refusal on SANDSTONE	

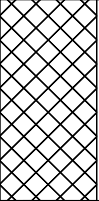

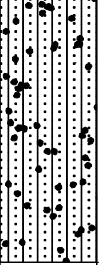



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.	* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE
--	---

CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
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		22004	99

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-19

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

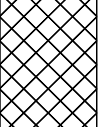

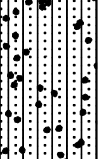
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, brown	
				1				
				2				
				3	GM		Silty GRAVEL with sand, slightly moist, light brown	Dense
				4				
				5	SM		Silty SAND with gravel, slightly moist, light dark brown	
				6				
				7				
				8				
				9			CLAYSTONE/SILTSTONE, dry, gray	Mod. Hard
		B		10			-gypsum	
							Bottom of Trench at 11 feet Refusal on CLAYSTONE	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:		PAGE NO:	
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				PROJECT NO.:		PLATE NO.:	
				22004		100	

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-20

CLIENT: Pulte Homes		PROJECT: Three Kids Mine Site Mixed-Use Development	
TEST PIT LOCATION: SEE SITE MAP		ELEVATION (ft): N/A	SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

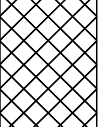

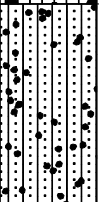
MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, gray-brown	Med. Dense
				3				
				4				Dense
				5	SM		Silty SAND with gravel, slightly moist, gray-brown	
				6				
				7				
							Bottom of Trench at 7.5 feet Refusal on GYPSUM	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.		* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE	
CENTURION CONSULTANTS	NOTES: Groundwater not encountered in the depth excavated.	DATE EXCAVATED:	PAGE NO:
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		PROJECT NO.:	PLATE NO.:
		22004	101

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-21

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
		B		0	FILL		FILL: Silty GRAVEL with sand, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, gray-brown	Med. Dense
				3				
				4				
				5	SM		Silty SAND with gravel, slightly moist, light brown	Dense
				6				
				7			-trace gypsum	
							Bottom of Trench at 7.5 feet Refusal on GYPSUM	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:  
Groundwater not encountered in the depth excavated.

DATE EXCAVATED:

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**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-22

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

TEST PIT LOCATION:

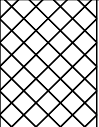
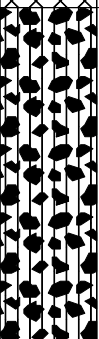
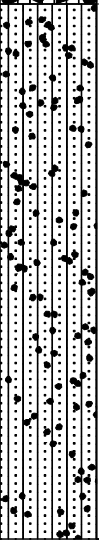

SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				3				
				4				
				5				
				6				Dense
				7	SM		Silty SAND with gravel, slightly moist, light brown	
				8				
				9				
				10				V. Dense
				11				
				12				
				13				
				14				
		B					Bottom of Trench at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth excavated.

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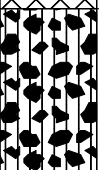
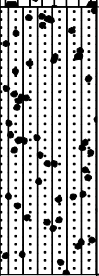
CENTURION  
CONSULTANTS

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.



# TEST PIT LOG TP-23

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

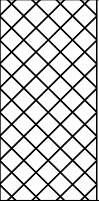
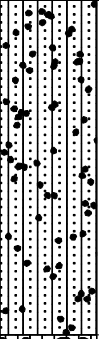



MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1	GM		Silty GRAVEL with sand, slightly moist, gray-brown	Med. Dense
				2				
				3				
				4	SM		Silty SAND with gravel, slightly moist, light brown	Dense
				5				
				6				
				7			-trace gypsum	
							Bottom of Trench at 7.5 feet Refusal on GYPSUM	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
						02/07/2022 PROJECT NO.:	1 of 1 PLATE NO.:
						22004	104

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-24

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1				
				2				
				3	SM		Silty SAND with gravel, slightly moist, gray-brown	Med. Dense
				4				
				5				
				6				
				7			-trace gypsum	
		B		8	GM		Silty GRAVEL with sand, slightly moist, gray-brown	
				9				
				10			GYPSUM, dry, gray-white	V. Dense
							Bottom of Trench at 10.5 feet Refusal on GYPSUM	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS				NOTES: Groundwater not encountered in the depth excavated.		DATE EXCAVATED:	PAGE NO:
						02/07/2022	1 of 1
						PROJECT NO.:	PLATE NO.:
						22004	105

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-25

CLIENT:

Pulte Homes

PROJECT:

Three Kids Mine Site Mixed-Use Development

TEST PIT LOCATION:

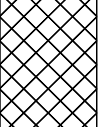

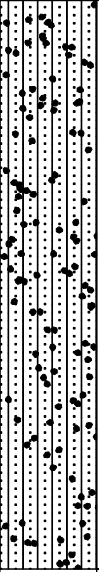
SEE SITE MAP

ELEVATION (ft):

N/A

SITE:

SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, slightly moist, dark brown	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				3				
				4				Dense
				5				
				6				
				7	SM		Silty SAND with gravel, cobbles, slightly moist, light brown	Med. Dense
				8				
				9				
				10			-gray-brown	
				11				Dense
				12				
				13				
				14				
							Bottom of Trench at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

\* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION  
BN = BULL NOSE C = CORE

NOTES:

Groundwater not encountered in the depth excavated.

DATE EXCAVATED:

02/07/2022

PROJECT NO.:

22004

PAGE NO:

1 of 1

PLATE NO.:

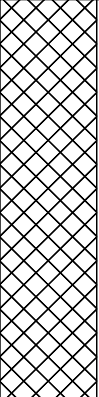

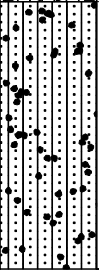

106

**CENTURION  
CONSULTANTS**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

# TEST PIT LOG TP-26

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	


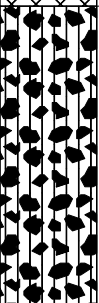
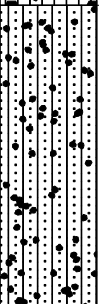

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark brown	
				1				
				2			-light brown	
				3				
				4				
				5				
				6	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				7				
				8				
				9				
				10			-gray-brown	
				11	SM		Silty SAND with gravel, slightly moist, light brown	Dense
				12				
		B		13				
				14				
							Bottom of Trench at 15 feet	

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.			DATE EXCAVATED:		PAGE NO:
					02/07/2022		1 of 1
					PROJECT NO.:		PLATE NO.:
					22004		107

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.








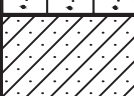


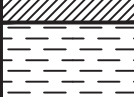



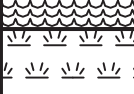
# TEST PIT LOG TP-27

CLIENT: Pulte Homes				PROJECT: Three Kids Mine Site Mixed-Use Development			
TEST PIT LOCATION: SEE SITE MAP				ELEVATION (ft): N/A		SITE: SEC Lake Mead Pkwy. & Lake Las Vegas Pkwy.	

MOISTURE CONTENT %	DRY DENSITY PCF	SAMPLE TYPE*	SAMPLE	DEPTH, FT	USCS SYMBOL	GRAPHIC	SOIL DESCRIPTION	CONSISTENCY
				0	FILL		FILL: Silty GRAVEL with sand, cobbles, slightly moist, dark gray	
				1				
				2	GM		Silty GRAVEL with sand, slightly moist, light brown	Med. Dense
				3				
				4				
				5				Dense
				6	SM		Silty SAND with gravel, slightly moist, gray-brown	Med. Dense
				7				
				8				
				9				
		B		10				
				11			-light brown	Dense
				12				
				13				
				14				
							Bottom of Trench at 15 feet	

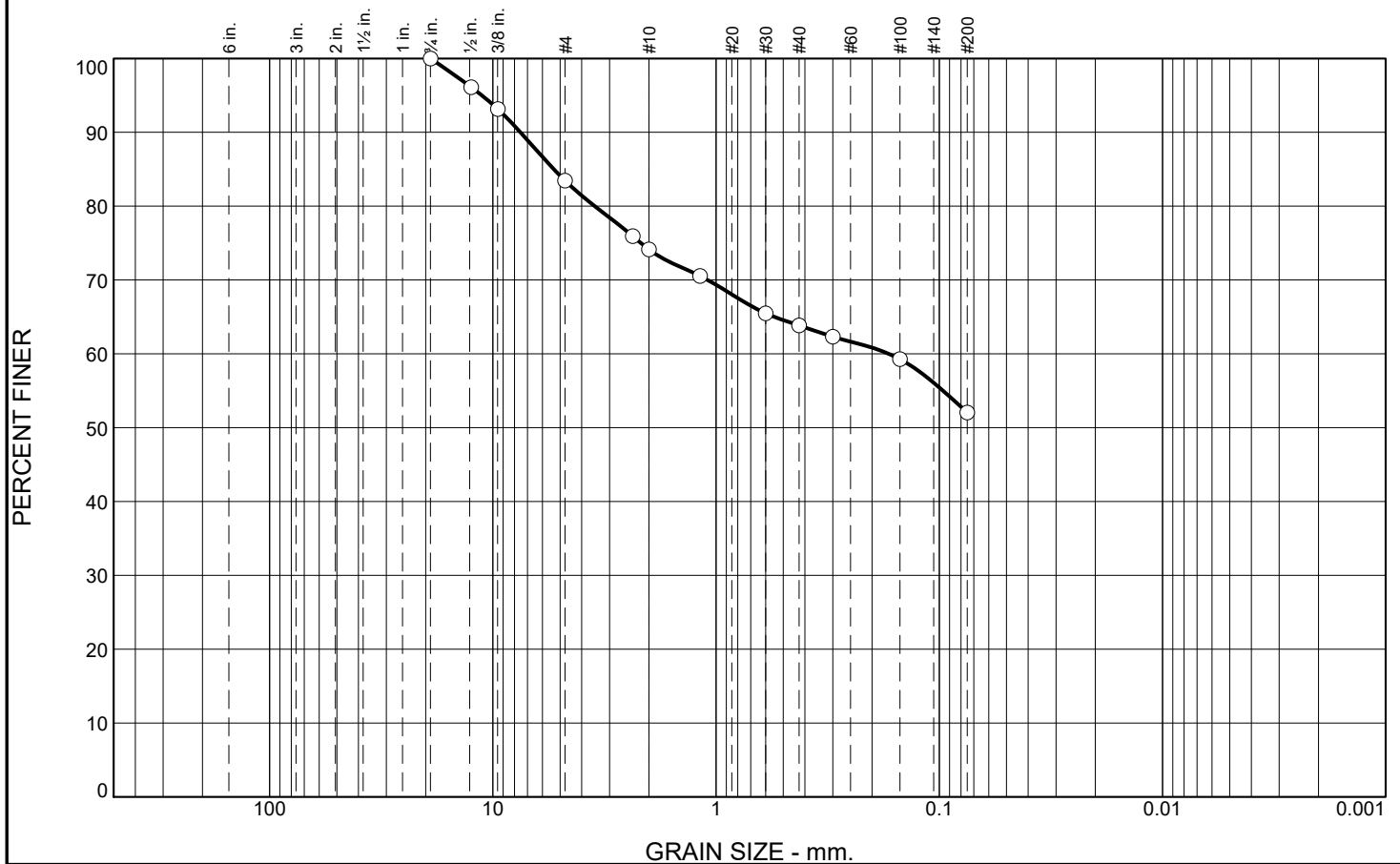
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.				* SAMPLE TYPE: R = RING B = BAG SPT = STANDARD PENETRATION BN = BULL NOSE C = CORE			
CENTURION CONSULTANTS		NOTES: Groundwater not encountered in the depth excavated.			DATE EXCAVATED:		PAGE NO:
					02/08/2022		1 of 1
					PROJECT NO.:		PLATE NO.:
					22004		108

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER WITH TIME AND AT OTHER LOCATIONS.

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
COARSE GRAINED SOILS  MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS  MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS  (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES  (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	SAND AND SANDY SOILS  MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS  (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		SANDS WITH FINES  (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES	
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
		FINE GRAINED SOILS  MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS  LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
						CL
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
SILTS AND CLAYS  LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS		
				CH	INORGANIC CLAYS OF HIGH PLASTICITY	
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	
Centurion Consultants	CLIENT:  Pulte Homes				Materials Classification	
	PROJECT:  Three Kids Mine Site Mixed-Use Development					
		PROJECT NO.:		22004	PLATE NO.:	
					109	

SAMPLE LOCATION AND DEPTH	MATERIAL DESCRIPTION	EXPANSION(%)	
B-5 @ 15 ft.	Gypsiferous CLAYSTONE	11.6	
B-13 @ 30 ft.	Sandy lean CLAY (FILL)	20.1	
B-16 @ 40 ft.	Sandy lean CLAY (FILL)	11.6	
B-19 @ 25 ft.	Sandy lean CLAY	7.6	
B-23 @ 10 ft.	Clayey SAND	0.3	
B-30 @ 10 ft.	CLAYSTONE (FILL)	4.3	
B-32 @ 20 ft.	Sandy SILT (FILL)	0.7	
TP-19 @ 9-10 ft.	CLAYSTONE/SILTSTONE	0.0	
TP-12 @ 8-9 ft.	SANDSTONE	0.0	
Tests performed using 60-psf surcharge load. *Moisture content at time of remolding. All samples are oven dried prior to testing.			
Centurion Consultants	CLIENT:  PULTE HOMES	EXPANSION TEST RESULTS	
	PROJECT:  THREE KIDS MINE	PROJECT NO.:  22004	PLATE NO.:  110

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	17	31	52	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
1/2"	96		
3/8"	93		
#4	83		
#8	76		
#10	74		
#16	71		
#30	65		
#40	64		
#50	62		
#100	59		
#200	52		

\* (no specification provided)

## Material Description

Sandy fat CLAY with gravel

## Atterberg Limits

PL= 28 LL= 55 PI= 27

## Coefficients

D<sub>90</sub>= 7.5242 D<sub>85</sub>= 5.3332 D<sub>60</sub>= 0.1682  
D<sub>50</sub>= D<sub>30</sub>= D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= CH AASHTO= A-7-6(11)

## Remarks

Source of Sample: B-5 Depth: 20 to 25 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

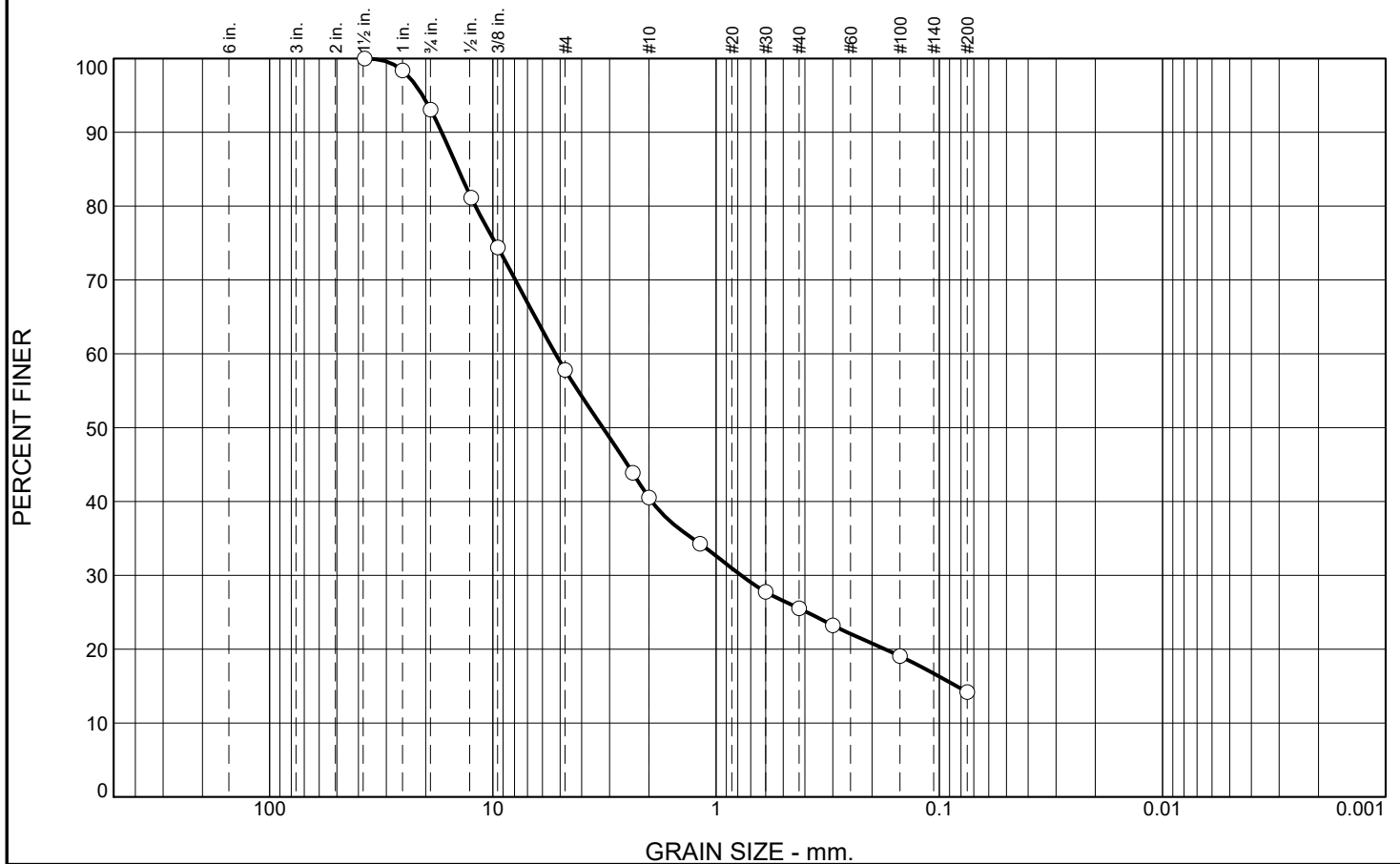
**Project No:** 4030.2100354

**Figure** 111a

Tested By: DP Checked By: JS



# Particle Size Distribution Report



% +3"

0

% Gravel

42

% Sand

44

% Silt

14

% Clay

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	98		
3/4"	93		
1/2"	81		
3/8"	74		
#4	58		
#8	44		
#10	41		
#16	34		
#30	28		
#40	26		
#50	23		
#100	19		
#200	14		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 16.9465

D<sub>85</sub>= 14.2994

D<sub>60</sub>= 5.2403

D<sub>50</sub>= 3.2182

D<sub>30</sub>= 0.7724

D<sub>15</sub>= 0.0837

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-1-a

## Remarks

Source of Sample: B-9

Depth: 5 to 10 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

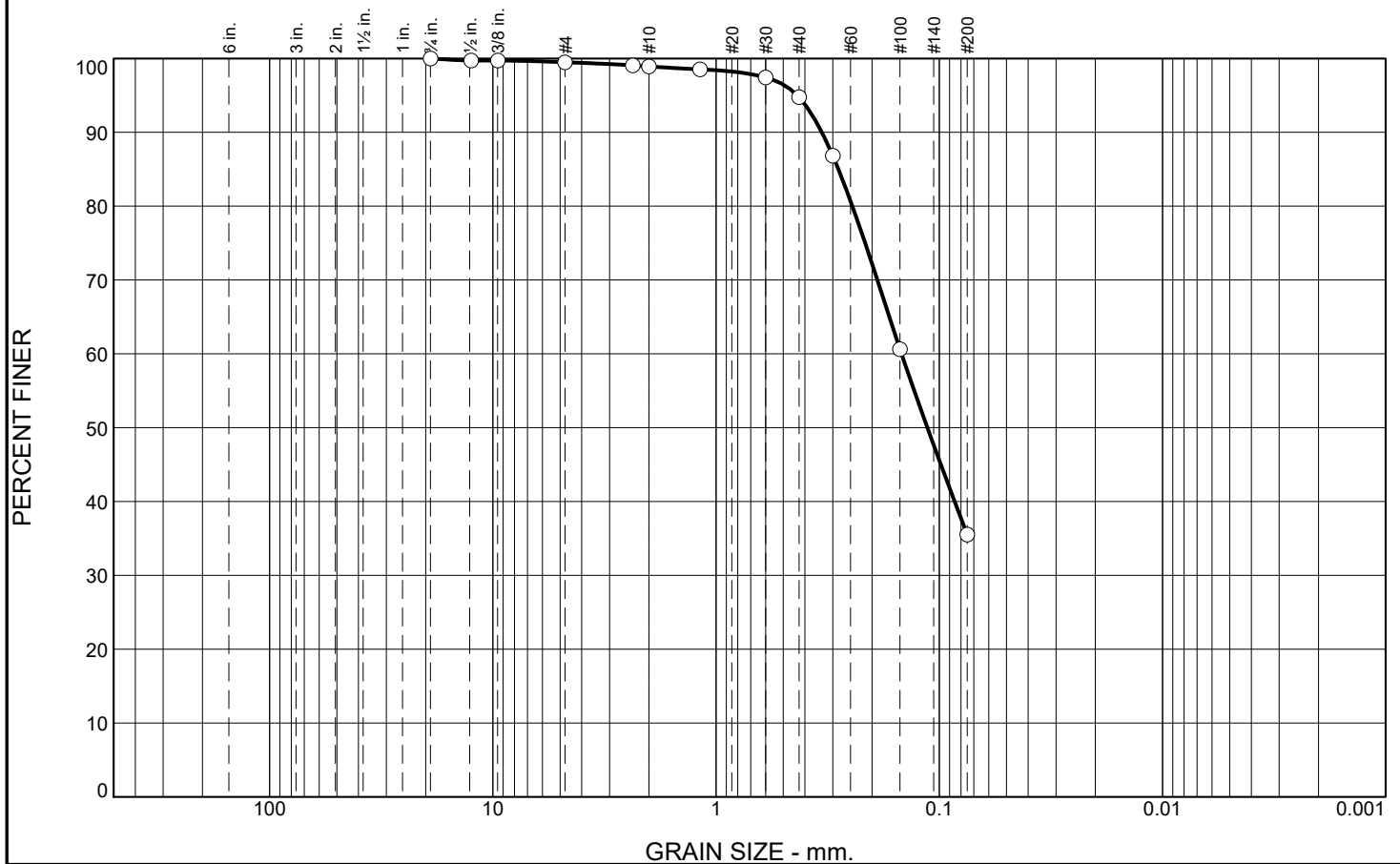
Project No: 4030.2100354

Figure 111b

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	1	63	36	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
1/2"	100		
3/8"	100		
#4	99		
#8	99		
#10	99		
#16	99		
#30	97		
#40	95		
#50	87		
#100	61		
#200	36		

\* (no specification provided)

## Material Description

Silty SAND

PL= NP

## Atterberg Limits

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 0.3360

D<sub>85</sub>= 0.2831

D<sub>60</sub>= 0.1476

D<sub>50</sub>= 0.1131

D<sub>30</sub>=

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-4(0)

## Remarks

Source of Sample: B-11 Depth: 5 to 10 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

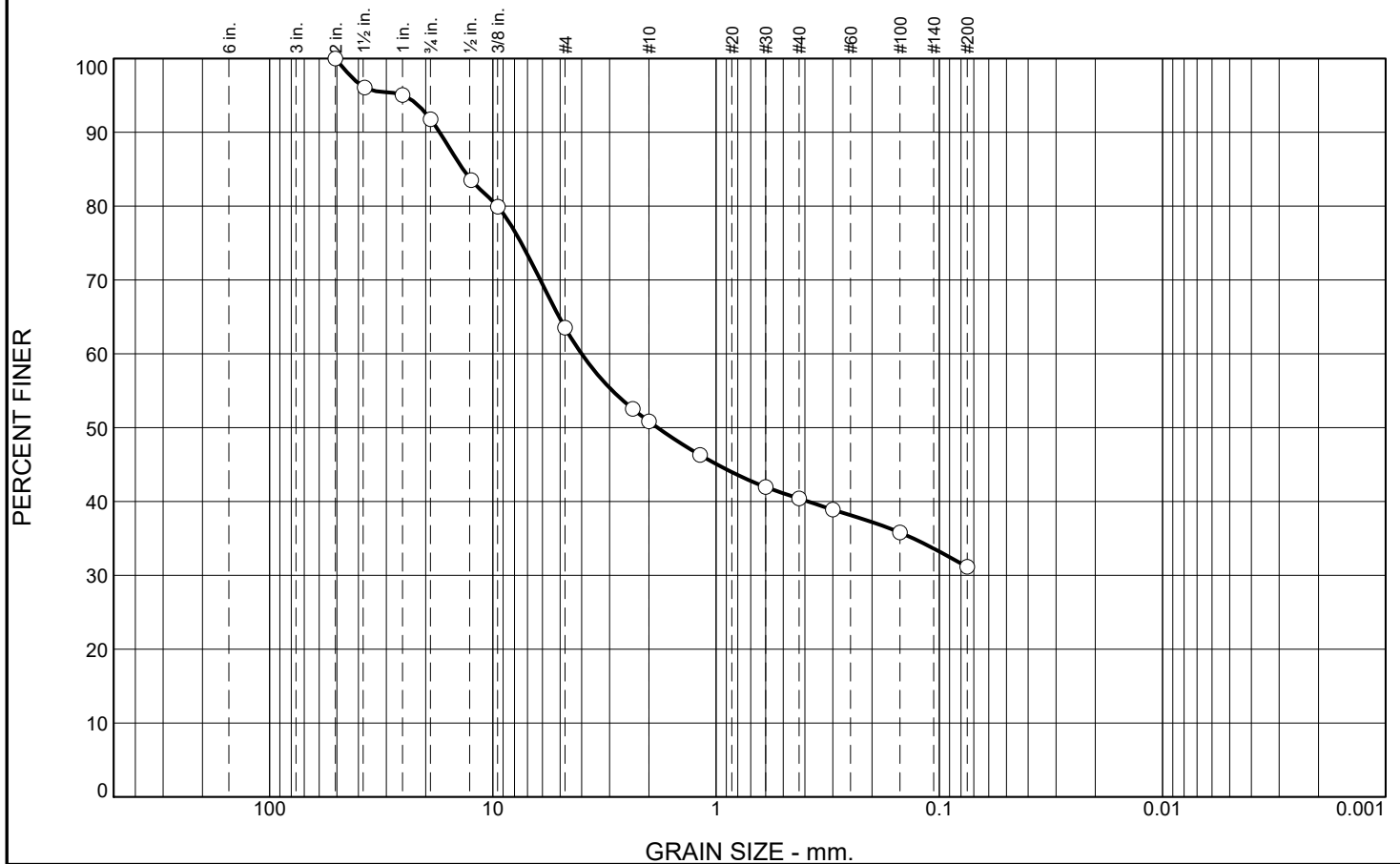
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111c

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	36	33	31	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	96		
1"	95		
3/4"	92		
1/2"	84		
3/8"	80		
#4	64		
#8	53		
#10	51		
#16	46		
#30	42		
#40	40		
#50	39		
#100	36		
#200	31		

\* (no specification provided)

## Material Description

Clayey GRAVEL with sand

PL= 23      **Atterberg Limits**      LL= 43      PI= 20

D<sub>90</sub>= 17.3168      **Coefficients**      D<sub>85</sub>= 13.6043      D<sub>60</sub>= 4.0068

D<sub>50</sub>= 1.8299      D<sub>30</sub>=      D<sub>15</sub>=

D<sub>10</sub>=      C<sub>u</sub>=      C<sub>c</sub>=

USCS= GC      **Classification**      AASHTO= A-2-7(2)

## Remarks

Source of Sample: B-13      Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

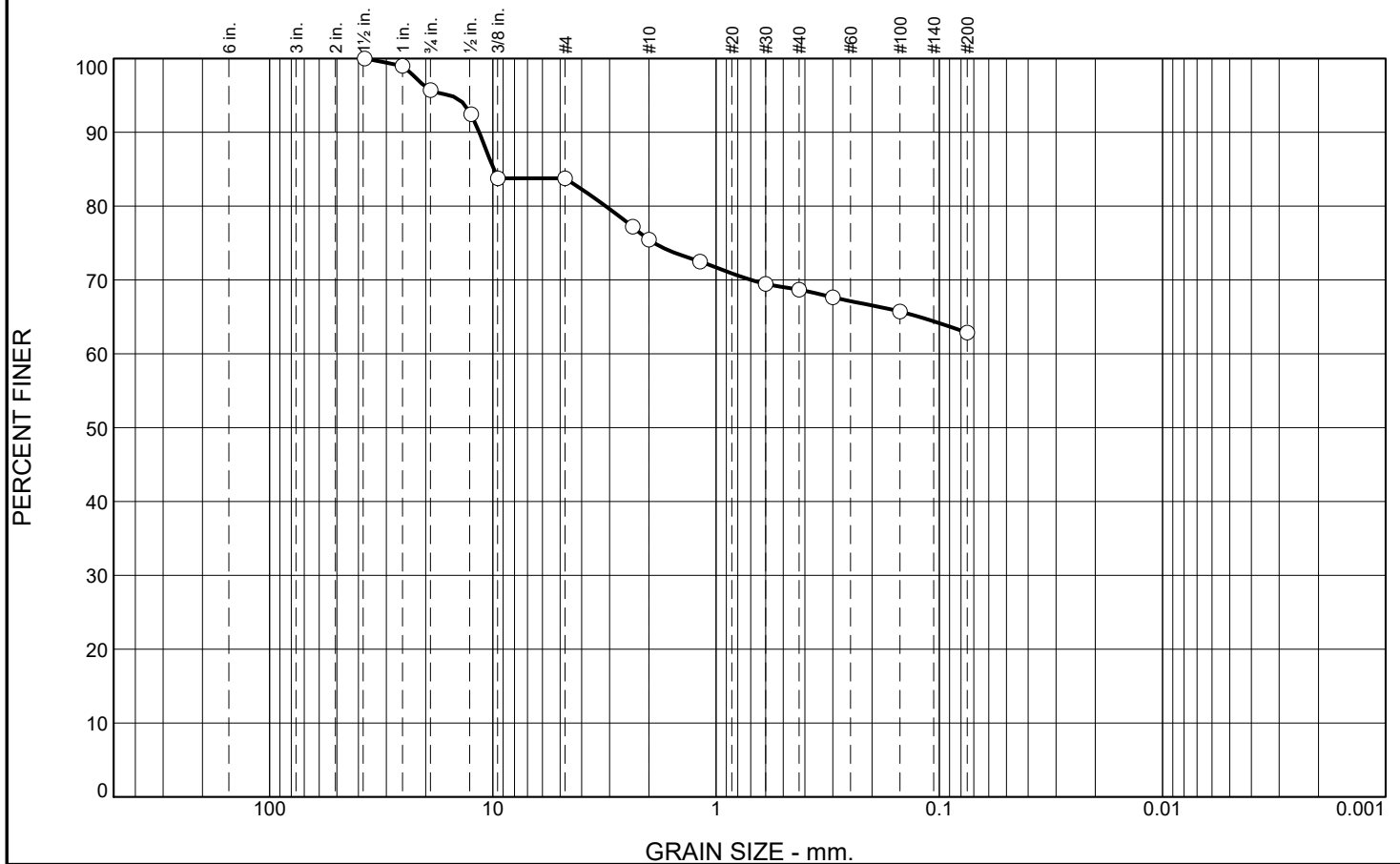
**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

**Figure** 111d

Tested By: DP      Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	16	21	63	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	99		
3/4"	96		
1/2"	92		
3/8"	84		
#4	84		
#8	77		
#10	75		
#16	72		
#30	69		
#40	69		
#50	68		
#100	66		
#200	63		

\* (no specification provided)

## Material Description

Sandy lean CLAY with gravel

## Atterberg Limits

PL= 23 LL= 44 PI= 21

## Coefficients

D<sub>90</sub>= 11.4970 D<sub>85</sub>= 9.9198 D<sub>60</sub>=  
D<sub>50</sub>= D<sub>30</sub>= D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= CL AASHTO= A-7-6(11)

