Appendix A

Geologic Characterization at Twin Pines Mine

Twin Pines Minerals, LLC

GEOLOGIC CHARACTERIZATION AT TWIN PINES MINE

Prepared For:

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PROPOSED HEAVY MINERALS MINE
ST. GEORGE, CHARLTON COUNTY, GEORGIA

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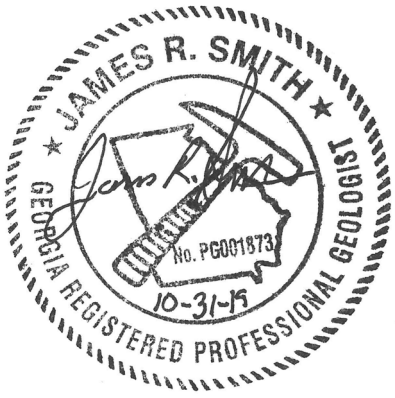
TTL



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INTRODUCTION

On July 3, 2019, Twin Pines Minerals (TPM) submitted an individual permit application to the U.S. Army Corps of Engineers for impacts to water of the United States to develop a heavy mineral sand mine along Trail Ridge in Charlton County, Georgia (Figure 1). The proposed mine is located 3.2 miles west of St. George, Georgia, along Georgia State Highway Route 94. Trail Ridge is a 0.6 to 1.2 mile wide and 99 mile long topographic ridge that separates the Okefenokee Basin and Swamp from the coastal plain of Georgia (Force and Rich, 1979). It represents the crest of a former beach complex and was formed as inland sand dunes near the proposed Twin Pines Mine (e.g., Pirkle et al. 1993). The ridge is underlain by a shallow aquifer, locally known as the surficial aquifer, which forms a hydrologic divide between the Okefenokee swamplands to the west and the Saint Mary's River to the east. At the proposed mine site, the water table is very shallow with water depths of only a few feet. The surficial aquifer is perched on the clays of the upper Hawthorn Group, which is considered to be the upper confining unit to the Floridian Aquifer in the region (e.g., Williams and Kuniansky, 2016))

The proposed permit area is approximately 2,414-acres, located southeast of the Okefenokee National Wildlife Refuge (ONWR) boundary; however, TPM will only mine an approximate 1,268-acre area located about 2.7 miles from the ONWR boundary (Figure 2). The portion of the proposed permit area extending from the western mining boundary to the edge of the permit boundary will be avoided and will provide a buffer to the ONWR.

The project study area consists of approximately 12,000-acres of land located near St. George, Charlton County, Georgia. This area is comprised of five (5) tracts identified as Loncala, Dallas Police & Fire, Keystone, TIAA, and Adirondack. To evaluate the subsurface geology, field activities were performed both within the proposed mining area and on adjacent properties outside of the proposed mining area footprint. Reference to "project study area" in this report refers to activities conducted within the proposed mining area and adjacent tracts.

A variety of subsurface geologic data and surface elevation data were collected and interpreted to provide information to: 1) characterize the pre-mining conditions along Trail Ridge, 2) provide data for models to predict the impact of mining operations on groundwater discharge to streams and wetlands adjacent to the proposed mine, and 3) aid in the evaluation of post-mining hydrogeologic conditions to assist reclamation/restoration efforts. Beginning in August 2018, TTL designed and implemented a number of site characterization activities to accomplish these objectives:

- Subsurface data collection and evaluation, including:
  - Review of 385 boring logs prepared by TPM as part of their mineral exploration field activities (drilling completed prior to project engagement by TTL).
  - TTL's on-site geologist logged an additional 71 tightly spaced borings drilled by Twin Pines within the proposed mining permit area.
  - Advancement of 22 exploratory borings to the top of Hawthorn Group (EB borings).
  - Advancement of 14 borings for the collection of undisturbed soil samples (UD borings).
  - Installation of 86 piezometers for monitoring groundwater within the surficial aquifer.
  - Installation of two deep pumping wells and 22 observation wells.
- Downhole geophysical logging in 15 deep borings to correlate stratigraphic units.
- Survey of borings, piezometers, wells, and staff gauges for northing and easting coordinates and elevation data.
- Aerial LIDAR fly-over survey for topographic coverage of the majority of the project study area.
- Definition of subsurface geologic units.

The purpose of this report is to present the results of these site characterization activities.

DRILLING ACTIVITIES

Drilling activities in the study area took place between February 2018 and July 2019. Drilling activities in the project study area were performed by TPM primarily to evaluate heavy mineral sand concentrations, although 71 TPM borings were logged by TTL personnel. TTL installed 22 exploratory borings through the surficial aquifer and into the upper part of the Hawthorn Group to characterize the deeper parts of the surficial aquifer and identify the elevation of the top of the Hawthorn. TTL also drilled 14 soil borings for collecting undisturbed soil samples. 86 shallow and deep piezometers were installed to provide water-level data for the surficial aquifer. Fourteen (14) soil borings were drilled with a mud rotary drilling rig to collect undisturbed soil samples; later, additional soil borings were drilled near the original locations to characterize the subsurface geology. Pumping tests were conducted at two locations in the project study area; at each location, one pumping well and eleven observation wells were installed. The details of these drilling activities are presented below.

Twin Pines Minerals (TPM) Borings

Between February and December 2018, TPM advanced approximately 385 exploratory borings throughout four tracts (Loncala, Adirondack, Dallas Police & Fire, and Keystone) of the project study area (Figure 3). Table 1 summarizes the boring identifiers shown on Figure 3. These soil borings were drilled as part of Twin Pines' mineral exploration efforts to quantify the abundance, thickness, and depths of economically extractable target minerals. Borings were advanced from 30 to 90 feet below ground surface (bgs) utilizing a Terra-Sonic TSi 150cc Sonic Drill Rig (Terra-Sonic Rig). Lithologic descriptions of the above-referenced borings were logged by Twin Pines' on-site personnel.

Twin Pines provided TTL with field logs for the 385 exploratory borings. TTL personnel then input each field log into Bentley GINT logging software, which was used to create electronic boring logs. A review of the Twin Pines boring data provided an introductory understanding of the subsurface lithology beneath the project study area. Boring logs generated from Twin Pines' mineral exploration drilling are included in Appendix A. A summary of soil boring data for the 385 exploratory borings is included in Table A1 of Appendix A.

In March and April 2019, Twin Pines' drill crew advanced 31 additional soil borings (SA-TIA-19-270 through SA-TIA-19-300) along the eastern portion of the TIAA tract and contiguous to the western boundary of the proposed mining permit area (Figure 4). TTL's on-site geologist was present during drilling activities to describe soils recovered from each boring. Soil samples were collected continuously using a Terra-Sonic Rig. The rig was equipped with 6-inch diameter outer casing and a 4-inch diameter core barrel that collected soil samples in 10-foot intervals. The borings were advanced to depths of 30 to 70 feet bgs.

In June and July 2019, Twin Pines' drill crew advanced 40 additional soil borings (SA-TIA-19-487 through SA-TIA-19-493, SA-TIA-19-495 through SA-TIA-19-524, and SA-TIA-19-527 through SA-TIA-19-529) also along the eastern portion of the TIAA tract and contiguous to the western boundary of the proposed mining permit area (Figure 4). TTL's on-site geologist was present during drilling activities to describe soils recovered from each boring. The soil samples were collected using the same general procedures described for boring data collected during the March and April 2019 sampling activities. These borings were advanced to depths of 30 to 100 feet bgs. Appendix B contains the boring logs from 71 SA-TIA borings and a summary table with other boring data (Table B1 of Appendix B).

Exploratory Borings (EB)

During August and September 2018, TTL advanced eight (8) exploratory borings (EB01 through EB08) into the top of Hawthorn Group (Figure 5). Soil/sediments of the Hawthorn Group underlie the surficial

aquifer beneath the project study area and represents the upper confining unit of the Floridan aquifer system. Drilling depths in these exploratory borings ranged from about 70 to 130 feet bgs. Drilling services were provided by Walker Hill Environmental, Inc. (Walker Hill) utilizing a Geoprobe 8150LS Rotary Sonic Rig to continuously collect soil samples from each exploratory boring. The sonic rig was equipped with 6-inch diameter outer casing and a 4-inch diameter core barrel that collected soil samples in 10-foot intervals. TTL's on-site geologist was present during drilling activities to describe soils recovered from the borings. Field criteria used to determine the top of the Hawthorne Formation was based on the observation high plasticity clays that effervesced when exposed to a diluted concentration of hydrochloric acid. Additionally, the unique greenish gray to light greenish gray color of the soil/sediments of this confining unit, differed from the shallower sandy soils and (often) acted as an indicator for contact with the Hawthorn Group.

From late October through November 2018, six (6) additional exploratory borings (EB13 through EB18) were advanced into the top of Hawthorn Group (Figure 5). Drilling depths of these borings ranged from 60 to 135 feet bgs. Drilling services were provided by Betts Environmental Recovery, Inc. (Betts) using a Terra-Sonic Rig. Soil sampling at each boring was performed using the same general procedures described for boring data collected during the August and September 2018 field activities. In December 2018 exploratory borings OWAEB and OWBEB were drilled to obtain lithologic data in the general vicinity of pumping test wells PWA and PWB. Drilling depths of borings OWAEB and OWBEB were 120 and 130 feet bgs, respectively.

Following the completion of each exploratory boring (with exception of EB16), tremie-piping was used to fill each borehole from termination depth up to ground surface with a Portland cement/bentonite grout mixture. Appendix C includes a site map showing the location of each exploratory boring and boring logs. Exploratory boring EB16 was converted to a piezometer for subsequent downhole geophysical logging. The piezometer was constructed using 2-inch diameter PVC well casing and screened to a total depth of 90 feet bgs. A solid section of PVC riser was installed from 65 to 90 feet bgs. A 10-foot section of 0.010-inch slotted PVC was installed from 55 to 65 feet bgs and PVC riser was installed from the top of the screened interval to land surface. The borehole annulus was backfilled with a natural sand pack from 50 to 90 feet bgs and a two-foot thick bentonite clay seal was placed above the natural sand pack. The remainder of the borehole annulus was filled with a Portland/bentonite grout mixture to ground surface. A flush-mount protective cover was installed at land surface. A total of 16 exploratory borings were drilled throughout 4 of the 5 tracts within the project study area (Loncala, Dallas Police & Fire, Keystone, Adirondack). Logs generated from the exploratory borings are provided in Appendix C. Due to property access restrictions, exploratory borings EB09 through EB12 proposed within the TIAA tract could not be drilled.

From June 27 to July 2, 2019, six exploratory borings (PB05 through PB10) were advanced to evaluate and further correlate depths to the top of Hawthorn Group (Figure 5). These borings were advanced using Twin Pines' Terra-Sonic Rig. Depths of exploratory borings PB05 though PB10 ranged from 70 to 121 feet bgs. Borings PB01 through PB04, which were proposed along the western portion of the TIAA tract, were not advanced due to access restrictions. Boring logs for PB05 through PB10 are included in Appendix C.

A summary of soil boring data from each exploratory boring drilled within the project study area is provided in Table C1 of Appendix C.

Undisturbed Sample Borings (UD)

From November 13 through 20, 2018, TTL advanced fourteen (14) soil borings (designated UD-10, UD-25, UD-34, UD-43, UD-51, UD-65, UD-67, UD-93, UD-126, UD-128, UD-179, UD-231, UD-238, and UD-338) throughout the project study area (Figure 6). Each UD boring was advanced utilizing TTL's

CME-550 all-terrain vehicle (ATV) drill rig for the purpose of collecting undisturbed soil samples. Due to the presence of unconsolidated sands and a high groundwater table, TTL used a mud rotary drilling technique to counter heaving sands within each boring. A Denison Sampler was used for collection of undisturbed soil samples. Because a mud rotary drilling technique was used to drill the borings, the soils from these boreholes could not be described.

During late December 2018 through March 2019, TTL drilled new soil borings adjacent to each of the undisturbed sample borings to provide observations of the subsurface lithology. Drilling services were provided by Betts utilizing a Terra-Sonic Rig to continuously collect soil samples from each boring. The sonic rig was equipped with 6-inch diameter outer casing and a 4-inch diameter core barrel that collected soil samples in 10-foot intervals. TTL's on-site geologist was present during drilling activities to describe soils recovered from the borings. Depths of the 14 UD borings ranged from 55 to 130 feet bgs. Eleven of the 14 borings were advanced to termination depths approximately 10 feet below the top of the Hawthorn Group. However, due to heaving sands, UD borings UD34 (55 feet bgs), UD179 (120 feet bgs), and UD338 (60 feet bgs) were terminated prior to encountering soil/sediments of the Hawthorn Group. A summary of UD boring construction details is provided in Table D1 of Appendix D.

Twelve (12) of the 14 UD borings (excluding UD338 and UD34) were subsequently converted into piezometers for purposes of conducting a downhole geophysical logging survey. Piezometer construction characteristics of each UD boring included placement of 10- or 15-foot sections of 2-inch diameter PVC riser which extended from the bottom of the boring to the top of Hawthorn Group. Next, a 10-foot section of 0.010-inch slotted PVC screen was installed on top of the above-referenced riser and finally PVC riser was installed from the top of the screened interval to land surface. The remaining borehole annulus was backfilled with a natural sand pack to land surface. Boring logs for each UD boring are provided in Appendix D. Piezometer construction details are listed in Table D2 of Appendix D.

Piezometer Installation (PZ)

A total of 86 shallow and/or deep piezometers were installed by TTL as part of the hydrogeologic investigation of the project study area (Figure 7).

During August and September 2018, TTL completed the installation of 27 piezometers (PZ01 to PZ22 and PZ24 to PZ28). Piezometer PZ23 was not installed due to access issues related standing water at the proposed location. The initial 27 piezometers were installed to evaluate subsurface lithology and groundwater beneath the project study area. Drilling services for these piezometers were provided by Walker Hill using a Geoprobe Sonic Rig. The sonic rig was equipped with 6-inch diameter outer casing and a 4-inch diameter core barrel that collected continuous soil samples in 10-foot intervals. TTL's on-site geologist was present during drilling activities to describe soils recovered from each borehole and supervise piezometer installations. Piezometer installation depths ranged from 14 to 45 feet bgs.

Each piezometer was constructed using a 10-foot section of 2-inch diameter 0.010-inch slotted PVC screen and a PVC riser. The remaining annulus of each borehole was filled with a natural sand pack from total depth up to approximately 2-feet above the top of screen. A 2-foot thick bentonite plug was placed on top of the natural sand pack. Tremie piping was used to fill the remaining borehole annulus with a Portland cement/bentonite mixture that extended from the top of the bentonite plug up to about 0.5-foot bgs. Permanent flush-mount protective covers and concrete pads were installed for surface protection at each piezometer.

During November and December 2018, TTL installed 10 partner piezometers adjacent to the existing piezometers. These piezometer clusters were constructed to evaluate lithology and groundwater within the shallow and deeper portion of the surficial aquifer. Drilling services for the installation of these piezometers was provided by Betts using a Terra-Sonic Rig. Depths of the piezometers ranged from 9 to 55 feet bgs. These partner piezometers were assigned the identifiers below:

- Deeper partner piezometers: PZ01D, PZ03D, PZ12D, PZ16D, and PZ25D.
- Shallower partner piezometers: PZ17S, PZ20S, PZ22S, PZ27S, and PZ28S.

To further evaluate the subsurface lithology and groundwater beneath the project study area, twenty-one (21) additional shallow and deep piezometers were installed. Construction depths for these referenced piezometers ranged from 10 to 90 feet bgs. These piezometers were installed from late October through December 2018 and were assigned the following identifiers:

Piezometer Identifier			
PZ23	PZ42	PZ47	PZ52
PZ38	PZ43	PZ48S/D	PZ53
PZ39S/D	PZ44	PZ49	
PZ40	PZ45S/D	PZ50	
PZ41	PZ46	PZ51S/D	

S/D Shallow/Deep Piezometer Cluster

From late April through May 2019, TTL installed 28 additional shallow and deep piezometers clusters along the southern end of the project study area (generally within the TIAA, Keystone and Adirondack tracts). Construction depths for the above-referenced piezometers ranged from about 8 to 50 feet bgs. These piezometers were assigned the following identifiers.

Piezometer Identifier		
PZ29S/D	PZ34S/D	PZ55S/D
PZ30S/D	PZ35S/D	PZ56S/D
PZ31S/D	PZ36S/D	PZ57S/D
PZ32S/D	PZ37S/D	PZ58S/D
PZ33S/D	PZ54S/D	

S/D = Shallow/Deep Piezometer Cluster

The shallow and deep piezometers installed between October 2018 and May 2019 were constructed using the same general procedures described for piezometers installed during the August and December 2018 field activities. TTL's on-site geologist was present during drilling activities to describe soils recovered from each borehole and supervise piezometer installations. A boring database summary of well construction details for the piezometers are provided in Table E1 and E2, respectively of Appendix E. Boring logs generated showing subsurface lithology for all piezometer are provided in Appendix E.

Pumping and Observation Well Installations

In December 2018, TTL subcontracted Partridge Well Drilling Company, Inc. (Partridge) of Jacksonville, Florida to install two (2) pumping wells (PWA and PWB) within the project study area (Figure 8). Partridge used the mud rotary method to drill and construct the pumping wells. The northernmost pumping well on the eastern crest of Trail Ridge was designated PWA and the southernmost pumping well on the western crest of Trail Ridge was designated PWB. The logic for the pumping test locations along Trail Ridge was that the ridge represents a hydrologic divide between drainage to the Okefenokee Swamp to the west and drainage to the St. Mary's River to the east. Since quality samples could not be obtained from the mud rotary drilling, exploratory borings (OWAEB and OWBEB) were

advanced near the proposed pumping well locations to confirm target depths to the top of the Hawthorn Group. Each pumping well was installed to a depth of approximately 115 feet below ground surface (bgs) using a a truck-mounted mud-rotary drilling rig equipped with a 12-inch diameter roller bit and spade. TTL's on-site geologist was present during the drilling activities to supervise well installations for PWA and PWB.

Once each borehole was drilled to a depth of 115 feet bgs, 60 feet of 6-inch diameter, 0.020-inch machine slotted PVC screen was installed from 55 feet to 115 feet bgs. A 6-inch diameter solid PVC casing was installed from the top of the screen to land surface. All screen and solid casing were flush-thread scheduled 40 PVC. A 16/30 silica sand was then placed from the bottom of the borehole to five feet above the top of the well screen (50 feet bgs). A five-foot bentonite plug was placed on top of the sand pack, and the remainder of the borehole annulus from the top of the bentonite seal to land surface was grouted with a cement/bentonite mixture. After grouting, the cement/bentonite mixture was allowed to cure for a minimum of twenty-four (24) hours. Next, each well was developed by Partridge at an approximate rate of 150 gallons per minute (gpm) using an air-lift method. Soil boring logs for the pumping wells are presented in Appendix F.

During November 2018 through January 2019, Betts provided drilling services for the installation of 22 observations wells at the site. Eleven observation wells were constructed adjacent to pumping wells PWA and PWB, respectively. These observation wells were installed to depths and distances from the pumping wells listed in Table F1 of Appendix F.

The observation wells were installed using a Terra-Sonic Rig equipped with 6-inch diameter outer casing and a 4-inch diameter 10-foot long core barrel. Soil samples were collected continuously from each borehole for the observation wells. TTL's on-site geologist was present during drilling activities to describe soils recovered from each boring (soil boring logs are presented in Appendix F) and supervise well installations.

With the exception of OWA3BS, OWA4BS, OWA5BS, OWB3BS, OWB4BS, and OWB5BS, each observation well was constructed with 10-foot sections of 2-inch diameter 0.010-inch slotted PVC screen with attached PVC riser. A natural sand pack was allowed to cave-in around the annulus between the PVC screen and the borehole wall from termination depth to two feet above the top of screen. A 2-foot bentonite plug was placed on top of natural sand pack and a Portland cement/bentonite mixture was placed from the top of the bentonite plug up to about 0.5-foot bgs. Permanent flush-mount protective covers and concrete pads were installed for surface protection at each observation wells. Observation well construction details are provided in Table A2 of Attachment A.

Observation wells OWA3BS, OWA4BS, OWA5BS, OWB3BS, OWB4BS, and OWB5BS were constructed with five-foot sections of 2-inch diameter, 0.010-inch slotted PVC screen with attach PVC riser. A natural sand pack was allowed to cave-in around the annulus between the PVC screen/riser and the borehole wall from termination depth to ground surface. A flush-mounted, steel, protective cover was installed at the surface of each piezometer in a 2-foot by 2-foot concrete pad, and a locking, water-tight cap was placed in the top of each 2-inch casing. Pumping wells and observation are shown on Figures 9 and 10.

Following installation activities, each observation well was developed using a 12-volt submersible pump. Each observation well was developed until its turbidity was less than 10 nephelometric turbidity units (NTU) and/or until the extracted groundwater appeared to be relatively free of sediment. A cumulative of about 1,673 gallons and 2,019 gallons of groundwater were developed from the observation wells at pump areas A and B, respectively.

GEOPHYSICAL LOGGING

On March 18 through 22, 2018, TTL personnel performed downhole geophysical logging at twelve (12) UD borings (UD43, UD238, UD51, UD65, UD67, UD179, UD93, UD10, UD126, UD128, UD231, & UD25), two (2) pumping well locations (PWA & PWB), and one (1) exploratory boring (EB-16). The boring locations were distributed across the site, were some of the deepest borings drilled during the investigation, and typically penetrated the full thickness of the surficial aquifer and a few feet into the underlying Hawthorn Group (Figure 11).

Gamma-ray (natural gamma) and induction (formation resistivity and conductivity) logging was performed at each borehole location. Two geophysical logging probes were rented from COLOG Geophysical in Lakewood, Colorado. These logs were obtained for correlation with geologic descriptions provided by TTL's geologists and verification of TTL's field observations.

Prior to probe downhole deployment, the probe head was zero referenced at the top of each well casing. The probe was dropped downhole at a steady rate of approximately 10 feet per minute to the total depth of each well. The instrument probes were driven by a 12-volt powered electric winch. During the logging process, the sensor head of each probe relayed real-time data to a laptop computer positioned at land surface. Natural gamma was measured in units of counts per second (cps) with induction in units of millisiemens per meter (mS/m) and ohm's per meter (ohm/m). The average rate of logging completion was approximately 3 to 4 well locations per day. Following the field activities, survey data was sent to Nathan Davis (geophysical engineer at COLOG) for data extraction, analysis, and log generation. The geophysical logs for each survey location are provided in Appendix G of this report.

SITE TOPOGRAPHIC SURVEY

As a part of the field data acquisition activities, two separate surveys were conducted within the project study area. Southern Resource Mapping, located in Tuscaloosa Alabama, was subcontracted by Twin Pines Minerals to perform an aerial topographic survey using a Riegl LIDAR 780i (digital ortho) sensor. The LIDAR configuration included an Applanix AP60 IMU coupled with an AirBourne GPS and was affixed to a Cessna 206 fixed-wing aircraft. A flight plan was generated that produced 18 points-per-square meter(s), and was flown at an elevation of 1,700 feet above ground surface (ags). This resulted in a total of 17 flight lines which included one cross line. From the data collected by Southern Resource Mapping, a topographic map layer containing one-foot contour intervals was generated (Figure 12) and used as a workable base map for the majority of the project study area. For areas not covered by the LIDAR survey, digital elevation model (DEM) files were obtained from the U.S. Geological Survey.

G&L Surveying and Mapping, located in Valdosta, Georgia, was subcontracted by TTL to survey the piezometers and soil borings. Each data point included northing and easting coordinates, elevations of the top of PVC casings (piezometers), and ground surface (all data points).

SUBSURFACE GEOLOGY

Geologic characterization activities in the project study area were limited to the subsurface soil/sediments from the land surface to the upper 20 feet of the Hawthorn Group. A list of the subsurface units encountered at the project study area are listed below.

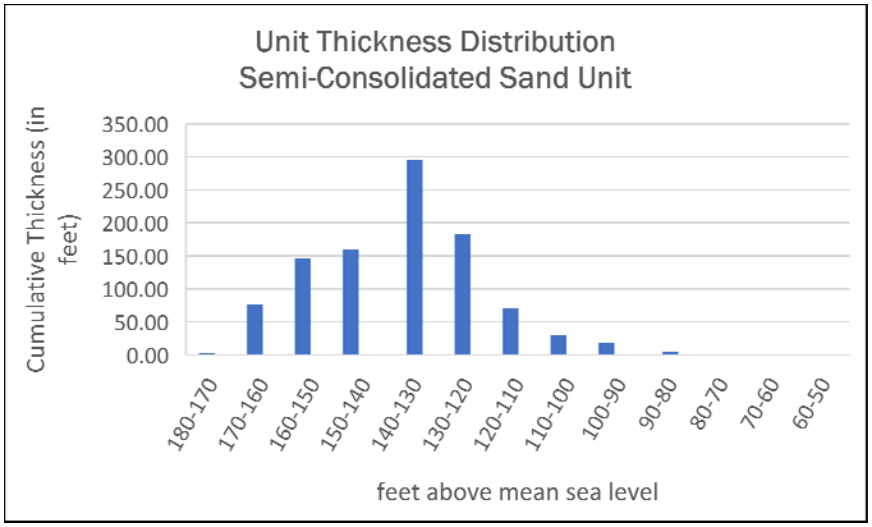
1. Unconsolidated sand unit,
2. Semi-consolidated black sand unit,
3. Consolidated sand unit,
4. Silty-clayey sand unit,

5. Clayey sand unit,
6. Clay unit, and
7. Hawthorn Group (uppermost section)

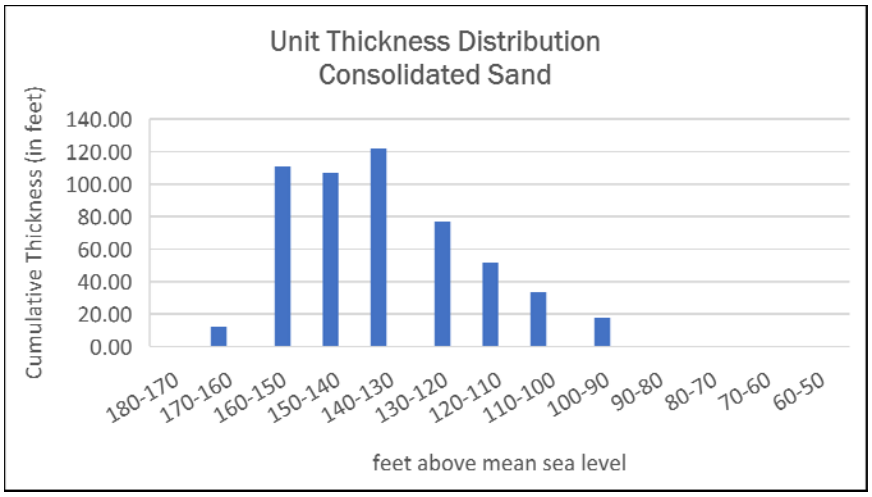
A brief description of each unit is provided below:

Unconsolidated Sand Unit
The unconsolidated sand unit comprises the greatest distribution of soil/sediments beneath the project area and generally consists of silty sands (SM) and well sorted sands (SP) with color descriptions ranging from brown to gray to white. Silty sands (SM) are described as fine- to medium-grained sand and which typically contains greater than five percent silt content. Well sorted sands (SP) are described as fine- to medium-grained sand with little to no silt content. Subsurface boring data collected from the project area indicates that this unit extends from land surface to the top of the Hawthorn Group sediments and is interlayered with laterally discontinuous lenses of the semi-consolidated to consolidated sands, silty-clayey sands, clayey sands and clays.

Semi-Consolidated Sand Unit
The semi-consolidated sand unit generally consists of fine- to medium-grained silty sands (SM) and well sorted sands (SP) and silty-clayey sand (SC-SM) with a color range from black to brown. The general characteristics of semi-consolidated sand unit includes sands that are moderately cohesive due to the presence of minor amounts of humate. The semi-consolidated sand unit was generally encountered from elevations of 100 to 170 feet above mean sea level (amsl). The cumulative unit thickness was greatest within the interval from 110 to 140 feet elevation.



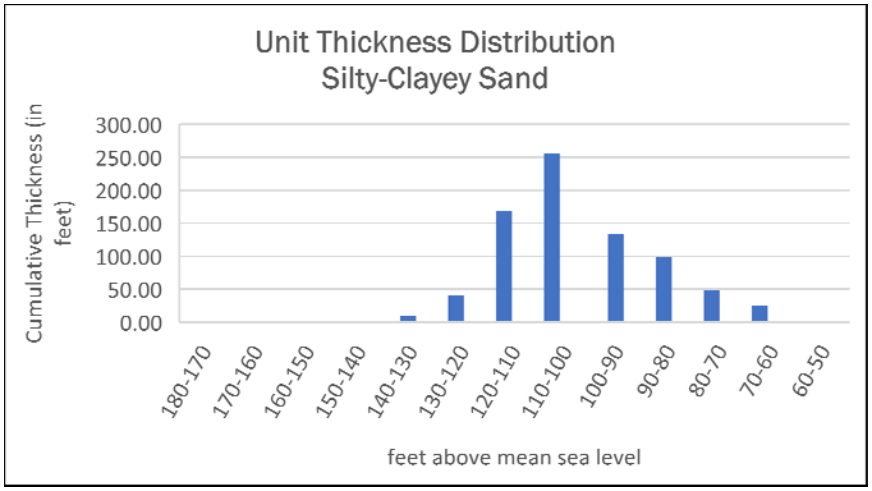
Consolidated Black Sand Unit
The consolidated black sand unit consists of fine- to medium-grained silty sands (SM) and well sorted sands (SP) and generally described as black in color. In many cases, the presence of significant amounts of humate rendered a greasy appearance to the core samples. The general characteristics of the consolidated black sand unit includes sands that are cohesive due to significant amounts of humate. The humate appears to serve as a bonding agent for the sand, which can create local areas of lower permeability soil beneath the study area. The consolidated sand unit was generally encountered from elevations of 90 to 160 feet above mean sea level (amsl). The unit thickness was greatest within the interval from 130 to 160 feet elevation



TTL conducted an extensive drilling program to evaluate the lateral continuity of the consolidated black sands, including the drilling and description of 71 closely-spaced soil cores. This drilling program was completed on July 1, 2019. We found that the consolidated black sands are very discontinuous in the permit area and appear in irregular zones, not layers.

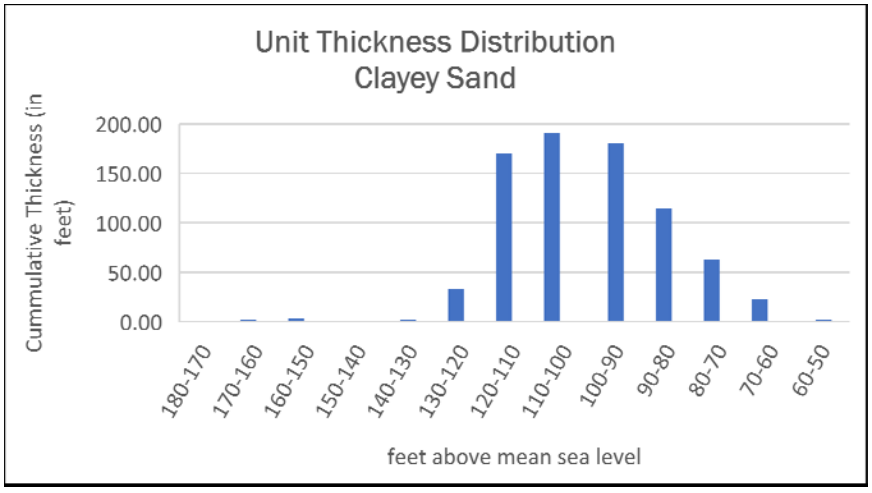
Silty-Clayey Sand Unit

The silty-clayey sand unit generally consists of fine- to medium-grained silty sands, silt, less than five percent clay content, and ranges in color from black to brown to grey. The general characteristics of this unit includes sands that are loosely cohesive due to minor clay content. Within some borings at the site, these soil/sediments were described as black to very dark brown in color and semi-consolidated. The silty-clayey sand unit was generally encountered from elevations ranging from 60 to 130 feet above mean sea level (amsl). The unit thickness was greatest within the interval from 80 to 120 feet elevation.



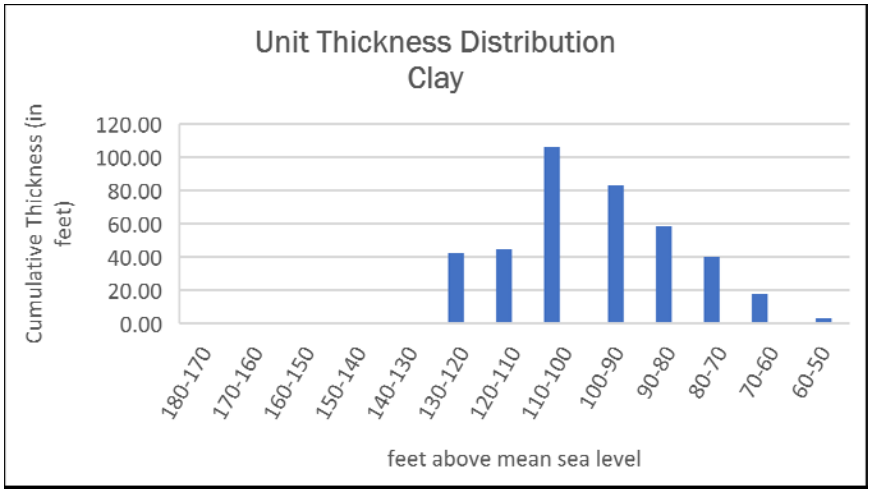
Clayey Sand Unit

The clayey sand unit generally consists of fine-to medium-grained silty sands with clay content between 10 to 40 percent and ranges in color from yellow to brown to gray. The general characteristics of the clayey sand unit includes sands that are cohesive due to moderate clay content. The clayey sand unit was generally encountered from elevations ranging from 60 to 130 feet above mean sea level (amsl). The unit thickness was greatest within the interval from 80 to 120 feet elevation.



Clay Unit

The clay unit consists of silty clays, sandy clays, and fat clays and ranges in color from brown to grey to greenish gray closer to the Hawthorn Group. The gray to greenish gray clays above the Hawthorn Group are reworked material from the upper Hawthorn. The clay is generally firmer and more compact than the surrounding sands units. The clay unit was generally encountered from elevations ranging from 60 to 130 feet above mean sea level (amsl). The unit thickness was greatest within the interval from 80 to 120 feet elevation.



Hawthorn Group

The top of Hawthorn Group within the project area is generally comprised of clayey sands and lean to fat clays that are calcareous and that range in color from greenish gray to grayish green. Field criteria used to determine the top of the Hawthorne Group were based on the observation of high plasticity clays that effervesced when exposed to a diluted concentration of hydrochloric acid. Additionally, the unique color of the sediments of this confining unit, differed from the shallower sandy soils and (often) acted as an indicator for contact with the Hawthorn Group.

These sediments represent the base of the surficial aquifer at the site. As stated previously, the Hawthorn Group is reported to be greater than 300 feet thick and unbreached in the general vicinity of the project area (Williams and Kuniansky, 2016) which is significant since the Hawthorn Group in the geologic literature is defined as the upper confining unit for the Floridan aquifer system.

Review of subsurface data and generalized geologic cross-sections indicates that higher permeability soil/sediments are present in the shallower sandy soils beneath the study. Clay content and lower permeability soil/sediments were observed with increasing proximity to the Hawthorn sediments.

SUMMARY

This report documents the geologic data collected from the Twin Pines project study area. These data were collected to characterize the pre-mining conditions along Trail Ridge, provide data for models to predict the impact of mining operations on groundwater discharge to streams and wetlands adjacent to the proposed mine, and aid in the evaluation of post-mining hydrogeologic conditions to assist reclamation/restoration efforts.

598 soil borings, piezometers, and wells were drilled in the project study area. The majority of these borings were drilled using sonic drilling rigs and were continuously sampled and described. The drilling details, well and piezometer construction history, and geologic data from these borings are presented in this report. Geophysical logs prepared from deep boreholes are included in this report. In addition, surveying activities, including the results of a LIDAR survey of the elevation across the site, are documented. Finally, seven subsurface units have been identified in the subsurface and described herein.

REFERENCES CITED

Force, E.R. and F.R. Rich. 1989. Geologic Evolution of the Trail Ridge Eolian Heavy-Mineral Sand and Underlying Peat, Northern Florida. U.S. Geological Survey Professional Paper, 1499.

Pirkle, F.L., E.C. Pirkle, J.G. Reynolds, W.A. Pirkle, J.A. Henry, and W.J. Rice, 1993, The Folkston West and Amelia Heavy Mineral Deposits of Trail Ridge, Southeastern Georgia, Economic Geology, vol.88, p. 961-971.

Williams, L.J., and Kuniansky, E.L., April 2015 (Revised March 2016), Revised Hydrogeologic Framework of the Floridan Aquifer System in Florida and Parts of Georgia, Alabama, and South Carolina: U.S.G.S, Professional Paper 1807, Version 1.1

FIGURES

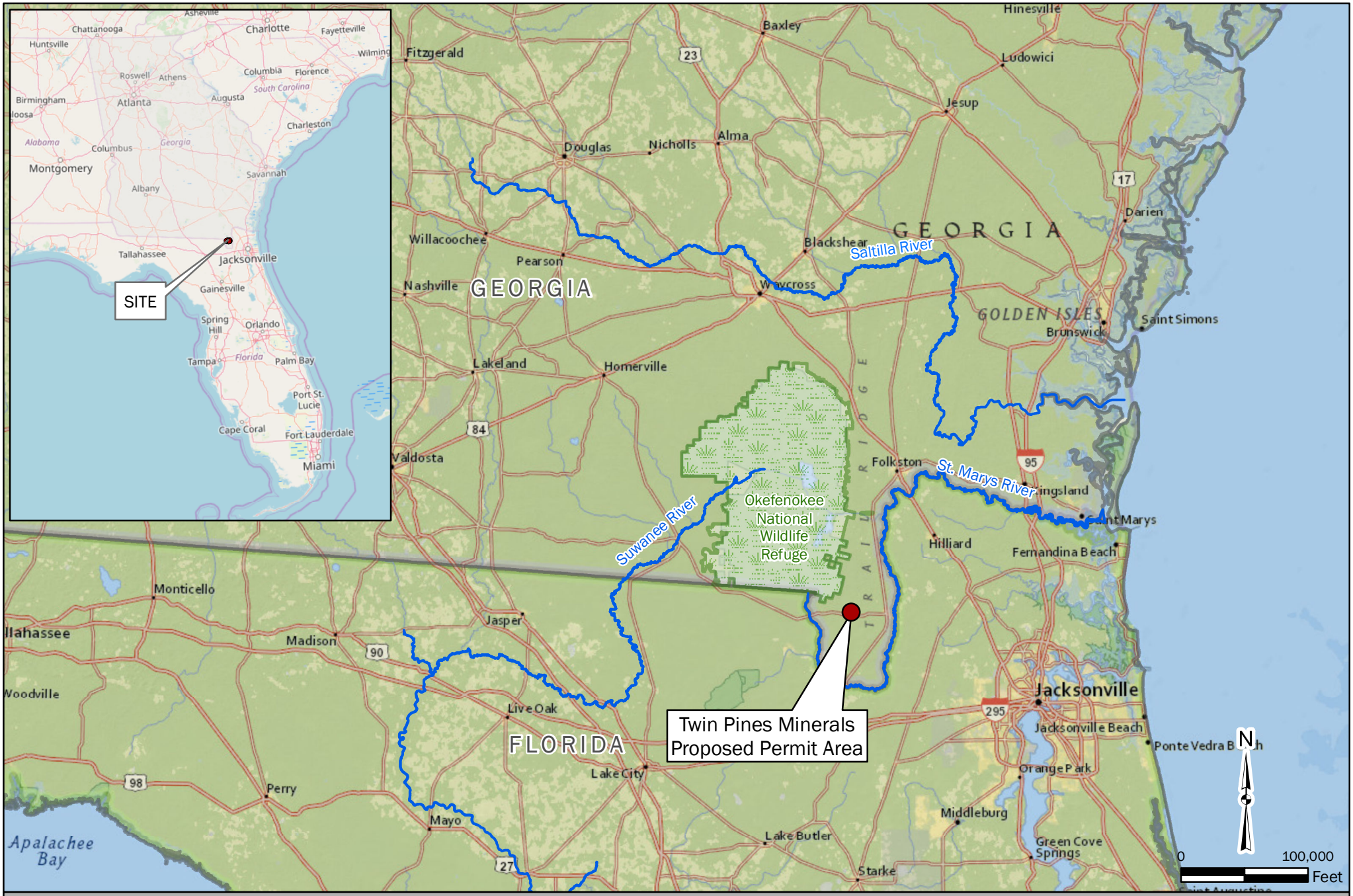


FIGURE 1: LOCATION OF THE PROPOSED TWIN PINES MINE

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

INSET BASEMAP: Open Street Map. BASEMAP: National Geographic World Map.