## Remarks

Source of Sample: B-14 Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

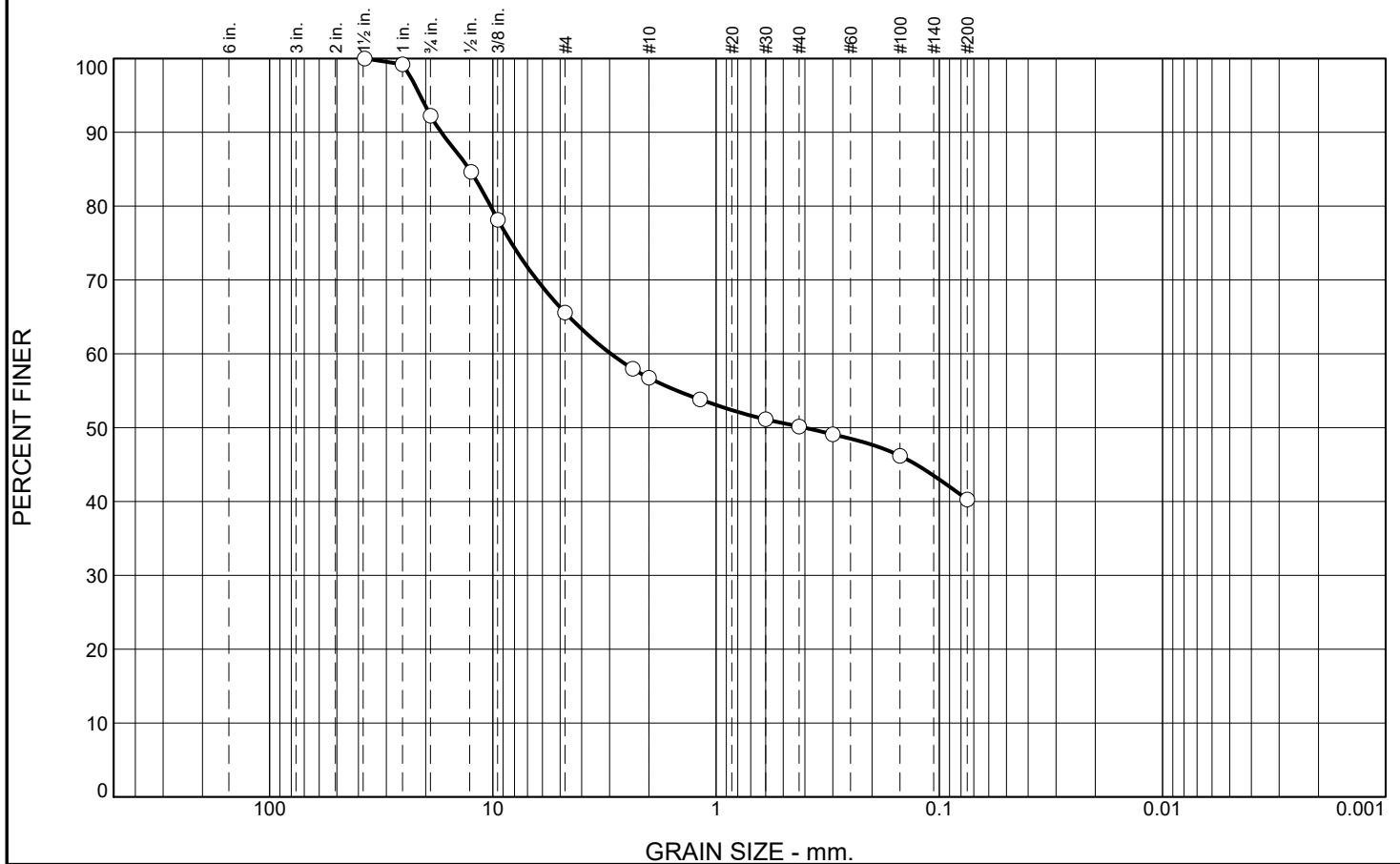
**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

**Figure** 111e

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"

0

% Gravel

34

% Sand

26

% Silt

40

% Clay

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	99		
3/4"	92		
1/2"	85		
3/8"	78		
#4	66		
#8	58		
#10	57		
#16	54		
#30	51		
#40	50		
#50	49		
#100	46		
#200	40		

\* (no specification provided)

## Material Description

Clayey GRAVEL with sand

PL= 15

## Atterberg Limits

LL= 32

PI= 17

D<sub>90</sub>= 17.0500

D<sub>50</sub>= 0.4027

D<sub>10</sub>=

## Coefficients

D<sub>85</sub>= 12.7294

D<sub>30</sub>=

C<sub>u</sub>=

D<sub>60</sub>= 2.9587

D<sub>15</sub>=

C<sub>c</sub>=

## Classification

USCS= GC

AASHTO= A-6(3)

## Remarks

Source of Sample: B-19

Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

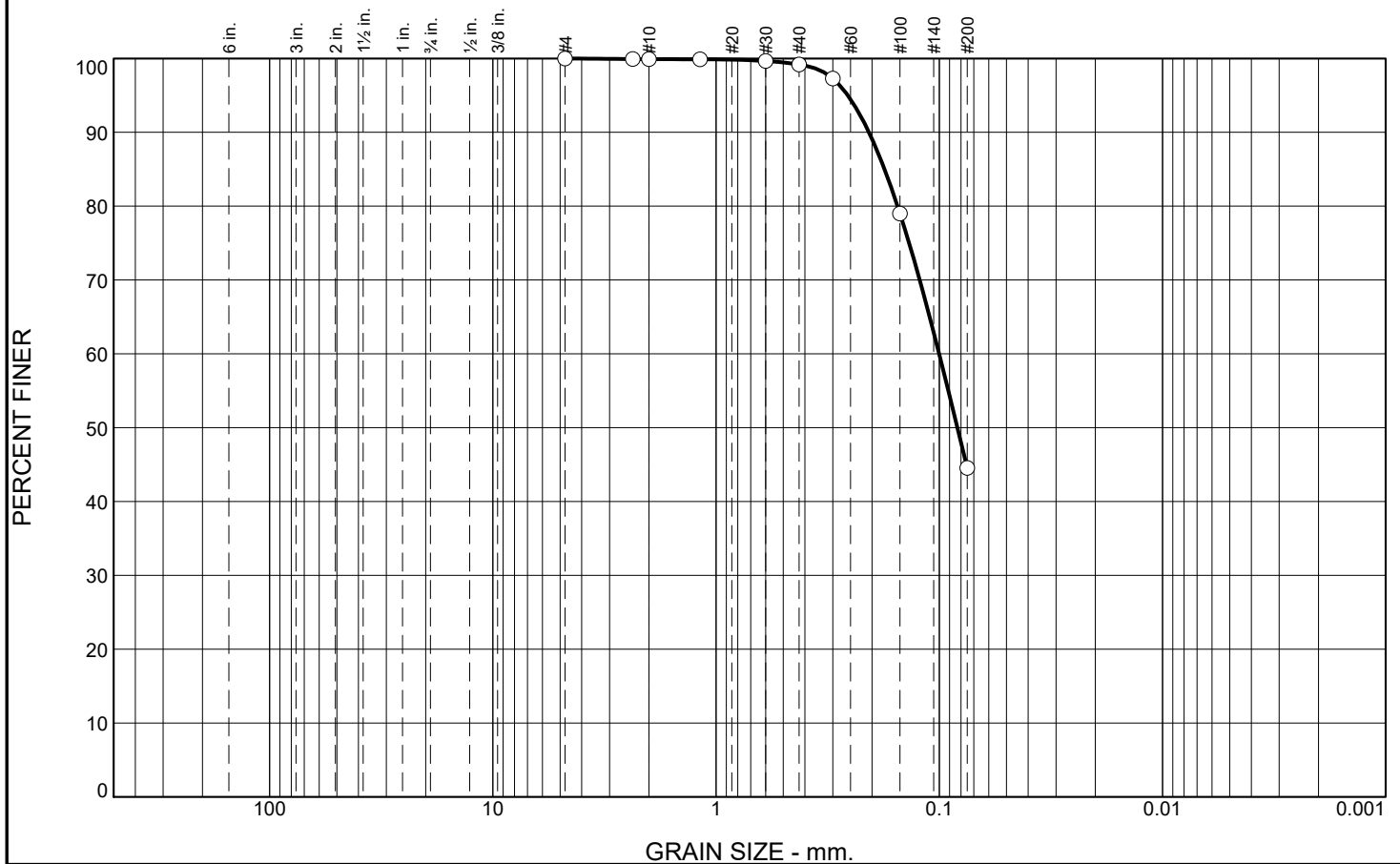
Project No: 4030.2100354

Figure 111f

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"

0

% Gravel

0

% Sand

55

% Silt

45

% Clay

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100		
#8	100		
#10	100		
#16	100		
#30	100		
#40	99		
#50	97		
#100	79		
#200	45		

\* (no specification provided)

## Material Description

Silty SAND

PL= NP

## Atterberg Limits

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 0.2067

D<sub>85</sub>= 0.1760

D<sub>60</sub>= 0.1002

D<sub>50</sub>= 0.0829

D<sub>30</sub>=

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-4(0)

## Remarks

Source of Sample: B-20

Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

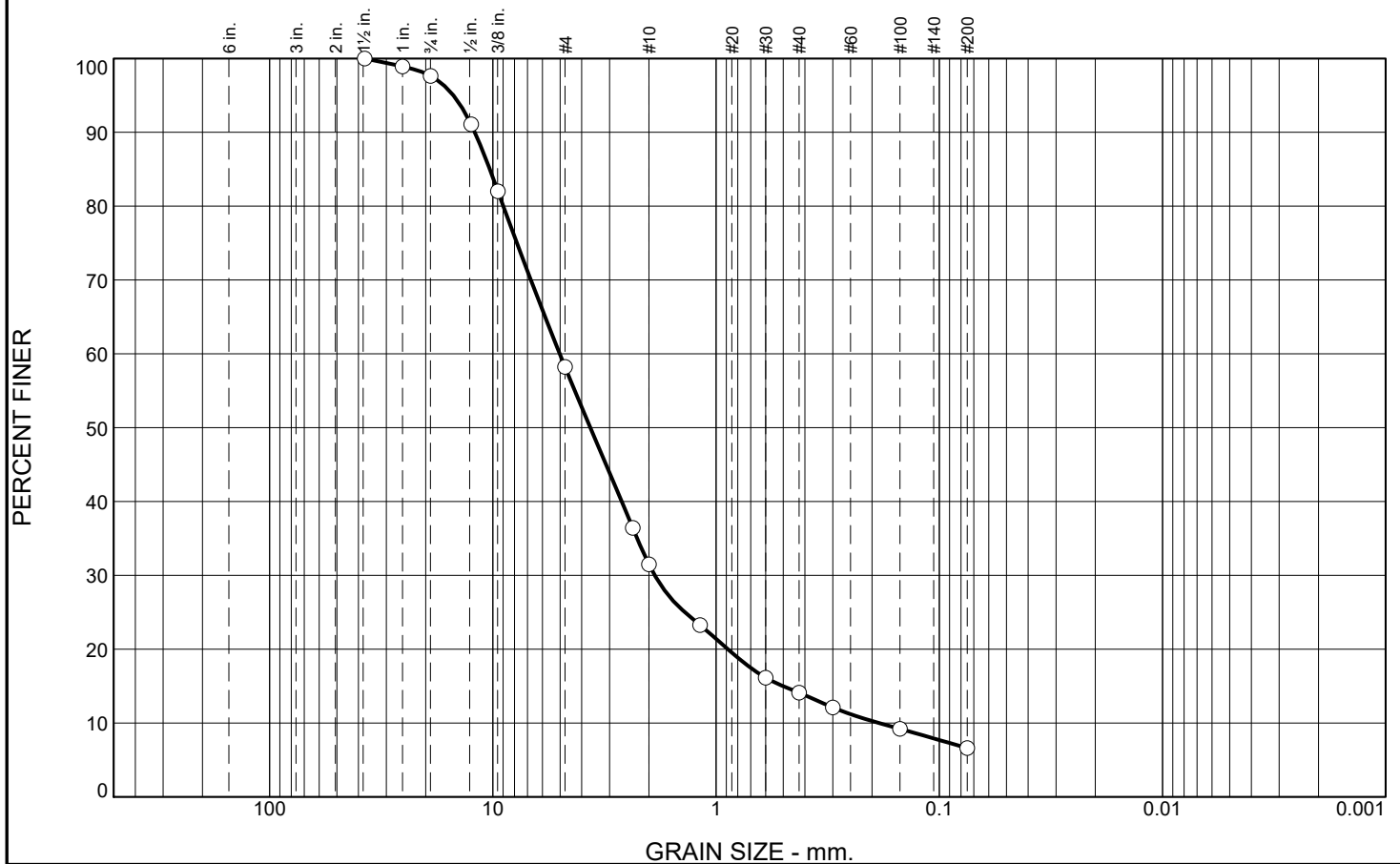
Project No: 4030.2100354

Figure 111g

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	42	51	7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	99		
3/4"	98		
1/2"	91		
3/8"	82		
#4	58		
#8	36		
#10	31		
#16	23		
#30	16		
#40	14		
#50	12		
#100	9		
#200	7		

\* (no specification provided)

## Material Description

Poorly graded SAND with silt and gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 12.0299

D<sub>85</sub>= 10.3304

D<sub>60</sub>= 5.0177

D<sub>50</sub>= 3.6600

D<sub>30</sub>= 1.8830

D<sub>15</sub>= 0.5021

D<sub>10</sub>= 0.1863

C<sub>u</sub>= 26.93

C<sub>c</sub>= 3.79

## Classification

USCS= SP-SM

AASHTO= A-1-a

## Remarks

Source of Sample: B-21

Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

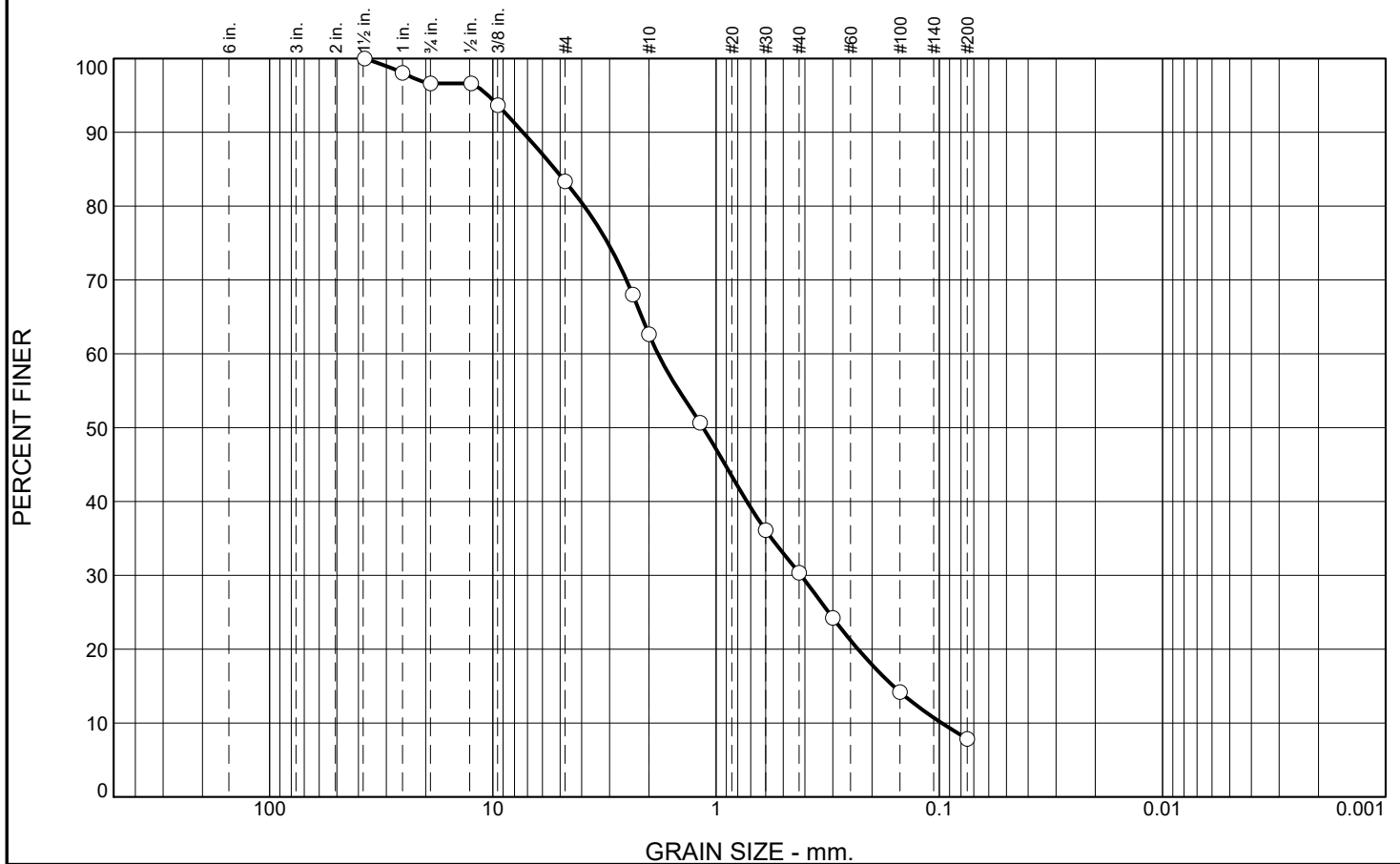
Project No: 4030.2100354

Figure 111h

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	17	75	8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	98		
3/4"	97		
1/2"	97		
3/8"	94		
#4	83		
#8	68		
#10	63		
#16	51		
#30	36		
#40	30		
#50	24		
#100	14		
#200	8		

\* (no specification provided)

<b>Material Description</b> Poorly graded SAND with silt and gravel		
<b>Atterberg Limits</b> PL= NP LL= NV PI= NP	<b>Coefficients</b> D <sub>90</sub> = 7.3276 D <sub>50</sub> = 1.1434 D <sub>10</sub> = 0.0975 D <sub>85</sub> = 5.2628 D <sub>30</sub> = 0.4164 C <sub>u</sub> = 18.69	D <sub>60</sub> = 1.8217 D <sub>15</sub> = 0.1606 C <sub>c</sub> = 0.98
<b>Classification</b> USCS= SP-SM AASHTO= A-1-b	<b>Remarks</b>	

Source of Sample: B-22 Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

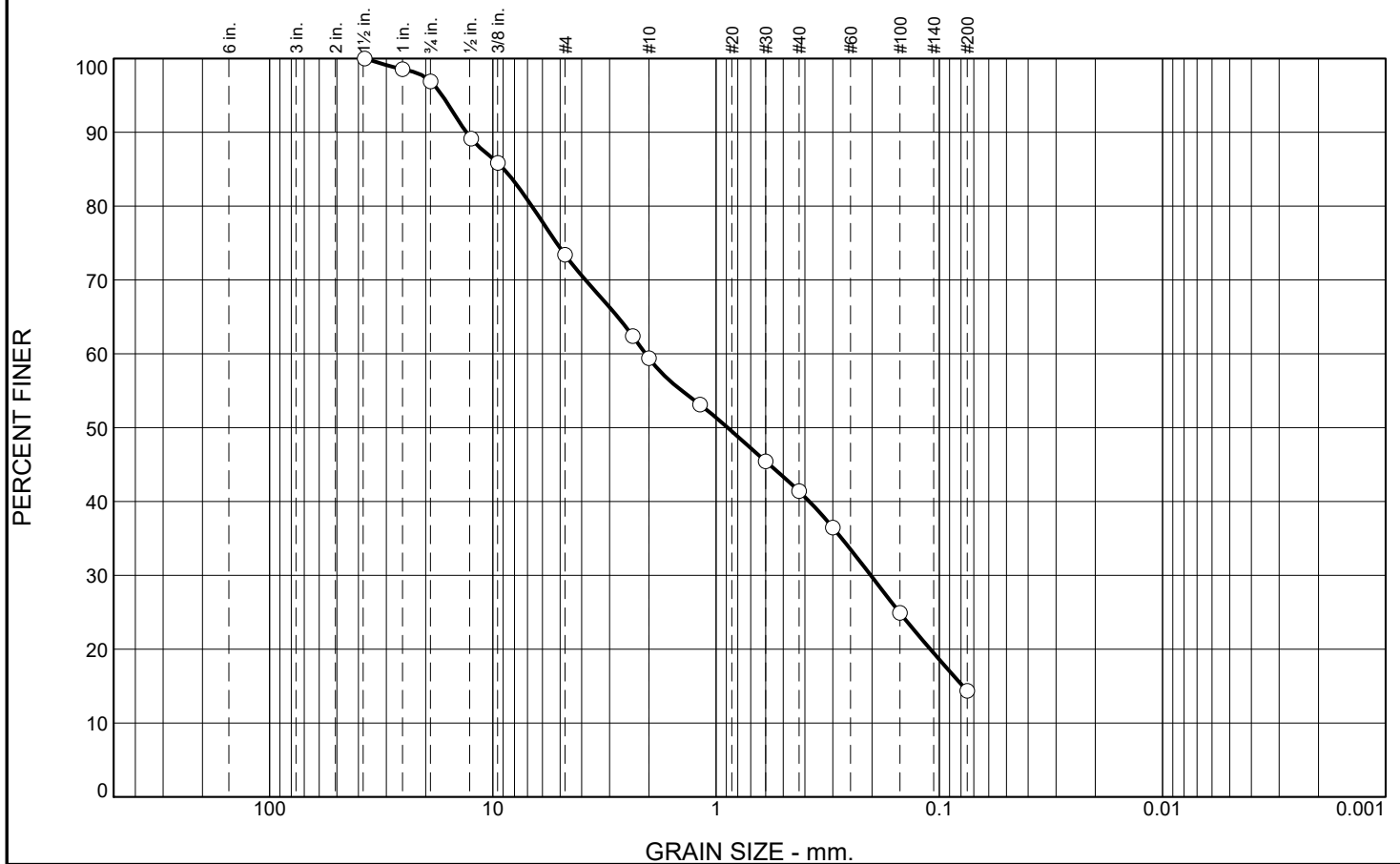
Client: Pulte Homes  
 Project: Three Kids Mine Site Mixed-Use Development  
 Project No: 4030.2100354

Figure 111i

Tested By: DP Checked By: JS



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	27	59	14	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	99		
3/4"	97		
1/2"	89		
3/8"	86		
#4	73		
#8	62		
#10	59		
#16	53		
#30	45		
#40	41		
#50	36		
#100	25		
#200	14		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 13.1486 D<sub>85</sub>= 8.9167 D<sub>60</sub>= 2.0708  
D<sub>50</sub>= 0.8875 D<sub>30</sub>= 0.2029 D<sub>15</sub>= 0.0784  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= SM AASHTO= A-1-b

## Remarks

Source of Sample: B-23 Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

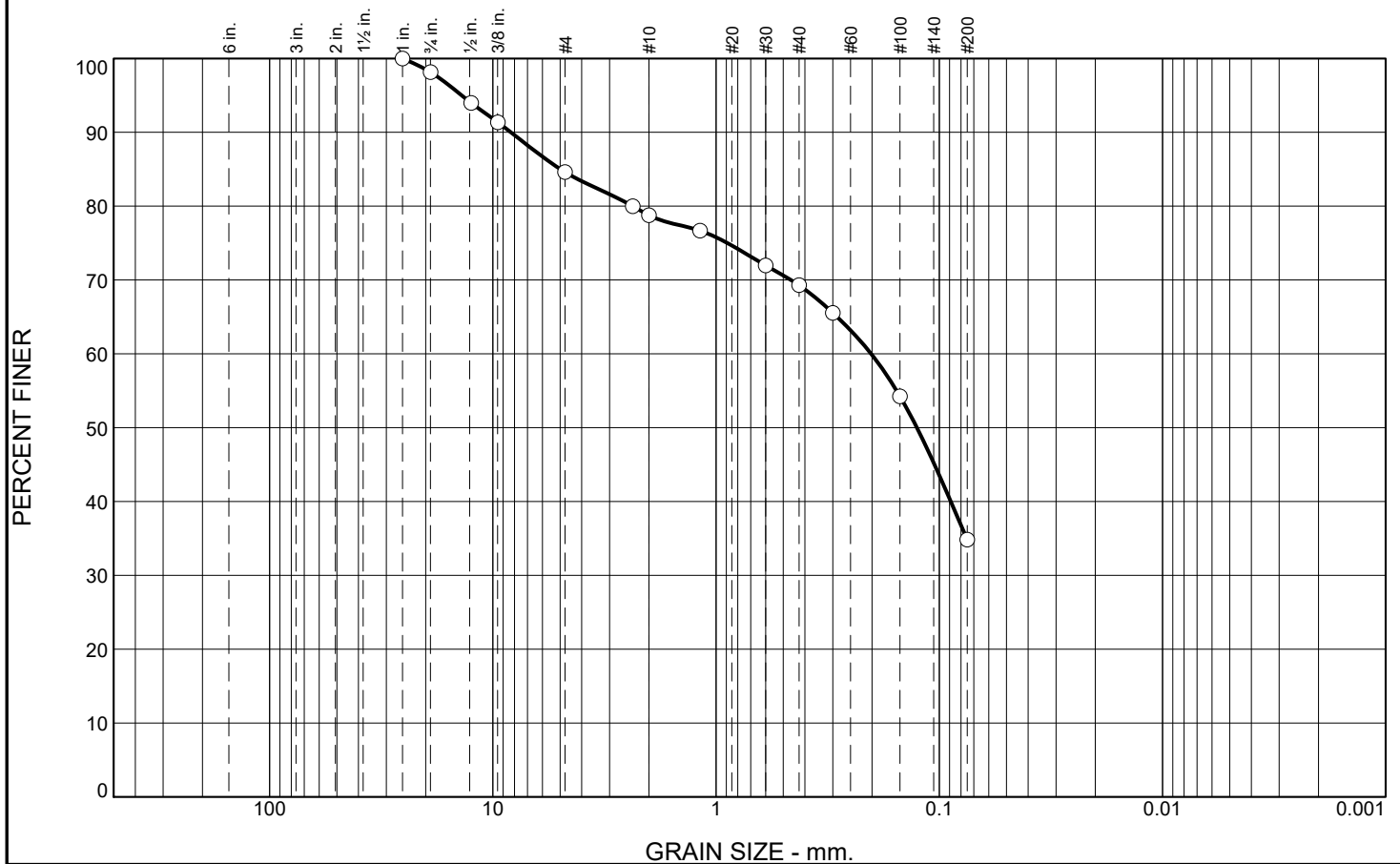
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111j

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"

% Gravel

% Sand

% Silt

% Clay

0

15

50

35

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	98		
1/2"	94		
3/8"	91		
#4	85		
#8	80		
#10	79		
#16	77		
#30	72		
#40	69		
#50	66		
#100	54		
#200	35		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 8.2947

D<sub>85</sub>= 4.9765

D<sub>60</sub>= 0.2020

D<sub>50</sub>= 0.1260

D<sub>30</sub>=

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-2-4(0)

## Remarks

Source of Sample: B-24

Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

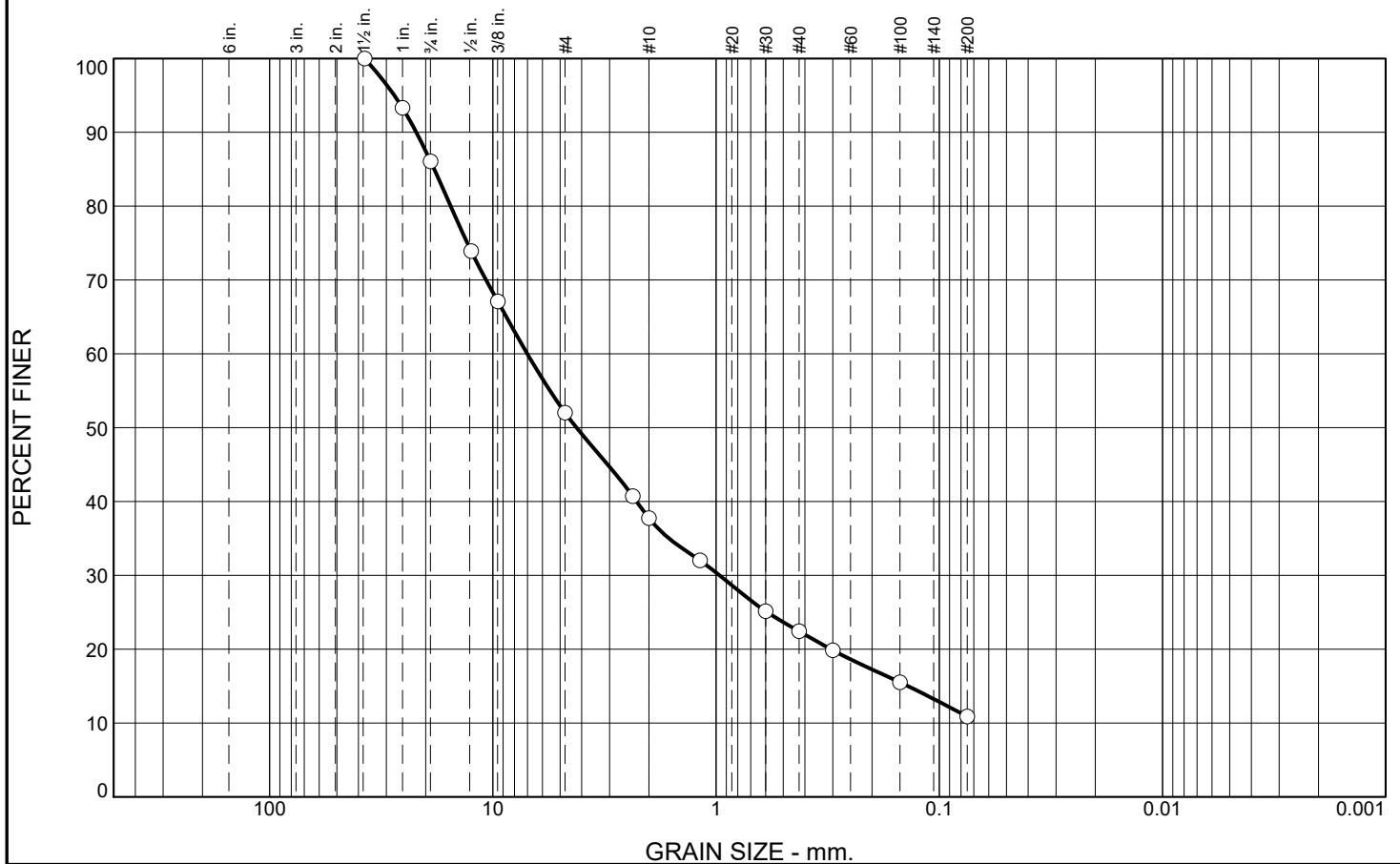
Project No: 4030.2100354

Figure 111k

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	48	41	11	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	93		
3/4"	86		
1/2"	74		
3/8"	67		
#4	52		
#8	41		
#10	38		
#16	32		
#30	25		
#40	22		
#50	20		
#100	16		
#200	11		

\* (no specification provided)

## Material Description

Poorly graded GRAVEL with clay and sand

## Atterberg Limits

PL= 22 LL= 45 PI= 23

## Coefficients

D<sub>90</sub>= 22.0130 D<sub>85</sub>= 18.3032 D<sub>60</sub>= 7.0064  
D<sub>50</sub>= 4.2201 D<sub>30</sub>= 0.9646 D<sub>15</sub>= 0.1383  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= GP-GC AASHTO= A-2-7(0)

## Remarks

Source of Sample: B-27 Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

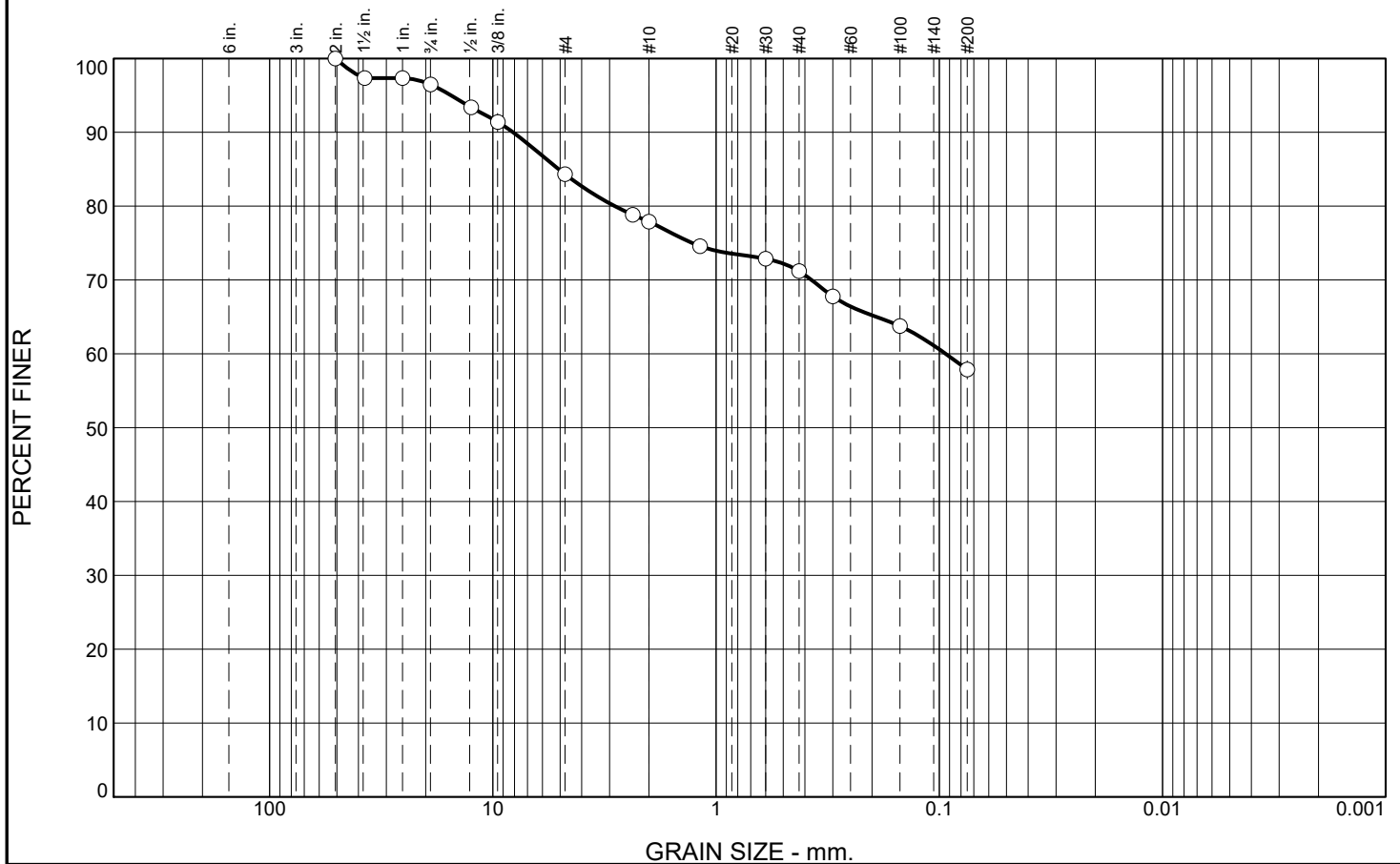
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 1111

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"

0

% Gravel

16

% Sand

26

% Silt

58

% Clay

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	97		
1"	97		
3/4"	96		
1/2"	93		
3/8"	91		
#4	84		
#8	79		
#10	78		
#16	75		
#30	73		
#40	71		
#50	68		
#100	64		
#200	58		

\* (no specification provided)

## Material Description

Sandy lean CLAY with gravel

## Atterberg Limits

PL= 21

LL= 44

PI= 23

## Coefficients

D<sub>90</sub>= 8.1172

D<sub>85</sub>= 5.0673

D<sub>60</sub>= 0.0936

D<sub>50</sub>=

D<sub>30</sub>=

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= CL

AASHTO= A-7-6(11)

## Remarks

Source of Sample: B-28

Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

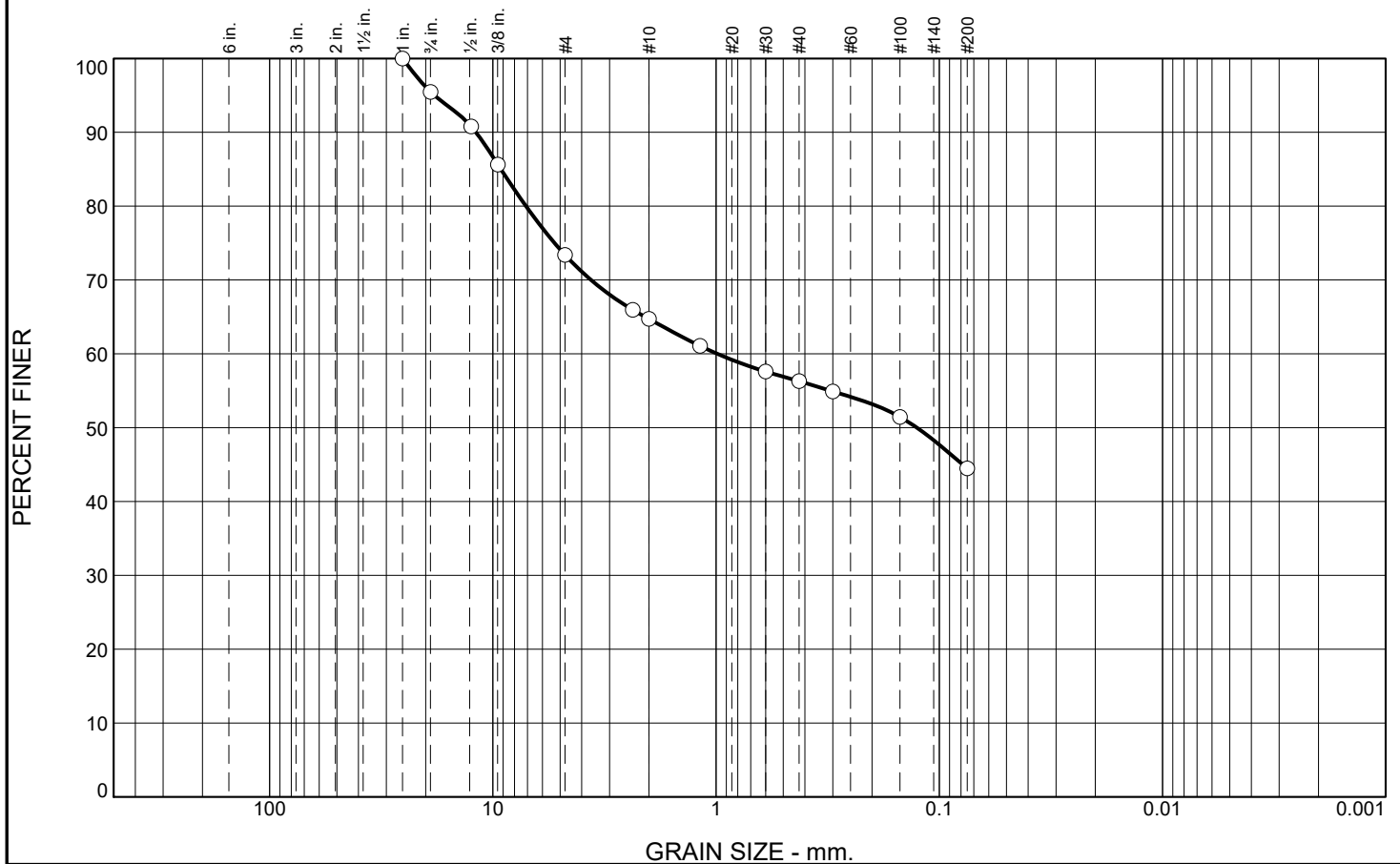
Project No: 4030.2100354

Figure 111m

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	27	29	44	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	95		
1/2"	91		
3/8"	86		
#4	73		
#8	66		
#10	65		
#16	61		
#30	58		
#40	56		
#50	55		
#100	51		
#200	44		

\* (no specification provided)

<u>Material Description</u>		
Silty SAND with gravel		
<u>Atterberg Limits</u>		
PL= 28	LL= 47	PI= 19
<u>Coefficients</u>		
D <sub>90</sub> = 11.8986	D <sub>85</sub> = 9.2074	D <sub>60</sub> = 0.9870
D <sub>50</sub> = 0.1261	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= SM	AASHTO= A-7-6(5)	
<u>Remarks</u>		

Source of Sample: B-30 Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

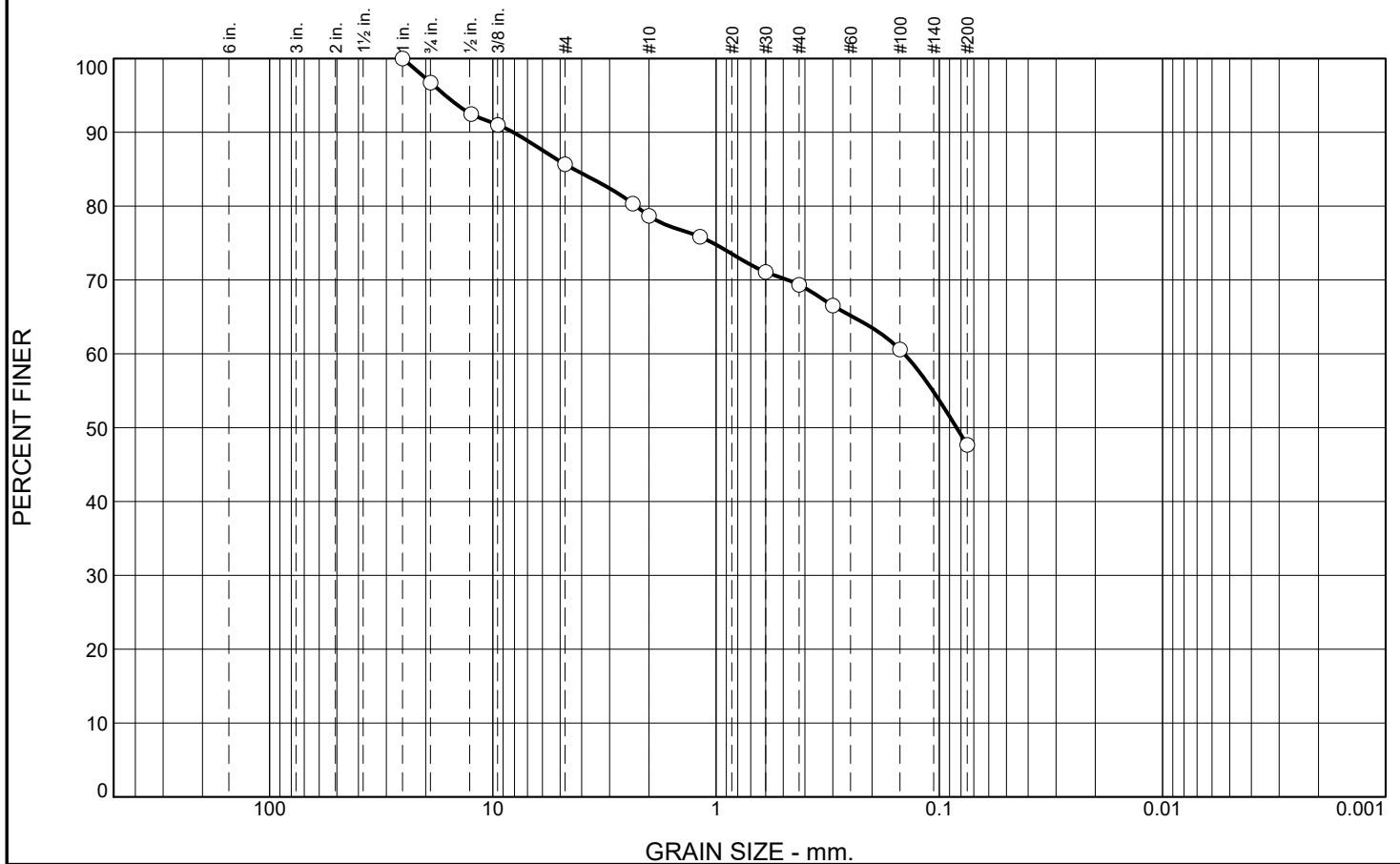
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111n

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	14	38	48	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	97		
1/2"	92		
3/8"	91		
#4	86		
#8	80		
#10	79		
#16	76		
#30	71		
#40	69		
#50	67		
#100	61		
#200	48		

\* (no specification provided)

<u>Material Description</u>		
Clayey SAND		
<u>Atterberg Limits</u>		
PL= 22	LL= 43	PI= 21
<u>Coefficients</u>		
D <sub>90</sub> = 8.1081	D <sub>85</sub> = 4.3353	D <sub>60</sub> = 0.1437
D <sub>50</sub> = 0.0837	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= SC	AASHTO= A-7-6(6)	
<u>Remarks</u>		

Source of Sample: B-31 Depth: 0 to 5 ft.

Date: 3-23-22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

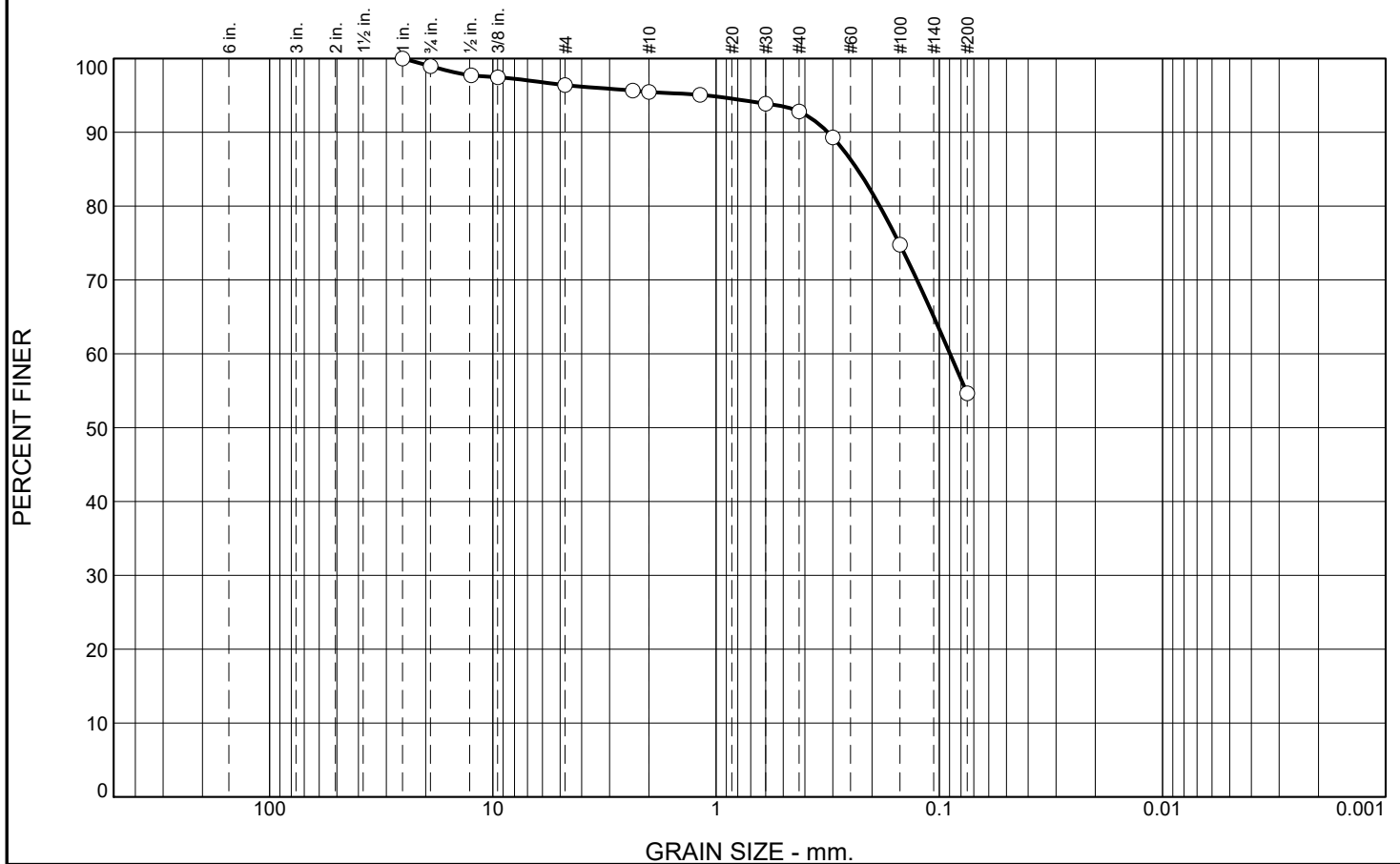
**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

**Figure** 111o

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	4	41	55	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	99		
1/2"	98		
3/8"	97		
#4	96		
#8	96		
#10	95		
#16	95		
#30	94		
#40	93		
#50	89		
#100	75		
#200	55		

\* (no specification provided)

<u>Material Description</u>		
Sandy lean CLAY		
<u>Atterberg Limits</u>		
PL= 27	LL= 45	PI= 18
<u>Coefficients</u>		
D <sub>90</sub> = 0.3155	D <sub>85</sub> = 0.2328	D <sub>60</sub> = 0.0895
D <sub>50</sub> =	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= CL	AASHTO= A-7-6(8)	
<u>Remarks</u>		

Source of Sample: B-32 Depth: 0 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

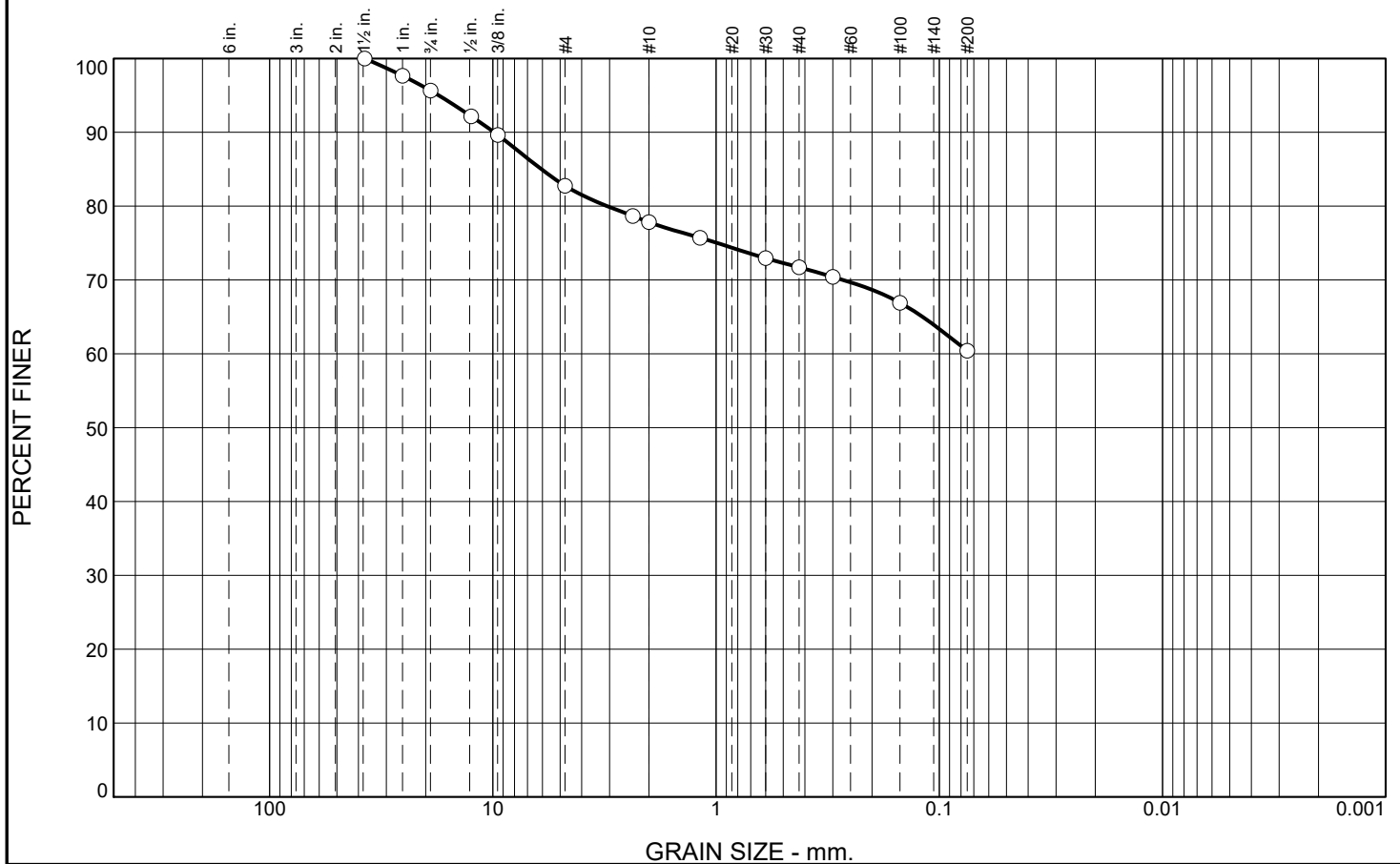
**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

**Figure** 111p

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	17	23	60	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	98		
3/4"	96		
1/2"	92		
3/8"	90		
#4	83		
#8	79		
#10	78		
#16	76		
#30	73		
#40	72		
#50	70		
#100	67		
#200	60		

\* (no specification provided)

Material Description		
PL= NP	<b>Atterberg Limits</b> LL= NV	PI= NP
D <sub>90</sub> = 9.8647	<b>Coefficients</b> D <sub>85</sub> = 6.0613	D <sub>60</sub> =
D <sub>50</sub> =	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
USCS= ML	<b>Classification</b> AASHTO= A-4(0)	
<b>Remarks</b>		

Source of Sample: MM-311-20

Depth: 17 to 20 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

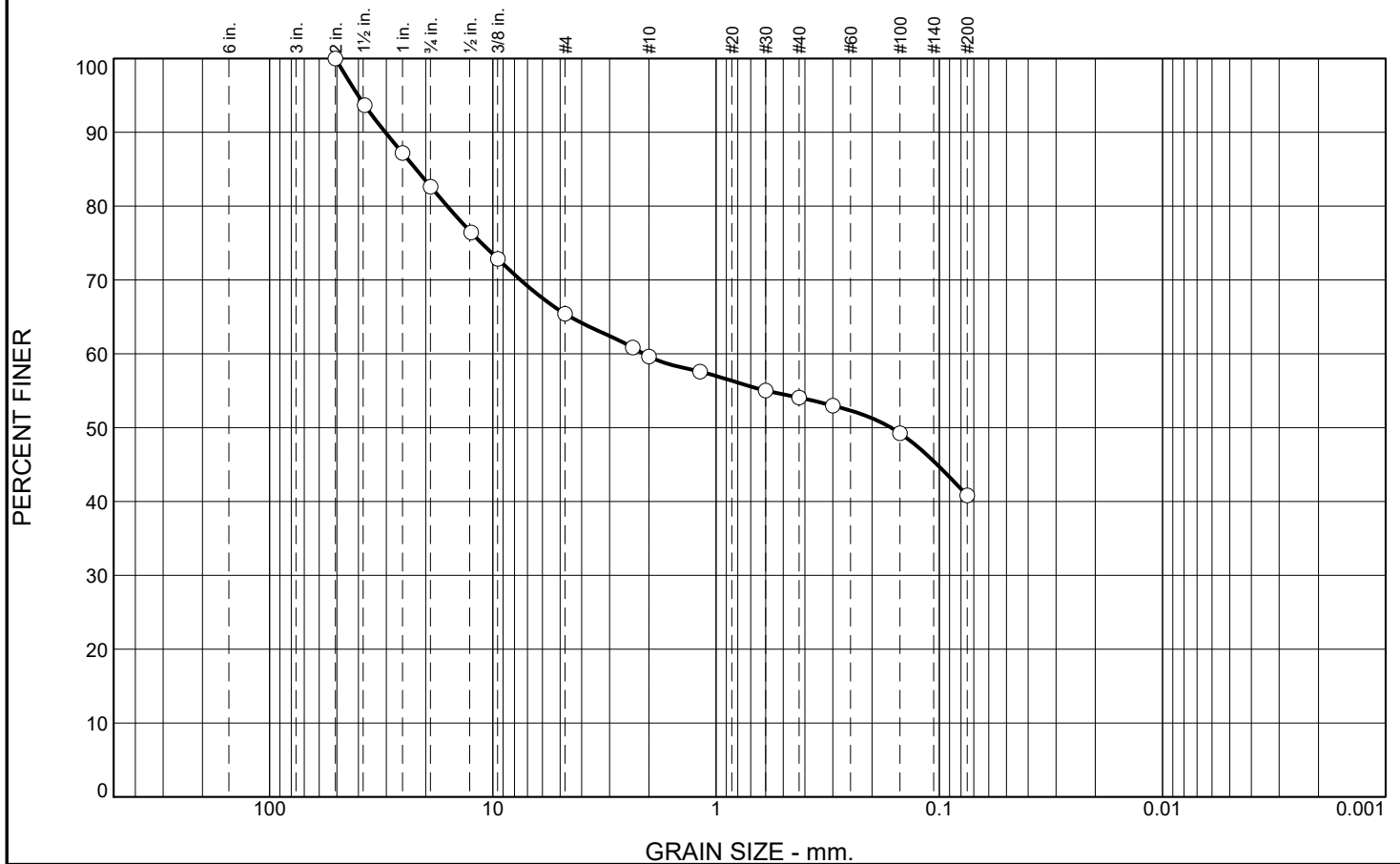
**Figure** 111q

Tested By: DP

Checked By: JS



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	35	24	41	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	94		
1"	87		
3/4"	83		
1/2"	76		
3/8"	73		
#4	65		
#8	61		
#10	60		
#16	58		
#30	55		
#40	54		
#50	53		
#100	49		
#200	41		

\* (no specification provided)

## Material Description

Silty GRAVEL with sand

## Atterberg Limits

PL= 32

LL= 43

PI= 11

## Coefficients

D<sub>90</sub>= 30.3456

D<sub>85</sub>= 22.0802

D<sub>60</sub>= 2.1064

D<sub>50</sub>= 0.1644

D<sub>30</sub>=

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= GM

AASHTO= A-7-5(2)

## Remarks

Source of Sample: MM-311-21

Depth: 10 to 13 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

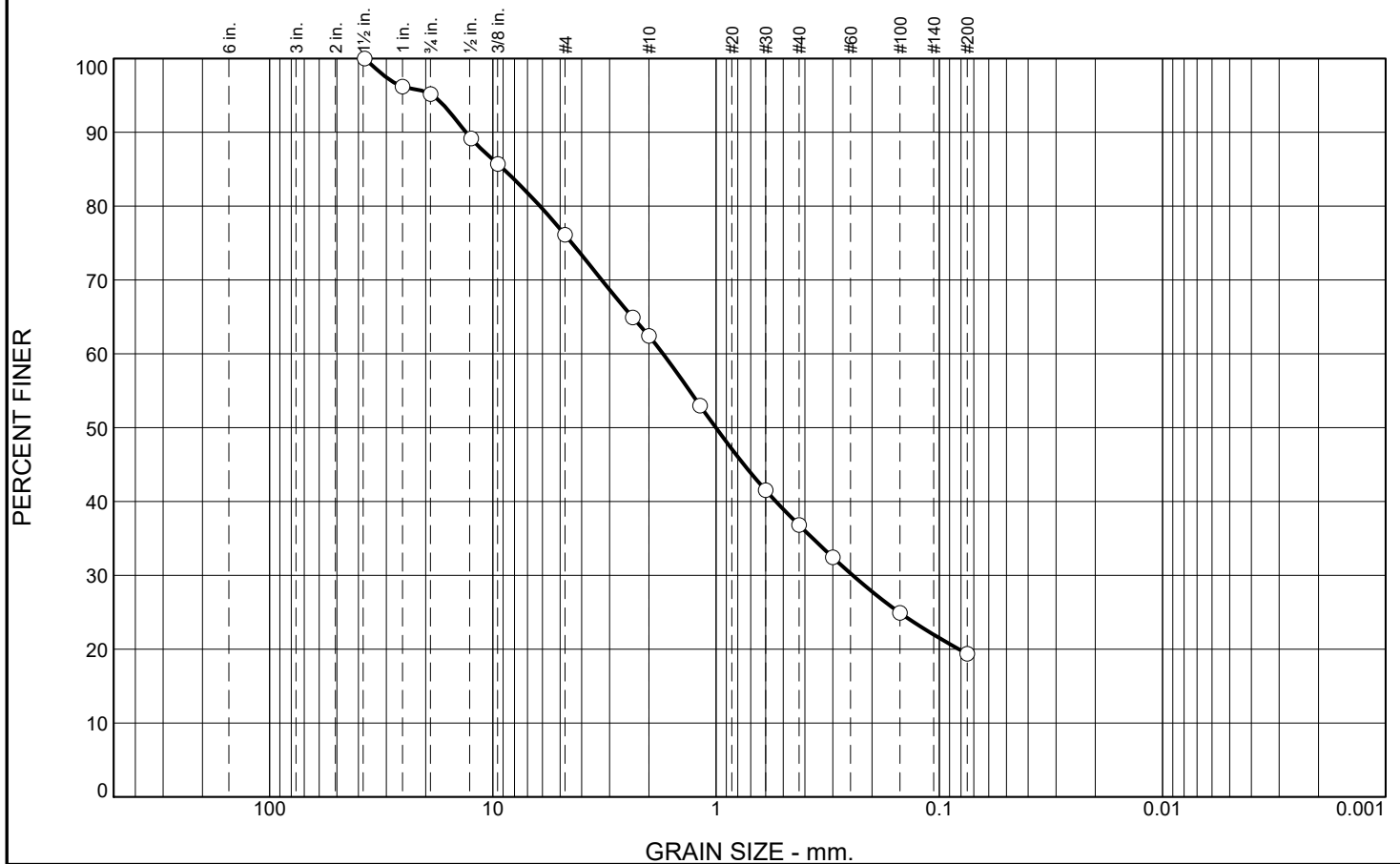
Project No: 4030.2100354

Figure 111r

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	24	57	19	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	96		
3/4"	95		
1/2"	89		
3/8"	86		
#4	76		
#8	65		
#10	62		
#16	53		
#30	42		
#40	37		
#50	32		
#100	25		
#200	19		

\* (no specification provided)

<u><b>Material Description</b></u>		
Silty SAND with gravel		
<u><b>Atterberg Limits</b></u>		
PL= NP	LL= NV	PI= NP
<u><b>Coefficients</b></u>		
D <sub>90</sub> = 13.2020	D <sub>85</sub> = 8.9471	D <sub>60</sub> = 1.7279
D <sub>50</sub> = 1.0027	D <sub>30</sub> = 0.2442	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u><b>Classification</b></u>		
USCS= SM	AASHTO= A-1-b	
<u><b>Remarks</b></u>		