DRAWN BY:	DEK
CHECKED BY:	JMT
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
APPROX. SCALE:	1 in = 100,000 ft

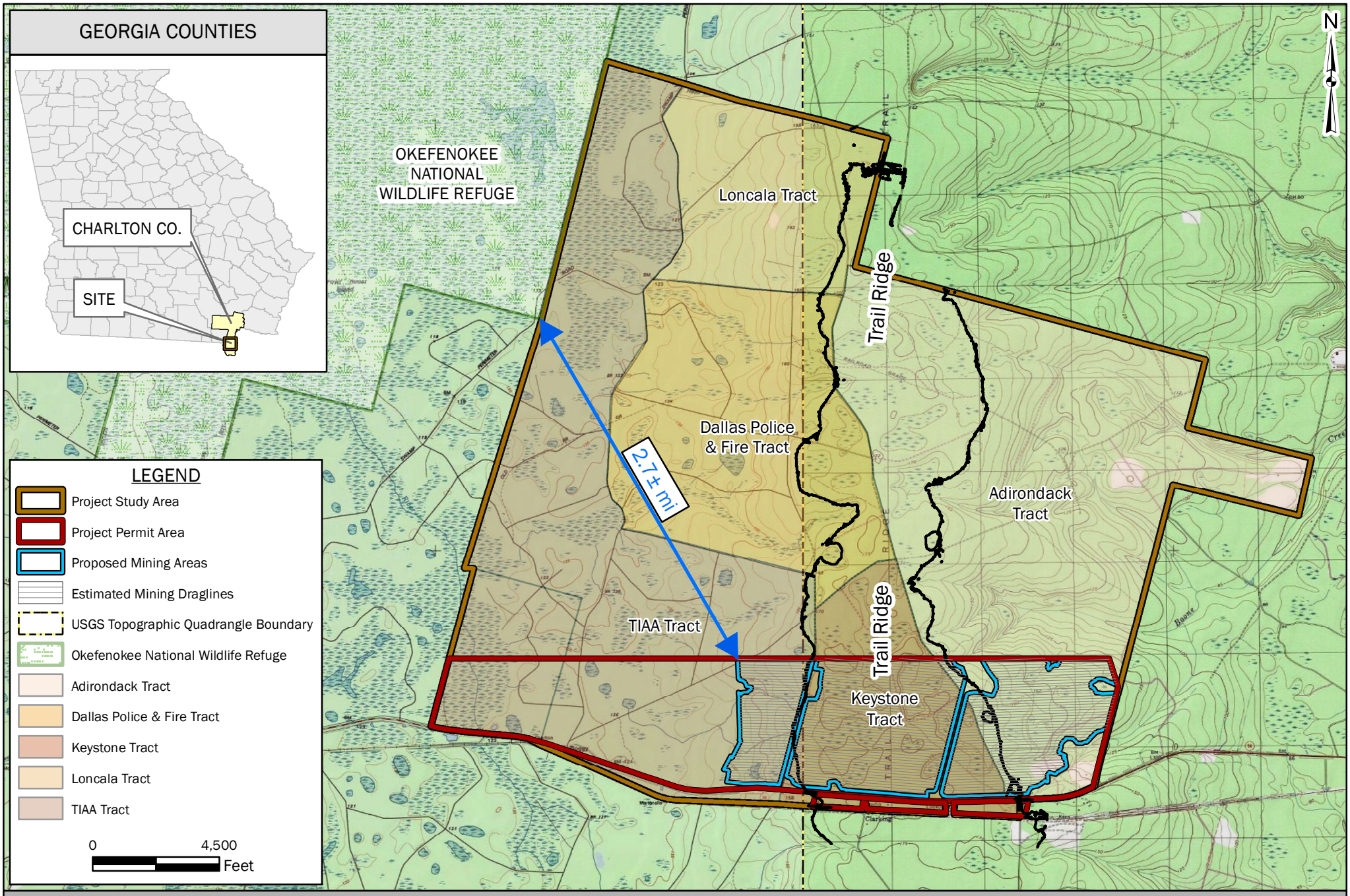


FIGURE 2: PROJECT STUDY & PROPOSED PERMIT AREA

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

BASEMAP: USGS 7.5 Minute Quadrangle Map, Florida & Georgia, (West) Moniac 1968 (10-ft Contour Interval), (East) Saint George 1982 (5-ft Contour Interval).

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CHECKED BY:	JMT
DRAWING DATE:	10/28/2019
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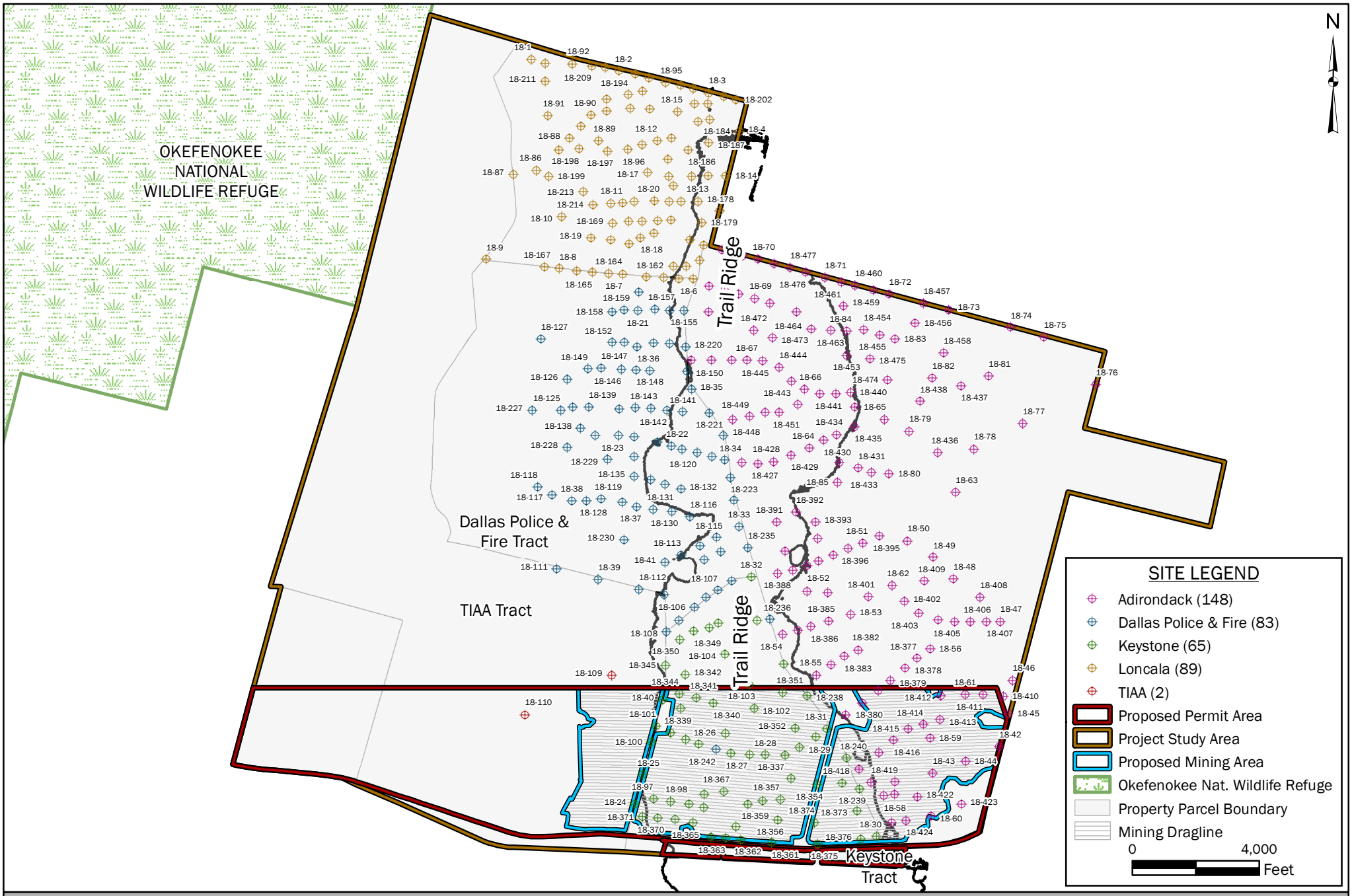

FIGURE 3: TWIN PINES MINERALS BORING LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY:	DEK
CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
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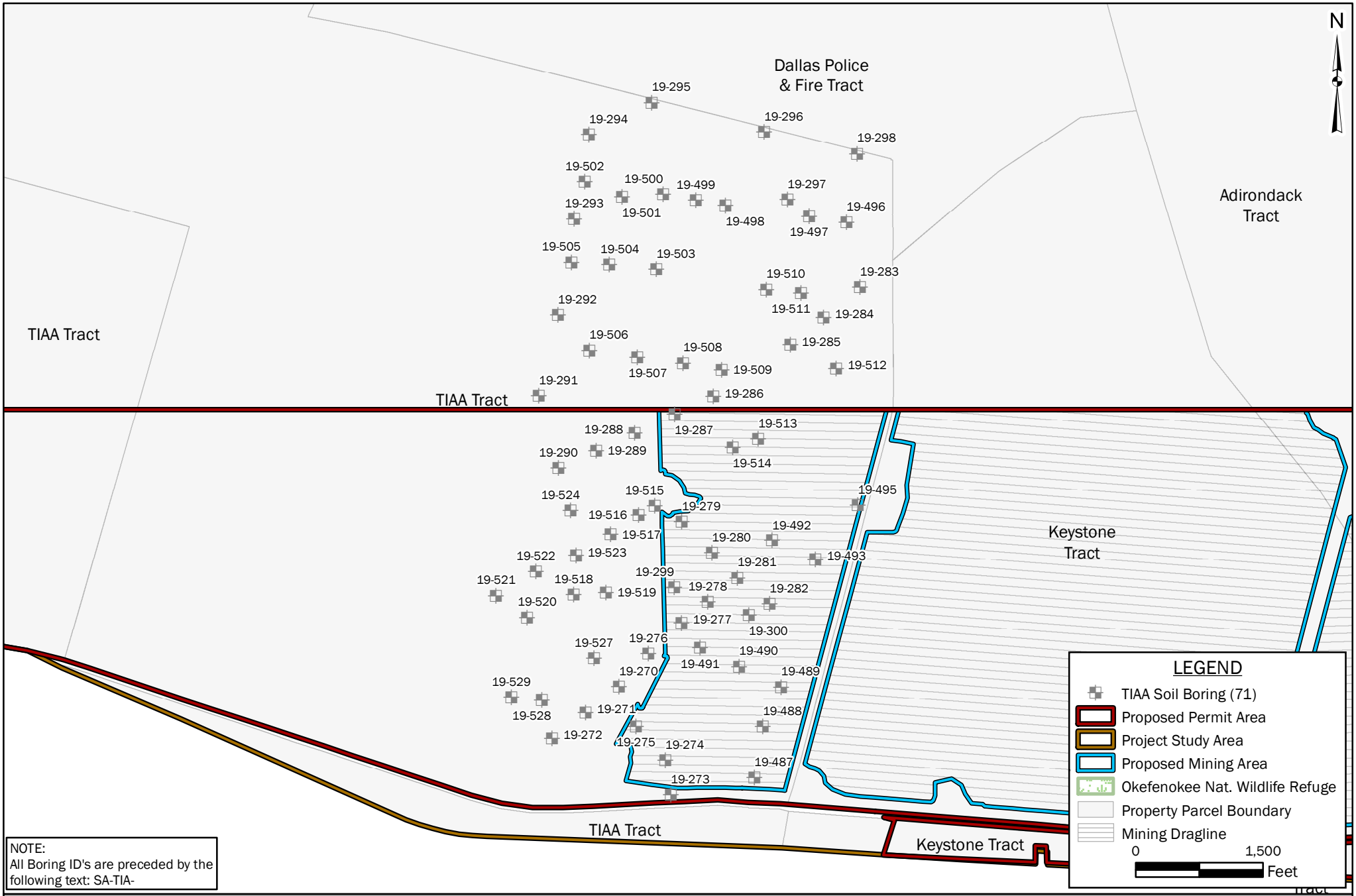

FIGURE 4: TIAA BORING LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

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CHECKED BY:	JRS
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REVISION DATE:	N/A
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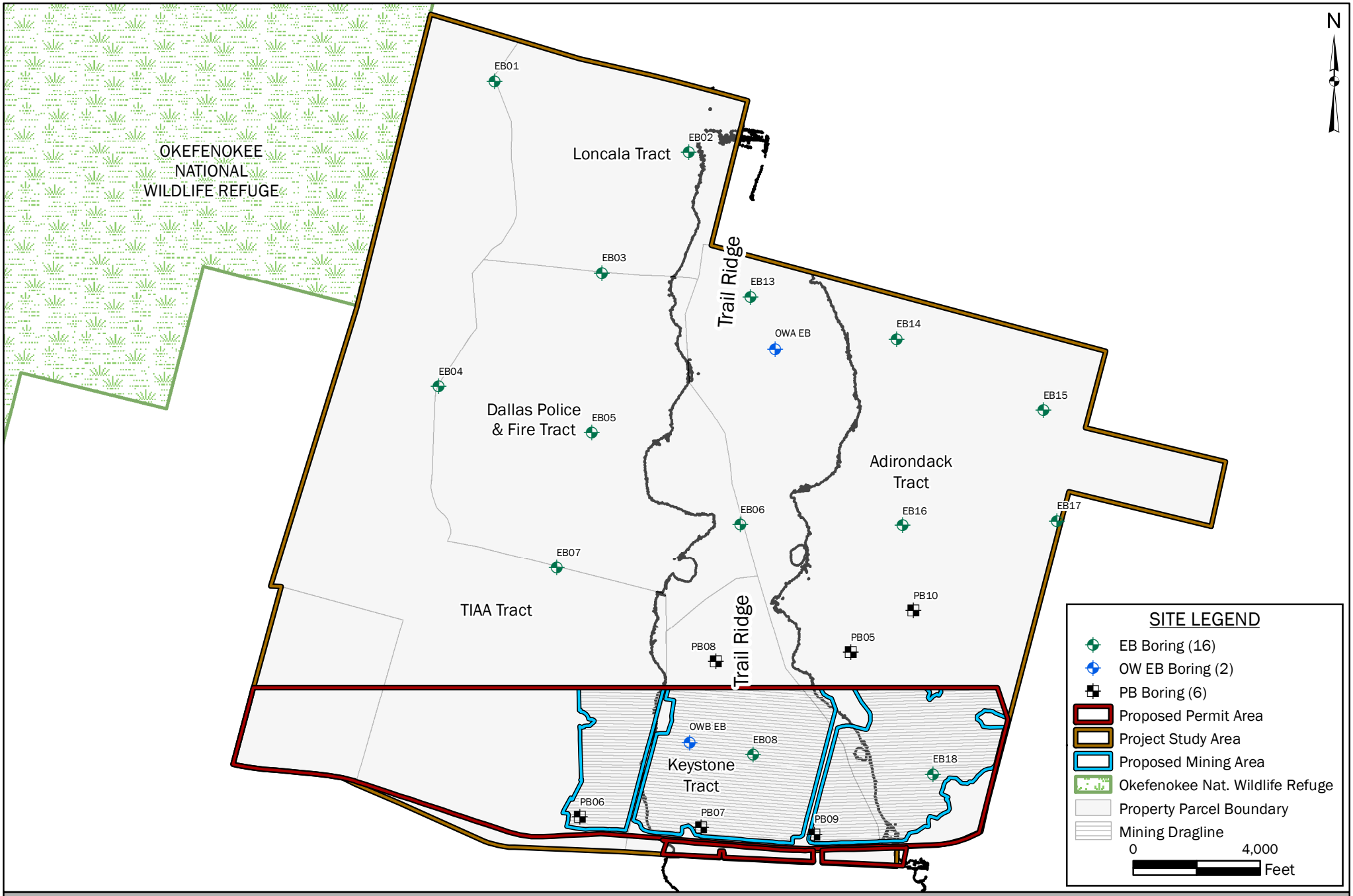

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FIGURE 5: EXPLORATORY BORING LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

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CHECKED BY:	JRS
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REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
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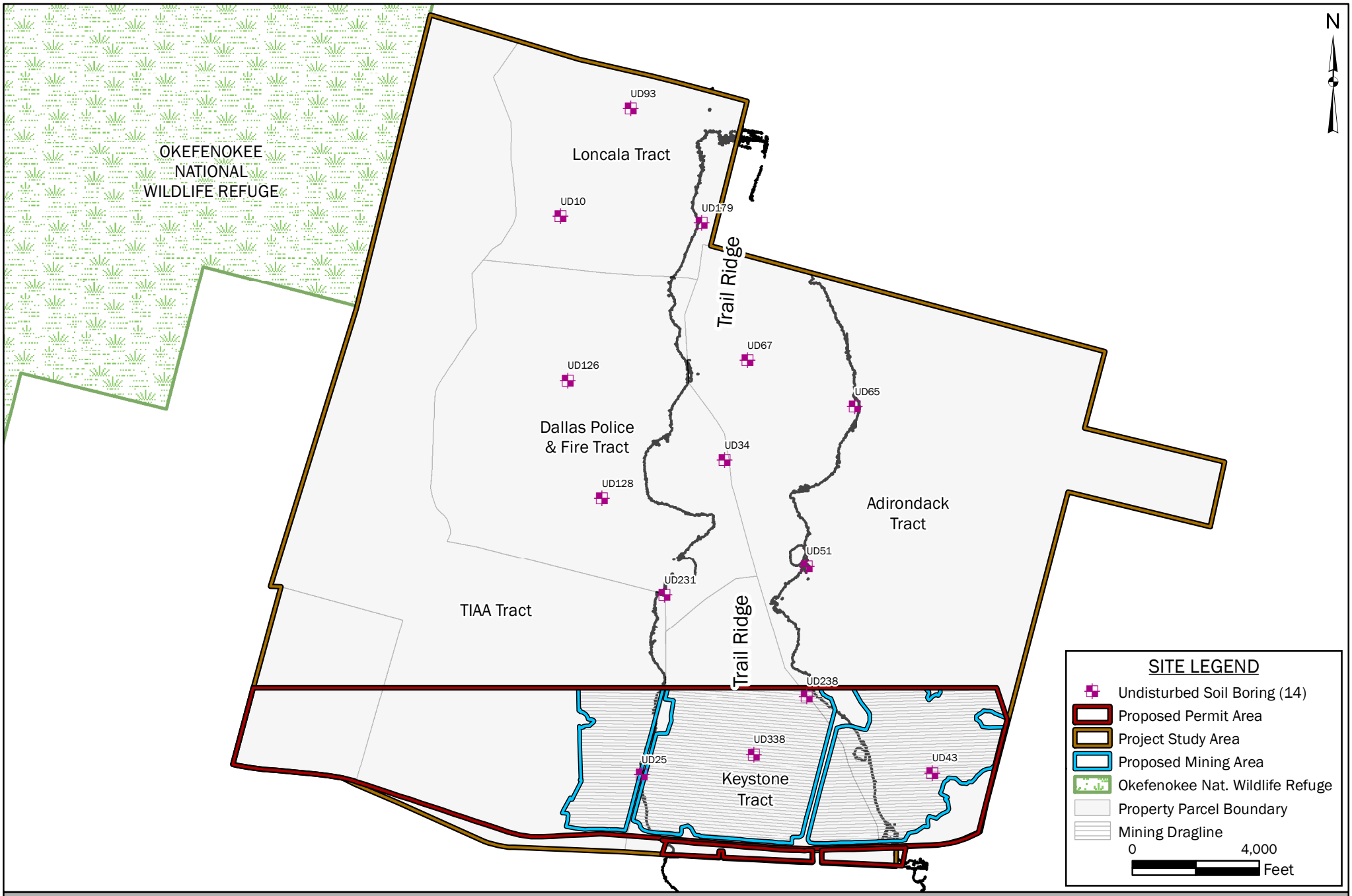

TTL

FIGURE 6: UNDISTURBED (UD) SOIL BORING LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

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CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
APPROX. SCALE:	1 in = 4,000 ft