Source of Sample: MM-311-26

Depth: 6 to 8 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

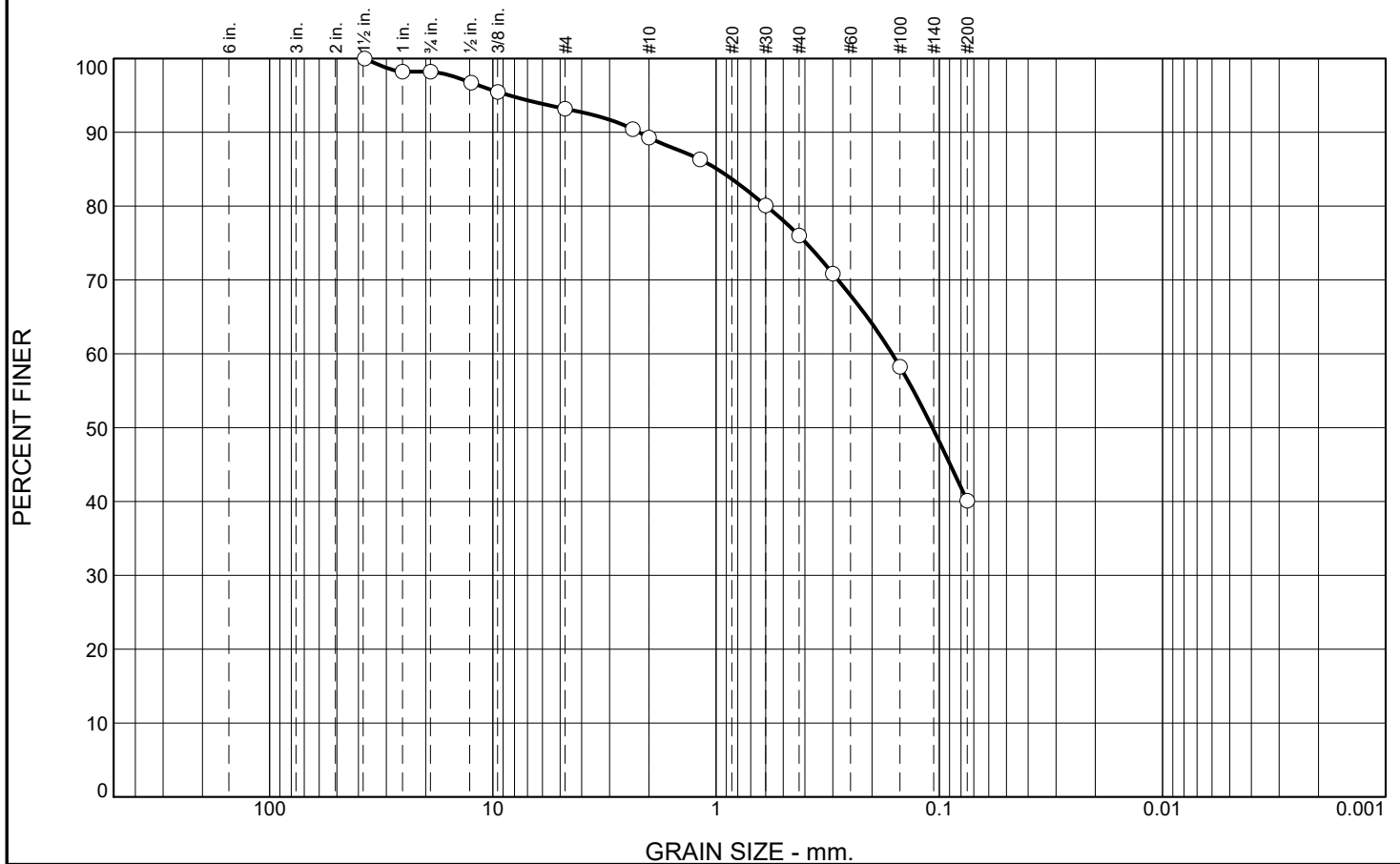
**Project No:** 4030.2100354

**Figure** 111s

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	7	53	40	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	98		
3/4"	98		
1/2"	97		
3/8"	95		
#4	93		
#8	90		
#10	89		
#16	86		
#30	80		
#40	76		
#50	71		
#100	58		
#200	40		

\* (no specification provided)

Material Description		
Silty SAND		
PL= NP	<b>Atterberg Limits</b> LL= NV	PI= NP
D <sub>90</sub> = 2.2172 D <sub>50</sub> = 0.1073 D <sub>10</sub> =	<b>Coefficients</b> D <sub>85</sub> = 0.9867 D <sub>30</sub> = C <sub>u</sub> =	D <sub>60</sub> = 0.1626 D <sub>15</sub> = C <sub>c</sub> =
USCS= SM	<b>Classification</b> AASHTO= A-4(0)	
<b>Remarks</b>		

Source of Sample: MM-321-02

Depth: 10 to 13 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

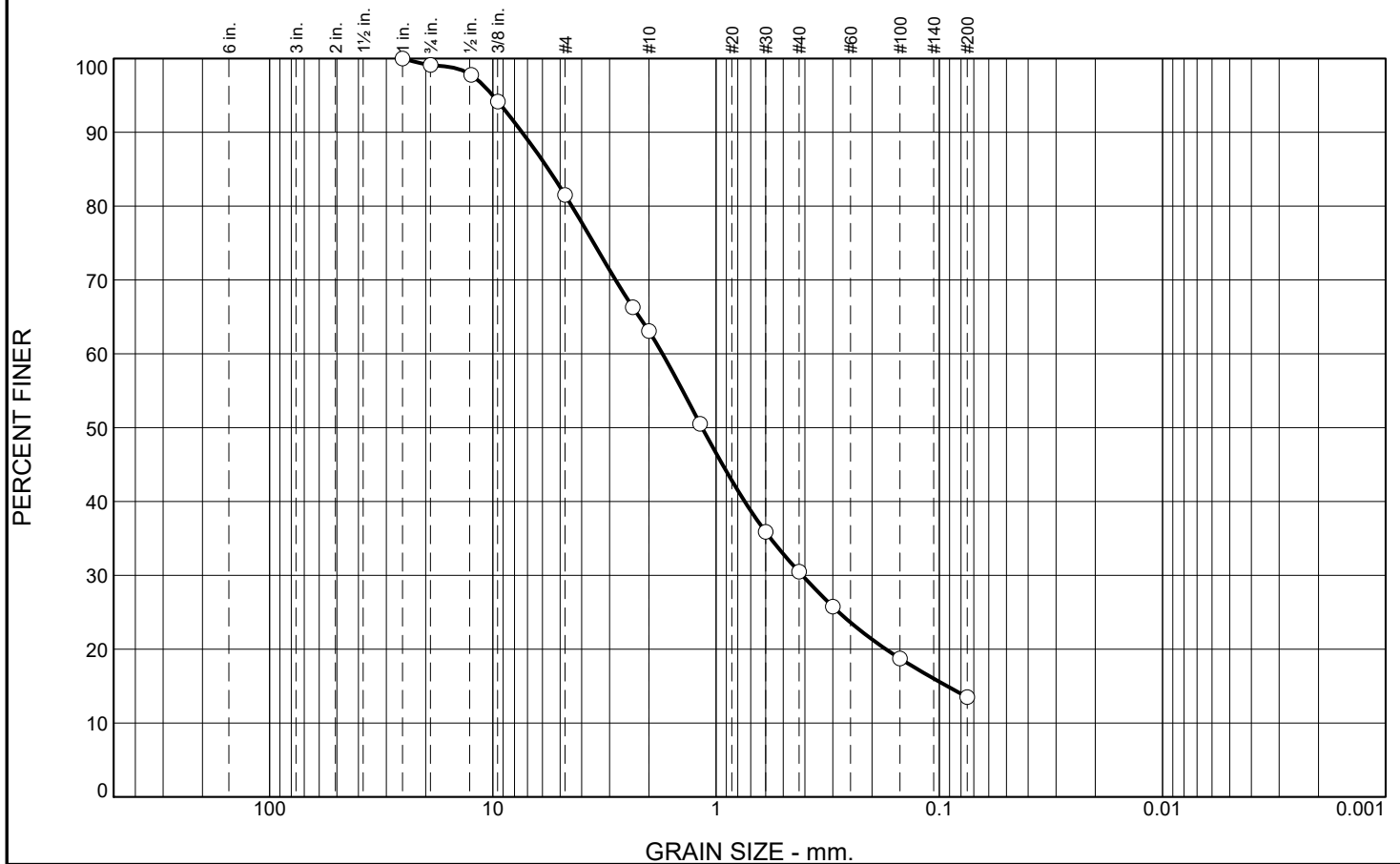
**Project No:** 4030.2100354

**Figure** 111t

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	18	68	14	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	99		
1/2"	98		
3/8"	94		
#4	82		
#8	66		
#10	63		
#16	51		
#30	36		
#40	30		
#50	26		
#100	19		
#200	14		

\* (no specification provided)

<u>Material Description</u>		
Silty SAND with gravel		
<u>Atterberg Limits</u>		
PL= NP	LL= NV	PI= NP
<u>Coefficients</u>		
D <sub>90</sub> = 7.3925	D <sub>85</sub> = 5.6388	D <sub>60</sub> = 1.7363
D <sub>50</sub> = 1.1551	D <sub>30</sub> = 0.4109	D <sub>15</sub> = 0.0923
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= SM	AASHTO= A-1-b	
<u>Remarks</u>		

Source of Sample: MM-321-05

Depth: 16 to 17 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

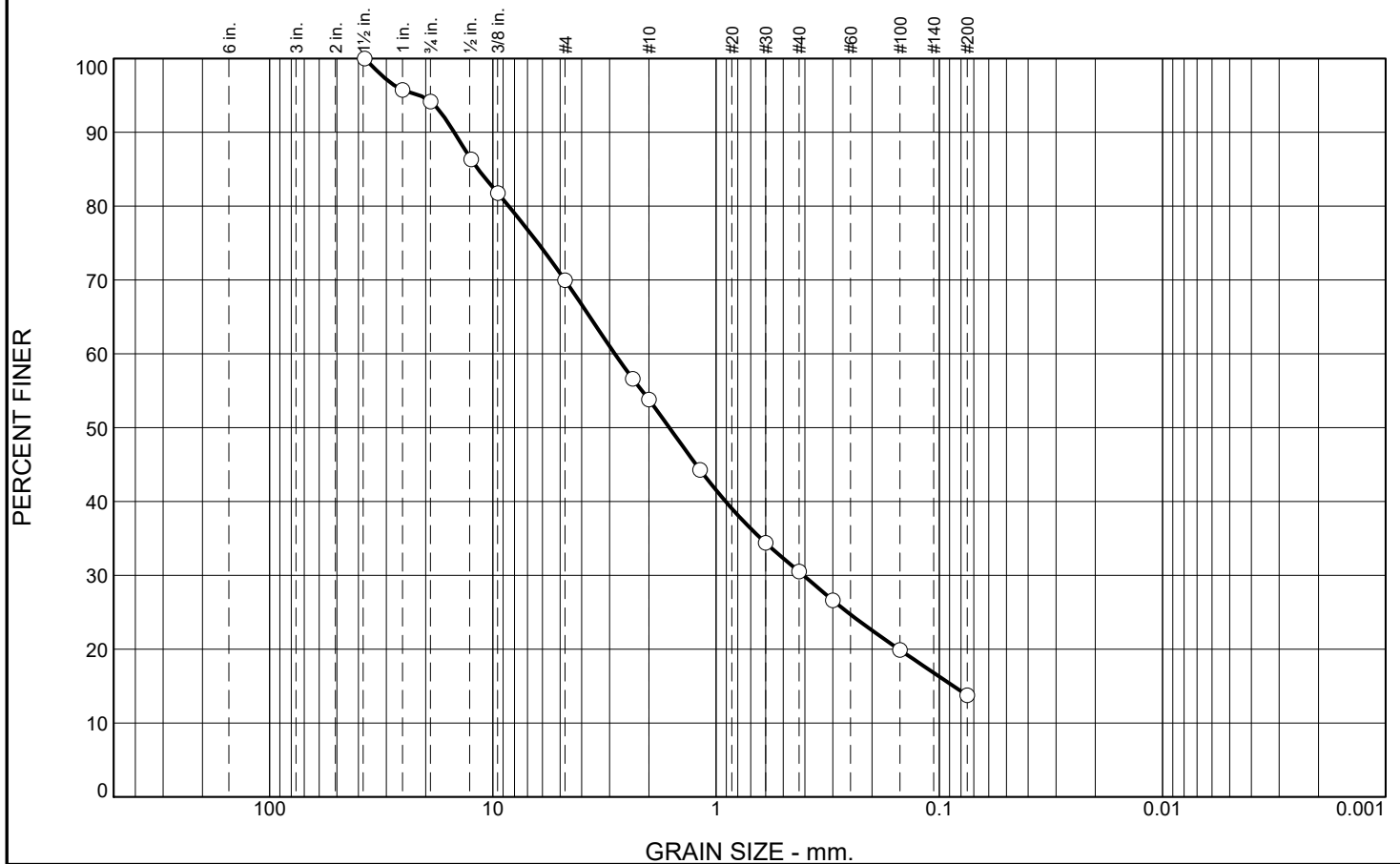
**Project No:** 4030.2100354

**Figure** 111u

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	30	56	14	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	96		
3/4"	94		
1/2"	86		
3/8"	82		
#4	70		
#8	57		
#10	54		
#16	44		
#30	34		
#40	31		
#50	27		
#100	20		
#200	14		

\* (no specification provided)

<u>Material Description</u>		
Silty SAND with gravel		
<u>Atterberg Limits</u>		
PL= NP	LL= NV	PI= NP
<u>Coefficients</u>		
D <sub>90</sub> = 14.8979	D <sub>85</sub> = 11.6326	D <sub>60</sub> = 2.8416
D <sub>50</sub> = 1.6183	D <sub>30</sub> = 0.4060	D <sub>15</sub> = 0.0865
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= SM	AASHTO= A-1-b	
<u>Remarks</u>		

Source of Sample: SS-331-02

Depth: 1 to 4 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

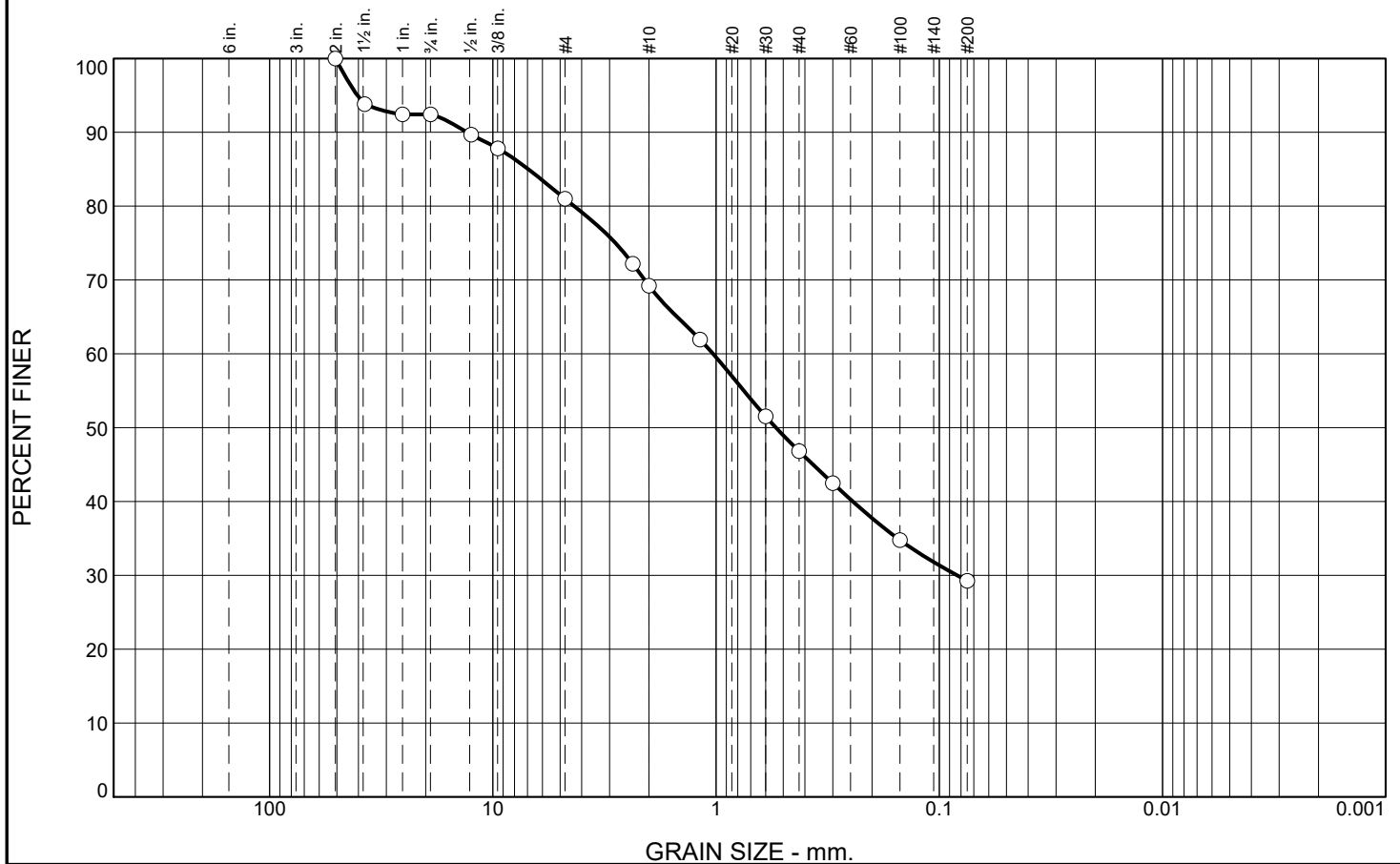
**Project No:** 4030.2100354

**Figure** 111v

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	19	52	29	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	94		
1"	92		
3/4"	92		
1/2"	90		
3/8"	88		
#4	81		
#8	72		
#10	69		
#16	62		
#30	52		
#40	47		
#50	42		
#100	35		
#200	29		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 13.0388

D<sub>85</sub>= 6.9351

D<sub>60</sub>= 1.0316

D<sub>50</sub>= 0.5394

D<sub>30</sub>= 0.0832

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-2-4(0)

## Remarks

Source of Sample: SS-331-09

Depth: 5 to 10 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

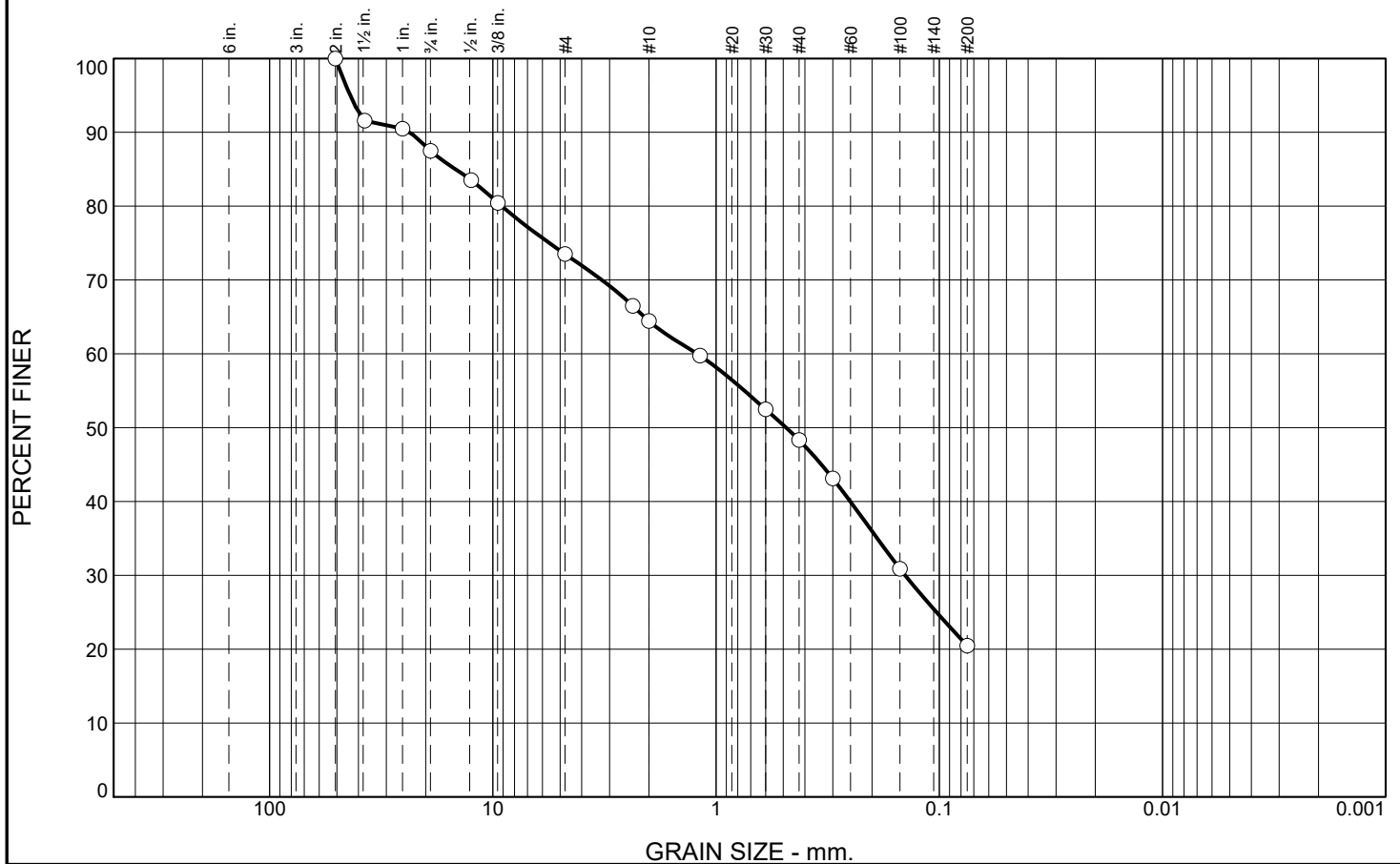
Project No: 4030.2100354

Figure 111w

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	26	54	20	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	92		
1"	90		
3/4"	87		
1/2"	84		
3/8"	80		
#4	74		
#8	66		
#10	64		
#16	60		
#30	52		
#40	48		
#50	43		
#100	31		
#200	20		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 23.5926 D<sub>85</sub>= 14.6985 D<sub>60</sub>= 1.2141  
D<sub>50</sub>= 0.4853 D<sub>30</sub>= 0.1422 D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= SM AASHTO= A-1-b

## Remarks

Source of Sample: SS-332-03

Depth: 5 to 7 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

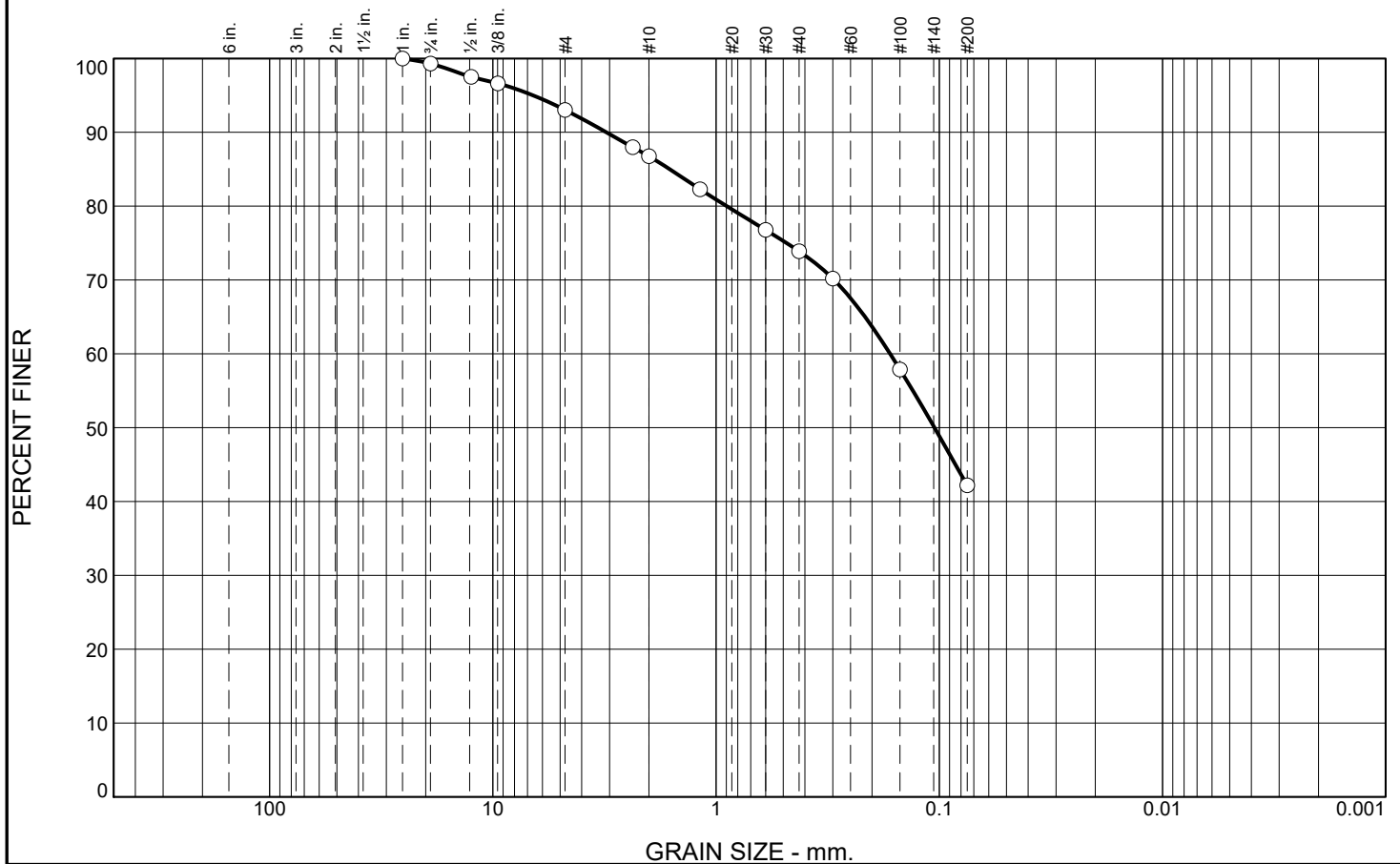
Project No: 4030.2100354

Figure 111x

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	7	51	42	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	99		
1/2"	98		
3/8"	97		
#4	93		
#8	88		
#10	87		
#16	82		
#30	77		
#40	74		
#50	70		
#100	58		
#200	42		

\* (no specification provided)

Material Description		
Silty SAND		
PL= NP	<b>Atterberg Limits</b> LL= NV	PI= NP
D <sub>90</sub> = 3.1018	<b>Coefficients</b> D <sub>85</sub> = 1.6126	D <sub>60</sub> = 0.1661
D <sub>50</sub> = 0.1051	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
USCS= SM	<b>Classification</b> AASHTO= A-4(0)	
<b>Remarks</b>		

Source of Sample: SS-332-07

Depth: 15 to 20 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

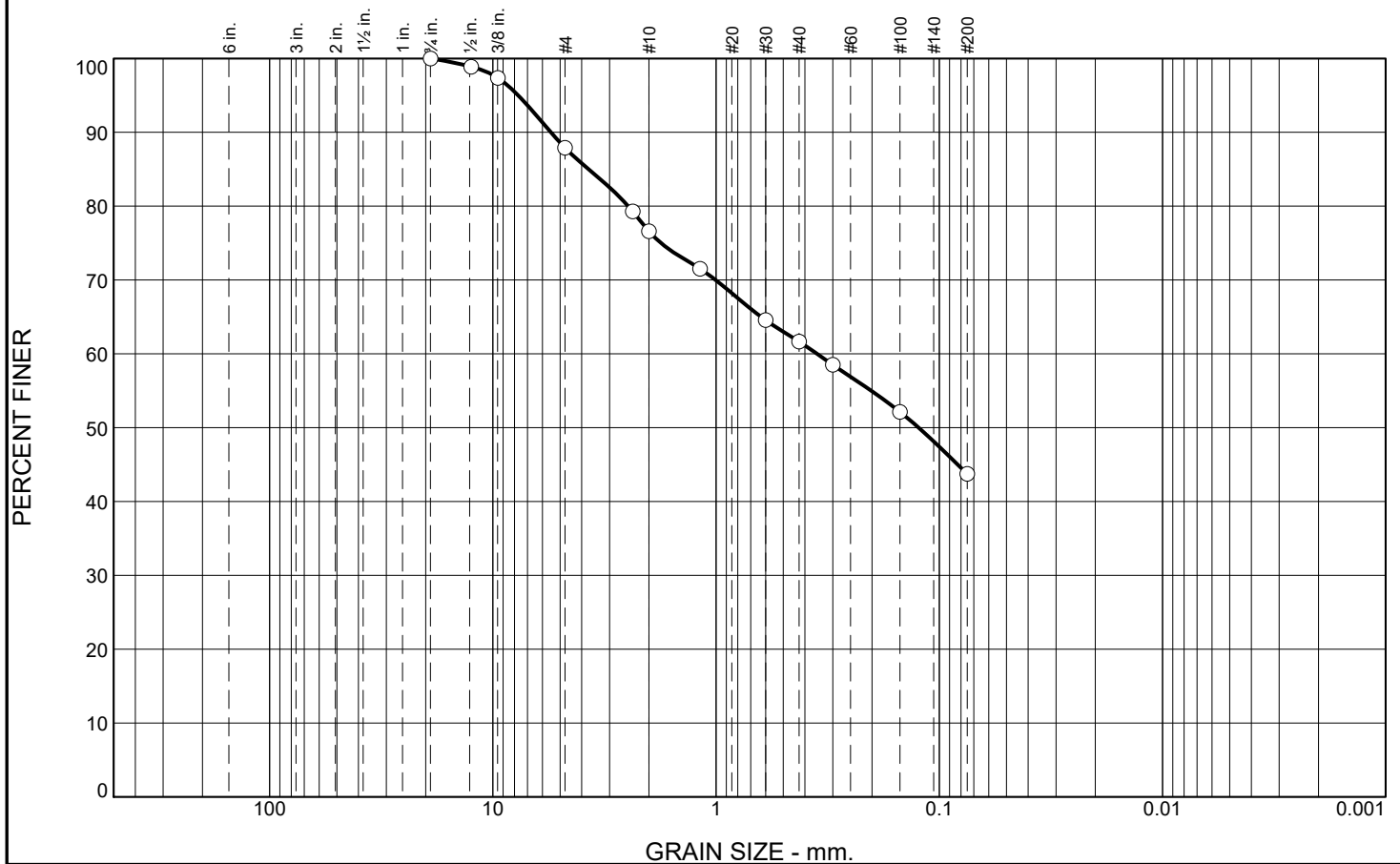
**Figure** 111y

Tested By: DP

Checked By: JS



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	12	44	44	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
1/2"	99		
3/8"	97		
#4	88		
#8	79		
#10	77		
#16	72		
#30	65		
#40	62		
#50	59		
#100	52		
#200	44		

\* (no specification provided)

## Material Description

Silty SAND

PL= NP

## Atterberg Limits

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 5.4984

D<sub>85</sub>= 3.7300

D<sub>60</sub>= 0.3530

D<sub>50</sub>= 0.1238

D<sub>30</sub>=

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-4(0)

## Remarks

Source of Sample: SS-332-09

Depth: 6 to 8 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

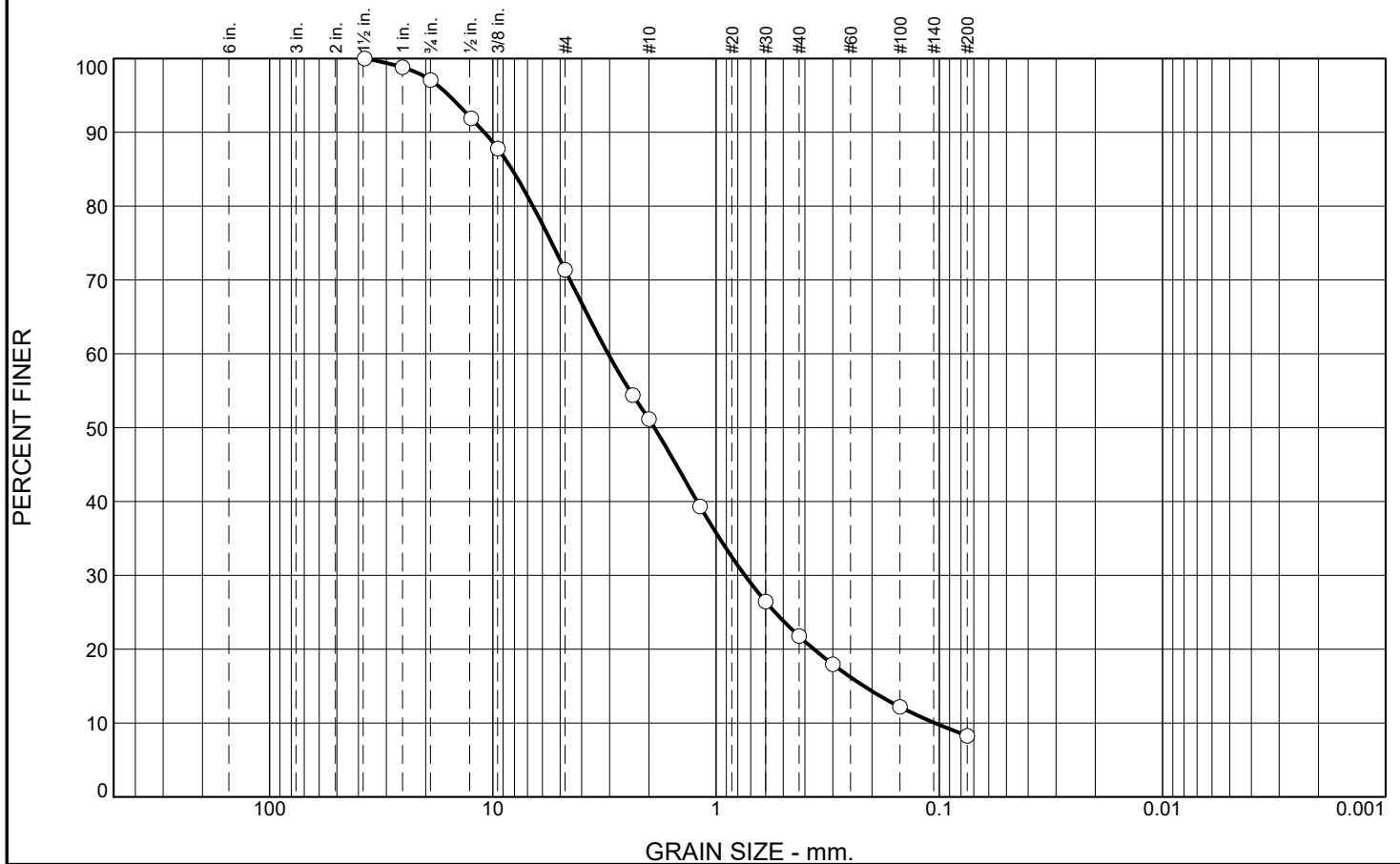
Project No: 4030.2100354

Figure 111z

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	29	63	8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	99		
3/4"	97		
1/2"	92		
3/8"	88		
#4	71		
#8	54		
#10	51		
#16	39		
#30	26		
#40	22		
#50	18		
#100	12		
#200	8		