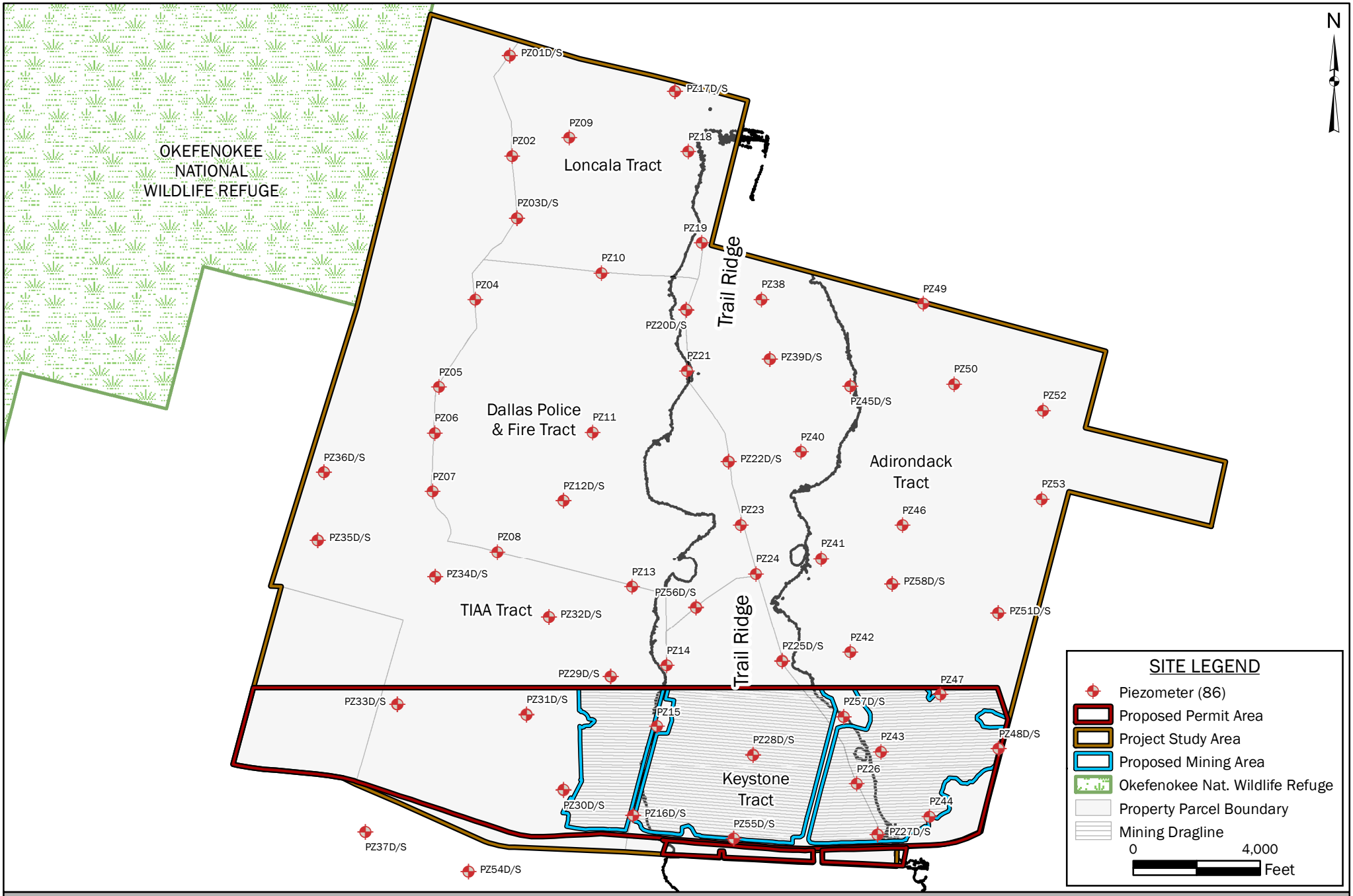
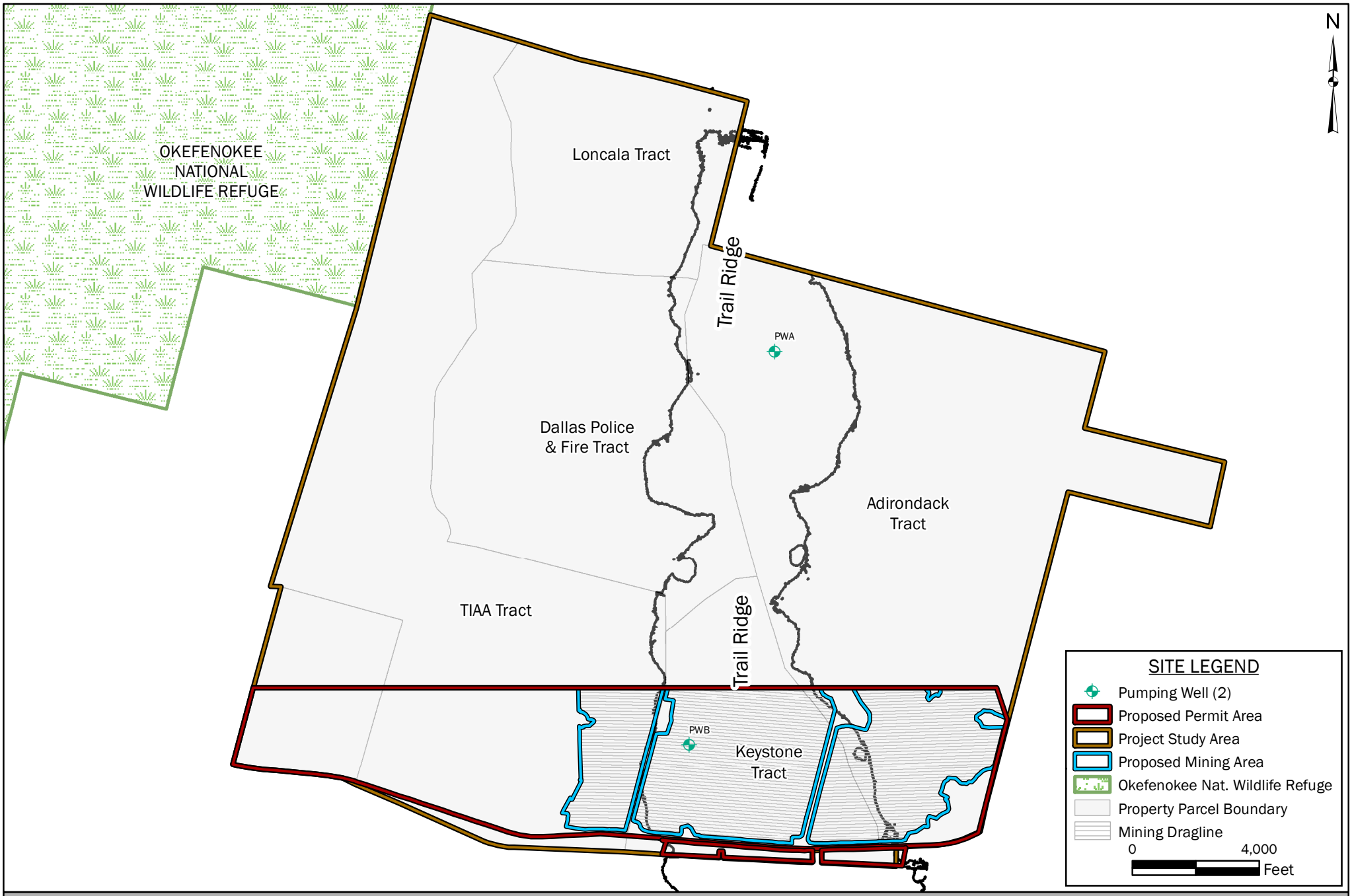


FIGURE 7: PIEZOMETER LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY:	DEK
CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
APPROX. SCALE:	1 in = 4,000 ft



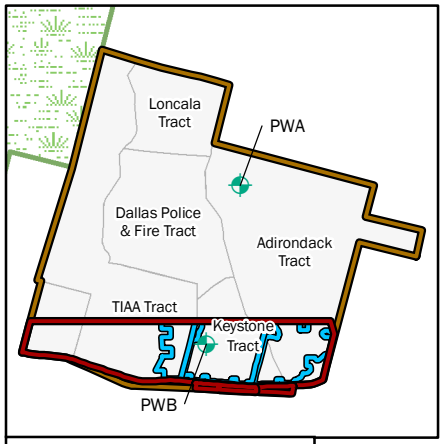
TTL

FIGURE 8: PUMPING WELL LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

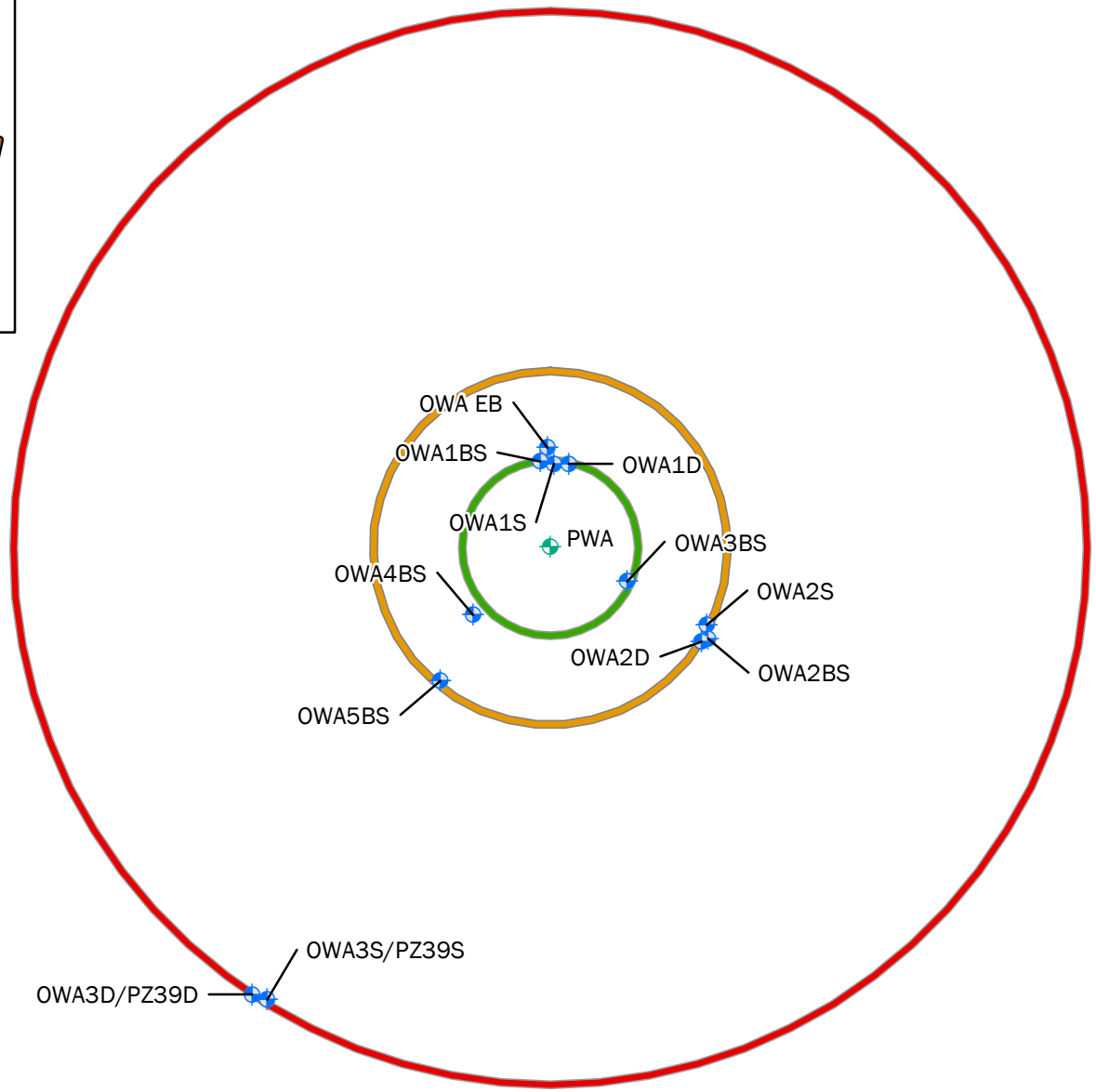
DRAWN BY:	DEK
CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
APPROX. SCALE:	1 in = 4,000 ft



INSET LEGEND

- Pumping Well (2)
- Proposed Permit Area
- Project Study Area
- Proposed Mining Area
- Okefenokee Nat. Wildlife Refuge
- Property Parcel Boundary

N



SITE LEGEND

- Pumping Well "A"
- Observation Well
- 50 ft Radius
- 100 ft Radius
- 300 ft Radius

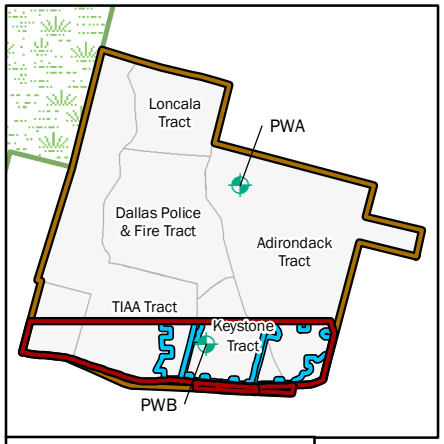
0 100 Feet

FIGURE 9: PUMPING WELL "A" LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

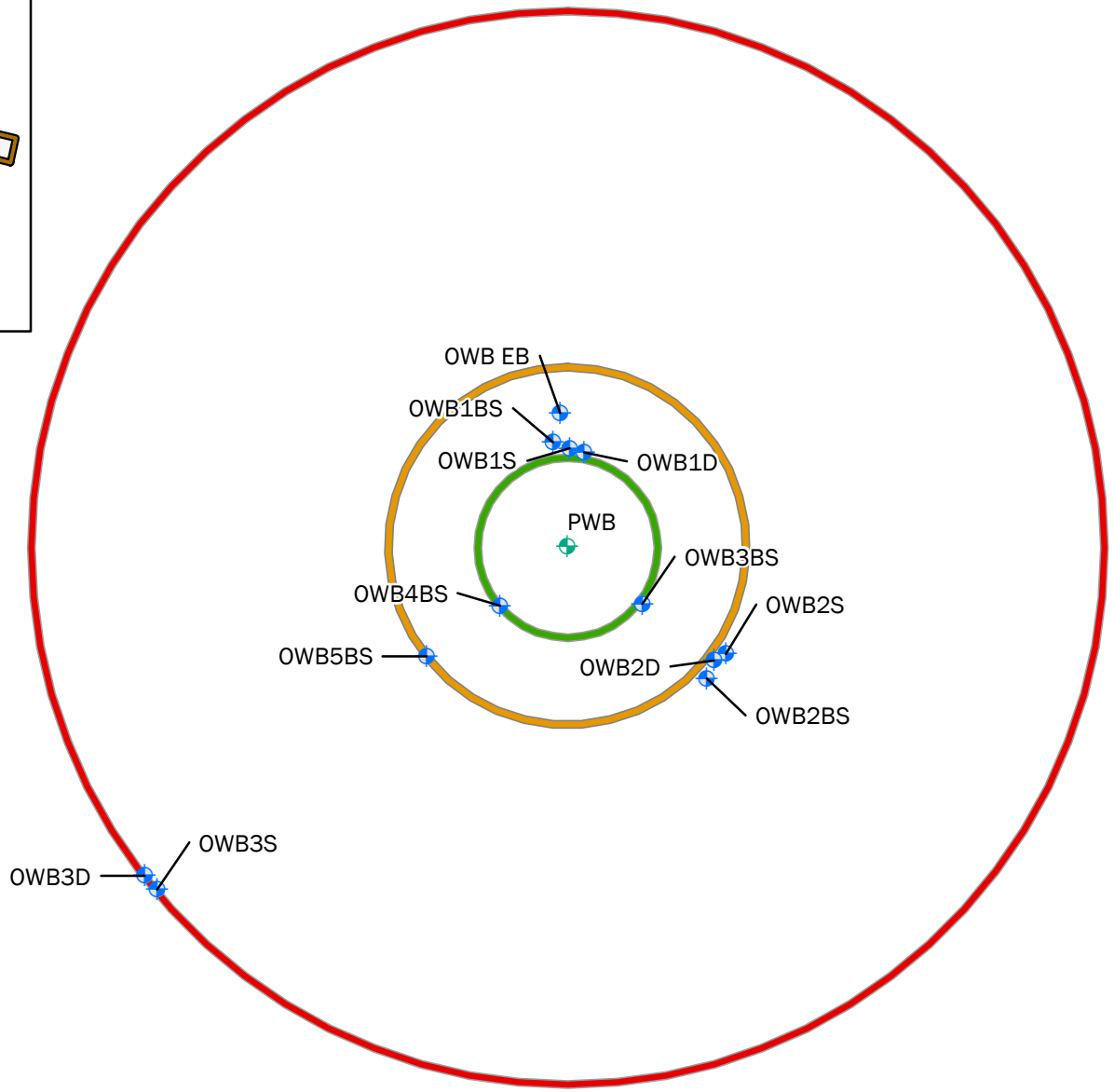
DRAWN BY:	DEK
CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
APPROX. SCALE:	1 in = 100 ft



INSET LEGEND

- Pumping Well (2)
- Proposed Permit Area
- Project Study Area
- Proposed Mining Area
- Okefenokee Nat. Wildlife Refuge
- Property Parcel Boundary

N



SITE LEGEND

- Pumping Well "B"
- Observation Well
- 50 ft Radius
- 100 ft Radius
- 300 ft Radius

0 100 Feet

FIGURE 10: PUMPING WELL "B" LOCATION MAP

TWIN PINES MINERALS

ST GEORGE CHARLTON COUNTY GEORGIA

DRAWN BY:	DEK
CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
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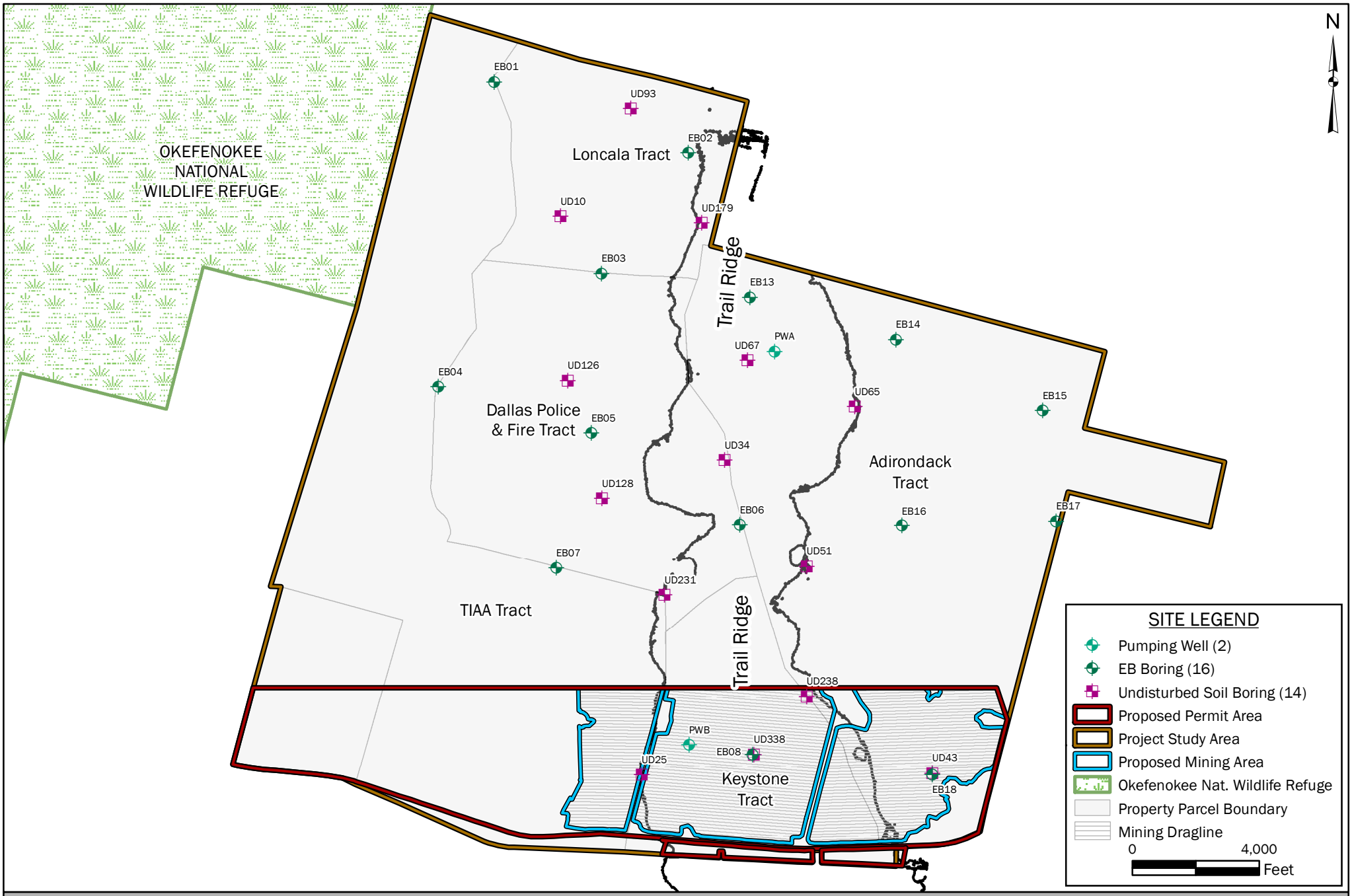

TTL

FIGURE 11: GEOPHYSICAL LOG LOCATION MAP

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY:	DEK
CHECKED BY:	JRS
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REVISION DATE:	N/A
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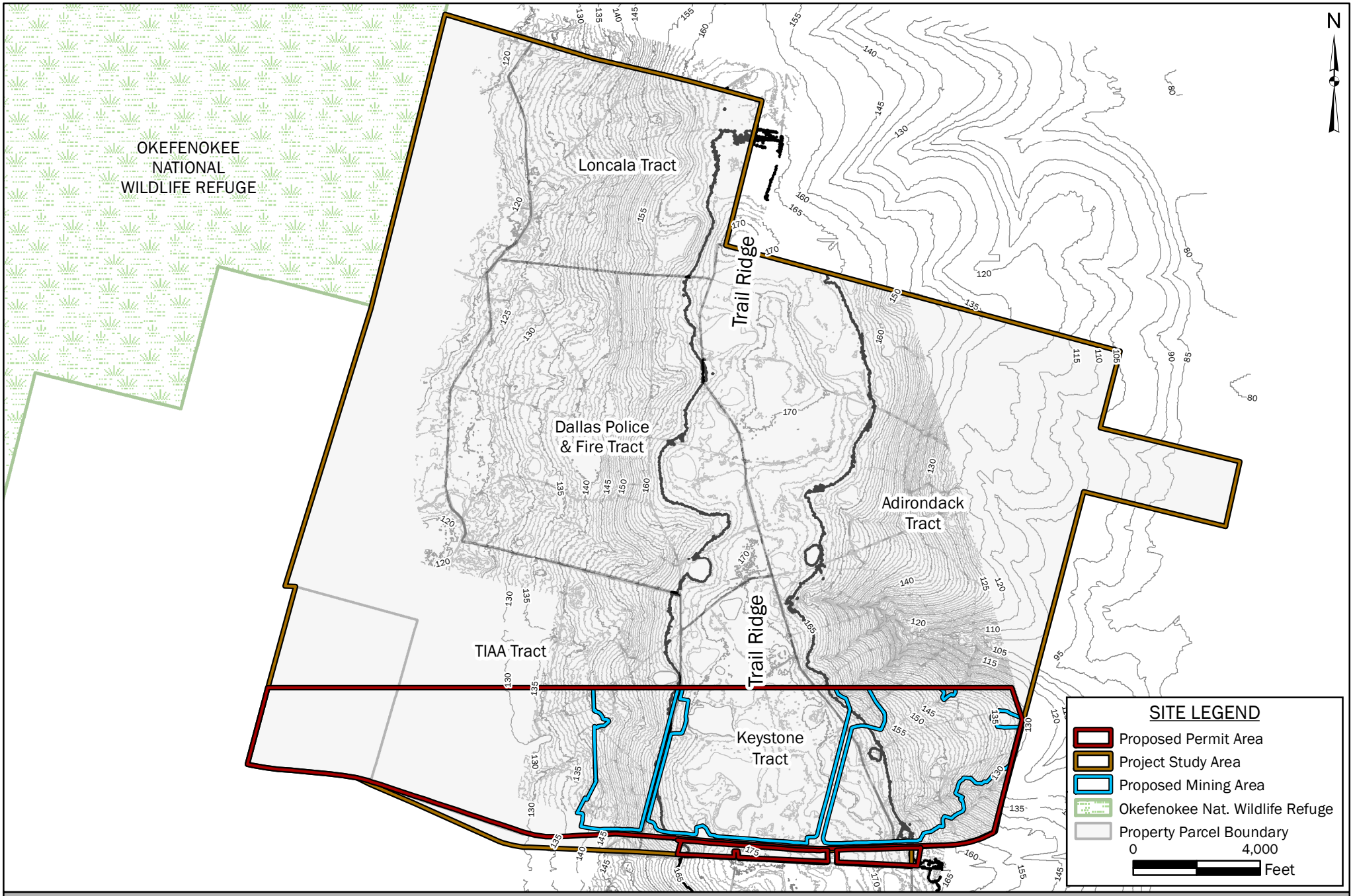

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FIGURE 12: LIDAR TOPOGRAPHIC MAP (1-FT CONTOUR)

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

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CHECKED BY:	JRS
DRAWING DATE:	10/28/2019
REVISION DATE:	N/A
TTL JOB NO.:	000180200804.00
APPROX. SCALE:	1 in = 4,000 ft

TABLE

Table 1. List of Twin Pines Boring Identifiers. Geologic Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Twin Pines Boring Identifier	Number of Borings
Adirondack Tract Borings	
SA-ADK-18-42 through 18-85	44
SA-ADK-18-377 through 18-480	104
Dallas Police & Fire Tract Borings	
SA-DPF-18-21 through 18-23	3
SA-DPF-18-33 through 18-39 & 18-41	8
SA-DPF-18-106 through 18-108	3
SA-DPF-18-111 through 18-160	50
SA-DPF-18-219 through 18-236	18
Keystone Tract Borings	
SA-KEY-18-24 through 18-32 & 18-40	10
SA-KEY-18-97 through 18-105	9
SA-KEY-18-237 through 18-242	6
SA-KEY-18-336 through 18-376	41
Loncala Tract	
SA-LON-18-2 through 18-20	19
SA-LON-86- through 18-96	11
SA-LON-161- through 18-185	25
SA-LON-187- through 18-218	32
TIAA Tract	
SA-TIAA-18-109 through 18-110	2
Total Number of Borings	**385**

APPENDIX A
TWIN SOIL BORING DATA
LOGGED BY TWIN PINES

Attached Documents:
Table A1: Summary of Boring Data
Boring Logs

APPENDIX A
TABLE

Table A2. Boring Location Database Summary Table; Geologic Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]
SA-ADK-18-42	BORING	70	132.75	04/26/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191382.32	680239.59
SA-ADK-18-43	BORING	50	148.42	04/27/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	190539.36	678140.18
SA-ADK-18-44	BORING	70	140.53	04/22/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	190919.63	679181.46
SA-ADK-18-45	BORING	70	130.18	04/27/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	192422.88	680523.82
SA-ADK-18-46	BORING	60	116.42	04/18/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	193466.12	680667.45
SA-ADK-18-47	BORING	60	112.47	04/28/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	195320.89	680280.64
SA-ADK-18-48	BORING	60	129.79	04/28/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	196666.10	678794.53
SA-ADK-18-49	BORING	70	133.86	04/29/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	197340.61	678155.87
SA-ADK-18-50	BORING	60	141.16	04/29/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	197867.34	677346.68
SA-ADK-18-51	BORING	60	153.39	04/29/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	197786.38	675936.75
SA-ADK-18-52	BORING	60	165.37	04/29/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	197074.10	674182.83
SA-ADK-18-53	BORING	60	141.63	04/30/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	195537.26	675552.22
SA-ADK-18-54	BORING	60	169.12	04/30/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	194914.40	673406.33
SA-ADK-18-55	BORING	60	156.83	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	193952.80	674937.04
SA-ADK-18-56	BORING	50	119.11	05/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	194466.06	678064.26
SA-ADK-18-57	BORING	80	150.88	05/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	193149.45	676425.53
SA-ADK-18-58	BORING	60	162.02	05/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	189834.31	676602.06
SA-ADK-18-59	BORING	60	149.42	05/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191650.05	678059.84
SA-ADK-18-60	BORING	70	153.76	05/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	189193.39	678085.09
SA-ADK-18-61	BORING	60	135.47	05/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	193021.99	679169.73
SA-ADK-18-62	BORING	60	139.49	05/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	196465.01	676868.46
SA-ADK-18-63	BORING	60	119.42	05/03/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199393.37	678858.39
SA-ADK-18-64	BORING	70	169.71	05/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	200798.38	674250.59
SA-ADK-18-65	BORING	70	166.74	05/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202089.44	675684.31
SA-ADK-18-66	BORING	70	171.19	05/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202648.25	674106.52
SA-ADK-18-67	BORING	70	172.01	05/10/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	203550.90	672294.75
SA-ADK-18-68	BORING	70	166.69	05/10/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	203574.07	670530.63
SA-ADK-18-69	BORING	70	171.28	05/10/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205505.70	672534.33
SA-ADK-18-70	BORING	70	167.90	05/11/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206747.63	672638.07
SA-ADK-18-71	BORING	70	164.67	05/11/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206165.45	674743.55
SA-ADK-18-72	BORING	60	148.47	05/11/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205638.99	676774.43
SA-ADK-18-73	BORING	60	137.56	05/11/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205147.57	678643.44
SA-ADK-18-74	BORING	50	125.20	05/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	204596.55	680601.48
SA-ADK-18-75	BORING	40	119.62	05/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	204293.24	681653.18
SA-ADK-18-76	BORING	40	107.80	05/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202797.41	683283.13
SA-ADK-18-77	BORING	40	114.83	05/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201550.15	680985.85
SA-ADK-18-78	BORING	50	119.69	05/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	200761.12	679437.47
SA-ADK-18-79	BORING	50	138.99	05/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201319.24	677395.09
SA-ADK-18-80	BORING	60	146.22	05/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199979.40	676759.53
SA-ADK-18-81	BORING	50	121.50	05/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	203057.43	679898.78
SA-ADK-18-82	BORING	50	136.43	05/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202994.64	678136.04
SA-ADK-18-83	BORING	70	153.72	05/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	204232.11	676954.74
SA-ADK-18-84	BORING	70	164.28	05/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	204479.87	675440.66
SA-ADK-18-85	BORING	70	163.28	05/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199705.05	675148.80
SA-ADK-18-377	BORING	40	129.66	10/11/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	194154.71	677653.98
SA-ADK-18-378	BORING	40	137.19	10/11/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193857.14	677281.12
SA-ADK-18-379	BORING	40	143.18	10/11/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193462.63	676810.58
SA-ADK-18-380	BORING	50	156.59	10/11/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192762.48	675913.54
SA-ADK-18-381	BORING	60	169.74	10/11/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192375.80	675396.09
SA-ADK-18-382	BORING	40	144.25	10/11/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	194429.38	675799.81
SA-ADK-18-383	BORING	60	150.48	10/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	194222.62	675355.09
SA-ADK-18-384	BORING	60	163.77	10/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193618.63	674477.71
SA-ADK-18-385	BORING	50	153.10	10/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195327.12	674866.86
SA-ADK-18-386	BORING	50	161.39	10/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195165.86	674299.13
SA-ADK-18-387	BORING	50	165.37	10/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195053.17	673889.55
SA-ADK-18-388	BORING	60	168.88	10/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196841.27	673245.82
SA-ADK-18-389	BORING	60	167.10	10/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196927.78	673730.22
SA-ADK-18-390	BORING	60	167.45	10/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197548.00	673489.29
SA-ADK-18-391	BORING	70	168.00	10/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	198455.41	673219.77
SA-ADK-18-392	BORING	60	165.43	10/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	198770.20	673835.29
SA-ADK-18-393	BORING	60	163.64	10/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	198466.22	674447.63
SA-ADK-18-394	BORING	60	163.49	10/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197943.79	674514.10
SA-ADK-18-395	BORING	40	147.05	10/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	198020.21	676464.73
SA-ADK-18-396	BORING	50	156.75	10/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197616.30	675474.97
SA-ADK-18-397	BORING	50	158.42	10/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197424.93	675007.32
SA-ADK-18-398	BORING	50	162.27	10/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197231.19	674539.20
SA-ADK-18-399	BORING	50	160.01	10/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196280.50	674187.98
SA-ADK-18-400	BORING	40	154.16	10/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196218.72	674832.94
SA-ADK-18-401	BORING	50	136.37	10/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196104.07	676122.25
SA-ADK-18-402	BORING	40	132.58	10/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195956.11	677244.88
SA-ADK-18-403	BORING	30	125.47	10/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195577.06	677704.86
SA-ADK-18-404	BORING	30	120.13	10/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195382.70	678322.53
SA-ADK-18-405	BORING	50	115.56	10/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195318.46	678830.67
SA-ADK-18-406	BORING	50	113.99	10/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195312.38	679327.06
SA-ADK-18-407	BORING	50	114.12	10/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195311.71	679842.02
SA-ADK-18-408	BORING	50	121.25	10/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196079.46	679640.02
SA-ADK-18-409	BORING	40	137.44	10/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196597.90	677881.64
SA-ADK-18-410	BORING	60	127.71	10/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192957.41	680367.49
SA-ADK-18-411	BORING	50	131.88	10/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193015.99	679725.34
SA-ADK-18-412	BORING	40	138.00	10/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192988.51	678392.64
SA-ADK-18-413	BORING	60	143.27	10/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192227.13	678372.13
SA-ADK-18-414	BORING	70	147.06	10/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192077.66	677856.02
SA-ADK-18-415	BORING	60	150.18	10/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191948.30	677373.73
SA-ADK-18-416	BORING	60	156.52	10/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191579.70	676905.80
SA-ADK-18-417	BORING	80	162.20	10/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191178.70	676447.45
SA-ADK-18-418	BORING	60	167.57	10/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190679.08	675819.29
SA-ADK-18-419	BORING	60	165.79	10/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190253.90	676200.69
SA-ADK-18-420	BORING	60	159.43	10/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190268.88	676950.76
SA-ADK-18-421	BORING	50	158.27	10/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189869.63	676948.30
SA-ADK-18-422	BORING	50	152.21	10/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189793.76	677658.31

Table A2. Boring Location Database Summary Table; Geologic Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs [1])	Ground Surface Elevation (ft. AMSL [2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing [3]	Easting [3]
SA-ADK-18-423	BORING	50	140.13	10/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189563.02	679048.04
SA-ADK-18-424	BORING	60	159.44	10/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189054.38	677301.21
SA-ADK-18-425	BORING	60	163.69	10/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188989.49	676853.12
SA-ADK-18-426	BORING	60	169.88	10/31/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200328.21	672134.65
SA-ADK-18-427	BORING	70	169.85	10/31/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200296.05	672640.45
SA-ADK-18-428	BORING	70	170.57	10/31/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200359.13	673128.63
SA-ADK-18-429	BORING	70	170.26	11/01/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200573.17	673671.20
SA-ADK-18-430	BORING	70	169.38	11/01/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201034.87	674698.86
SA-ADK-18-431	BORING	60	159.96	11/01/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200156.78	675801.37
SA-ADK-18-432	BORING	60	165.74	11/01/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200328.09	675191.06
SA-ADK-18-433	BORING	70	154.02	11/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200023.10	676215.31
SA-ADK-18-434	BORING	70	167.14	11/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201212.94	675117.68
SA-ADK-18-435	BORING	70	165.30	11/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201453.80	675680.98
SA-ADK-18-436	BORING	40	123.61	11/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200640.82	678303.21
SA-ADK-18-437	BORING	50	126.02	11/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202755.65	679033.59
SA-ADK-18-438	BORING	50	139.09	12/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202256.93	677742.33
SA-ADK-18-439	BORING	60	154.59	11/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201679.58	676624.61
SA-ADK-18-440	BORING	70	166.58	11/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202549.47	675556.17
SA-ADK-18-441	BORING	70	167.46	11/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202501.56	675087.12
SA-ADK-18-442	BORING	70	170.46	11/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202487.96	674579.65
SA-ADK-18-443	BORING	80	172.53	11/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202903.21	673686.27
SA-ADK-18-444	BORING	80	172.19	11/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203323.53	673306.06
SA-ADK-18-445	BORING	70	171.95	11/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203540.94	672788.67
SA-ADK-18-446	BORING	80	171.14	11/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203550.50	671805.70
SA-ADK-18-447	BORING	70	167.80	11/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203552.47	671168.60
SA-ADK-18-448	BORING	70	171.41	11/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201677.29	671830.31
SA-ADK-18-449	BORING	70	171.54	11/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201782.82	672366.68
SA-ADK-18-450	BORING	70	170.93	11/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201917.56	672863.40
SA-ADK-18-451	BORING	70	170.71	11/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201918.87	673298.96
SA-ADK-18-452	BORING	70	170.34	11/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202163.15	673890.54
SA-ADK-18-453	BORING	60	165.72	11/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203717.00	675439.12
SA-ADK-18-454	BORING	60	161.12	11/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204530.25	675963.66
SA-ADK-18-455	BORING	60	157.44	11/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204362.69	676480.26
SA-ADK-18-456	BORING	60	148.82	11/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204729.60	677586.95
SA-ADK-18-457	BORING	60	141.86	11/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205357.64	677843.68
SA-ADK-18-458	BORING	50	133.30	11/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203791.15	678492.27
SA-ADK-18-459	BORING	60	153.50	11/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205766.91	676280.47
SA-ADK-18-460	BORING	60	159.15	11/13/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205914.89	675685.39
SA-ADK-18-461	BORING	70	163.98	11/13/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206008.11	675259.63
SA-ADK-18-462	BORING	60	163.24	11/13/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205280.65	675324.41
SA-ADK-18-463	BORING	70	166.50	11/13/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204494.52	674932.56
SA-ADK-18-464	BORING	70	167.53	11/14/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204547.71	674315.30
SA-ADK-18-465	BORING	70	167.82	11/14/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205092.97	673851.16
SA-ADK-18-466	BORING	70	170.83	11/16/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205358.23	673008.71
SA-ADK-18-467	BORING	70	170.28	11/16/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205648.12	672017.88
SA-ADK-18-468	BORING	70	169.91	11/16/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205767.96	671585.99
SA-ADK-18-469	BORING	60	169.05	11/16/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205900.70	671091.71
SA-ADK-18-470	BORING	60	168.88	11/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	205088.31	671070.00
SA-ADK-18-471	BORING	60	170.15	11/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204906.91	671730.07
SA-ADK-18-472	BORING	60	171.24	11/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204500.12	672500.57
SA-ADK-18-473	BORING	60	172.37	11/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204257.77	673087.16
SA-ADK-18-474	BORING	50	157.66	11/17/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	202940.34	676714.40
SA-ADK-18-475	BORING	50	160.68	11/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203614.39	676166.71
SA-ADK-18-476	BORING	60	166.43	11/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206331.31	674145.65
SA-ADK-18-477	BORING	60	167.17	11/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206475.80	673645.65
SA-ADK-18-478	BORING	60	169.05	11/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206607.24	673139.01
SA-ADK-18-479	BORING	60	169.76	11/18/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206865.61	672151.42
SA-ADK-18-480	BORING	60	171.59	11/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	207034.33	671498.52
SA-DPF-18-21	BORING	50	160.09	03/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205112.13	668852.35
SA-DPF-18-22	BORING	50	168.12	03/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	200850.20	669907.20
SA-DPF-18-23	BORING	50	154.51	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201178.08	668234.76
SA-DPF-18-33	BORING	50	169.74	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	198316.06	672041.37
SA-DPF-18-34	BORING	50	170.27	03/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	200407.01	671582.67
SA-DPF-18-35	BORING	50	167.73	03/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202637.53	670542.44
SA-DPF-18-36	BORING	50	160.04	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	203986.30	668822.40
SA-DPF-18-37	BORING	80	163.65	03/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	198929.17	668810.30
SA-DPF-18-38	BORING	50	141.53	03/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199126.85	666766.58
SA-DPF-18-39	BORING	50	151.22	03/16/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	196648.56	667589.87
SA-DPF-18-41	BORING	50	162.49	03/16/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	197176.41	669704.58
SA-DPF-18-106	BORING	60	170.949	06/02/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	195766.72	670632.25
SA-DPF-18-107	BORING	60	171.17	06/03/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	196306.92	671375.98
SA-DPF-18-108	BORING	60	168.43	06/03/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	195000.65	669747.43
SA-DPF-18-111	BORING	50	143.18	06/03/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	196985.98	666286.47
SA-DPF-18-112	BORING	60	160.10	06/04/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	196326.51	668873.12
SA-DPF-18-113	BORING	60	165.22	06/04/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	197427.81	670212.49
SA-DPF-18-114	BORING	60	167.42	06/04/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	197711.38	670803.19
SA-DPF-18-115	BORING	70	168.40	06/04/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	197965.83	671324.34
SA-DPF-18-116	BORING	60	165.04	06/05/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	198619.24	670483.81
SA-DPF-18-117	BORING	60	137.02	06/05/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	199303.77	666139.02
SA-DPF-18-118	BORING	50	135.78	06/05/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	199573.15	665689.16
SA-DPF-18-119	BORING	60	150.21	06/05/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	199180.56	667687.85
SA-DPF-18-120	BORING	60	169.22	06/06/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	200638.42	670721.02
SA-DPF-18-121	BORING	60	169.95	06/06/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	200511.89	671182.84
SA-DPF-18-122	BORING	60	168.89	06/06/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	200755.49	670232.14
SA-DPF-18-123	BORING	60	166.14	06/06/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	200966.35	669462.00
SA-DPF-18-124	BORING	60	148.77	06/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	201183.91	667506.85
SA-DPF-18-125	BORING	50	140.54	06/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	201985.49	666418.35
SA-DPF-18-126	BORING	50	140.00	06/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	202959.34	666623.57
SA-DPF-18-127	BORING	40	134.81	06/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	204240.58	665790.73
SA-DPF-18-128	BORING	60	144.92	06/18/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199135.50	667217.25