\* (no specification provided)

## Material Description

Well graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 10.9264 D<sub>85</sub>= 8.2164 D<sub>60</sub>= 3.0451  
D<sub>50</sub>= 1.8898 D<sub>30</sub>= 0.7433 D<sub>15</sub>= 0.2176  
D<sub>10</sub>= 0.1046 C<sub>u</sub>= 29.11 C<sub>c</sub>= 1.73

## Classification

USCS= SW-SM AASHTO= A-1-b

## Remarks

Source of Sample: SS-333-01 Depth: 15 to 17.5 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

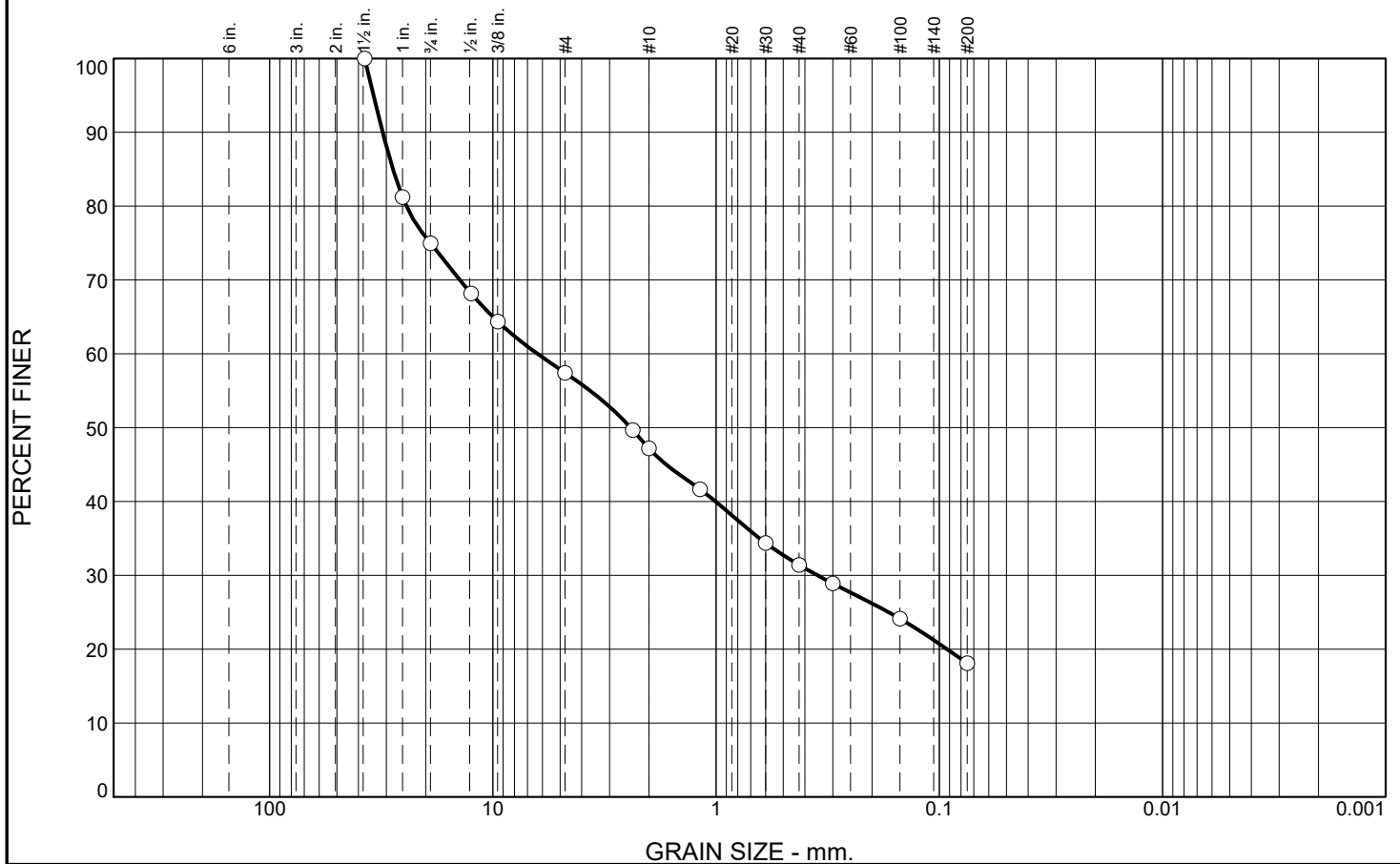
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111aa

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	43	39	18	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	81		
3/4"	75		
1/2"	68		
3/8"	64		
#4	57		
#8	50		
#10	47		
#16	42		
#30	34		
#40	31		
#50	29		
#100	24		
#200	18		

\* (no specification provided)

<u>Material Description</u>		
Silty GRAVEL with sand		
<u>Atterberg Limits</u>		
PL= NP	LL= NV	PI= NP
<u>Coefficients</u>		
D <sub>90</sub> = 31.1803	D <sub>85</sub> = 28.0445	D <sub>60</sub> = 6.3052
D <sub>50</sub> = 2.4135	D <sub>30</sub> = 0.3515	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= GM	AASHTO= A-1-b	
<u>Remarks</u>		

Source of Sample: SS-333-07 Depth: 2 to 4 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

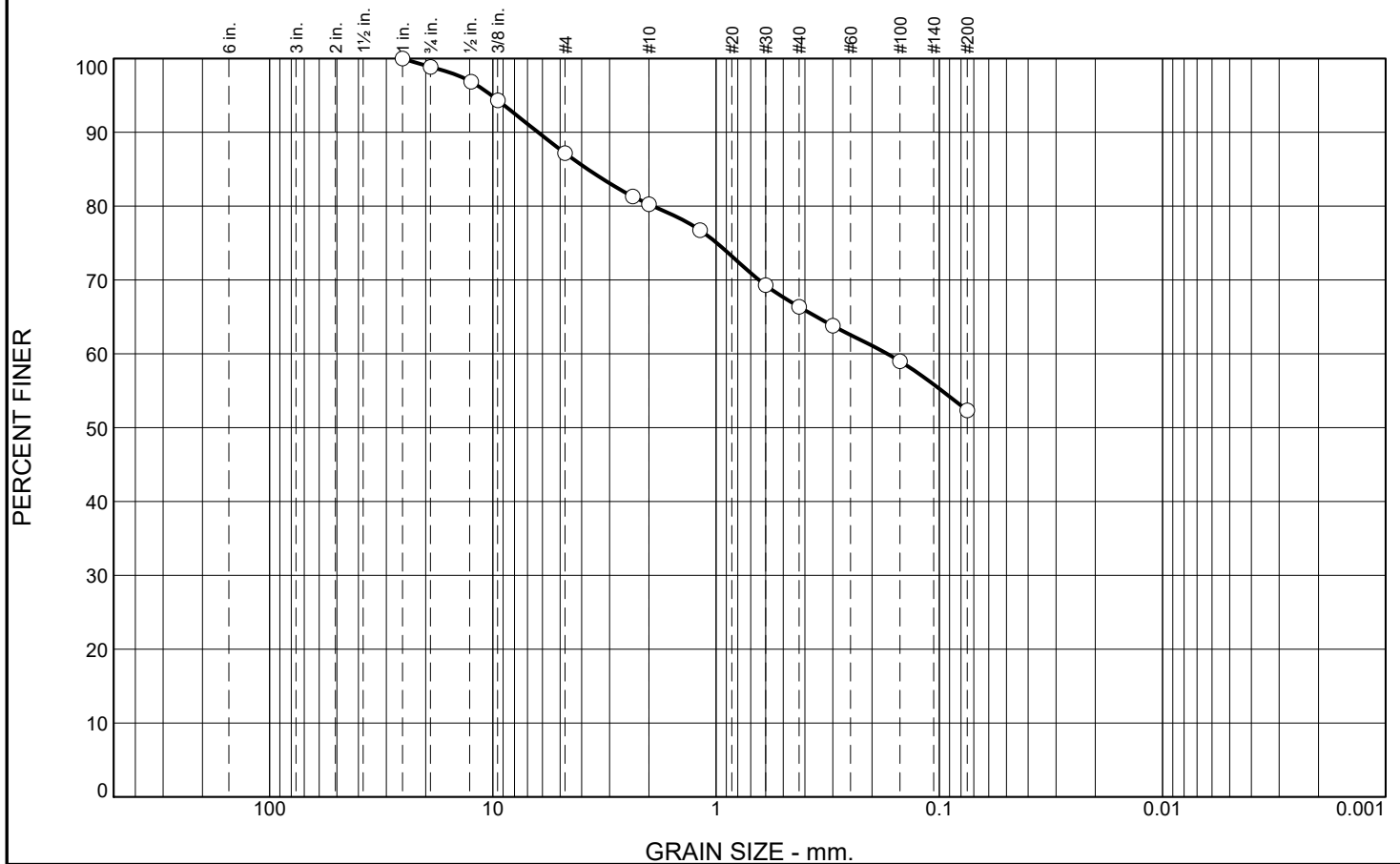
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111ab

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	13	35	52	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	99		
1/2"	97		
3/8"	94		
#4	87		
#8	81		
#10	80		
#16	77		
#30	69		
#40	66		
#50	64		
#100	59		
#200	52		

\* (no specification provided)

## Material Description

Sandy lean CLAY

## Atterberg Limits

PL= 12 LL= 46 PI= 34

## Coefficients

D<sub>90</sub>= 6.2736 D<sub>85</sub>= 3.7594 D<sub>60</sub>= 0.1710  
D<sub>50</sub>= D<sub>30</sub>= D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= CL AASHTO= A-7-6(13)

## Remarks

Source of Sample: SS-333-09

Depth: 10 to 15 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

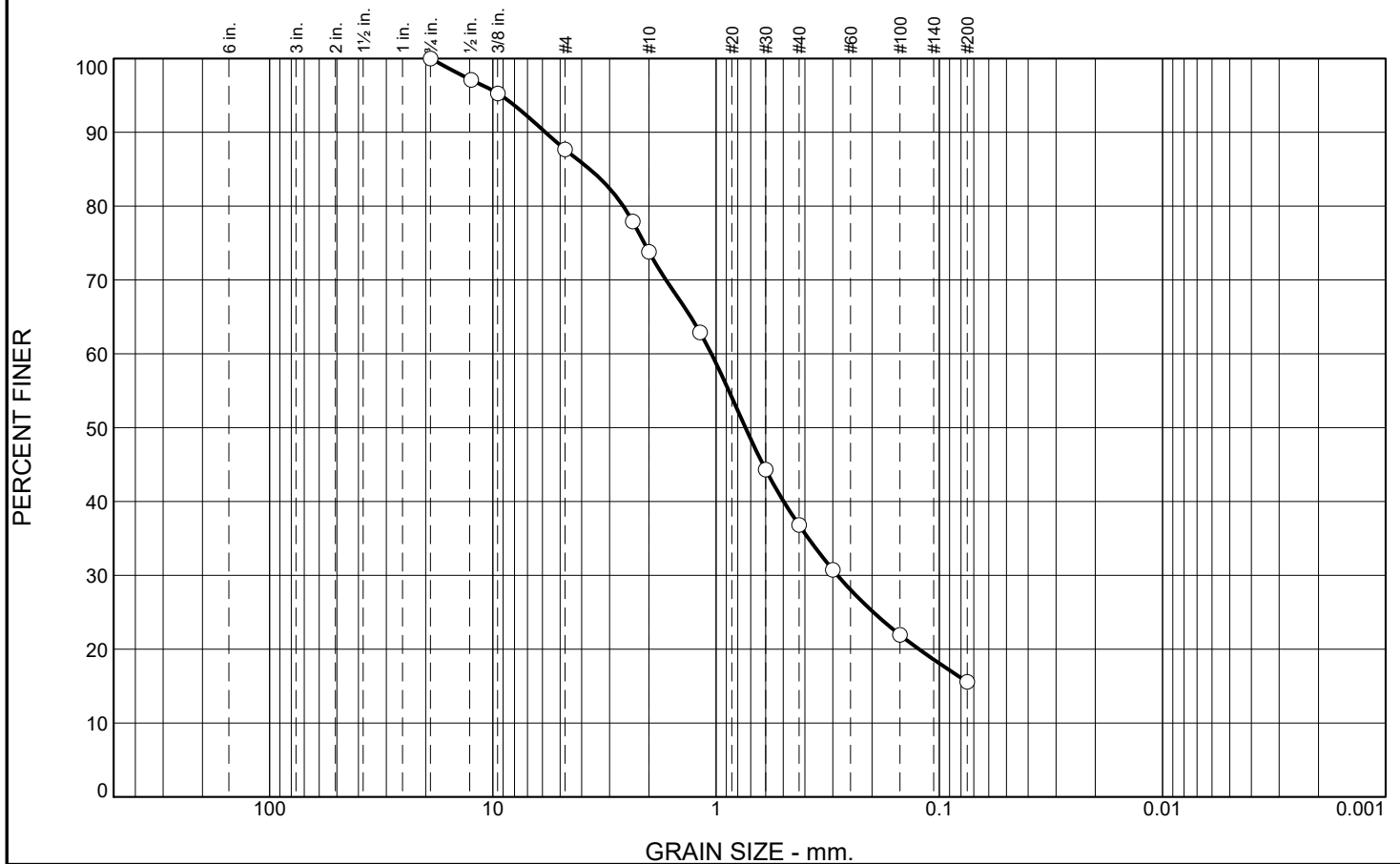
**Project No:** 4030.2100354

**Figure** 111ac

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	12	72	16	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
1/2"	97		
3/8"	95		
#4	88		
#8	78		
#10	74		
#16	63		
#30	44		
#40	37		
#50	31		
#100	22		
#200	16		

\* (no specification provided)

## Material Description

Silty SAND

PL= NP

## Atterberg Limits

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 5.8152

D<sub>85</sub>= 3.6817

D<sub>60</sub>= 1.0497

D<sub>50</sub>= 0.7383

D<sub>30</sub>= 0.2857

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-1-b

## Remarks

Source of Sample: SS-333-11

Depth: 1 to 2 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

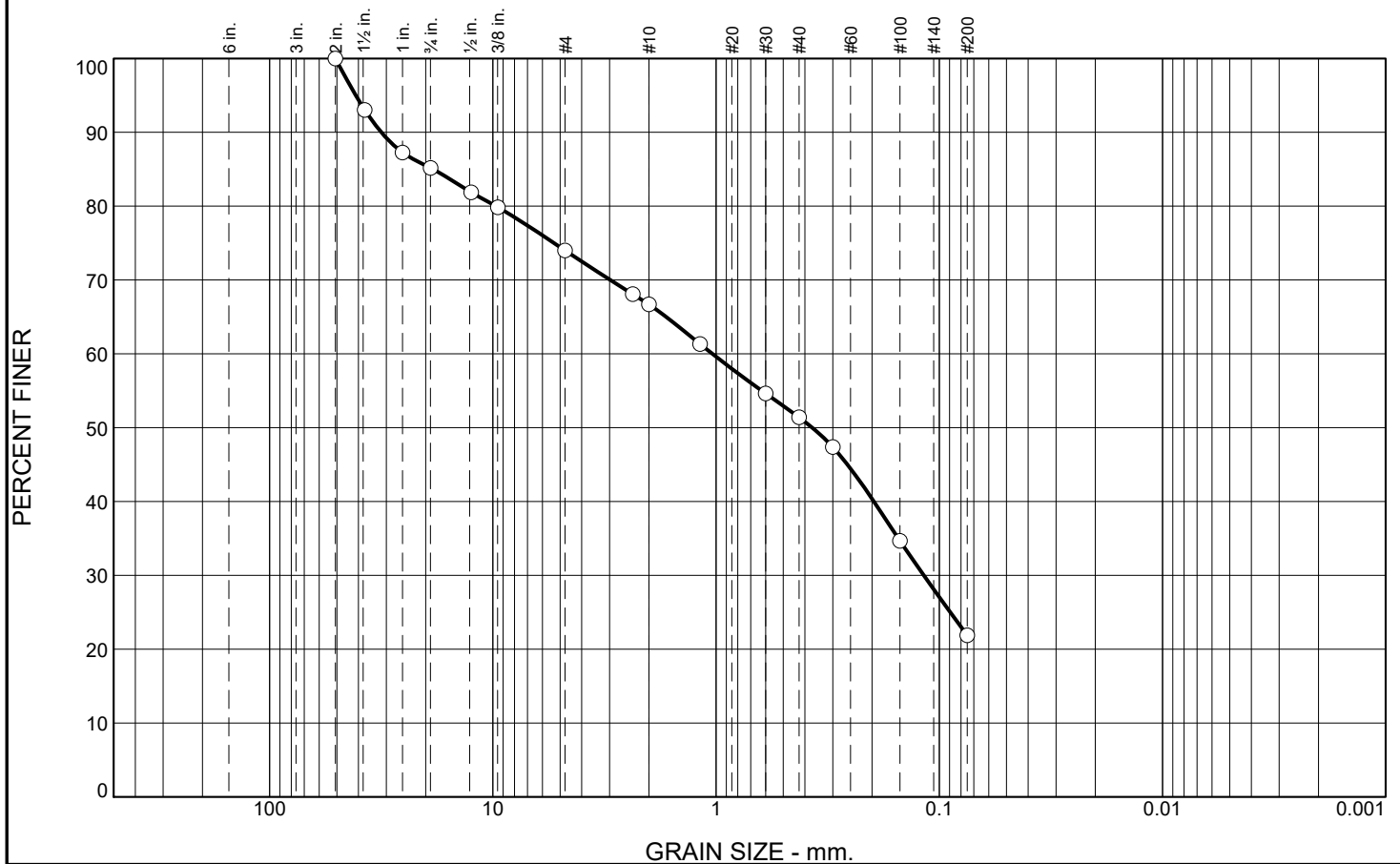
Project No: 4030.2100354

Figure 111ad

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	26	52	22	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	93		
1"	87		
3/4"	85		
1/2"	82		
3/8"	80		
#4	74		
#8	68		
#10	67		
#16	61		
#30	55		
#40	51		
#50	47		
#100	35		
#200	22		

\* (no specification provided)

<u>Material Description</u>		
Silty SAND with gravel		
<u>Atterberg Limits</u>		
PL= NP	LL= NV	PI= NP
<u>Coefficients</u>		
D <sub>90</sub> = 31.6320	D <sub>85</sub> = 18.5367	D <sub>60</sub> = 1.0387
D <sub>50</sub> = 0.3710	D <sub>30</sub> = 0.1174	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= SM	AASHTO= A-2-4(0)	
<u>Remarks</u>		

Source of Sample: SS-333-17

Depth: 7.5 to 10 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

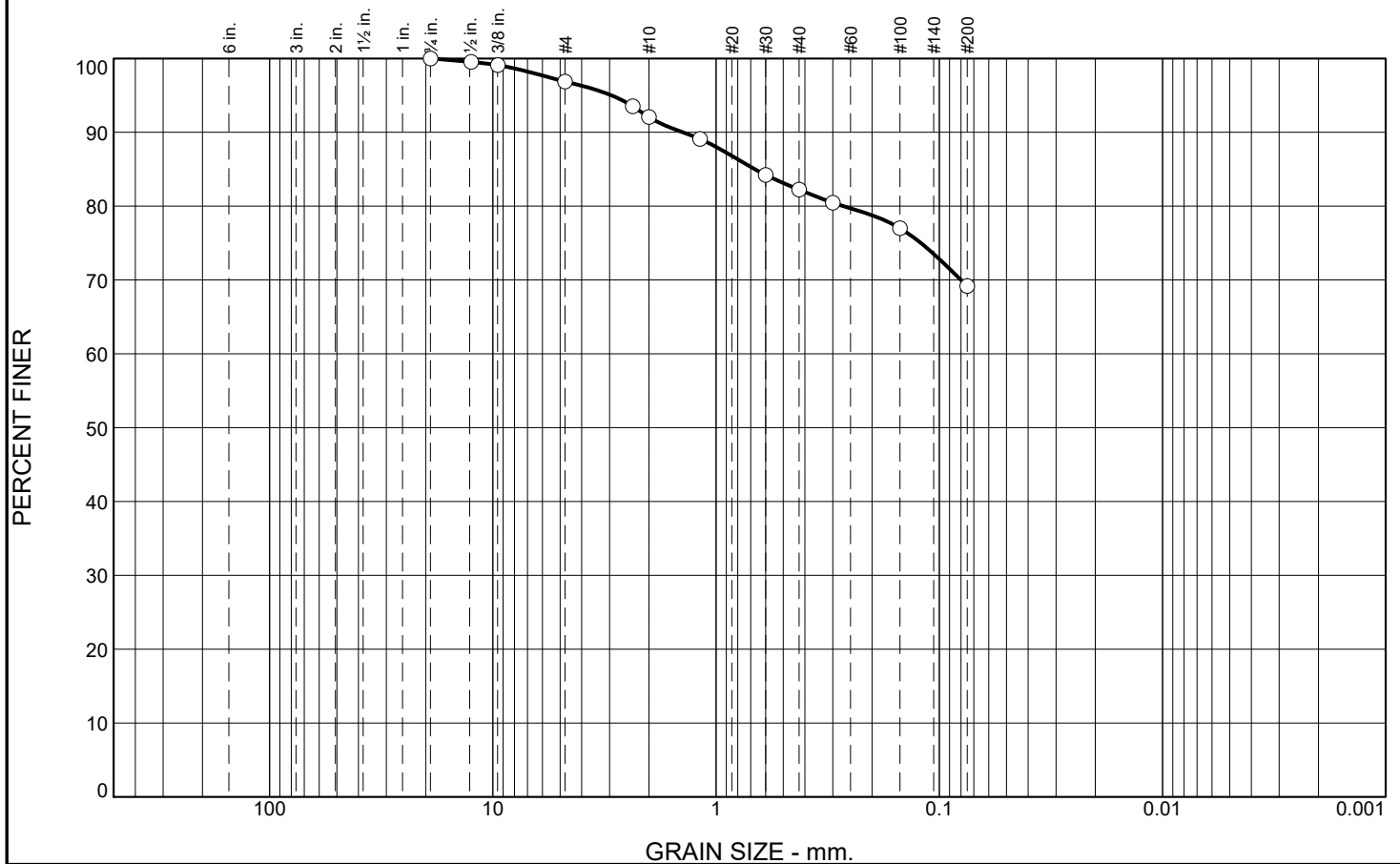
**Project No:** 4030.2100354

**Figure** 111ae

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	3	28	69	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
1/2"	100		
3/8"	99		
#4	97		
#8	94		
#10	92		
#16	89		
#30	84		
#40	82		
#50	80		
#100	77		
#200	69		

\* (no specification provided)

## Material Description

Sandy fat CLAY

## Atterberg Limits

PL= 23 LL= 54 PI= 31

## Coefficients

D<sub>90</sub>= 1.4075 D<sub>85</sub>= 0.6703 D<sub>60</sub>=  
D<sub>50</sub>= D<sub>30</sub>= D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= CH AASHTO= A-7-6(21)

## Remarks

Source of Sample: SS-333-18 Depth: 2.5 to 5 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

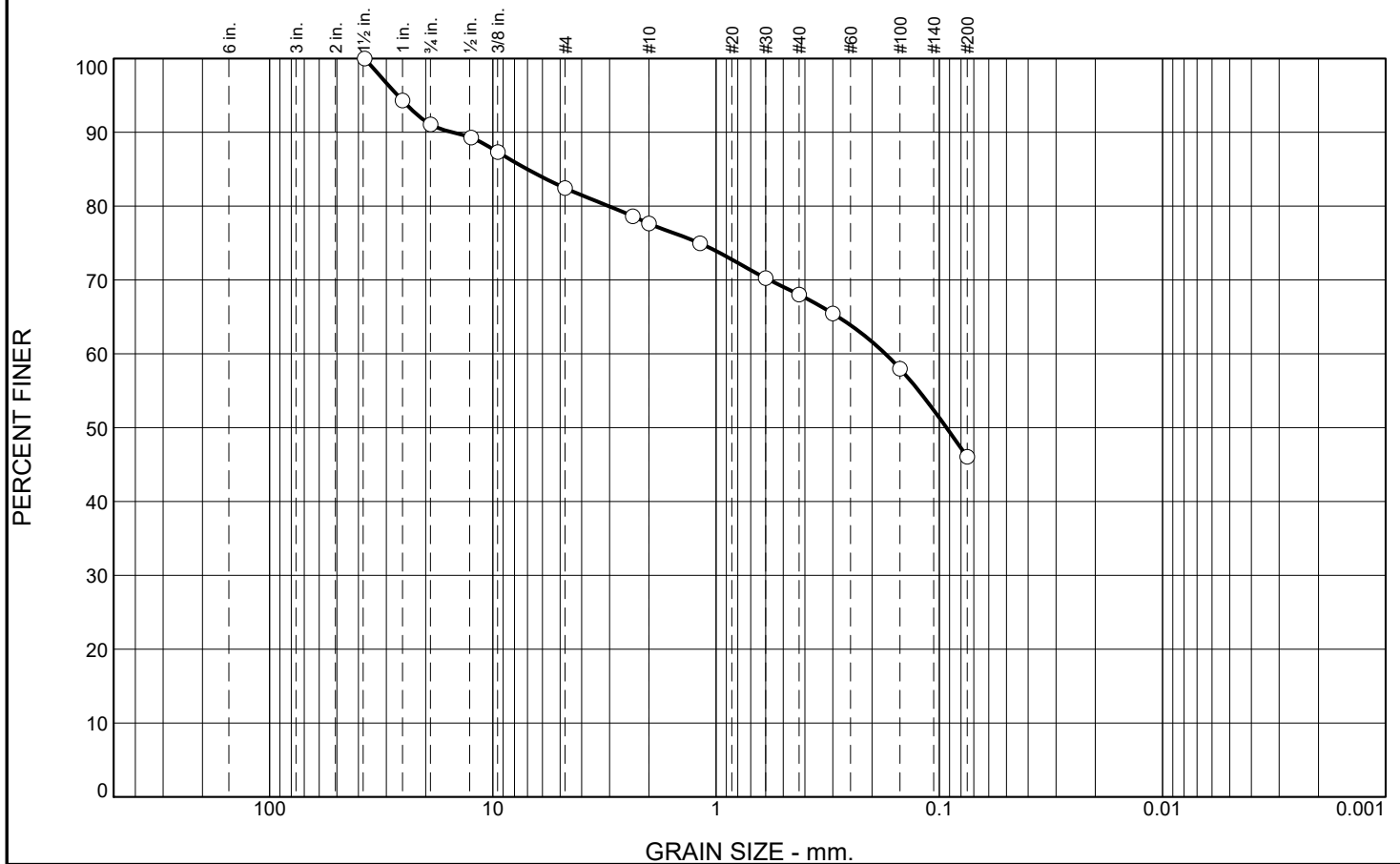
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111af

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	18	36	46	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	94		
3/4"	91		
1/2"	89		
3/8"	87		
#4	82		
#8	79		
#10	78		
#16	75		
#30	70		
#40	68		
#50	65		
#100	58		
#200	46		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 15.1924 D<sub>85</sub>= 7.0070 D<sub>60</sub>= 0.1744  
D<sub>50</sub>= 0.0928 D<sub>30</sub>= C<sub>u</sub>= D<sub>15</sub>= C<sub>c</sub>=

## Classification

USCS= SM AASHTO= A-4(0)

## Remarks

Source of Sample: SS-334-07

Depth: 1 to 2 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

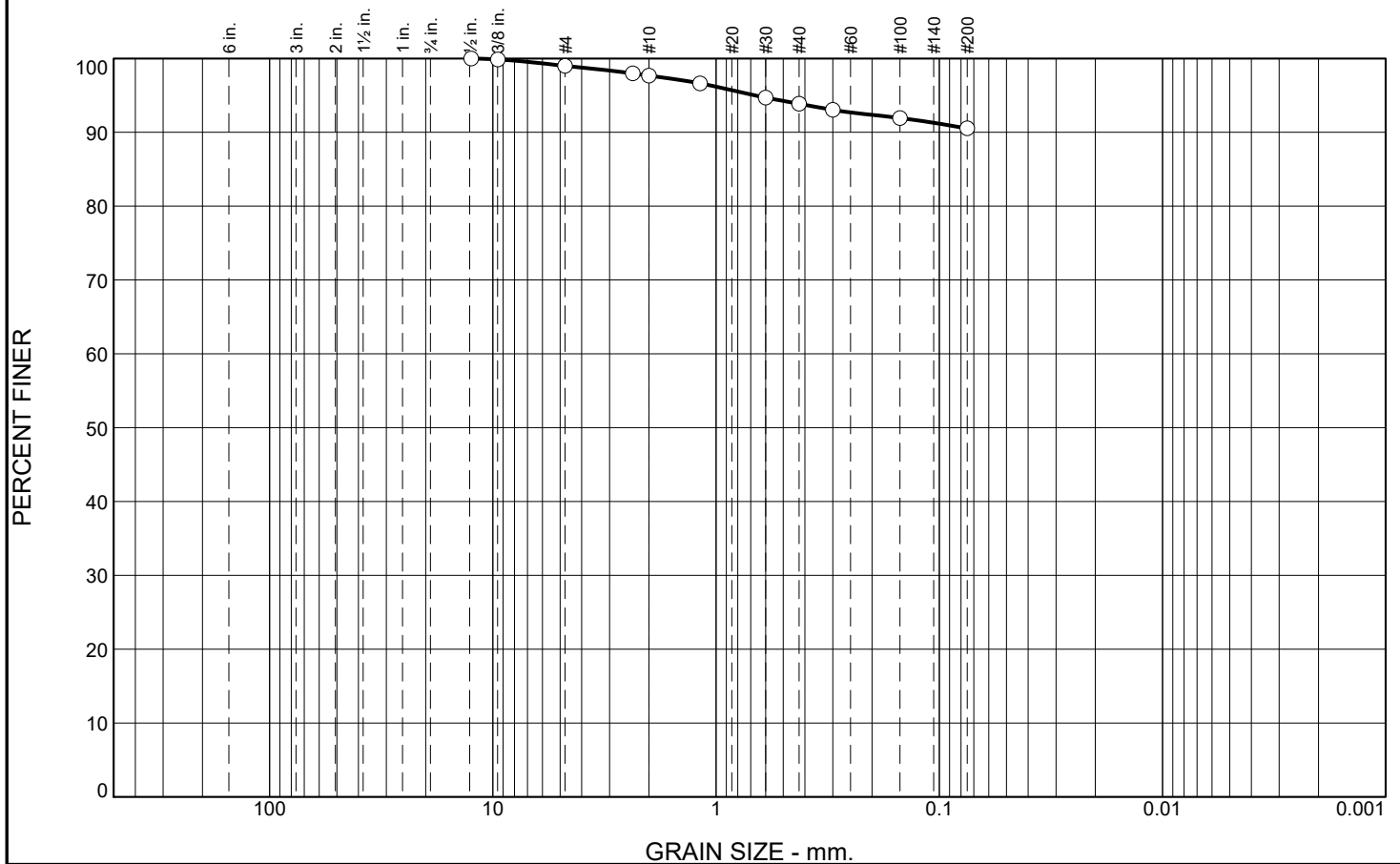
**Figure** 11lag

Tested By: DP

Checked By: JS



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	1	8	91	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2"	100		
3/8"	100		
#4	99		
#8	98		
#10	98		
#16	97		
#30	95		
#40	94		
#50	93		
#100	92		
#200	91		