Table A2. Boring Location Database Summary Table; Geologic Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs [1])	Ground Surface Elevation (ft. AMSL [2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing [3]	Easting [3]
SA-DPF-18-129	BORING	70	159.19	06/18/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199095.59	668359.68
SA-DPF-18-130	BORING	70	164.04	06/18/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	198786.55	669920.90
SA-DPF-18-131	BORING	60	164.57	06/18/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	198869.32	669335.41
SA-DPF-18-132	BORING	70	168.54	06/19/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199502.64	670204.30
SA-DPF-18-133	BORING	70	167.86	06/19/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199648.86	669703.26
SA-DPF-18-134	BORING	60	166.50	06/19/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199786.73	669252.57
SA-DPF-18-135	BORING	50	162.48	06/19/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	199901.59	668727.92
SA-DPF-18-136	BORING	70	163.64	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	200527.19	668732.77
SA-DPF-18-137	BORING	60	161.57	06/20/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201142.12	668729.78
SA-DPF-18-138	BORING	50	144.70	06/20/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201409.83	667041.81
SA-DPF-18-139	BORING	50	145.29	06/20/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202092.79	667298.20
SA-DPF-18-140	BORING	50	142.85	06/21/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202094.57	666799.69
SA-DPF-18-141	BORING	60	167.77	06/21/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201931.54	670268.27
SA-DPF-18-142	BORING	60	165.07	06/20/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	201975.55	669770.65
SA-DPF-18-143	BORING	60	160.61	06/21/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202035.97	669266.10
SA-DPF-18-144	BORING	50	152.06	06/22/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202028.81	668264.21
SA-DPF-18-145	BORING	60	156.69	06/22/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	202060.08	668773.83
SA-DPF-18-146	BORING	60	153.93	06/22/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	203273.50	668335.86
SA-DPF-18-147	BORING	60	146.03	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	203319.18	667695.48
SA-DPF-18-148	BORING	60	158.48	07/06/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	203251.41	668799.21
SA-DPF-18-149	BORING	50	142.56	07/06/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	203283.94	667278.62
SA-DPF-18-150	BORING	50	164.89	07/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	203213.01	670397.70
SA-DPF-18-151	BORING	60	160.34	07/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	203228.16	669217.87
SA-DPF-18-152	BORING	50	148.58	07/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	204111.69	668039.29
SA-DPF-18-153	BORING	60	153.87	07/07/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	204136.13	668421.71
SA-DPF-18-154	BORING	70	162.50	07/08/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	204103.70	669344.35
SA-DPF-18-155	BORING	60	167.78	07/08/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	205125.50	670304.16
SA-DPF-18-156	BORING	60	165.09	07/08/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	205136.05	669851.06
SA-DPF-18-157	BORING	60	163.21	07/08/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	205167.12	669376.81
SA-DPF-18-158	BORING	60	148.29	07/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205080.93	668036.62
SA-DPF-18-159	BORING	70	153.46	07/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205146.33	668402.95
SA-DPF-18-160	BORING	60	159.46	07/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	205703.22	668871.47
SA-DPF-18-219	BORING	70	163.81	08/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	204082.53	669855.42
SA-DPF-18-220	BORING	70	167.46	08/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	203982.47	670360.30
SA-DPF-18-221	BORING	60	169.23	08/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201898.05	671102.60
SA-DPF-18-222	BORING	70	169.63	08/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201183.24	671545.15
SA-DPF-18-223	BORING	60	169.64	08/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	199867.74	671767.20
SA-DPF-18-224	BORING	60	169.58	08/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	199140.82	671870.51
SA-DPF-18-225	BORING	60	170.02	08/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197514.51	671468.90
SA-DPF-18-226	BORING	60	168.27	08/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197269.82	670946.62
SA-DPF-18-227	BORING	40	137.02	08/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	201964.92	665513.72
SA-DPF-18-228	BORING	40	141.36	08/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200813.08	666622.25
SA-DPF-18-229	BORING	50	151.90	08/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	200435.95	667890.84
SA-DPF-18-230	BORING	50	154.14	08/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197893.98	668411.59
SA-DPF-18-231	BORING	60	167.71	08/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196158.10	669679.34
SA-DPF-18-232	BORING	50	169.39	08/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195346.12	670148.39
SA-DPF-18-233	BORING	60	171.69	08/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196069.73	671000.01
SA-DPF-18-234	BORING	60	170.76	08/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	196596.41	671813.35
SA-DPF-18-235	BORING	60	170.13	08/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	197652.70	672320.07
SA-DPF-18-236	BORING	60	168.99	08/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195390.26	673015.07
SA-KEY-18-24	BORING	50	162.62	03/13/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	189560.07	668761.57
SA-KEY-18-25	BORING	50	166.13	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	190487.60	669002.21
SA-KEY-18-26	BORING	50	173.19	03/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191455.21	670770.88
SA-KEY-18-27	BORING	50	173.57	03/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191160.99	671786.36
SA-KEY-18-28	BORING	50	173.10	03/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191119.11	672857.95
SA-KEY-18-29	BORING	50	171.22	03/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191351.85	673947.77
SA-KEY-18-30	BORING	50	168.56	03/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	188545.42	676365.31
SA-KEY-18-31	BORING	50	168.54	03/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	191939.36	674811.02
SA-KEY-18-32	BORING	50	170.20	03/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	196734.72	672425.75
SA-KEY-18-40	BORING	50	---	03/16/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic		
SA-KEY-18-97	BORING	60	168.70	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	189726.76	669343.28
SA-KEY-18-98	BORING	60	172.02	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	189645.67	669881.11
SA-KEY-18-99	BORING	60	173.34	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	189558.94	670462.12
SA-KEY-18-100	BORING	60	166.99	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	191532.93	669275.30
SA-KEY-18-101	BORING	60	166.73	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	192018.94	669428.91
SA-KEY-18-102	BORING	70	172.88	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	192581.89	672511.62
SA-KEY-18-103	BORING	70	172.35	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	193334.82	672350.34
SA-KEY-18-104	BORING	60	171.59	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	194292.00	671597.72
SA-KEY-18-105	BORING	60	171.57	---	Twin Pines	Twin Pines	Mark Fowler	Sonic	195112.91	671103.56
SA-KEY-18-237	BORING	60	169.79	08/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193973.24	673443.25
SA-KEY-18-238	BORING	50	168.82	08/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192987.50	674187.11
SA-KEY-18-239	BORING	60	168.47	08/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190051.25	675839.67
SA-KEY-18-240	BORING	40	168.47	08/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191010.05	675418.96
SA-KEY-18-241	BORING	60	171.44	08/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191598.94	670362.50
SA-KEY-18-242	BORING	70	---	08/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	---	---
SA-KEY-18-336	BORING	70	170.68	09/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191686.31	674456.88
SA-KEY-18-337	BORING	70	172.52	09/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191099.95	673495.26
SA-KEY-18-338	BORING	70	173.56	09/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191118.10	672365.81
SA-KEY-18-339	BORING	60	169.11	09/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191814.34	669882.36
SA-KEY-18-340	BORING	60	171.34	09/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192739.47	671216.22
SA-KEY-18-341	BORING	60	171.60	09/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192921.87	670686.25
SA-KEY-18-342	BORING	60	169.48	09/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193650.35	670346.67
SA-KEY-18-343	BORING	60	170.75	09/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	192576.75	670197.84
SA-KEY-18-344	BORING	50	170.37	09/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193051.72	670159.79
SA-KEY-18-345	BORING	60	168.35	09/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193946.25	669719.29
SA-KEY-18-346	BORING	60	169.80	09/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195341.03	672615.26
SA-KEY-18-347	BORING	60	170.88	09/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195317.80	672045.15
SA-KEY-18-348	BORING	50	170.85	09/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195277.86	671389.21
SA-KEY-18-349	BORING	60	170.66	09/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	195005.82	670608.76
SA-KEY-18-350	BORING	60	168.51	10/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	194749.66	670171.82

Table A2. Boring Location Database Summary Table; Geologic Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs [1])	Ground Surface Elevation (ft. AMSL [2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing [3]	Easting [3]
SA-KEY-18-351	BORING	70	170.83	10/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	193091.69	673415.98
SA-KEY-18-352	BORING	70	170.31	10/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191958.80	673807.51
SA-KEY-18-353	BORING	70	173.12	10/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	191802.62	671607.29
SA-KEY-18-354	BORING	60	170.81	10/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190176.87	674490.08
SA-KEY-18-355	BORING	70	173.06	10/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190374.08	673674.96
SA-KEY-18-356	BORING	70	173.21	10/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189060.15	673256.62
SA-KEY-18-357	BORING	70	173.97	10/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189719.40	673338.40
SA-KEY-18-358	BORING	70	174.08	10/05/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189682.65	672787.51
SA-KEY-18-359	BORING	60	174.22	10/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189570.85	672321.83
SA-KEY-18-360	BORING	70	174.40	10/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188867.56	671948.98
SA-KEY-18-361	BORING	70	173.71	10/06/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188350.77	673057.84
SA-KEY-18-362	BORING	70	174.19	10/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188441.79	672090.96
SA-KEY-18-363	BORING	60	174.94	10/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188485.51	671625.43
SA-KEY-18-364	BORING	60	174.04	10/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188509.53	671154.44
SA-KEY-18-365	BORING	60	171.12	10/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188978.62	670582.92
SA-KEY-18-366	BORING	60	171.14	10/07/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189087.34	670025.68
SA-KEY-18-367	BORING	60	173.40	10/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189952.88	671554.89
SA-KEY-18-368	BORING	70	173.76	10/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189881.94	670936.97
SA-KEY-18-369	BORING	70	173.63	10/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189461.13	670930.58
SA-KEY-18-370	BORING	60	168.86	10/08/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189113.61	669481.38
SA-KEY-18-371	BORING	70	163.98	10/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189156.75	668992.60
SA-KEY-18-372	BORING	60	170.21	10/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	190216.42	675295.60
SA-KEY-18-373	BORING	60	169.94	10/09/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	189357.99	675757.58
SA-KEY-18-374	BORING	70	172.90	10/10/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188981.35	674416.14
SA-KEY-18-375	BORING	70	173.59	10/10/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188303.63	674522.63
SA-KEY-18-376	BORING	70	171.11	10/10/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	188446.20	675869.96
SA-LON-18-2	BORING	87	143.81	02/27/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	212674.61	668253.64
SA-LON-18-3	BORING	67	163.94	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	211988.83	671073.63
SA-LON-18-4	BORING	67	164.91	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	210768.77	672048.08
SA-LON-18-5	BORING	77	168.86	---	Twin Pines	Twin Pines	Jimmy Powell	Sonic	208281.49	671429.31
SA-LON-18-6	BORING	57	168.83	03/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206115.41	670597.54
SA-LON-18-7	BORING	87	154.07	03/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206277.06	668366.48
SA-LON-18-8	BORING	77	134.76	03/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206451.32	666364.39
SA-LON-18-9	BORING	77	121.80	03/01/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206740.82	664064.59
SA-LON-18-10	BORING	67	131.31	03/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	208095.54	666448.50
SA-LON-18-11	BORING	67	152.57	03/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	208521.19	668369.99
SA-LON-18-12	BORING	77	156.71	03/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	210480.00	669468.44
SA-LON-18-13	BORING	87	164.51	03/02/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	209355.36	670540.18
SA-LON-18-14	BORING	67	166.25	03/03/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	209380.81	671626.62
SA-LON-18-15	BORING	77	159.41	03/03/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	211396.25	670096.79
SA-LON-18-16	BORING	67	170.33	03/03/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	207189.46	670926.53
SA-LON-18-17	BORING	77	155.20	03/03/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	209480.63	669158.56
SA-LON-18-18	BORING	67	158.61	03/04/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	207416.04	668926.74
SA-LON-18-19	BORING	67	141.44	03/04/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	207405.27	667366.03
SA-LON-18-20	BORING	77	161.35	03/04/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	208581.14	669370.13
SA-LON-18-86	BORING	50	128.65	05/14/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	209548.30	665648.25
SA-LON-18-87	BORING	50	126.36	05/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	209403.25	664934.15
SA-LON-18-88	BORING	70	135.28	05/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	210559.55	666691.31
SA-LON-18-89	BORING	60	141.54	05/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	210481.67	667610.18
SA-LON-18-90	BORING	70	139.64	05/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	211290.59	667367.02
SA-LON-18-91	BORING	50	132.02	05/15/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	211268.92	666010.51
SA-LON-18-92	BORING	70	131.34	05/16/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	212909.08	666788.86
SA-LON-18-93	BORING	70	150.01	05/16/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	211495.38	668610.98
SA-LON-18-94	BORING	70	154.10	05/16/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	211470.62	669228.92
SA-LON-18-95	BORING	90	160.75	05/17/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	212316.16	669718.87
SA-LON-18-96	BORING	60	148.75	05/17/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	210200.20	668532.76
SA-LON-18-161	BORING	60	165.96	07/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206134.09	670144.38
SA-LON-18-162	BORING	60	162.68	07/09/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206170.40	669662.26
SA-LON-18-163	BORING	60	158.94	07/10/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	206195.14	669121.54
SA-LON-18-164	BORING	50	148.17	07/10/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	206296.01	667928.03
SA-LON-18-165	BORING	50	143.36	07/10/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	206329.85	667409.68
SA-LON-18-166	BORING	40	138.63	07/10/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	206384.85	666914.45
SA-LON-18-167	BORING	40	131.38	07/10/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	206499.66	665902.03
SA-LON-18-168	BORING	60	159.93	07/10/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	207935.18	668987.37
SA-LON-18-169	BORING	60	150.09	07/11/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	207873.90	668053.83
SA-LON-18-170	BORING	60	156.39	07/11/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	207927.99	668549.87
SA-LON-18-171	BORING	60	160.35	07/11/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	207970.22	669887.44
SA-LON-18-172	BORING	70	160.94	07/11/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	207951.07	669470.87
SA-LON-18-173	BORING	60	159.02	07/11/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	207569.38	669352.46
SA-LON-18-174	BORING	70	162.09	07/12/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	208570.51	669841.67
SA-LON-18-175	BORING	60	159.14	07/12/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	209360.83	669818.09
SA-LON-18-176	BORING	60	161.80	07/12/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	209067.03	669976.07
SA-LON-18-177	BORING	60	162.90	07/12/18	Twin Pines	Twin Pines	Jimmy Powell	Sonic	208568.55	670204.63
SA-LON-18-178	BORING	60	166.40	07/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	208554.82	670743.74
SA-LON-18-179	BORING	50	166.52	07/19/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	207893.32	670860.51
SA-LON-18-180	BORING	70	164.59	07/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	207344.76	670494.90
SA-LON-18-181	BORING	60	166.48	07/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206528.74	670375.56
SA-LON-18-182	BORING	60	169.59	07/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206700.29	670791.15
SA-LON-18-183	BORING	70	163.32	07/20/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	206511.18	669969.08
SA-LON-18-184	BORING	60	164.97	07/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211146.62	671119.14
SA-LON-18-185	BORING	70	164.23	07/21/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211088.68	670743.71
SA-LON-18-187	BORING	70	166.40	07/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210402.85	671081.15
SA-LON-18-188	BORING	60	157.91	07/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	209890.11	669794.70
SA-LON-18-189	BORING	60	153.29	07/22/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210343.13	668981.15
SA-LON-18-190	BORING	60	160.03	07/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210554.01	669900.60
SA-LON-18-191	BORING	60	164.41	07/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211637.95	671047.10
SA-LON-18-192	BORING	60	163.44	07/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211650.04	670633.26
SA-LON-18-193	BORING	50	153.84	07/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212041.88	668989.57
SA-LON-18-194	BORING	50	150.38	07/23/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211930.27	668540.19
SA-LON-18-195	BORING	50	144.05	07/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211789.36	667857.18

Table A2. Boring Location Database Summary Table; Geologic Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs [1])	Ground Surface Elevation (ft. AMSL [2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing [3]	Easting [3]
SA-LON-18-196	BORING	40	130.95	07/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210177.51	666351.46
SA-LON-18-197	BORING	60	141.63	07/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210149.47	667890.66
SA-LON-18-198	BORING	50	136.57	07/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210218.70	667002.50
SA-LON-18-199	BORING	30	127.93	07/24/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	209362.47	666031.15
SA-LON-18-200	BORING	50	137.61	07/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	210936.12	667051.68
SA-LON-18-201	BORING	50	143.70	07/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211426.79	667868.54
SA-LON-18-202	BORING	60	164.37	07/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211773.65	671938.48
SA-LON-18-203	BORING	60	164.84	07/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	211866.11	671554.59
SA-LON-18-204	BORING	60	163.57	07/25/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212111.87	670599.66
SA-LON-18-205	BORING	90	162.25	07/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212220.10	670193.98
SA-LON-18-206	BORING	60	156.38	07/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212459.95	669202.20
SA-LON-18-207	BORING	50	151.75	07/26/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212577.12	668764.10
SA-LON-18-208	BORING	50	138.46	08/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212801.08	667818.79
SA-LON-18-209	BORING	50	134.90	08/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212839.58	667398.54
SA-LON-18-210	BORING	40	127.20	08/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212922.43	665927.66
SA-LON-18-211	BORING	40	129.98	08/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	212355.25	665923.58
SA-LON-18-212	BORING	70	166.31	08/02/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	209371.58	671068.70
SA-LON-18-213	BORING	40	135.76	08/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	208869.80	667128.28
SA-LON-18-214	BORING	50	140.75	08/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	208447.27	667429.89
SA-LON-18-215	BORING	60	147.72	08/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	208492.64	667994.91
SA-LON-18-216	BORING	60	156.42	08/03/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	208568.49	668724.43
SA-LON-18-217	BORING	60	149.50	08/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	207339.79	667999.09
SA-LON-18-218	BORING	60	154.95	08/04/18	Twin Pines	Twin Pines	Anthony Bushey	Sonic	207223.18	668567.11
SA-TIA-18-109	BORING	60	153.87	06/03/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	193617.18	668017.99
SA-TIA-18-110	BORING	50	136.14	06/03/18	Twin Pines	Twin Pines	Mark Fowler	Sonic	192389.38	665292.90

[1] ft. bgs = below ground surface
[2] ft. AMSL = feet above mean sea level
[3] State Plane Coordinates - Georgia East NAD83

APPENDIX A
BORING LOGS

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-42

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–10		SP	0 - 10	40		SAND: brown; fine; humate; heavy minerals (1.5%)		
10–20		SP	10 - 20	60		SAND: brown; fine; humate; heavy minerals (1.5%)		
20–24		SP	20 - 30	100		SAND: brown; fine; humate; heavy minerals (1.5%)		
24–30		SP	20 - 30	100		SAND: tan; heavy minerals (>3.0%)		
30–35						SAND: brown		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/26/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP	30 - 40	100				
37								
38								
39								
40						SAND: brown		
41								
42								
43		SP						
44								
45			40 - 50	100				
46						SAND: grey; heavy minerals (>5%)		
47		SP						
48						SAND, clay: grey		
49								
50								
51		SC						
52								
53						SAND, clay: grey; heavy minerals (1-1.5%)		
54								
55			50 - 60	100				
56								
57		SC						
58								
59								
60						CLAY: grey; fat		
61								
62								
63								
64								
65		CH						
66								
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-43

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/27/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A ~~N'A~~

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP	0 - 10	50		SAND: light grey		
2–6		SP				SAND		
6–10		SP				SAND: brown; heavy minerals (1%)		
10–20		SP				SAND: brown; heavy minerals (1%)		
20–35		SP				SAND: brown; heavy mineral (2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-43

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/27/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48		CH				CLAY: grey; fat		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-44

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9			0 - 10	40		No Recovery		
10–19		SP				SAND: dark brown; humate		
20–29		SP				SAND: dark brown; heavy minerals (3%)		
30–35						SAND: brown to dark brown; heavy minerals (3%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40						SAND: light brown to brown; heavy minerals (>10%)		
41–49		SP						
50		SP				SAND: light tan; coarse		
51		SP				SAND: dark brown; unconsolidated; soft		
52–59		SC	50 - 60	20		SAND, clay: light tan; soft		
60						BORING TERMINATED AT 70 FEET.		
61–70								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-45

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/27/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP	0 - 10	40		SAND: tan to grey		
10–19		SP	10 - 20	70		SAND: dark brown; heavy minerals (1%)		
20–30		SP				SAND: dark brown; heavy minerals (2%)		
31–32		SP				SAND: dark brown; fine organics		
33–35						SAND: brown; coarse; some heavy minerals		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/27/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP						
40						SAND: tan to orange		
41–57		SP						
57						SAND, clayey; light tan; heavy minerals (<0.5%)		
58–60		SC						
60						SAND, clayey: light tan; heavy minerals (<0.5%)		
61–70		SC						
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-46

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–10		SP	0 - 10	40		SAND: dark gray to black		
10–12		SP	10 - 20	100		SAND: dark brown; fine humate		
12–15		SP				SAND: brown		
15–17		SP				SAND: light gray		
17–18		SP				SAND: dark brown		
18–28		SP						
28–29		SP				SAND: white		
29–30		SP				SAND: dark brown; hard		
30–34		SP				SAND: tan; trace minerals		
34–35						SAND: dark grey		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: gray; coarse; heavy minerals (1%)		
38								
39								
40								
41								
42								
43		SP						
44								
45								
46								
47								
48								
49								
50						SAND, clayey: dark gray/green		
51		SC						
52								
53						CLAY: light gray; hard; fat		
54								
55								
56		CH						
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-47

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/28/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–35		SP	0 - 10	40		SAND: dark brown		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-47

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/28/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39								
40						SAND, clayey: greenish grey; heavy minerals (0.5%)		
41–46		SP						
47						CLAY: dark greenish grey		
48–59		SC						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-48

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/28/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5-1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9			0 - 10	20		No Recovery		
10–14		SP				SAND: dark brown		
15–19		ML	10 - 20	55		SILT: tan		
20–25		ML/CH	20 - 30	100		SILT, clayey: some minerals		
26–29		CH				CLAY: dark gray; fat		
30–35		SP				SAND: light tan; some heavy minerals (1-1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/28/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: grey; heavy minerals (1-1.5%)		
40–60		SC				SAND, clayey: grey; heavy minerals (1-1.5%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-49

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–13		SP	0 - 10	43		SAND: brown dark		
13–17		SC	10 - 20	100		SAND, trace clay: dark brown; hard; consolidated		
17–23		SP				SAND: dark brown; unconsolidated		
23–29		SP	20 - 30	100		SAND: light brown/ tan		
29–30		ML				SILT: light tan/brown; fine		
30–32		SP				SAND: brown		
32–35		ML				SILT: tan brown to orange		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		CH				CLAY: grey; fat		
38–43		SP				SAND: light grey		
43–46		SP	40 - 50	100		SAND: grey		
46–50		CH				SAND, clay: grey; very little heavy minerals		
50–60						heavy minerals (1%)		
60–70						heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-50

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5-6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–13		SP	0 - 10	40		SAND: dark brown and grey		
13–16		SP	10 - 20	100		SAND: dark brown; hard		
16–17		SP				SAND: dark brown; unconsolidated		
17–18		SP				SAND: light brown		
18–20		SP				SAND: dark brown		
20–22		SP				SAND: brown; some minerals		
22–25		SP				SAND: dark brown; consolidated; trace humate		
25–26		SP				SAND: dark brown; unconsolidated		
26–33		SP				SAND: brown to tan; trace minerals		
33–35		CH				SAND: dark brown; fat		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-50

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CH				CLAY, silty: tan; no sample		
37						SAND: tan; very fine		
38		SP						
39								
40								
41		SP				SAND: grey		
42						CLAY: dark grey; fat		
43		CH						
44								
45								
46						SAND: light tan; trace minerals		
47								
48								
49								
50								
51								
52								
53		SP						
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-51

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5-6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP	0 - 10	45		SAND: tan and brown		
10–13		SP	10 - 20	100		SAND: brown		
14–15		SP				SAND: dark brown; consolidated		
16–24		SP				SAND: dark brown		
25–29		SP				SAND: brown		
30–35						SAND: brown/orange		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-51

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–53		SM				SAND, silty: light tan/ grey		
53–57		CH				CLAY: grey; hard; fat		
57–60		SP				SAND: grey; fine		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-52

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light gray/tan		
4–20		SP	0 - 10	40		SAND: dark brown; unconsolidated		
20–23		SP				SAND: light tan		
23–26		SP				SAND: dark brown		
26–35		SP				SAND: brown/tan		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-52

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP				SAND: dark brown; unconsolidated		
44–53		SP				SAND: tan		
54–59		SM				SAND, silty: light tan; trace minerals		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-53

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–11		SP	0 - 10	70		SAND: grey; minerals		
12–14		SP				SAND: dark brown; hard consolidated		
15–24		SP				SAND: brown		
24–25		CH				CLAY: dark grey; fat		
26–30		ML				SILT: light tan; fine		
30–35						SAND: light grey; fine; heavy minerals		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-53

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
44–45		ML				SILT: light grey; heavy minerals		
46–60		SM				SAND, silty: light grey; heavy minerals (<1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-54

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				SAND: white; road materials		
1						SAND: dark brown		
5			0 - 10	55				
10		SP						
14						SAND: brown to dark brown; hard; unconsolidated		
19		SP				SAND: dark brown; unconsolidated		
33		SP				SAND: brown/brownish orange		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-54

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP						
40–47		SP				SAND: light brown; coarse; heavy minerals		
47–56		SP				SAND: brown/orange		
56–59		CL				CLAY: dark gray/brown; hard		
59–60		ML				SILT: light tan		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-55

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: brown/ tan/ dark brown		
10–13		SP				SAND: dark brown		
14–16		SP				SAND: dark brown; hard; consolidated		
17–30		SP				SAND: brown		
30–32		SP				SAND: brown/ orange		
33–35		SP				SAND: brown		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP				SAND: dark brown		
39		SP				SAND: dark brown; humate; material		
40–42		SP				SAND: brown		
43–46		CH				CLAY: light tan; fat		
46–60		SM				SAND, silty: grey; fine		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-56

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: dark brown/brown		
10–15		SP				SAND: brown		
16–18		SP				SAND: tan		
19–24		SP				SAND: light tan/white		
25–29		SC				SAND, clayey: light tan		
30–31		SP				SAND: light tan; fine		
32–35		SC				SAND, clayey: light tan		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-56

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: greenish-gray		
37						SAND, clayey: greenish-gray		
38								
39								
40								
41								
42								
43		SC						
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-57

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road material		
1–9		SP	0 - 10	50		SAND: light brown and dark brown; coarse		
10–12		SP				SAND: dark brown; coarse		
13–16		SP				SAND: brown		
17–18		SP				SAND: dark brown		
19		SP				SAND: dark brown; consolidated; hard		
20–21		SP				SAND: brown; coarse		
22–29		SP				SAND: light brown; coarse; heavy minerals		
30–35		SP				SAND: dark brown/orange; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-57

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: tan; fine		
38						SAND, clayey: grey		
39								
40								
41		SC						
42								
43								
44						SAND, clayey: light tan		
45								
46								
47								
48								
49								
50								
51								
52		SC						
53								
54								
55								
56								
57								
58								
59								
60						SAND: white; coarse		
61								
62								
63								
64								
65		SP						
66								
67								
68								
69								
70						SAND: dark grey; consolidated		
71								
72								
73								
74								
75								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SP						
77								
78								
79								
80						BORING TERMINATED AT 80 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-58

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light tan/ light brown; coarse		
10–13		SP				SAND: tan/brown; coarse		
14–15		SP				SAND: dark brown; consolidated; hard		
16–18		SP				SAND: brown		
19–21		SP				SAND: tan		
22–24		SP				SAND: light tan; coarse		
25–33		SP				SAND: dark brown		
34–35						SAND: light tan; coarse; heavy minerals (1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 5/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38						SAND: dark brown		
39		SP						
40								
41								
42								
43								
44								
45								
46						SAND: brown		
47		SP						
48								
49		SP				SAND: white		
50		SP				SAND: tan		
51								
52		CL-ML				CLAY, silty: light tan		
53								
54								
55								
56						SAND, clayey: grey; some roots		
57		SC						
58						SAND, clayey: light tan/ gray		
59		SC						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-59

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light gray/white		
3–9		SP	0 - 10	50		SAND: brown to dark brown		
10–11		SP				SAND: dark brown		
12–15		SP				SAND: dark brown/red; coarse		
16–35		SP				SAND: tan/brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC-SM				CLAY, sandy, silty: tan		
37								
38								
39								
40		CH				CLAY: orange; coarse		
41								
42		SP				SAND, clayey: light tan		
43		CH				CLAY: light grey; fat		
44								
45								
46								
47		SP				SAND: grey; fine		
48		CH				CLAY: dark grey; fat		
49								
50		SC-SM				SAND, clayey, silty: light grey; fine		
51		SP				CLAY: grey; coarse; heavy minerals (1.5%)		
52		SC				CLAY, sandy: light grey		
53								
54								
55								
56		CL				CLAY: light grey; saturated; heavy minerals		
57								
58								
59								
60		SC				SAND, clayey: greenish-gray BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-60

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP	0 - 10	70		SAND: brown/dark grey		
10–19		SP				SAND: brown, coarse		
20–25		SP				SAND: dark brown; coarse		
25–26		SP				SAND: dark brown; hard; consolidated		
27–32		SP				SAND: dark brown; unconsolidated		
32–35		SP				SAND: light brown/brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: dark brown		
38								
39								
40		SP				SAND: tan; coarse		
41								
42								
43								
44								
45		SC				SAND, clayey: tan; fine		
46								
47								
48								
49								
50								
51								
52								
53								
54		SC-SM				SAND, clayey; silty: brown		
55						SAND, clayey; silty: light tan; fine		
56								
57								
58								
59								
60								
61		SC-SM						
62								
63								
64								
65								
66								
67								
68		SC				SAND, clayey: greenish-gray		
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-61

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP	0 - 10	70		SAND: tan		
6–17		SP				SAND: dark brown		
17–29		SP				SAND: brown		
29–31		SC-SM				SAND, silty, clayey: dark brown		
32		SP				SAND: coarse		
33		CH				CLAY: tan; fat		
33–35		CH				CLAY: grey; fat		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-61

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: tan; coarse; heavy minerals		
38								
39								
40		CH				CLAY: tan; fat		
41								
42		SC				CLAY, sandy: tan; fat		
43								
44								
45								
46		SC				SAND, clayey: tan; coarse; trace heavy minerals		
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-62

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–21		SP				SAND: brown		
22–25		CL				CLAY: tan/orange; heavy minerals		
26–30		CH				CLAY: grey/brown; hard; fat		
30–35		CL-ML				CLAY, silty: tan to light tan; heavy minerals		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-62

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CL-ML				CLAY, silty: grey/tan		
37								
38		CH				CLAY: grey; fat		
39								
40								
41		SP				SAND: grey; coarse		
42								
43								
44		SC				SAND, clayey: tan; heavy minerals		
45								
46								
47								
48								
49								
50		SC				SAND, clayey: greenish grey; heavy minerals (<1%)		
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-63

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: brown		
4		SP				SAND: grey		
5–10		SP	0 - 10	90		SAND: dark brown; heavy minerals (1-10%)		
12–28		CL-ML				CLAY, silty: tan		
28		CH				CLAY: grey; fat; soft; heavy minerals (>1.5%)		
29		SC-SM				SAND, silty, clayey: tan/grey; fine		
30–35		CH				CLAY: dark grey; soft; fat		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-63

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: dark grey; fine to med		
37–49		SC-SM				SAND, silty, clayey: dark grey/brown; heavy minerals (>1%)		
50–59		SP				SAND: grey; very coarse; heavy minerals (1.0%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-64

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP	0 - 10	55		SAND: dark brown		
10–14		SP				SAND: brown		
15–20		SP				SAND: dark brown; hard; consolidated; heavy minerals (2.5%)		
20–23		SP				SAND: brown		
23–30		SP				SAND: dark reddish brown; heavy minerals (1.5%)		
30–35						SAND: tan to reddish; heavy minerals (2%)		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 5/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						SAND: tan		
41		SP						
42						SAND: brown; heavy minerals (1.5%)		
43								
44								
45		SP						
46								
47								
48								
49						SAND: brown; heavy minerals (1.5%)		
50		SP						
51								
52						SAND: tan; heavy minerals(1.15%)		
53		SP						
54								
55		SP				SAND: tan; heavy minerals (1%)		
56						SAND: tan; heavy minerals (<1%)		
57		SP						
58								
59						SAND: brown; heavy minerals (<1%)		
60								
61								
62								
63		SP						
64								
65								
66								
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-65

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				SAND: tan to white; road material		
2–13		SP	0 - 10	80		SAND: dark brown; heavy minerals (1%)		
13–18		SP				SAND: tan		
18–22		SP				SAND: brown		
22–26		SP				SAND: dark brown		
26–27		SP				SAND: dark brown		
27–30		SP				SAND: brown; heavy minerals (1%)		
30–35						SAND: reddish brown; very coarse; heavy minerals (1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–45		SP						
46		SP				SAND: brown		
46–49		SP				SAND: tan to grey; heavy minerals (1.5%)		
50–64		SP				SAND: dark brown; heavy minerals (1.1%)		
65–66		SC-SM				SAND, silty, clayey: brown		
67–68		SP				SAND: tan; fine		
69–70		SC-SM				SAND, silty, clayey: brown; hard		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-66

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						Road material		
2		SP				SAND: brown		
3		SP				SAND: dark brown		
4								
5			0 - 10	73				
6								
7								
8		SP				SAND: grey; coarse		
9		SP				SAND: dark grey		
10								
11		SP				SAND: dark		
12								
13		SP				SAND: dark brown; hard; consolidated		
14								
15		SP				SAND: dark brown		
16								
17								
18								
19								
20		SP				SAND: brown; coarse; heavy minerals (2%)		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-66

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39								
40–49		SP				SAND: reddish brown; coarse		
50–55		SP				SAND: brown; coarse; heavy minerals (2%)		
56–63		SP				SAND: reddish brown; heavy minerals (<1.5%)		
64–68		SP				SAND: brown to tan		
69		SP				SAND: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-67

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9			0 - 10	60				
10–13		SP				SAND: dark brown		
14–15		SP				SAND: grey		
16		SP				SAND: brown		
17–19		SP				SAND: dark brown; heavy minerals (<0.5%)		
20–35						SAND: light brown to brown; heavy minerals (<0.05%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–70		SP						
60						SAND: dark reddish brown		
62		SP						
65						SAND, clayey: brown; hard		
66		SC						
67						SAND: brown; coarse; heavy minerals (<0.5%)		
68		SP						
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-68

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						Road material		
3–6		SP	0 - 10	70		SAND: brown to tan		
6–16		SP				SAND: dark brown; heavy minerals (1-1.5%)		
17–18		SP				SAND: dark brown; hard; consolidated		
19–20		SP				SAND: dark brown		
21–30		SP				SAND: brown; heavy material (2%)		
30–35						SAND: brown to tan; heavy material (20%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP						
47		SP				SAND: reddish brown		
48–50		SP				SAND: brown to tan		
51–52		SP				SAND: dark brown to orange		
53		SP				SAND: dark brown; consolidated; hard		
54–60		SM				SAND, silty: tan to light tan; fine		
61–64		SP				SAND: tan; heavy minerals		
65–66		CH				CLAY: grey; fat		
67–69		SP				SAND: grey to tan; coarse		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-69

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3-4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						Road material, topsoil		
3–10			0 - 10	70		SAND: dark brown		
10–17		SP						
17		SP				SAND: reddish brown		
17–18		SP				SAND: tan		
18–20		SP				SAND: tan to white		
20–34		SP				SAND: dark brown to reddish orange; heavy minerals (2%)		
34–35		SP				SAND: reddish tan		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–60		SP				SAND: tan reddish		
60–63		SP				SAND: tan; heavy material (<10%)		
63–65		SM				SAND, silty: brown		
65–70		SP				SAND: medium brown		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-70

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						Road material		
2		SP				SAND: tan to brown		
3								
4						SAND: dark brown		
5			0 - 10	90				
6								
7		SP						
8								
9								
10						SAND: tan to orange; coarse; heavy material (<1.5%)		
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28		SP						
29								
30								
31								
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46								
47–52		SP				SAND: dark reddish brown; humate; roots; good heavy material		
53–57		SP				SAND: tan		
58–61		SP				SAND: reddish brown		
62–64		SP				SAND: tan; coarse		
65–69		SC				SAND, clay: tan; fine		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-71

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road material		
2		SP				SAND: tan		
3						SAND: dark brown		
4								
5			0 - 10	50				
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16		SP						
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30		SC				SAND, clayey: tan to brown		
31		SP				SAND: brown; heavy minerals (1%)		
32								
33						SAND: reddish brown; coarse		
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40–42		SP				SAND: tan; coarse; heavy minerals (1%)		
43–46		SP				SAND: tan to brown; coarse; heavy minerals (<12%)		
47–61		SP				SAND: reddish brown; coarse		
62–65		SC-SM				SAND, clayey, silty: tan		
66–67		CH				CLAY: dark grey; fat		
68–69		SC				SAND, clayey: tan; heavy minerals (<12%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-72

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2-3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						Road Material		
2		SP				SAND: tan		
3						SAND: dark brown; heavy minerals (1.5%)		
4								
5			0 - 10	60				
6		SP						
7								
8								
9								
10						SAND: brown		
11								
12								
13		SP						
14								
15								
16								
17						SAND: dark brown; consolidated; hard		
18								
19								
20		SP						
21								
22								
23						SAND: tan to brown; heavy minerals (1.5%)		
24								
25			20 - 30	60				
26								
27								
28								
29		SP						
30								
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-72

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown		
37								
38		SP				SAND: light tan; coarse; heavy minerals (1%)		
39								
40								
41		SP				SAND: grey; coarse		
42								
43								
44								
45								
46		SP				SAND: brown to tan; coarse		
47								
48		CH				CLAY: light grey; fat		
49								
50						CLAY, silty: tan; heavy minerals (1.5%)		
51								
52								
53		CL-ML						
54								
55								
56								
57								
58								
59		SC				SAND, clayey: greenish grey; fine		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-73

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						Road material		
1		SP	0 - 10	40		SAND: tan to brown		
9		SP				SAND: dark brown		
10		SP				SAND: tan		
14		SP				SAND: dark brown; semi-consolidated; heavy minerals (1.5%)		
18		SP				SAND: tan to grey		
22		SP				SAND: dark brown; consolidated		
24		SP				SAND: dark brown		
28		SP				SAND: light tan; coarse; heavy minerals (0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-73

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: brown and white		
38								
39								
40		SC				SAND, clay: brown		
41								
42								
43		SC				SAND: tan		
44								
45								
46								
47		SC				SAND, clayey: greenish grey; heavy minerals (0.5%)		
48								
49		SC				SAND, clayey: greenish grey		
50								
51		CH				CLAY: dark grey; fat		
52								
53								
54								
55								
56								
57		SP				SAND: grey to tan		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-74

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5-6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1			0 - 10	80		Road material		
1		SP				SAND: orange		
2								
3		SP				SAND: tan		
4								
5						SAND: dark brown		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23		SP						
23						SAND, silty: reddish brown		
24								
25								
26		SM						
27								
28						SILT: tan; heavy minerals (<1%)		
29		ML						
30						SAND, silty: reddish tan		
31								
32		SM						
33						SAND, silty: tan		
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM						
37								
38								
39								
40								
41		CH				CLAY: dark grey; fat		
42								
43		SC				SAND, clayey: tanish grey; fine; interbedded clay lenses		
44								
45								
46								
47		SP				SAND: greenish grey; fine		
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-75

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL	0 - 10	75		SAND: road material		
2		SP				SAND: grey to black		
3						SAND: dark brown; heavy minerals (1%)		
4								
5								
6								
7								
8		SP						
9								
10								
11								
12								
13						SAND: dark reddish brown		
14								
15								
16		SP						
17								
18								
19		SP				SAND: tan; fine; heavy minerals (0-0.5%)		
20						SAND: dark reddish brown; heavy minerals (1.5-2.0%)		
21								
22								
23								
24		SP						
25								
26								
27						SAND: dark reddish; heavy minerals (2%)		
28								
29		SP						
30								
31								
32						CLAY, sand: greenish grey; fat		
33								
34		SC						
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-75

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, clayey: greenish grey; heavy minerals (0.5%)		
38		SC						
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-76

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5-6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road material		
1–5		SP				SAND: tan to brown		
5–14		SP				SAND: dark brown; heavy minerals (1-1.5%)		
14–17		SM				SAND, silty: reddish brown; heavy minerals (0.5%)		
17–21		SP				SAND: reddish tan; 3-7mm quartz pebbles; oversized		
21–25		SC-SM				SAND, silty, clayey: tan		
25–30		SP				SAND: tan; interbedded thin shale		
30–34		SC				SAND, clayey: greenish grey; heavy minerals (0.5%)		
34–35		CH				CLAY: dark grey; fat		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-76

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36 37 38 39 40		SC				SAND, clayey: greenish grey BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-77

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road material		
2		SC				CLAY, sand: tan		
3						SAND: dark brown		
4								
5			0 - 10	80				
6								
7		SP						
8								
9								
10								
11						SAND: reddish brown; heavy minerals (0.5%)		
12								
13		SP						
14								
15						SAND: reddish tan; heavy minerals (<0.5~1%)		
16								
17								
18								
19		SP						
20								
21								
22								
23						SAND: light brown		
24								
25		SP						
26								
27								
28		CH				CLAY: light grey; fat		
29						SAND: tan		
30								
31		SP						
32								
33								
34						CLAY: grey; fat		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-77

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CH						
37						SAND, clayey: greenish grey; heavy minerals (1%)		
38		SC						
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-78

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3-4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				Road material		
3		SP				SAND: light grey to dark grey; roots		
4–5		SP				SAND: dark brown		
6–7		SP				SAND: reddish tan		
8–9		SP				SAND: tan		
10–11		SP				SAND: reddish brown		
12–15		SP				SAND: tan/brown with white streaks		
16–17						Hardpan		
18–25		SP				SAND: tan; heavy minerals		
25–30		SC				SAND, clayey: tan; fine		
30–35		CH				CLAY: grey; fat; heavy minerals (1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-78

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: grey		
37						SAND, silty: grey; heavy minerals (1%)		
38								
39		SM						
40								
41						CLAY: dark grey: fat		
42		CH						
43								
44						SAND: tan; heavy minerals (0.5-1%)		
45								
46								
47		SP						
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-79

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP	0 - 10	80		SAND: light tan/grey		
4–5		SP				SAND: brown		
5–15		SP				SAND: dark brown; heavy minerals (0.5-1%)		
15–16		SP				SAND: reddish brown		
16–26		SP				SAND tan, heavy minerals (1.5-4%)		
26–35		SP				SAND: reddish brown; coarse; heavy minerals (<0.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; hard; brittle; humate		
37		SC				SAND, clayey: light grey, fine, heavy minerals (<0.5%)		
40		SC				SAND, clayey: light tan, fine; heavy minerals (1%)		
48		SC				SAND, clayey: greenish grey; heavy minerals (<0.5%)		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-80