\* (no specification provided)

Material Description		
Fat CLAY		
PL= 17	<b>Atterberg Limits</b> LL= 61	PI= 44
D <sub>90</sub> =	<b>Coefficients</b> D <sub>85</sub> =	D <sub>60</sub> =
D <sub>50</sub> =	D <sub>30</sub> =	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
USCS= CH	<b>Classification</b> AASHTO=	A-7-6(43)
<b>Remarks</b>		

Source of Sample: SS-334-10

Depth: 25 to 30 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

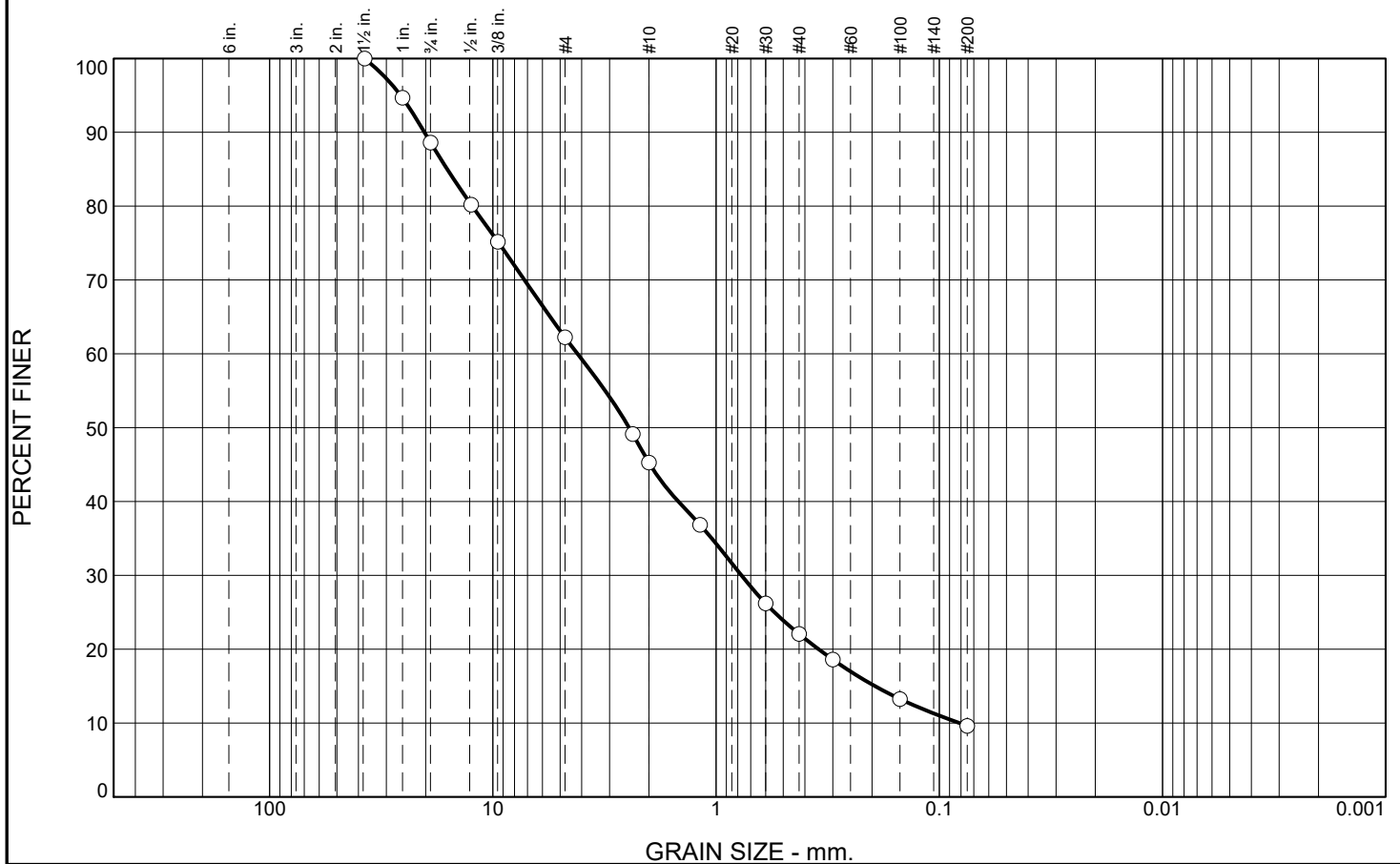
**Project No:** 4030.2100354

**Figure** 111ah

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	38	52	10	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	95		
3/4"	89		
1/2"	80		
3/8"	75		
#4	62		
#8	49		
#10	45		
#16	37		
#30	26		
#40	22		
#50	19		
#100	13		
#200	10		

\* (no specification provided)

<u><b>Material Description</b></u>		
Well graded SAND with silt and gravel		
<u><b>Atterberg Limits</b></u>		
PL= NP	LL= NV	PI= NP
<u><b>Coefficients</b></u>		
D <sub>90</sub> = 20.2589	D <sub>85</sub> = 16.0101	D <sub>60</sub> = 4.1753
D <sub>50</sub> = 2.4514	D <sub>30</sub> = 0.7698	D <sub>15</sub> = 0.1945
D <sub>10</sub> = 0.0814	C <sub>u</sub> = 51.30	C <sub>c</sub> = 1.74
<u><b>Classification</b></u>		
USCS= SW-SM	AASHTO= A-1-a	
<u><b>Remarks</b></u>		

Source of Sample: SS-334-15 Depth: 27 to 30 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

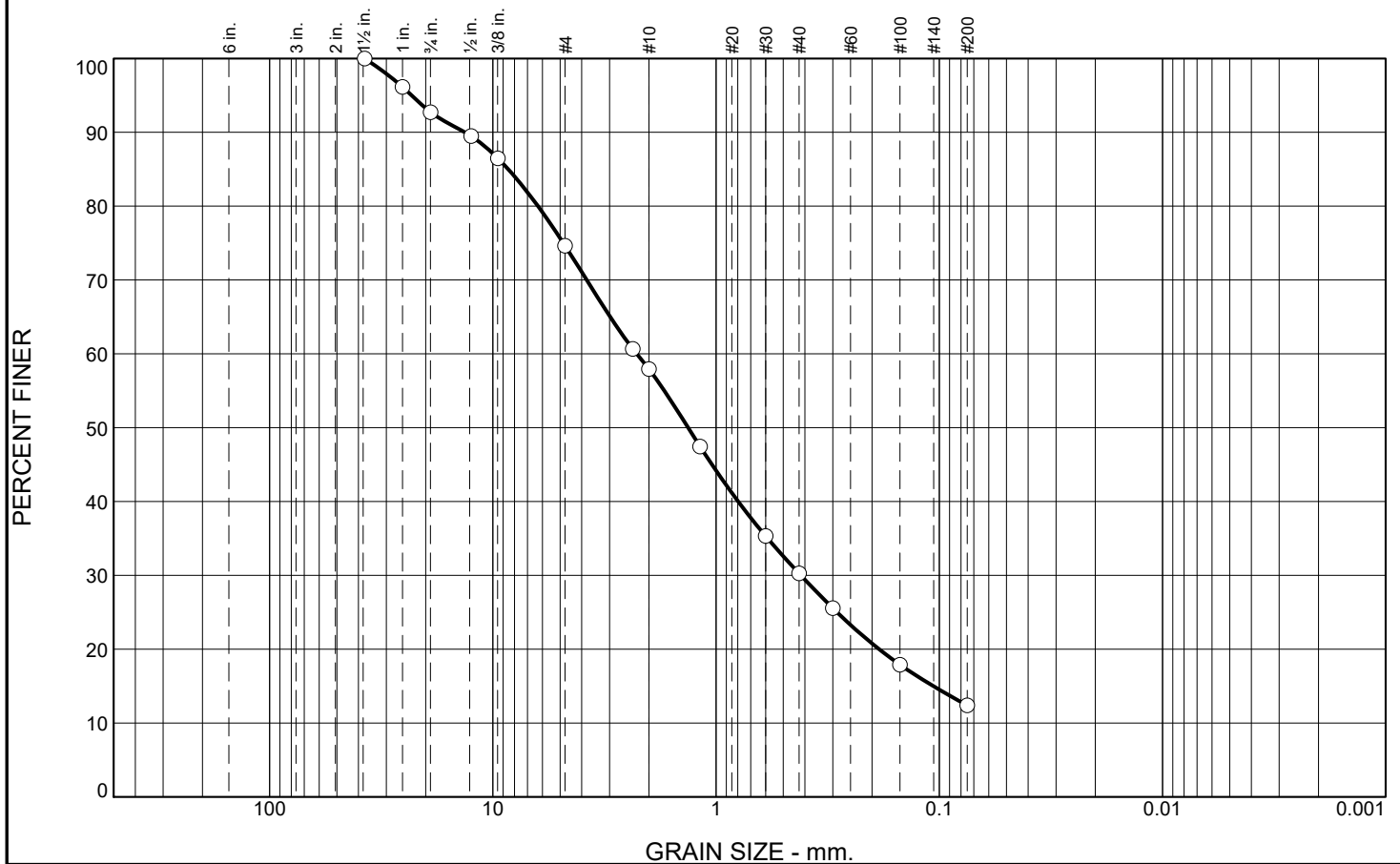
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111ai

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	25	63	12	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	96		
3/4"	93		
1/2"	89		
3/8"	86		
#4	75		
#8	61		
#10	58		
#16	47		
#30	35		
#40	30		
#50	26		
#100	18		
#200	12		

\* (no specification provided)

## Material Description

Poorly graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 13.3280 D<sub>85</sub>= 8.5317 D<sub>60</sub>= 2.2660  
D<sub>50</sub>= 1.3352 D<sub>30</sub>= 0.4168 D<sub>15</sub>= 0.1064  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= SP-SM AASHTO= A-1-b

## Remarks

Source of Sample: SS-334-20

Depth: 14 to 15 ft.

Date: 3/18/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

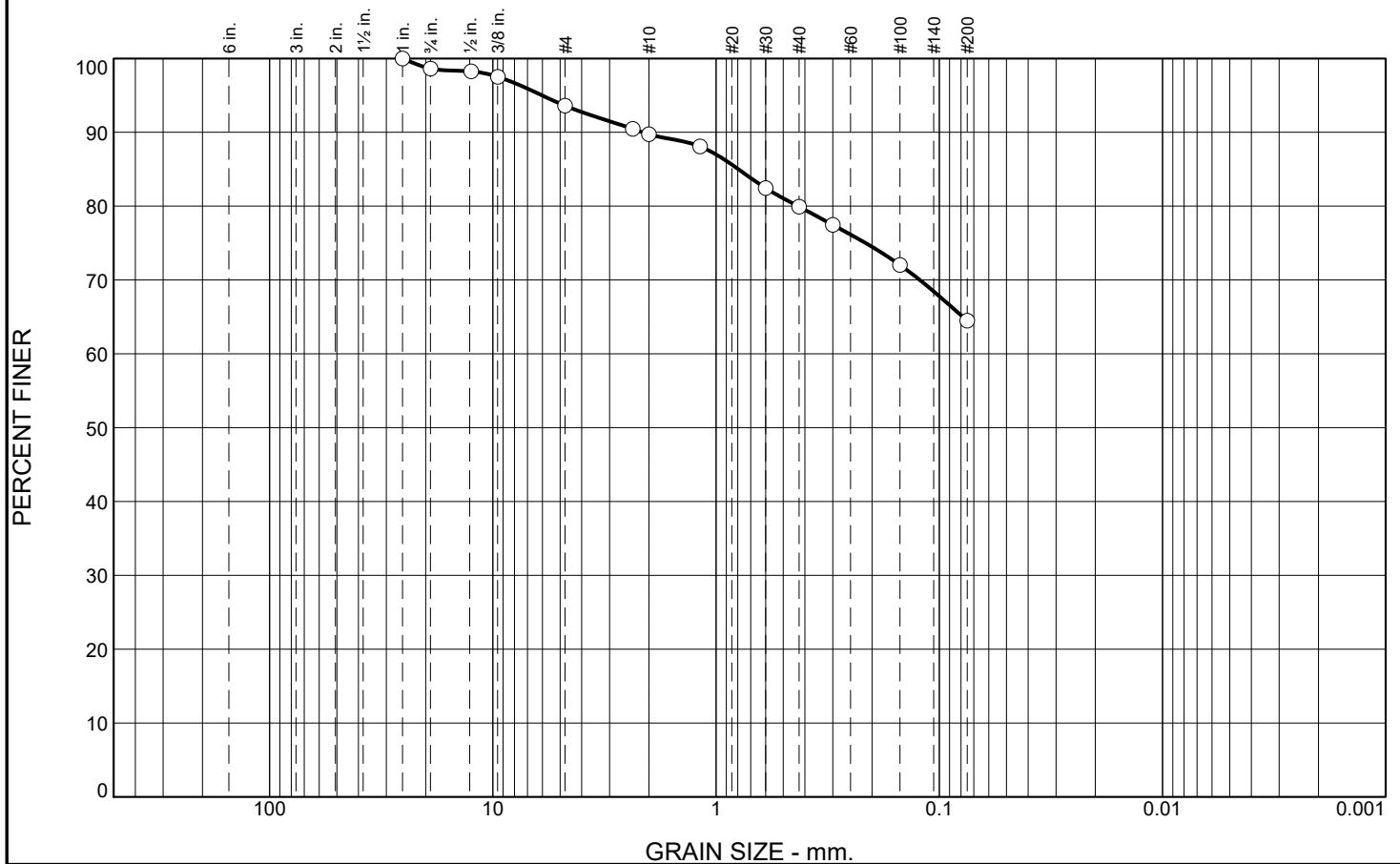
**Project No:** 4030.2100354

**Figure** 111aj

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	6	30	64	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100		
3/4"	99		
1/2"	98		
3/8"	98		
#4	94		
#8	90		
#10	90		
#16	88		
#30	82		
#40	80		
#50	77		
#100	72		
#200	64		

\* (no specification provided)

## Material Description

Sandy lean CLAY

## Atterberg Limits

PL= 24 LL= 46 PI= 22

## Coefficients

D<sub>90</sub>= 2.1328 D<sub>85</sub>= 0.7944 D<sub>60</sub>=  
D<sub>50</sub>= D<sub>30</sub>= D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= CL AASHTO= A-7-6(13)

## Remarks

Source of Sample: TP-3 Depth: 3 to 4 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

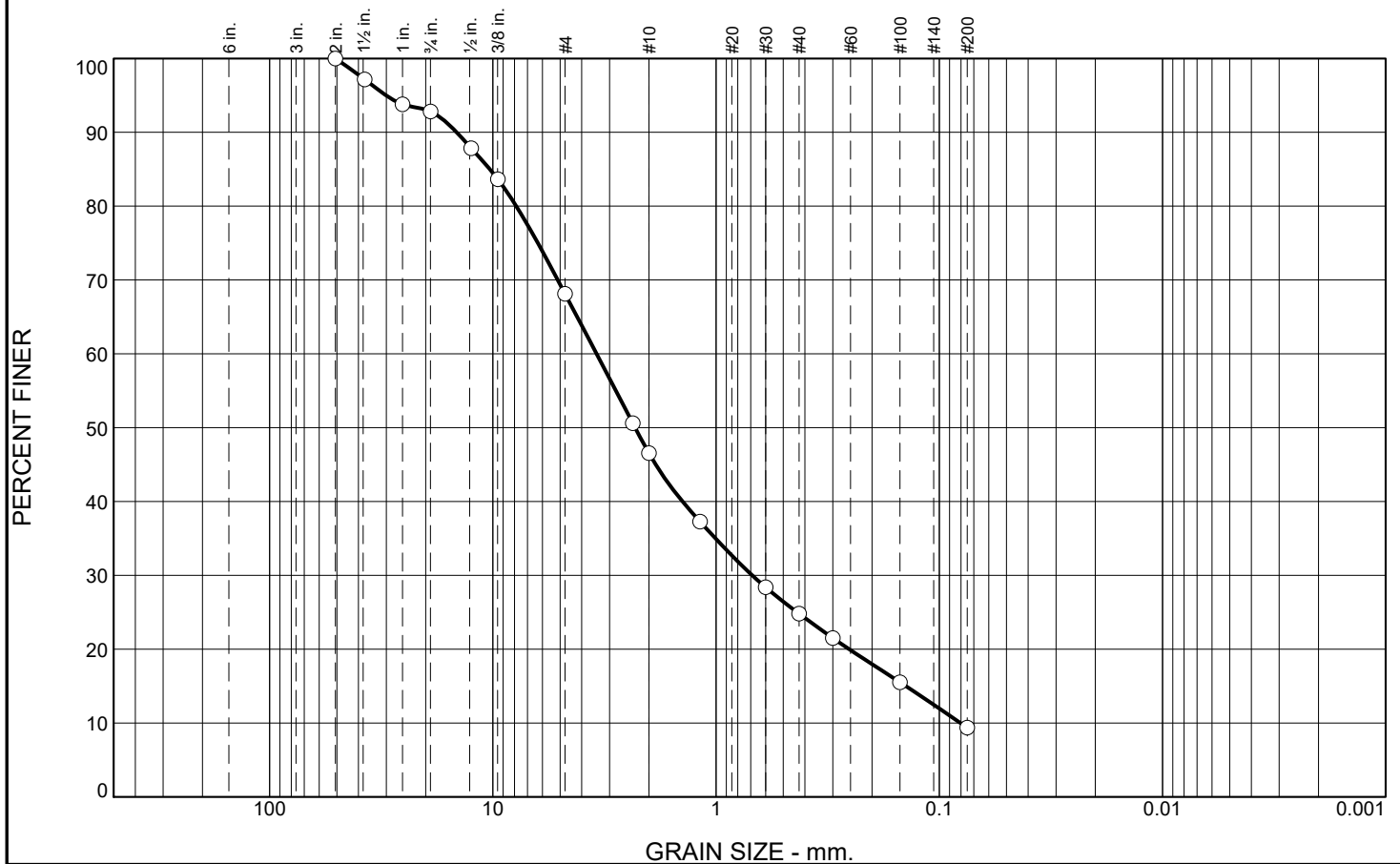
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111ak

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	32	59	9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	97		
1"	94		
3/4"	93		
1/2"	88		
3/8"	84		
#4	68		
#8	51		
#10	47		
#16	37		
#30	28		
#40	25		
#50	22		
#100	16		
#200	9		

\* (no specification provided)

## Material Description

Well graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 14.5251 D<sub>85</sub>= 10.3172 D<sub>60</sub>= 3.4306  
D<sub>50</sub>= 2.3039 D<sub>30</sub>= 0.6886 D<sub>15</sub>= 0.1412  
D<sub>10</sub>= 0.0803 C<sub>u</sub>= 42.71 C<sub>c</sub>= 1.72

## Classification

USCS= SW-SM AASHTO= A-1-a

## Remarks

Source of Sample: TP-4 Depth: 6 to 7 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

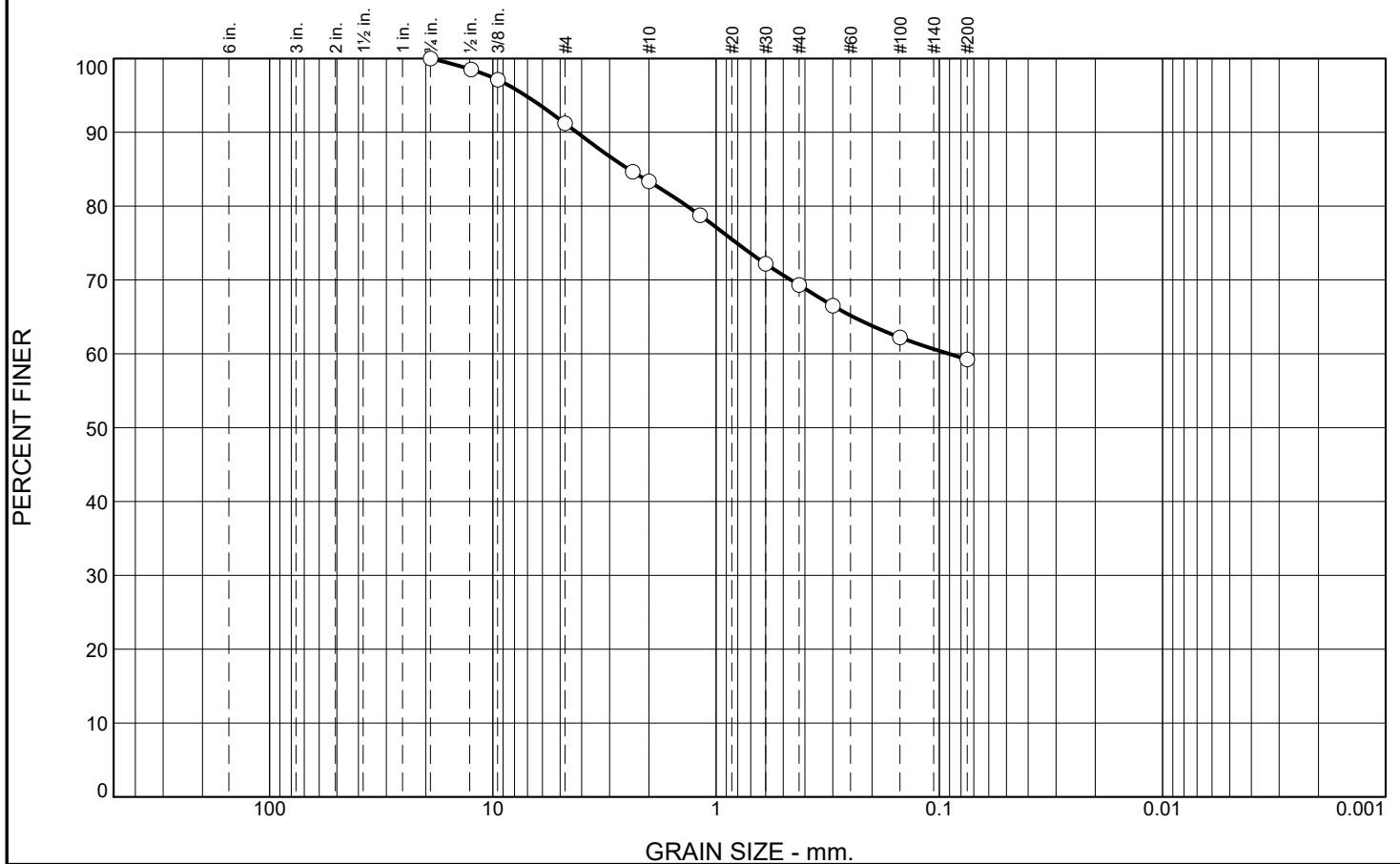
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111a1

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	9	32	59	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
1/2"	99		
3/8"	97		
#4	91		
#8	85		
#10	83		
#16	79		
#30	72		
#40	69		
#50	67		
#100	62		
#200	59		

\* (no specification provided)

## Material Description

Sandy fat CLAY

## Atterberg Limits

PL= 22 LL= 89 PI= 67

## Coefficients

D<sub>90</sub>= 4.2062 D<sub>85</sub>= 2.4630 D<sub>60</sub>= 0.0906  
D<sub>50</sub>= D<sub>30</sub>= D<sub>15</sub>=  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= CH AASHTO= A-7-6(36)

## Remarks

Source of Sample: TP-7 Depth: 5 to 6 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

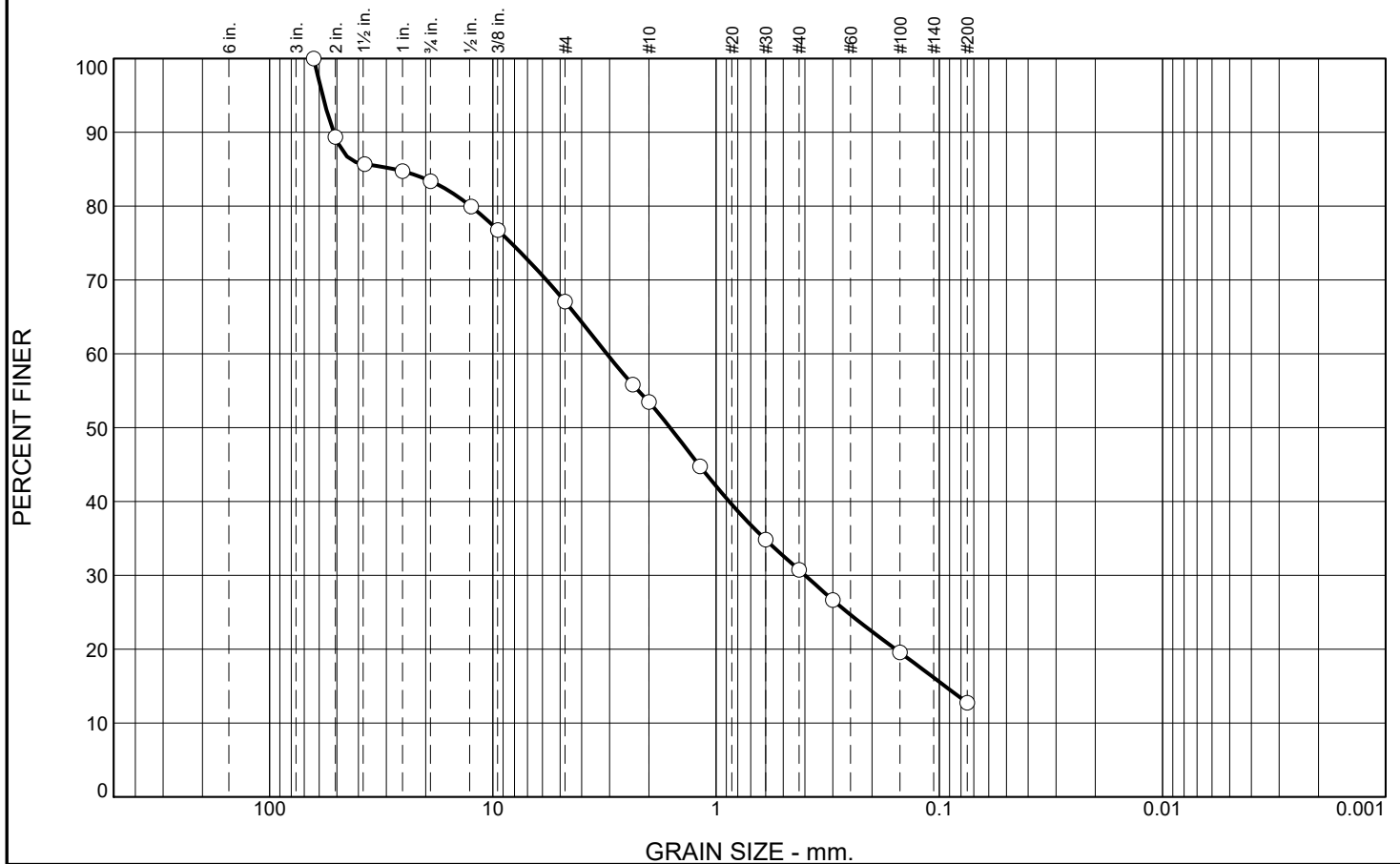
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111am

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	33	54	13	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2 1/2"	100		
2"	89		
1 1/2"	86		
1"	85		
3/4"	83		
1/2"	80		
3/8"	77		
#4	67		
#8	56		
#10	53		
#16	45		
#30	35		
#40	31		
#50	27		
#100	20		
#200	13		

\* (no specification provided)

## Material Description

Silty SAND with gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 51.7549

D<sub>85</sub>= 27.6097

D<sub>60</sub>= 3.0866

D<sub>50</sub>= 1.6067

D<sub>30</sub>= 0.3989

D<sub>15</sub>= 0.0943

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SM

AASHTO= A-1-b

## Remarks

Source of Sample: TP-9

Depth: 9 to 10 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

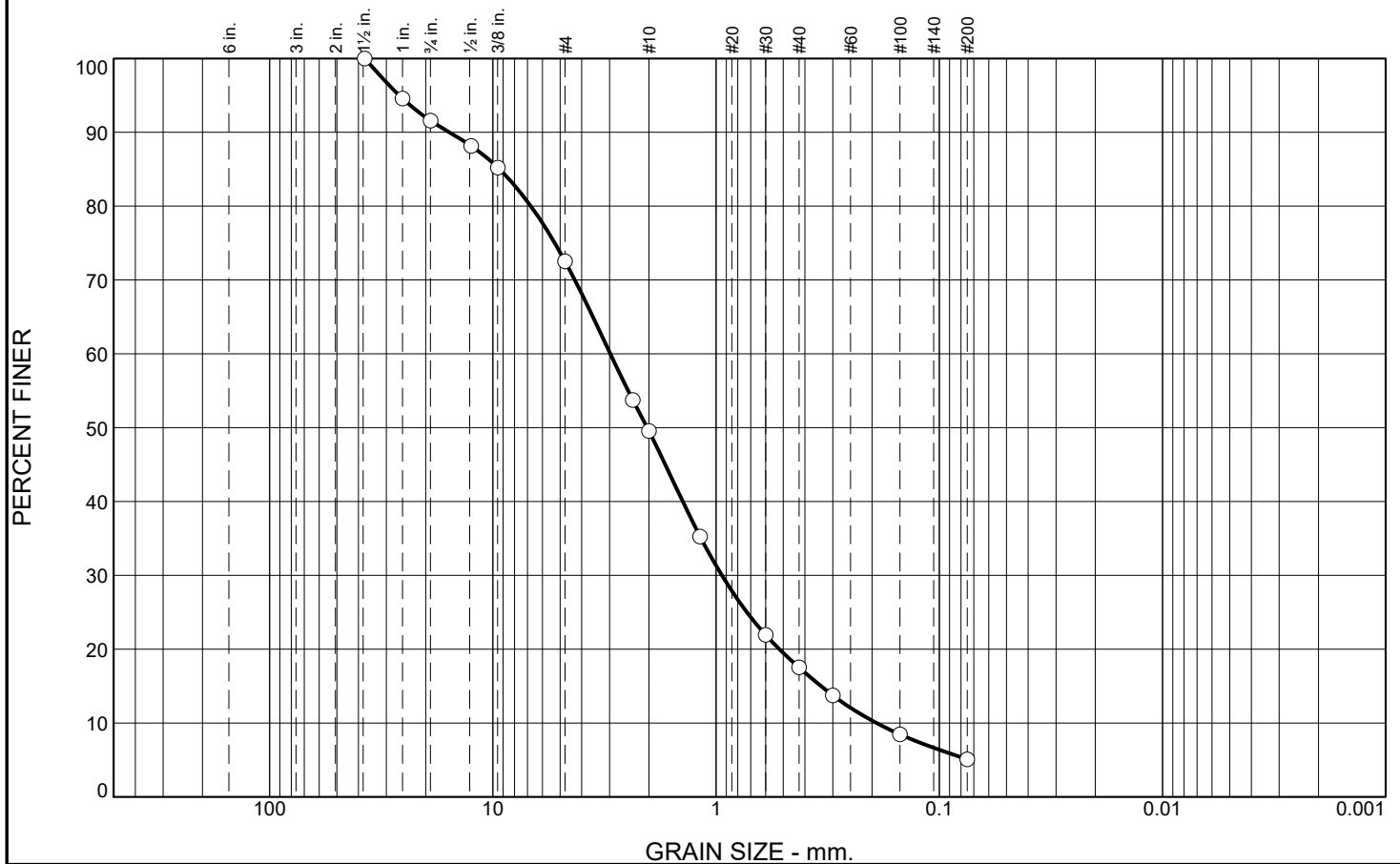
Project No: 4030.2100354

Figure 111an

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	27	68	5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	95		
3/4"	92		
1/2"	88		
3/8"	85		
#4	73		
#8	54		
#10	50		
#16	35		
#30	22		
#40	18		
#50	14		
#100	8		
#200	5		

\* (no specification provided)

## Material Description

Well graded SAND with silt and gravel

## Atterberg Limits

PL= NP      LL= NV      PI= NP

## Coefficients

D<sub>90</sub>= 15.6732      D<sub>85</sub>= 9.3363      D<sub>60</sub>= 2.9768  
D<sub>50</sub>= 2.0355      D<sub>30</sub>= 0.9424      D<sub>15</sub>= 0.3390  
D<sub>10</sub>= 0.1913      C<sub>u</sub>= 15.56      C<sub>c</sub>= 1.56

## Classification

USCS= SW-SM      AASHTO= A-1-a

## Remarks

Source of Sample: TP-10      Depth: 5 to 6 ft.

Date: 3/23/22

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and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

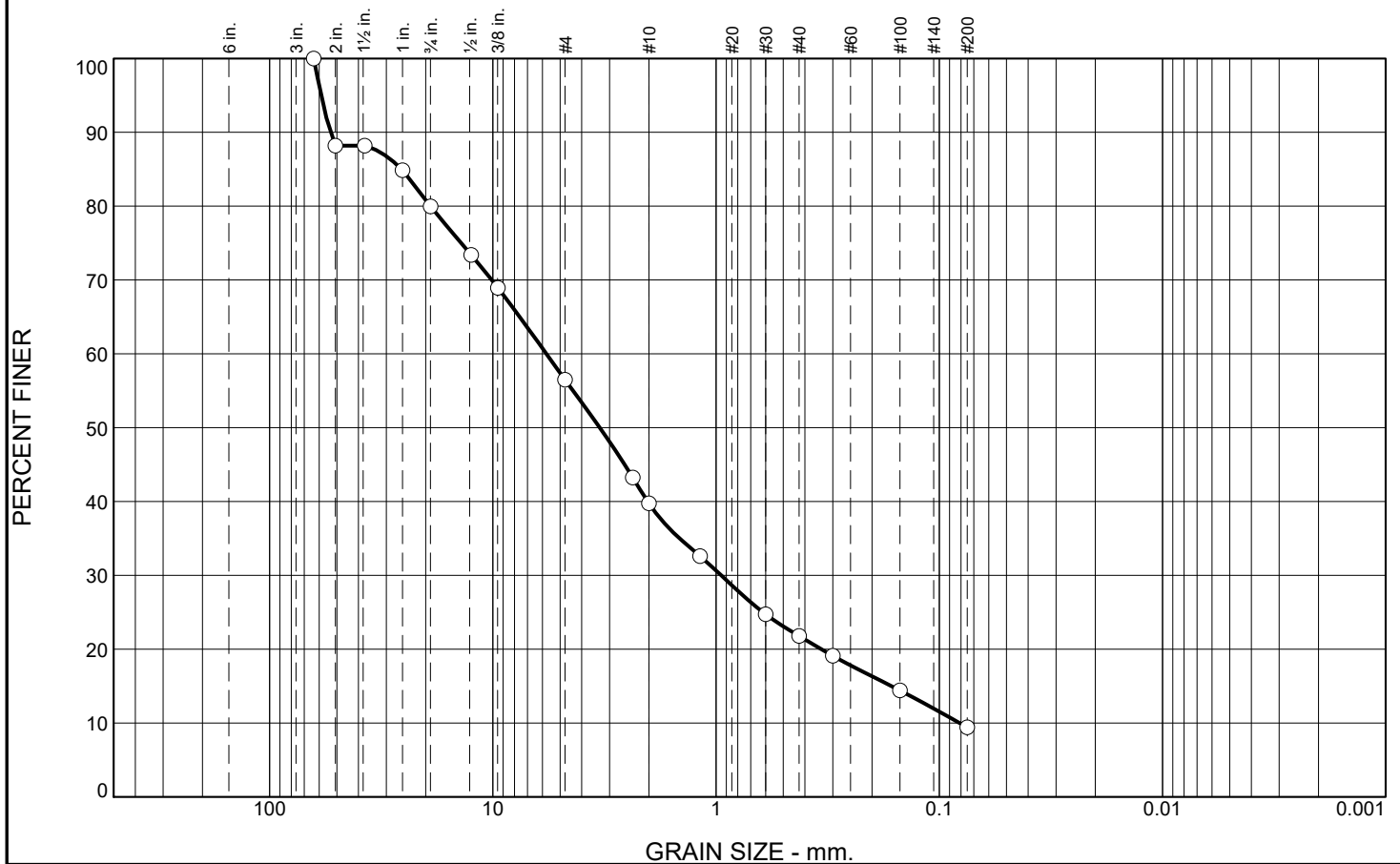
Project No: 4030.2100354

Figure 111ao

Tested By: DP      Checked By: JS



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	44	47	9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2 1/2"	100		
2"	88		
1 1/2"	88		
1"	85		
3/4"	80		
1/2"	73		
3/8"	69		
#4	56		
#8	43		
#10	40		
#16	33		
#30	25		
#40	22		
#50	19		
#100	14		
#200	9		

\* (no specification provided)

## Material Description

Well graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 53.4128 D<sub>85</sub>= 25.6433 D<sub>60</sub>= 5.7586  
D<sub>50</sub>= 3.3209 D<sub>30</sub>= 0.9491 D<sub>15</sub>= 0.1638  
D<sub>10</sub>= 0.0811 C<sub>u</sub>= 71.02 C<sub>c</sub>= 1.93

## Classification

USCS= SW-SM AASHTO= A-1-a

## Remarks

Source of Sample: TP-12 Depth: 8 to 9 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

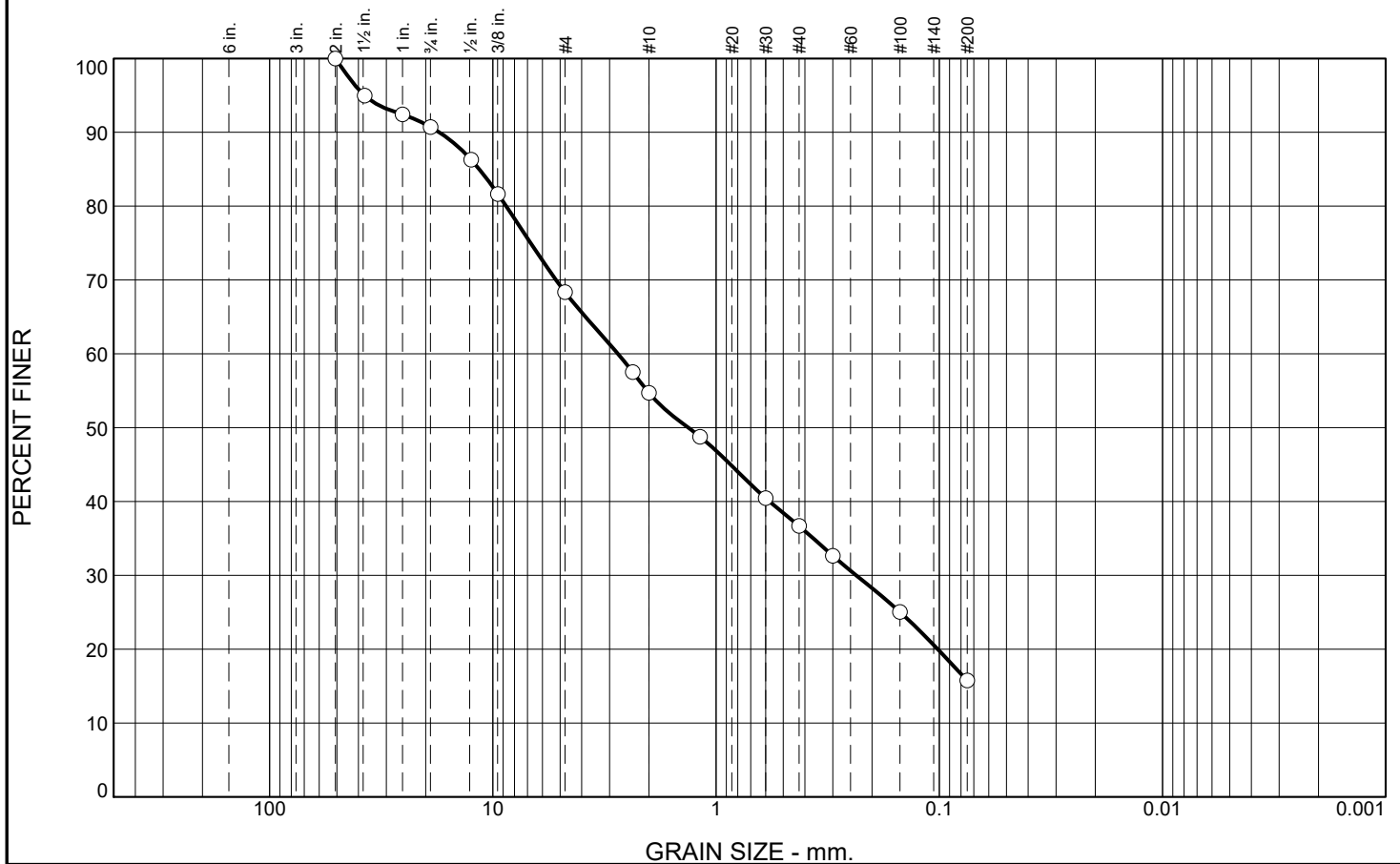
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111ap

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	32	52	16	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	95		
1"	92		
3/4"	91		
1/2"	86		
3/8"	82		
#4	68		
#8	58		
#10	55		
#16	49		
#30	40		
#40	37		
#50	33		
#100	25		
#200	16		

\* (no specification provided)

Material Description		
Silty SAND with gravel		
<b>Atterberg Limits</b>		
PL= NP	LL= NV	PI= NP
<b>Coefficients</b>		
D <sub>90</sub> = 17.3722	D <sub>85</sub> = 11.5010	D <sub>60</sub> = 2.7515
D <sub>50</sub> = 1.3320	D <sub>30</sub> = 0.2356	D <sub>15</sub> =
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<b>Classification</b>		
USCS= SM	AASHTO=	A-1-b
<b>Remarks</b>		

Source of Sample: TP-13      Depth: 7 to 8 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

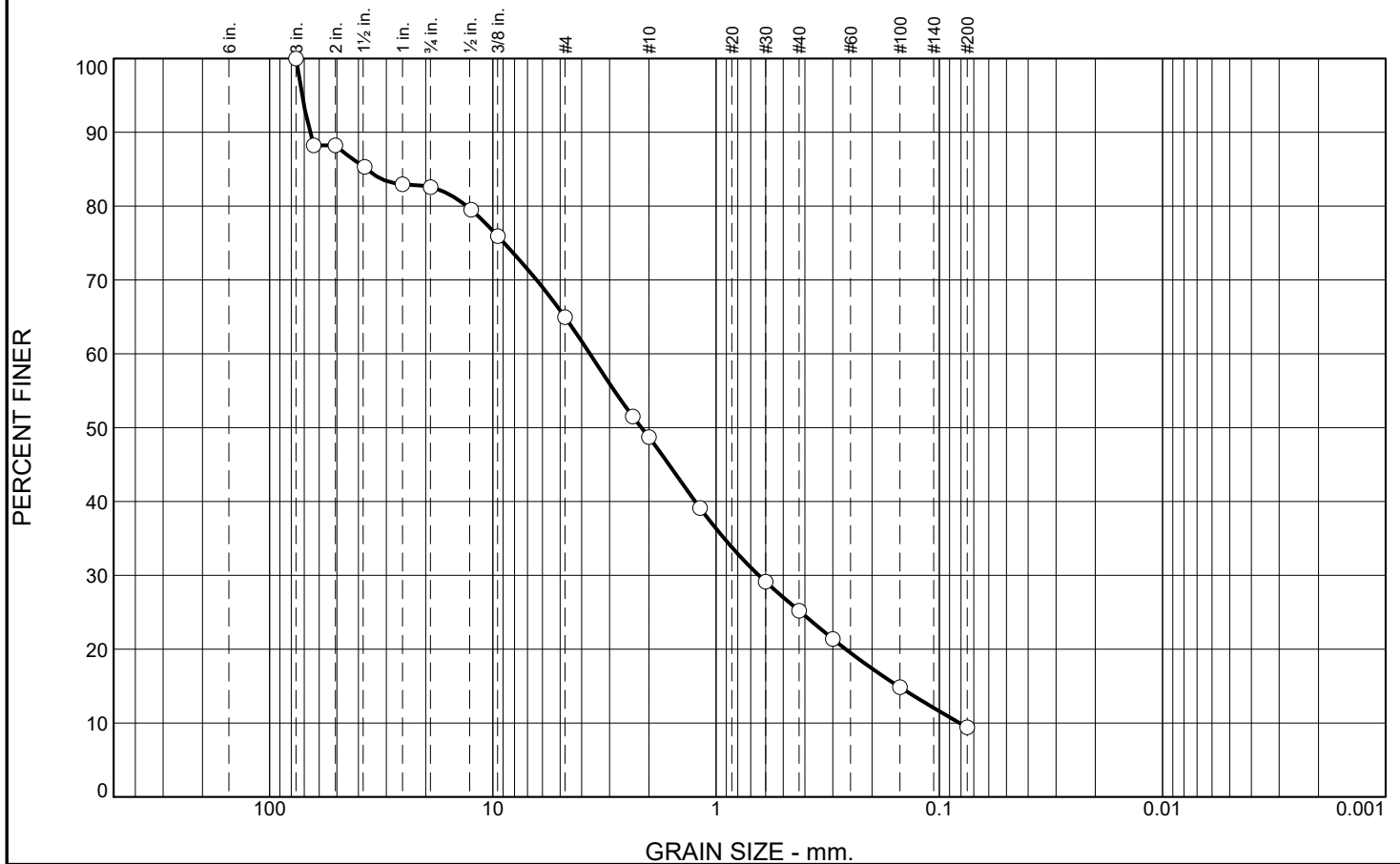
**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development

**Project No:** 4030.2100354

**Figure** 111aq

Tested By: DP      Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	35	56	9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100		
2 1/2"	88		
2"	88		
1 1/2"	85		
1"	83		
3/4"	83		
1/2"	80		
3/8"	76		
#4	65		
#8	52		
#10	49		
#16	39		
#30	29		
#40	25		
#50	21		
#100	15		
#200	9		

\* (no specification provided)

## Material Description

Well graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 66.1897 D<sub>85</sub>= 36.5999 D<sub>60</sub>= 3.6770  
D<sub>50</sub>= 2.1584 D<sub>30</sub>= 0.6436 D<sub>15</sub>= 0.1528  
D<sub>10</sub>= 0.0810 C<sub>u</sub>= 45.38 C<sub>c</sub>= 1.39

## Classification

USCS= SW-SM AASHTO= A-1-a

## Remarks

Source of Sample: TP-16 Depth: 3 to 4 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

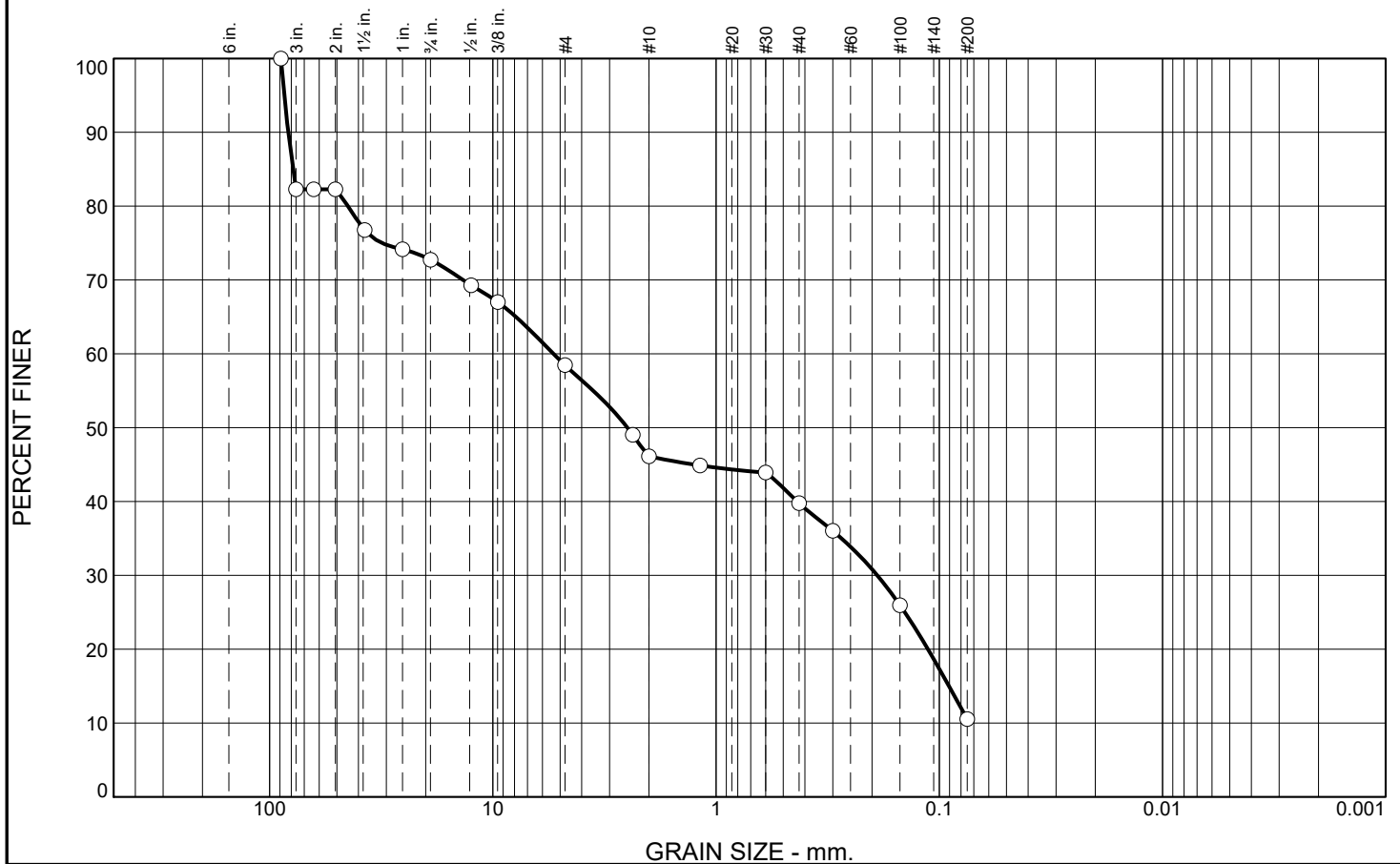
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111ar

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
18	24	47	11	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3 1/2"	100		
3"	82		
2 1/2"	82		
2"	82		
1 1/2"	77		
1"	74		
3/4"	73		
1/2"	69		
3/8"	67		
#4	58		
#8	49		
#10	46		
#16	45		
#30	44		
#40	40		
#50	36		
#100	26		
#200	11		

\* (no specification provided)

<u>Material Description</u>		
Silty SAND with gravel		
<u>Atterberg Limits</u>		
PL= NP	LL= NV	PI= NP
<u>Coefficients</u>		
D <sub>90</sub> = 82.6741	D <sub>85</sub> = 78.9669	D <sub>60</sub> = 5.3511
D <sub>50</sub> = 2.4944	D <sub>30</sub> = 0.1896	D <sub>15</sub> = 0.0905
D <sub>10</sub> =	C <sub>u</sub> =	C <sub>c</sub> =
<u>Classification</u>		
USCS= SM	AASHTO= A-1-b	
<u>Remarks</u>		

Source of Sample: TP-17 Depth: 8 to 10 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

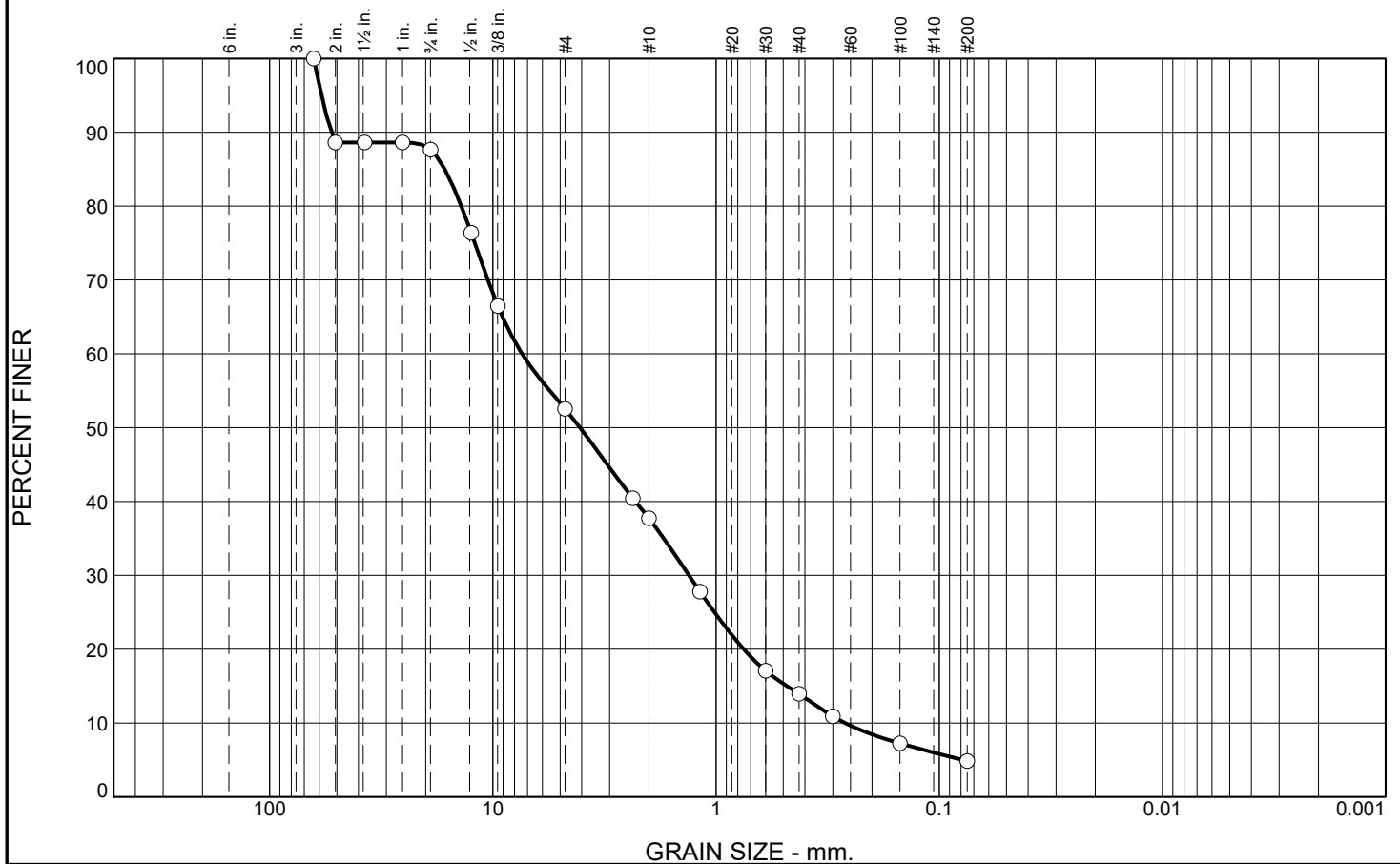
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111as

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	47	48	5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2 1/2"	100		
2"	89		
1 1/2"	89		
1"	89		
3/4"	88		
1/2"	76		
3/8"	66		
#4	53		
#8	40		
#10	38		
#16	28		
#30	17		
#40	14		
#50	11		
#100	7		
#200	5		

\* (no specification provided)

## Material Description

Poorly graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 52.9173 D<sub>85</sub>= 16.4244 D<sub>60</sub>= 7.3971  
D<sub>50</sub>= 4.0737 D<sub>30</sub>= 1.3237 D<sub>15</sub>= 0.4808  
D<sub>10</sub>= 0.2644 C<sub>u</sub>= 27.98 C<sub>c</sub>= 0.90

## Classification

USCS= SP-SM AASHTO= A-1-a

## Remarks

Source of Sample: TP-19 Depth: 9 to 10 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

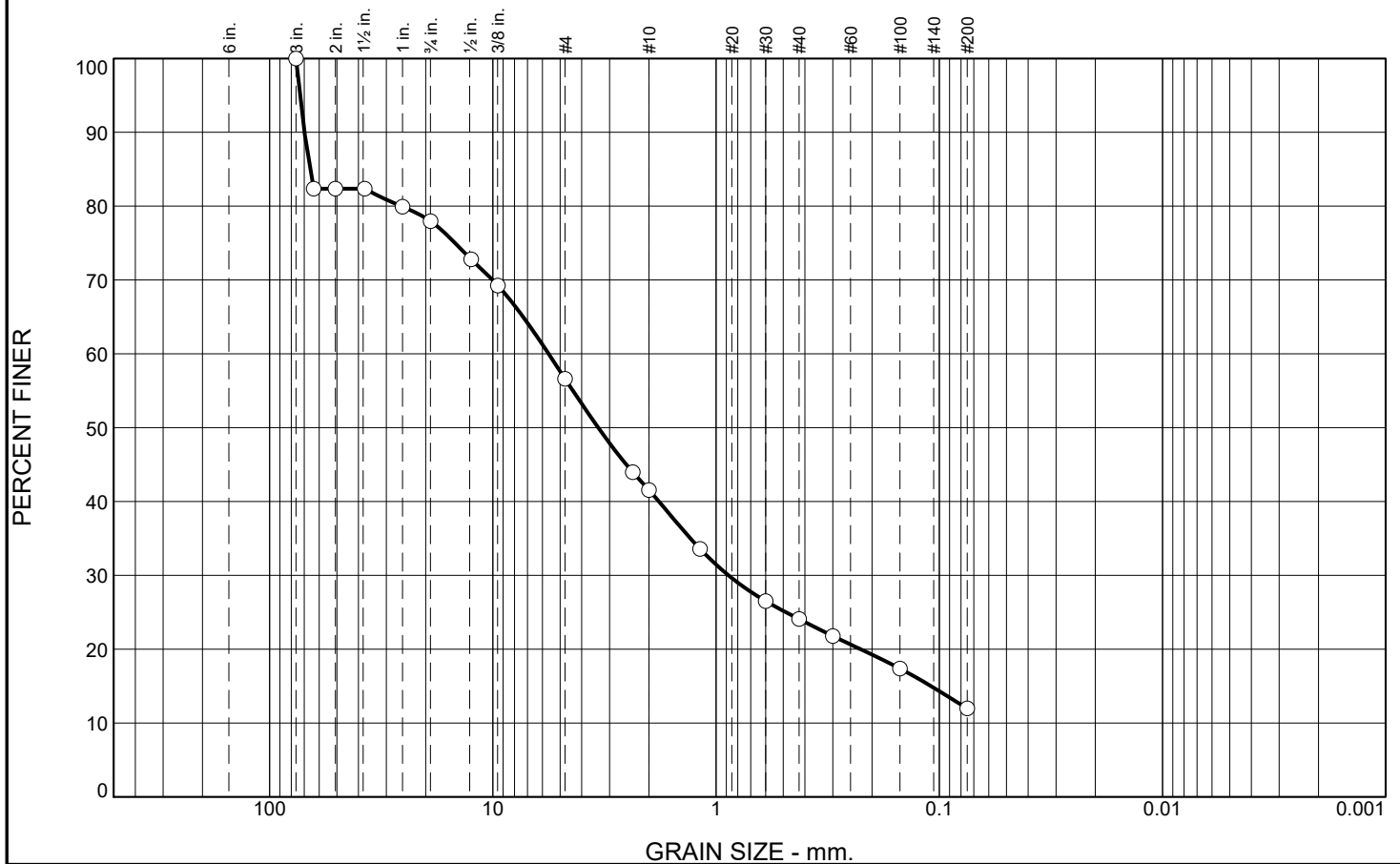
Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

Project No: 4030.2100354

Figure 111at

Tested By: DP Checked By: JS

# Particle Size Distribution Report



% +3"

0

% Gravel

43

% Sand

45

% Silt

12

% Clay

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100		
2 1/2"	82		
2"	82		
1 1/2"	82		
1"	80		
3/4"	78		
1/2"	73		
3/8"	69		
#4	57		
#8	44		
#10	42		
#16	34		
#30	27		
#40	24		
#50	22		
#100	17		
#200	12		

\* (no specification provided)

## Material Description

Poorly graded SAND with silt and gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 69.8313

D<sub>85</sub>= 66.1386

D<sub>60</sub>= 5.6290

D<sub>50</sub>= 3.3731

D<sub>30</sub>= 0.8802

D<sub>15</sub>= 0.1090

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

## Classification

USCS= SP-SM

AASHTO= A-1-a

## Remarks

Source of Sample: TP-21

Depth: 3 to 4 ft.

Date: 3/23/22

**Nova Geotechnical  
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Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

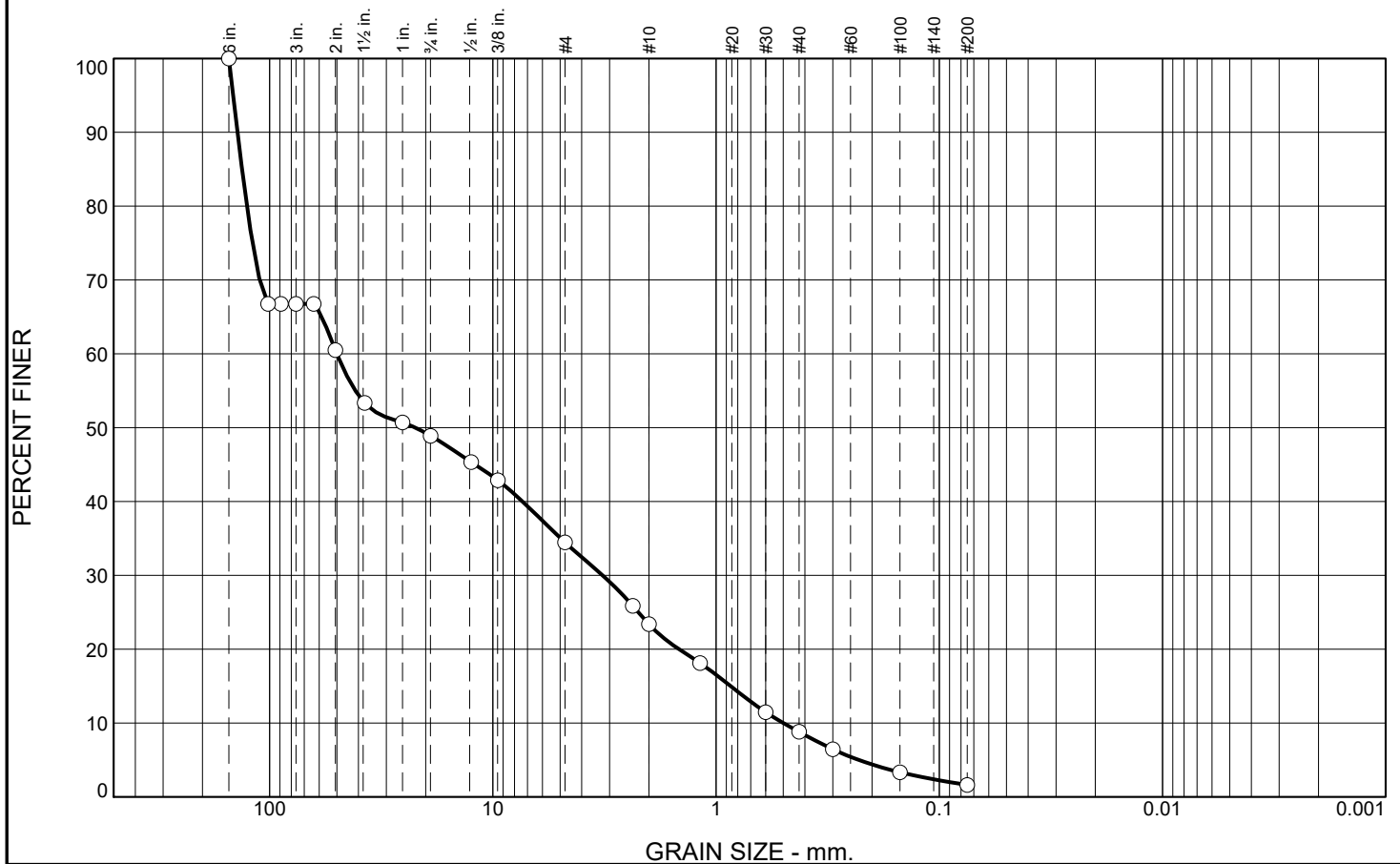
Project No: 4030.2100354

Figure 111au

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
33	33	32	2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100		
4"	67		
3 1/2"	67		
3"	67		
2 1/2"	67		
2"	61		
1 1/2"	53		
1"	51		
3/4"	49		
1/2"	45		
3/8"	43		
#4	34		
#8	26		
#10	23		
#16	18		
#30	11		
#40	9		
#50	6		
#100	3		
#200	2		

\* (no specification provided)

## Material Description

Poorly graded GRAVEL with sand

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 139.4373

D<sub>85</sub>= 133.0450

D<sub>60</sub>= 50.0113

D<sub>50</sub>= 22.2868

D<sub>30</sub>= 3.2286

D<sub>15</sub>= 0.8610

D<sub>10</sub>= 0.5002

C<sub>u</sub>= 99.99

C<sub>c</sub>= 0.42

## Classification

USCS= GP

AASHTO= A-1-a

## Remarks

Source of Sample: TP-22

Depth: 14 to 15 ft.

Date: 3/23/22

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Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

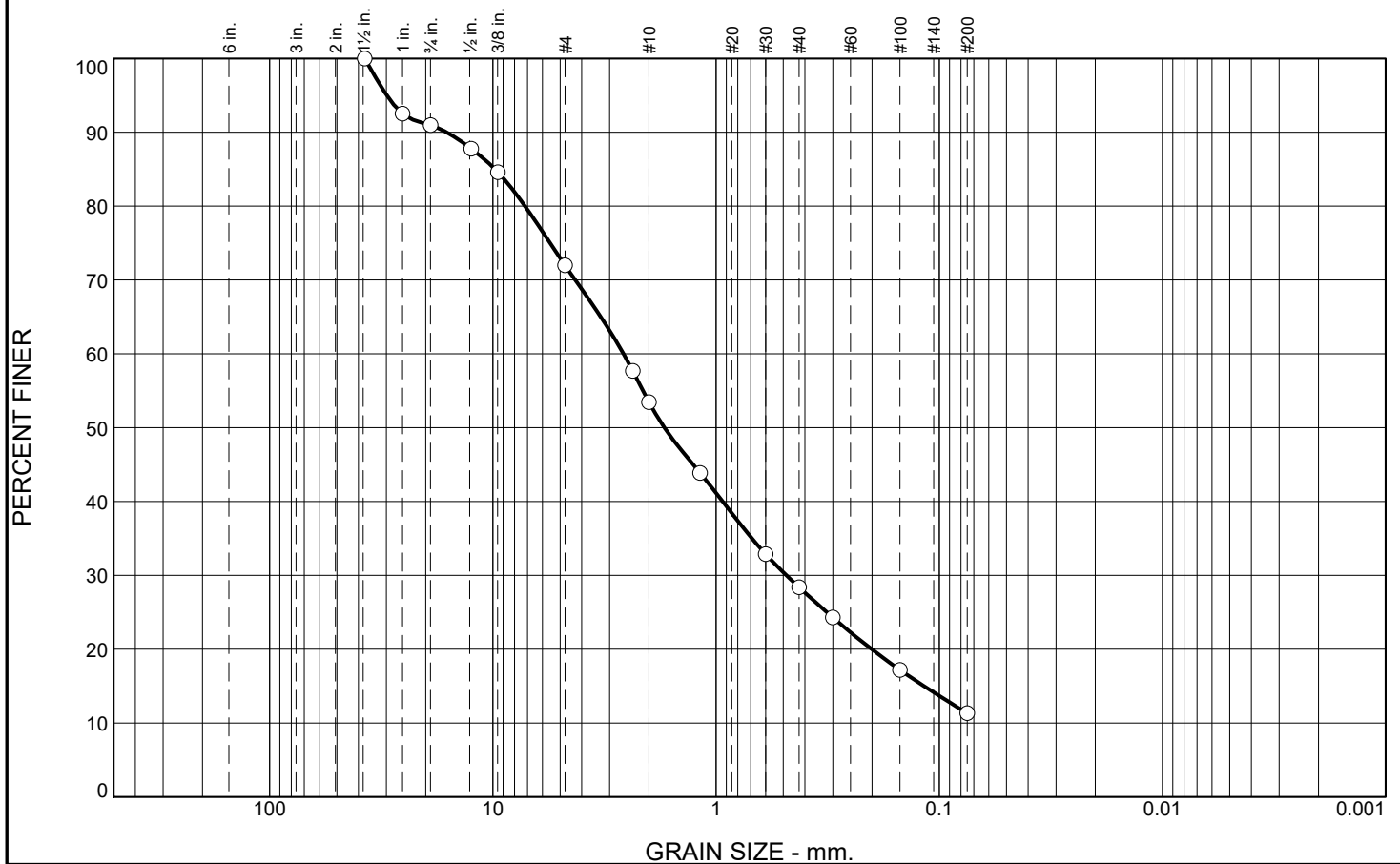
Project No: 4030.2100354

Figure 111av

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	28	61	11	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2"	100		
1"	93		
3/4"	91		
1/2"	88		
3/8"	85		
#4	72		
#8	58		
#10	53		
#16	44		
#30	33		
#40	28		
#50	24		
#100	17		
#200	11		

\* (no specification provided)

## Material Description

Poorly graded SAND with silt and gravel

## Atterberg Limits

PL= NP LL= NV PI= NP

## Coefficients

D<sub>90</sub>= 16.0876 D<sub>85</sub>= 9.7807 D<sub>60</sub>= 2.5968  
D<sub>50</sub>= 1.7032 D<sub>30</sub>= 0.4841 D<sub>15</sub>= 0.1171  
D<sub>10</sub>= C<sub>u</sub>= C<sub>c</sub>=

## Classification

USCS= SP-SM AASHTO= A-1-b

## Remarks

Source of Sample: TP-23 Depth: 5 to 6 ft.

Date: 3/23/22

**Nova Geotechnical  
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Las Vegas, Nevada**

Client: Pulte Homes  
Project: Three Kids Mine Site Mixed-Use Development

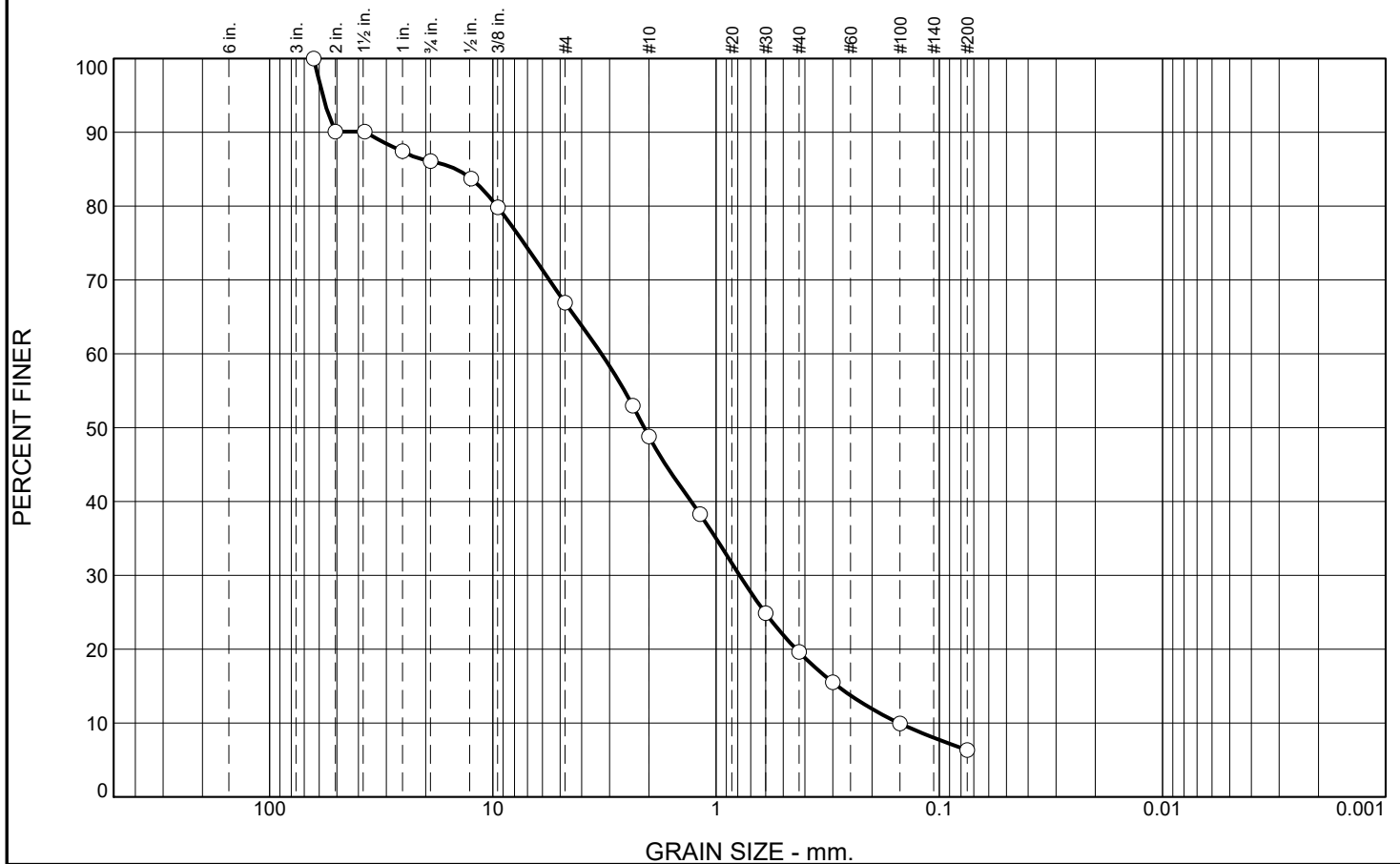
Project No: 4030.2100354

Figure 111aw

Tested By: DP Checked By: JS



# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	33	61	6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2 1/2"	100		
2"	90		
1 1/2"	90		
1"	87		
3/4"	86		
1/2"	84		
3/8"	80		
#4	67		
#8	53		
#10	49		
#16	38		
#30	25		
#40	20		
#50	16		
#100	10		
#200	6		

\* (no specification provided)

## Material Description

Well graded SAND with silt and gravel

## Atterberg Limits

PL= NP

LL= NV

PI= NP

## Coefficients

D<sub>90</sub>= 37.0868

D<sub>85</sub>= 14.5908

D<sub>60</sub>= 3.2642

D<sub>50</sub>= 2.0996

D<sub>30</sub>= 0.7846

D<sub>15</sub>= 0.2855

D<sub>10</sub>= 0.1515

C<sub>u</sub>= 21.55

C<sub>c</sub>= 1.25

## Classification

USCS= SW-SM

AASHTO= A-1-a

## Remarks

Source of Sample: TP-24

Depth: 7 to 8 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

Client: Pulte Homes

Project: Three Kids Mine Site Mixed-Use Development

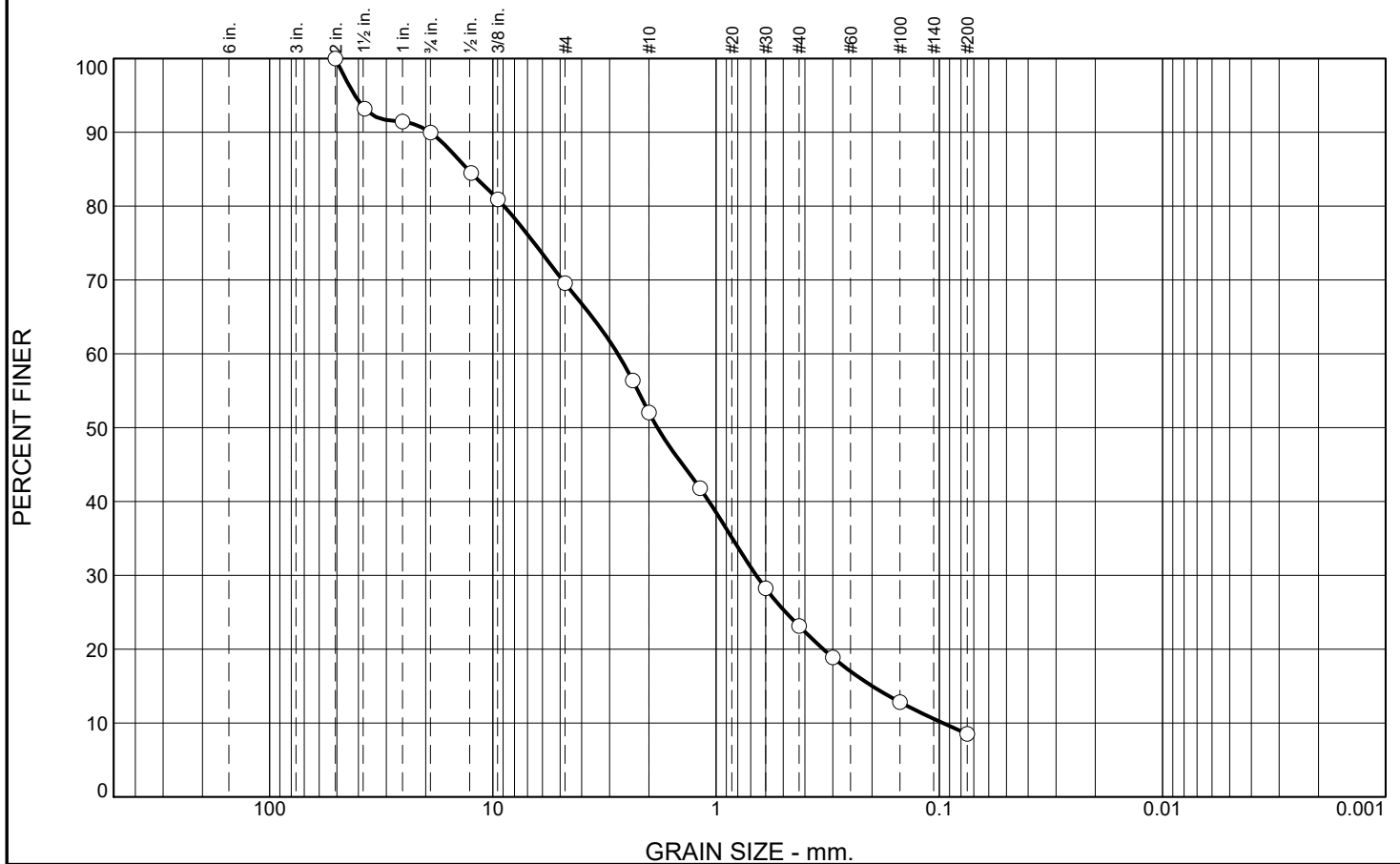
Project No: 4030.2100354

Figure 111ax

Tested By: DP

Checked By: JS

# Particle Size Distribution Report



% +3"	% Gravel	% Sand	% Silt	% Clay
0	30	61	9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1 1/2"	93		
1"	91		
3/4"	90		
1/2"	84		
3/8"	81		
#4	70		
#8	56		
#10	52		
#16	42		
#30	28		
#40	23		
#50	19		
#100	13		
#200	9		

\* (no specification provided)

<u><b>Material Description</b></u>		
Well graded SAND with silt and gravel		
<u><b>Atterberg Limits</b></u>		
PL= NP	LL= NV	PI= NP
<u><b>Coefficients</b></u>		
D <sub>90</sub> = 19.0843	D <sub>85</sub> = 12.9626	D <sub>60</sub> = 2.7549
D <sub>50</sub> = 1.8325	D <sub>30</sub> = 0.6610	D <sub>15</sub> = 0.1999
D <sub>10</sub> = 0.0965	C <sub>u</sub> = 28.55	C <sub>c</sub> = 1.64
<u><b>Classification</b></u>		
USCS= SW-SM	AASHTO= A-1-b	
<u><b>Remarks</b></u>		

Source of Sample: TP-27      Depth: 10 to 11 ft.

Date: 3/23/22

**Nova Geotechnical  
and Inspection Services  
Las Vegas, Nevada**

**Client:** Pulte Homes  
**Project:** Three Kids Mine Site Mixed-Use Development  
**Project No:** 4030.2100354

**Figure** 111ay

Tested By: DP      Checked By: JS



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-01

**Client Sample ID** B5 @ 20'-25'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	380	100		mg/Kg	10	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na2SO4	0.00500	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO4)</b>						
Sulfate	0.170	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.32	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112a**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-03

**Client Sample ID** B9 @ 5'-10'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	1500	500		mg/Kg	50	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.00100	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.140	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.400	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112b**



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## Analytical Report

WO#: 22030722

Date Reported: 3/14/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030722-03

**Client Sample ID** B11 @ 5'-10'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	100	50		mg/Kg	5	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0600	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.420	0.0100		%	1	3/14/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112c**



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## Analytical Report

WO#: 22030722

Date Reported: 3/14/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030722-05

**Client Sample ID** B12 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	140	50		mg/Kg	5	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na2SO4	ND	0		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO4)</b>						
Sulfate	0.0700	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.540	0.0100		%	1	3/14/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112d**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-02

**Client Sample ID** B13 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	430	100		mg/Kg	10	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na2SO4	0.00100	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO4)</b>						
Sulfate	0.160	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.04	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112e**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-05

**Client Sample ID** B14 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	220	50		mg/Kg	5	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.160	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.21	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112f**





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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

CLIENT: Nova Geotechnical

Project: 4030.2100354

Lab ID: 22030663-04

Client Sample ID B19 @ 0'-5'

Collection Date:

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
CHLORIDE - SOILS**

**SM 4500CL B**

Analyst: LJ

Chloride	210	50		mg/Kg	5	3/11/2022 11:17:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
SODIUM SULFATES - CALCULATION ONLY.**

**CALCULATION**

Analyst: LJ

Sodium Sulfate as Na2SO4	ND	0		%	1	3/11/2022 11:17:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SULFATE (SO4)**

**SM 4500 SO4 E**

Analyst: LJ

Sulfate	0.180	0.0100		%	1	3/11/2022 11:17:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SODIUM (NA)**

**ASTM D2791**

Analyst: LJ

Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
TOTAL SALTS (SOLUBILITY)**

**SM 2540 C**

Analyst: LJ

Solubility	1.23	0.0100		%	1	3/11/2022 10:29:00 AM
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**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112g**



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## Analytical Report

WO#: 22030722

Date Reported: 3/14/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030722-04

**Client Sample ID** B20 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	93	50		mg/Kg	5	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0600	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.240	0.0100		%	1	3/14/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112h**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-08

**Client Sample ID** B21 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0300	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.0500	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112i**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-07

**Client Sample ID** B22 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0100	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.0500	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112j**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

CLIENT: Nova Geotechnical

Project: 4030.2100354

Lab ID: 22030663-10

Client Sample ID B23 @ 0'-5'

Collection Date:

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	74	50		mg/Kg	5	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0300	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.110	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112k**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

CLIENT: Nova Geotechnical

Project: 4030.2100354

Lab ID: 22030663-06

Client Sample ID B24 @ 0'-5'

Collection Date:

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	230	50		mg/Kg	5	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.231	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.160	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	0.110	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.860	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112I**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-12

**Client Sample ID** B27 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	57	50		mg/Kg	5	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na2SO4	ND	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO4)</b>						
Sulfate	0.0400	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.170	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112m**



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## Analytical Report

WO#: 22030663

Date Reported: 3/11/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030663-09

**Client Sample ID** B30 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	870	250		mg/Kg	25	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na2SO4	0.0940	0		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO4)</b>						
Sulfate	0.170	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	0.0300	0.0100		%	1	3/11/2022 11:17:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.56	0.0100		%	1	3/11/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112n**





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## Analytical Report

WO#: 22030722

Date Reported: 3/14/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030722-02

**Client Sample ID** B31 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	70	50		mg/Kg	5	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.200	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.730	0.0100		%	1	3/14/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22030722

Date Reported: 3/14/2022

**CLIENT:** Nova Geotechnical

**Project:** 4030.2100354

**Lab ID:** 22030722-01

**Client Sample ID** B32 @ 0'-5'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	89	50		mg/Kg	5	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0500	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	3/14/2022 11:11:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.190	0.0100		%	1	3/14/2022 10:29:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22010379

Date Reported: 1/10/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010379-01  
**Client Sample ID** MM-321-02 @ 10'-13'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	92	50		mg/Kg	5	1/10/2022 11:40:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/10/2022 3:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.200	0.0100		%	1	1/10/2022 11:42:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/10/2022 1:35:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.18	0.0100		%	1	1/10/2022 11:26:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-01  
**Client Sample ID** MM 331 21 @ 10'-13'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/28/2022 4:24:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.280	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.36	0.0100		%	1	1/28/2022 9:59:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-02  
**Client Sample ID** MM 331 26 @ 6'-8'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na2SO4	ND	0		%	1	1/28/2022 4:24:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO4)</b>						
Sulfate	0.250	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.21	0.0100		%	1	1/28/2022 9:59:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112s**



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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-08  
**Client Sample ID** SS 321 05 @ 16'-17'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
CHLORIDE - SOILS**

**SM 4500CL B** Analyst: LJ

Chloride	160	50		mg/Kg	5	1/28/2022 11:57:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
SODIUM SULFATES - CALCULATION ONLY.**

**CALCULATION** Analyst: LJ

Sodium Sulfate as Na2SO4	ND	0		%	1	1/28/2022 4:24:00 PM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SULFATE (SO4)**

**SM 4500 SO4 E** Analyst: LJ

Sulfate	ND	0.0100		%	1	1/28/2022 11:57:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SODIUM (NA)**

**ASTM D2791** Analyst: LJ

Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
TOTAL SALTS (SOLUBILITY)**

**SM 2540 C** Analyst: LJ

Solubility	0.0300	0.0100		%	1	1/28/2022 9:59:00 AM
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**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112t**



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## Analytical Report

WO#: 22010891

Date Reported: 1/20/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010891-03  
**Client Sample ID** SS-311-20 @ 17'-20'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	140	50		mg/Kg	5	1/20/2022 12:31:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.0100	0		%	1	1/20/2022 4:17:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.200	0.0100		%	1	1/20/2022 12:32:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/20/2022 12:33:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.73	0.0100		%	1	1/20/2022 11:30:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112u**



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## Analytical Report

WO#: 22010891

Date Reported: 1/20/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010891-01  
**Client Sample ID** SS-331-02 @ 1'-4'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	1/20/2022 12:31:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/20/2022 4:17:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0900	0.0100		%	1	1/20/2022 12:32:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/20/2022 12:33:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.420	0.0100		%	1	1/20/2022 11:30:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112v**





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## Analytical Report

WO#: 21121019

Date Reported: 12/21/2021

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 21121019-02  
**Client Sample ID** SS 331-09 5'-10'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	79	50		mg/Kg	5	12/21/2021 10:41:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	12/21/2021 12:58:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.140	0.0100		%	1	12/21/2021 12:38:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	12/21/2021 12:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.20	0.0100		%	1	12/21/2021 10:17:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112w**



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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-05  
**Client Sample ID** SS 332 03 @ 5'-7'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	200	50		mg/Kg	5	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/28/2022 4:24:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.200	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.960	0.0100		%	1	1/28/2022 9:59:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112x**



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## Analytical Report

WO#: 21121019

Date Reported: 12/21/2021

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 21121019-03  
**Client Sample ID** SS 332-07 15'-20'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	12/21/2021 10:41:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	12/21/2021 12:58:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.170	0.0100		%	1	12/21/2021 12:38:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	12/21/2021 12:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.22	0.0100		%	1	12/21/2021 10:17:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112y**



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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-04  
**Client Sample ID** SS 332 09 @ 6'-8'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
CHLORIDE - SOILS**

**SM 4500CL B** Analyst: LJ

Chloride	1200	250		mg/Kg	25	1/28/2022 11:57:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
SODIUM SULFATES - CALCULATION ONLY.**

**CALCULATION** Analyst: LJ

Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.125	0		%	1	1/28/2022 4:24:00 PM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SULFATE (SO<sub>4</sub>)**

**SM 4500 SO<sub>4</sub> E** Analyst: LJ

Sulfate	0.190	0.0100		%	1	1/28/2022 11:57:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SODIUM (NA)**

**ASTM D2791** Analyst: LJ

Sodium	0.0400	0.0100		%	1	1/28/2022 11:57:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
TOTAL SALTS (SOLUBILITY)**

**SM 2540 C** Analyst: LJ

Solubility	0.690	0.0100		%	1	1/28/2022 9:59:00 AM
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**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112z**



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## Analytical Report

WO#: 22010380

Date Reported: 1/10/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010380-01  
**Client Sample ID** SS-333-01 @ 15'-17.5'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	61	50		mg/Kg	5	1/10/2022 11:40:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/10/2022 3:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0300	0.0100		%	1	1/10/2022 11:42:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/10/2022 1:35:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.0900	0.0100		%	1	1/10/2022 11:26:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22010891

Date Reported: 1/20/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010891-02  
**Client Sample ID** SS-333-07 @ 2'-4'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	820	250		mg/Kg	25	1/20/2022 12:31:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/20/2022 4:17:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.160	0.0100		%	1	1/20/2022 12:32:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/20/2022 12:33:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.850	0.0100		%	1	1/20/2022 11:30:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 21121019

Date Reported: 12/21/2021

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 21121019-04  
**Client Sample ID** SS 333-09 10'-15'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	12/21/2021 10:41:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	12/21/2021 12:58:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.160	0.0100		%	1	12/21/2021 12:38:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	12/21/2021 12:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.23	0.0100		%	1	12/21/2021 10:17:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-06  
**Client Sample ID** SS 333 11 @ 1'-2'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
				<b>SM 4500CL B</b>		Analyst: LJ
Chloride	56	50		mg/Kg	5	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
				<b>CALCULATION</b>		Analyst: LJ
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/28/2022 4:24:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
				<b>SM 4500 SO<sub>4</sub> E</b>		Analyst: LJ
Sulfate	0.200	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
				<b>ASTM D2791</b>		Analyst: LJ
Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
				<b>SM 2540 C</b>		Analyst: LJ
Solubility	0.880	0.0100		%	1	1/28/2022 9:59:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ad**





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## Analytical Report

WO#: 22010379

Date Reported: 1/10/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010379-02  
**Client Sample ID** SS-333-17 @ 7.5'-10'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	91	50		mg/Kg	5	1/10/2022 11:40:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/10/2022 3:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.200	0.0100		%	1	1/10/2022 11:42:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/10/2022 1:35:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.17	0.0100		%	1	1/10/2022 11:26:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ae**



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## Analytical Report

WO#: 22010379

Date Reported: 1/10/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010379-03  
**Client Sample ID** SS-333-18 @ 2.5'-5'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	350	100		mg/Kg	10	1/10/2022 11:40:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.00600	0		%	1	1/10/2022 3:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.370	0.0100		%	1	1/10/2022 11:42:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/10/2022 1:35:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.02	0.0100		%	1	1/10/2022 11:26:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-07  
**Client Sample ID** SS 334 07 @ 1'-2'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	490	100		mg/Kg	10	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.00500	0		%	1	1/28/2022 4:24:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.320	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	2.28	0.0100		%	1	1/28/2022 9:59:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ag**



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## Analytical Report

WO#: 21121019

Date Reported: 12/21/2021

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 21121019-01  
**Client Sample ID** SS 334-10 25'-30'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	900	250		mg/Kg	25	12/21/2021 10:41:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.0130	0		%	1	12/21/2021 12:58:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.160	0.0100		%	1	12/21/2021 12:38:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	12/21/2021 12:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	2.26	0.0100		%	1	12/21/2021 10:17:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ah**



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## Analytical Report

WO#: 22011334

Date Reported: 1/28/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22011334-03  
**Client Sample ID** SS 334 15 @ 27'-30'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	ND	50		mg/Kg	5	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/28/2022 4:24:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/28/2022 11:57:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.0600	0.0100		%	1	1/28/2022 9:59:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

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## Analytical Report

WO#: 22010380

Date Reported: 1/10/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354  
**Lab ID:** 22010380-02  
**Client Sample ID** SS-334-20 @ 14'-15'

**Collection Date:**  
  
**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	400	100		mg/Kg	10	1/10/2022 11:40:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	1/10/2022 3:57:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0300	0.0100		%	1	1/10/2022 11:42:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	1/10/2022 1:35:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.0800	0.0100		%	1	1/10/2022 11:26:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112aj**



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## Analytical Report

WO#: 22020972

Date Reported: 2/18/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354.001  
**Lab ID:** 22020972-04  
**Client Sample ID** TP 2 @ 5'-6'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	1100	250		mg/Kg	25	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.00300	0		%	1	2/18/2022 4:14:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.170	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.780	0.0100		%	1	2/18/2022 10:04:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ak**



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## Analytical Report

WO#: 22020972

Date Reported: 2/18/2022

CLIENT: Nova Geotechnical

Project: 4030.2100354.001

Lab ID: 22020972-03

Client Sample ID TP 3 @ 3'-4'

Collection Date:

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
CHLORIDE - SOILS**

**SM 4500CL B**

Analyst: LJ

Chloride	200	50		mg/Kg	5	2/18/2022 11:05:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
SODIUM SULFATES - CALCULATION ONLY.**

**CALCULATION**

Analyst: LJ

Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.00100	0		%	1	2/18/2022 4:14:00 PM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SULFATE (SO<sub>4</sub>)**

**SM 4500 SO<sub>4</sub> E**

Analyst: LJ

Sulfate	0.180	0.0100		%	1	2/18/2022 11:05:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
WATER SOLUBLE SODIUM (NA)**

**ASTM D2791**

Analyst: LJ

Sodium	ND	0.0100		%	1	2/18/2022 11:05:00 AM
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**SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD  
TOTAL SALTS (SOLUBILITY)**

**SM 2540 C**

Analyst: LJ

Solubility	1.12	0.0100		%	1	2/18/2022 10:04:00 AM
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**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112aI**





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## Analytical Report

WO#: 22020972

Date Reported: 2/18/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354.001  
**Lab ID:** 22020972-05  
**Client Sample ID** TP 4 @ 6'-7'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	360	100		mg/Kg	10	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	2/18/2022 4:14:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.150	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.370	0.0100		%	1	2/18/2022 10:04:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112am**



Silver State Labs-Las Vegas  
3626 E. Sunset Road, Suite 100  
Las Vegas, NV 89120  
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## Analytical Report

WO#: 22020972

Date Reported: 2/18/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354.001  
**Lab ID:** 22020972-06  
**Client Sample ID** TP 7 @ 5'-6'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	1300	250		mg/Kg	25	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	0.0140	0		%	1	2/18/2022 4:14:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.230	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	1.67	0.0100		%	1	2/18/2022 10:04:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112an**



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## Analytical Report

WO#: 22020972

Date Reported: 2/18/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354.001  
**Lab ID:** 22020972-02  
**Client Sample ID** TP 10 @ 5'-6'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	390	100		mg/Kg	10	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	2/18/2022 4:14:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0400	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.190	0.0100		%	1	2/18/2022 10:04:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ao**



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## Analytical Report

WO#: 22020972

Date Reported: 2/18/2022

**CLIENT:** Nova Geotechnical  
**Project:** 4030.2100354.001  
**Lab ID:** 22020972-01  
**Client Sample ID** TP 13 @ 7'-8'

**Collection Date:**

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD CHLORIDE - SOILS</b>						
Chloride	80	50		mg/Kg	5	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD SODIUM SULFATES - CALCULATION ONLY.</b>						
Sodium Sulfate as Na <sub>2</sub> SO <sub>4</sub>	ND	0		%	1	2/18/2022 4:14:00 PM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SULFATE (SO<sub>4</sub>)</b>						
Sulfate	0.0500	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD WATER SOLUBLE SODIUM (NA)</b>						
Sodium	ND	0.0100		%	1	2/18/2022 11:05:00 AM
<b>SOIL 5. WSSS(SODIUM SULFATE),SOL,CH-CCBD TOTAL SALTS (SOLUBILITY)</b>						
Solubility	0.120	0.0100		%	1	2/18/2022 10:04:00 AM

**Qualifiers:  
(Qual)**

DF Dilution Factor.  
MCL Maximum Contaminant Level.  
PQL Practical Quantitation Limit.

H Holding times for preparation or analysis exceeded.  
ND Not Detected at the PQL.

Original

**Plate 112ap**