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP	0 - 10	90		SAND: grey; coarse; heavy minerals (<0.5%)		
10–12		SP				SAND: dark brown; heavy minerals (<0.5%)		
13–19		SP				SAND: brown		
20–21		SP				SAND: dark brown		
22–25		SP				SAND: tan to reddish tan; heavy minerals (0.5%)		
26		SP				SAND: dark brown		
27–29		SP				SAND: light tan		
30–31		SP				SAND: reddish brown; heavy minerals (1%)		
32–35		SP				SAND: reddish brown		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-80

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: reddish tan		
37		SP				SAND: light tan; coarse; heavy minerals (0-3%)		
38								
39		SP				SAND: dark brown; heavy minerals (1.5-2%)		
40								
41								
42		SP				SAND: dark brown; hard; humate		
43		CH				CLAY: grey; fat		
44								
45								
46		SC				CLAY, sandy: light tan; fine		
47								
48								
49								
50								
51								
52								
53		CH				CLAY: dark grey; fat		
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-81

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3-4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey		
3–15		SP	0 - 10	95		SAND: reddish brown; heavy minerals (<3%)		
16–18		SP				SAND: light brown, heavy minerals (1-1.5%)		
19–28		SP				SAND: dark brown		
29–30		SP				SAND: dark reddish brown; heavy minerals (<0.5%)		
31–35						SAND: tan; heavy minerals (1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-81

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41		CH				CLAY: grey; fat		
42		SP				SAND: grey; coarse		
43						CLAY: grey; fat		
44								
45								
46		CH						
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-82

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3-4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey to light grey; mottled		
3–10			0 - 10	70		SAND: dark brown; heavy minerals at 13' (2%)		
10–31		SP						
31		CH				CLAY: dark brown		
32		SC				SAND, clayey: tan; fine		
33–35						SAND, clayey light grey; fine		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-82

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40						SAND, clayey: light tan; fine		
41		SC						
42								
43								
44								
45								
46								
47		SP				SAND: grey		
48		CH				CLAY: grey; fat		
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-83

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP	0 - 10	90		SAND: grey		
5–9		SP				SAND: brown		
10–22		SP				SAND: dark brown; heavy minerals (1.5-2.0%)		
23–29		SP				SAND: tan; heavy minerals (2%)		
30–35						SAND: reddish tan; coarse; heavy minerals (2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-83

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42						SAND: tan		
43–48		SP						
48–49		CL				CLAY: dark grey to black; hard; mottled		
50						SAND, silty: tan to grey; fine; heavy minerals (1.5%)		
51–63		SM						
64–65		SC				SAND, clayey: tan		
66						CLAY: dark grey; hard		
67–70		CL						
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-84

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: white/grey		
3–10		SP				SAND: dark brown		
10–17		SP				SAND: tan; heavy minerals (2-2.5%)		
17–19		SP				SAND: dark brown		
19–22		SP				SAND: dark brown; hard; consolidated		
22–29		SP				SAND: dark brown; heavy minerals (2%)		
29–32		SP				SAND: tan/brown		
32–35						SAND: reddish tan; coarse; heavy minerals (2-3%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/14/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
41–43		SP				SAND: light tan; coarse; heavy minerals (2%)		
44–50		SP				SAND: reddish tan; heavy minerals (1.5-2%)		
51–53		SP				SAND: light tan		
54–57		SP				SAND: brown; med to fine; heavy minerals (1%)		
58		SP				SAND: tan; heavy minerals (<0.5%)		
59–67		SP				SAND: light tan; fine; heavy minerals		
67–70		SC				SAND, clayey: light tan; med to fine		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-85

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey		
2		SP				SAND: tan		
3		SP				SAND: dark brown		
4								
5								
6								
7		SP				SAND: grey; heavy minerals (2-2.5%)		
8								
9								
10		SP				SAND: dark brown		
11								
12		SP				SAND: dark brown; round; saturated; heavy minerals (1.5%)		
13								
14								
15								
16		SP				SAND: dark brown; heavy minerals (<0.5%)		
17								
18								
19								
20								
21								
22								
23		SP				SAND: tan; very coarse; heavy minerals (1.5%)		
24								
25								
26								
27								
28								
29		SP				SAND: orange/tan; heavy minerals (<0.5%)		
30								
31								
32								
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
35		SP				SAND: dark brown		
36						SAND: orange to tan; heavy minerals (<0.5-3%)		
37								
38								
39								
40								
41								
42								
43		SP						
44								
45								
46								
47								
48								
49								
50						SAND: dark brown; heavy minerals (3%)		
51								
52								
53		SP						
54								
55								
56						SAND, silty: brown; fine; heavy minerals (1-1.5%)		
57		SM						
58						SAND, silty: light tan; fine		
59								
60								
61		SM						
62								
63								
64								
65						SAND, silty: light tan to grey; fine; heavy minerals (1-1.5%)		
66		SM						
67						SAND, silty: grey		
68		SM						
69		CH				CLAY, silty: dark grey; fat		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-377

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	Twin Pines Geologist
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med SAND: tan; med		
4–9		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10–11		SP				SAND: white; med; heavy minerals (0.5-1.0%)		
12–17		SP				SAND: tan; med		
18		SC				SAND, clayey: dark brown; fine; heavy minerals (1%)		
19–25		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
26		SP				SAND: light tan to grey; fine		
27–28		SC				SAND, clayey: grey; fine; heavy minerals (1.0%)		
29–33		SC				SAND, clayey: white; fine; heavy minerals (1-1.5%)		
34–35						SAND, silty, clayey: grayish tan; fine; heavy		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	Twin Pines Geologist
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36						minerals (<0.5%)		
37		SC-SM						
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-378

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: brown; med		
6–13		SP				SAND: dark brown; med; heavy minerals (0.5-1.0%)		
14		SP				SAND: brown; med		
15–16		SP				SAND: tan; med to coarse; heavy minerals (2-2.5%)		
17–21		SP				SAND: brown; med; heavy minerals (0.5%)		
22–23		SP				SAND: tan; med to fine		
24–26		SC-SM				SAND, silty, clayey: grayish brown; fine; heavy minerals (0.5%)		
27–32		SC				SAND, clayey: tan to light brown; fine; heavy minerals (0.5%)		
33		SP				SAND: white; fine		
34–35		CL				CLAY: grey; rustic		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-378

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
		SP				SAND: white; heavy minerals (~1%)		
36						SAND, clayey: grey to tan; fine; heavy minerals (0.5%)		
37		SC						
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-379

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5–14		SP				SAND: dark brown; med; heavy minerals (1.0%)		
15–16		SP				SAND: brown; med; heavy minerals (1.0%)		
17–19		SP				SAND: dark brown; med; heavy minerals (0.5-1.0%)		
20–23		SP				SAND: brown; med; heavy minerals (0.5%)		
24		SP				SAND: dark brown; med		
25		SP				SAND: tan; med		
26		SP				SAND: grayish brown; med; heavy minerals (0.5-1.0%)		
27		SP				SAND: brown; med		
28–29		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
30–32		SP				SAND: tan; med		
33		SP				SAND: white; med; heavy minerals (0.5-1.0%)		
34–35		SC				SAND: dark grey; clay; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-379

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: tan to grey; fine; heavy minerals (<0.5%)		
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-380

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
4–5		SP				SAND: dark brown; med		
6–11		SP				SAND: grey; med; heavy minerals (0.5-1.0%)		
12–16		SP				SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
17–24		SP				SAND: brown; med; heavy minerals (0.5%)		
25–35		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-380

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: dark brown; med; heavy minerals (2.0-2.5%)		
		SP				SAND: brown; med		
40						SAND: orangish brown; med; heavy minerals (0.5-1.0%)		
41								
42		SP						
43								
44								
45						SAND, clayey: dark grey		
46		SC						
47						SAND, clayey: tan; fine; heavy minerals (<0.5%)		
48		SC						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-381

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5								
6		SP				SAND: grey; med; heavy minerals (0.5-1.0%)		
7								
8								
9								
10								
11								
12		SP				SAND: dark brown; med		
13								
14								
15								
16		SP				SAND: brown; med; heavy minerals (0.5%)		
17		SP				SAND: dark brown; med; heavy minerals (0.5%)		
18								
19								
20		SP				SAND: brown; med		
21		SP				SAND: dark brown; consolidated; heavy minerals (0.5-1.0%)		
22								
23								
24								
25								
26								
27		SP				SAND: brown; med; heavy minerals (0.5%)		
28								
29								
30		SP				SAND: orangeish brown; med		
31								
32		SP				SAND: white; med; heavy minerals (0.5-1.0%)		
33		SP				SAND: dark brown; med		
34						SAND: dark grey; med; heavy minerals (1.0-1.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38		SP				SAND: dark brown; med; heavy minerals (0.5%)		
39								
40								
41								
42								
43		SP				SAND: orangeish brown; med; heavy minerals (0.5-1.0%)		
44								
45								
46		SC				SAND, clayey: dark brown; med to fine; heavy minerals (2-2.5%)		
47		SP				SAND: tan; coarse		
48		SP				SAND: light brown to tan; med; heavy minerals (1-1.5%)		
49								
50								
51		SP				SAND: orangeish brown; med; heavy minerals (0.5-1.0%)		
52								
53								
54		SP				SAND: tan; med		
55								
56		SC				SAND, clayey: grey; fine		
57								
58		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
59		SC				SAND, clayey: dark grey; fine		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-382

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–6		SP				SAND: tan; med		
6–9		SP				SAND: grey; med; heavy minerals (0.5%)		
9–12		SP				SAND: dark brown; med; heavy minerals (0.5%)		
12–13		SP				SAND: brown; med; heavy minerals (0.5%)		
13–24		SP				SAND: dark brown; med; consolidated 15-16; heavy minerals (0.5-1.0%)		
24–26		SP				SAND: orangeish brown; med; heavy minerals (<0.5%)		
26–27		SP				SAND: tan; fine		
27–30		SC				SAND, clayey: tan to grey; fine; heavy minerals (<0.5%)		
30–34		SC				SAND, clayey: tan; fine		
34–35						*Continued Next Page*		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-382

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: grey; fine; heavy minerals (<0.5%)		
37						SAND, clayey: tan; fine; heavy minerals (<0.5%)		
38		SC						
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-383

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark grey; med		
3		SP				SAND: white; med		
4		SP				SAND: dark brown; med		
5		SP				SAND: brown; med		
6		SP				SAND: dark grey; med; heavy minerals (0.5-1%)		
7								
8								
9		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10								
11								
12								
13								
14								
15								
16		SP				SAND: tan; med		
17		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
18								
19								
20								
21								
22		SP				SAND: brown; med to fine; heavy minerals		
23								
24								
25		SP				SAND: dark brown; med to fine		
26								
27		SP				SAND: brown; med to fine; heavy minerals (1.0-1.5%)		
28								
29								
30		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
31								
32		SC				SAND: clayey brown; fine; heavy minerals (0.5%)		
33								
34						SAND, clayey: light brown; fine; heavy minerals		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				(0.5-1.0%)		
37						SAND, clayey: tan; fine; heavy minerals (0.5%)		
38								
39								
40		SC						
41								
42								
43								
44		SC				SAND, clayey: light tan; fine		
45		SP				SAND: white; fine; heavy minerals (0.5-1.0%)		
46						SAND, clayey: tan to white; fine; heavy minerals (0.5%)		
47								
48		SC						
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-384

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grey; med		
5		SP				SAND: dark brown; med		
8		SP				SAND: grey; med; heavy minerals (0.5%)		
10		SP				SAND: dark brown; med; consolidated 10-16'; heavy minerals (0.5%)		
21		SP				SAND: brown; med; heavy minerals (<0.5%)		
24		SP				SAND: light brown; med; heavy minerals (<0.5%)		
26		SP				SAND: light tan to white; med; heavy minerals (<0.5%)		
28		SP				SAND: tan; med; heavy minerals (<0.5%)		
30		SP				SAND: dark brown; med; heavy minerals (0.5%)		
32						SAND: brown; med; 2" light tan at 35; heavy minerals (0.5-1.0%)		
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
44–51		SP				SAND: light tan to white; med to coarse; heavy minerals (1.5%)		
52–55		SC				SAND, clayey: dark brown; fine; heavy minerals (0.5%)		
56–59		SC				SAND, trace clay: light tan; fine; heavy minerals (0.5%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-385

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grey to brown; med		
5		SP				SAND: dark brown; med		
6		SP				SAND: brown; med; heavy minerals (<0.5%)		
7		SP				SAND: dark brown; med; consolidated from 13.5-16'; heavy minerals (1.0-1.5%)		
8		SP				SAND: brown; med; heavy minerals (0.5-2.0%)		
9		SP				SAND: tan; med; heavy minerals (1.5-2.0%)		
10		SP				SAND: dark brown; med; heavy minerals (0.5%)		
11		SP				SAND: brown; med; heavy minerals (0.5-1.0%)		
12		SP						
13		SP						
14		SP						
15		SP						
16		SP						
17		SP						
18		SP						
19		SP						
20		SP						
21		SP						
22		SP						
23		SP						
24		SP						
25		SP						
26		SP						
27		SP						
28		SP						
29		SP						
30		SP						
31		SP						
32		SP						
33		SP						
34		SP						
35		SP						

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-385

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: dark brown; fine		
37						SAND, silty, clayey: tan; fine; heavy minerals (~0%)		
38								
39								
40								
41		SC-SM						
42								
43								
44								
45								
46						SAND, clayey: grey; fine		
47		SC						
48								
49								
50		SP				SAND: white; med; heavy minerals (0.5%)		
						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-386

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light grey to white med		
3–6		SP				SAND: brown; med SAND: tan; med		
6–11		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
11–18		SP				SAND: dark brown; med; heavy minerals (0.5%)		
18–23		SP				SAND; brown; med; heavy minerals (0.5%)		
23–32		SP				SAND: orangish brown; med; heavy minerals (0.5-1.5%)		
32–35						SAND: orangish brown; coarse; heavy minerals (<0.5-0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-386

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39		SC				SAND, clayey: dark brown; fine; heavy minerals (<0.5%)		
40		SP				SAND: orangish brown; med; heavy minerals (0.5-1.0%)		
41								
42		SC				SAND, trace clay: brown; med		
43								
44		SC				SAND, clayey: brown; clay grey; fine		
45								
46		SC-SM				SAND, silty, clayey: light brown; fine; heavy minerals (<0.5%)		
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-387

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: white; med		
3		SP				SAND: dark brown; med		
4		SP				SAND: white; med		
5		SP				SAND: dark brown; med		
10		SP				SAND: grayish tan; med; heavy minerals (<0.5%)		
17		SP				SAND: brown; med; heavy minerals (0.5-1.5%)		
26		SP				SAND: dark brown; med; consolidated 21-24'; heavy minerals (0.5-~1%)		
27		SP				SAND: orangish brown; med; heavy minerals (<0.5%)		
28		SP				SAND: dark brown; med to fine; heavy minerals (<0.5%)		
30		SP				SAND: brown; med; heavy minerals (0.5-1.0%)		
33		SP				SAND: tan; med; heavy minerals (1-1.5%)		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-387

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5-2.0%)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SC				SAND, trace clay: dark brown; med		
47						SAND, clayey: dark grey		
48		SC						
49		SC				SAND, clayey: light grey; fine		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-388

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		FILL				SAND: grey; med; Road Fill		
3–5		SP				SAND: tan; med		
5–12		SP				SAND: dark brown; med; heavy minerals (0.5%)		
12–17		SP				SAND: intermixed grey and brown; med; heavy minerals (0.5-1.0%)		
17–23		SP				SAND: brown; med; heavy minerals (0.5%)		
23–26		SP				SAND: dark brown; consolidated; med to fine; heavy minerals (0.5-1.0%)		
26–35						SAND: brown; med; heavy minerals (0.5-1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-388

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–44		SP						
45		SP				SAND: dark brown; hard pan		
45–49		SP				SAND: tan; med to fine; heavy minerals (1.0-1.5%)		
50–52		SC				SAND: brown; med to fine		
53–54		SC				SAND, trace clay: dark brown, fine; heavy minerals (0.5%)		
55–59		SC				SAND, trace clay: light brown; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-389

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road fill		
2								
3		SP				SAND: grey; med		
4		SP				SAND: brown; med		
5		SP				SAND: grey; med		
6								
7						SAND: dark brown; med; heavy minerals (0.5-1.0%)		
8								
9								
10								
11		SP						
12								
13								
14								
15								
16						SAND: reddish brown; med; heavy minerals (0.5%)		
17								
18								
19		SP						
20								
21								
22								
23						SAND: brown: med; heavy minerals (0.5%)		
24		SP						
25								
26						SAND: tan to light brown; med; heavy minerals (0.5-1.0%)		
27		SP						
28								
29		SP				SAND: dark brown; med; heavy minerals (0.5%)		
30						SAND: reddish brown; med; heavy minerals (0.5-1.0%)		
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-389

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
43–50		SP				SAND: orangeish brown; med; heavy minerals (0.5-2.0%)		
50–53		SC				SAND, clayey: dark brown; med to fine; heavy minerals (0.5%)		
53–54		SC				SAND, trace clay: light brown; med		
54–57		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
57–60		SC				SAND, trace clay: light brown; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-390

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5-1.0%)		
18		SP				SAND: brown; med; coarse pockets; heavy minerals (0.5-1.0%)		
30						SAND: orangish brown; med; heavy minerals (0.5-1.0%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
43–45		SP				SAND: orangish brown; coarse; heavy minerals (0.5-1.0%)		
46		SP				SAND: dark grey; med to fine; heavy minerals (1.0-1.5%)		
47–49		SP				SAND: tan; med		
50		SP				SAND: dark brown; fine; hard; heavy minerals (2.0%)		
51–53		SC				SAND, clay: dark brown; fine		
54–57		SC				SAND tan, fine, trace to some clay		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-391

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3						SAND: dark brown; med; heavy minerals (0.5-1.0%)		
4								
5								
6								
7								
8								
9								
10		SP						
11								
12								
13								
14								
15								
16								
17		SP				SAND: brown; heavy minerals (1.0-1.5%)		
18						SAND: dark brown med; hard consolidation 21-26.5'; heavy minerals (<0.5-1.0%)		
19								
20								
21								
22		SP						
23								
24								
25								
26								
27						SAND: brown; med to coarse; heavy minerals (0.5%)		
28								
29								
30		SP						
31								
32								
33								
34		SP				SAND: dark brown to black; fine; hard		
35						Continued Next Page		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-391

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–45		SP				SAND: orangish brown; med; heavy minerals (0.5-2.0%)		
45–50		SP				SAND: tan; brown; med to fine; heavy minerals (1.0%)		
50–56		SP				SAND: dark brown; fine; heavy minerals (0.5-1.0%)		
56		SP				SAND: brown; fine		
57–60		SC				SAND, trace clay: orangish; fine; heavy minerals (0.5-1.0%)		
60–62		SC				SAND, clay: tan; fine; heavy minerals (~0%)		
62–70		SC				SAND, trace/some clay: grayish tan; fine; heavy minerals (0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-392

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: light brown/tan; med		
3								
4						SAND: dark brown; med; heavy minerals (0.5-1.5%)		
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15		SP						
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26		SP				SAND: tan; med		
27		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
28								
29						SAND: brown; med; heavy minerals (1-1.5%)		
30								
31								
32		SP						
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: reddish brown; med; heavy minerals; (1.5-2.5%)		
38								
39								
40								
41								
42								
43		SP				SAND: orangish tan; med; heavy minerals (0.5%)		
44								
45								
46		SC				SAND, clayey: dark brown; fine		
47		SP				SAND: tan; med to fine; heavy minerals (1%)		
48								
49								
50		SP				SAND: dark brown; med to fine; heavy minerals (0.5-1%)		
51								
52								
53								
54		SC				SAND, clayey: dark brown/ black; fine		
55		SC				SAND, clayey: dark brown; fine		
56								
57		SC				SAND, clayey: tan/light brown; fine; heavy minerals (<0.5-0.5%)		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-393

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white; med to coarse		
2		SP				SAND: brown; med		
3		SP				SAND: grey; med		
4		SP				SAND: light tan; med		
5								
6		SP				SAND: grey; med		
7								
8		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
9								
10		SP				SAND: grey; med		
11								
12						SAND: brown; med; heavy minerals (<0.5%)		
13								
14		SP						
15								
16								
17								
18						SAND: dark brown; med		
19								
20		SP						
21								
22								
23								
24		SP				SAND: brown; med		
25						SAND: orangish brown; med; heavy minerals (0.5-2%)		
26								
27								
28								
29								
30								
31								
32								
33								
34		SP						
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42								
43–47		SP				SAND: tan; med; heavy minerals (1.5-2%)		
48–49		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
50–52		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
53–55		SC				SAND, trace clay: dark brown; med to fine; heavy minerals (<0.5%)		
56–59		SC				SAND, clayey: tan/grayish; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-394

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
17		SP				SAND: brown; med; heavy minerals (0.5-1%)		
23		SP				SAND: orangish brown; med; heavy minerals (0.5-1.5%)		
30		SP				SAND: brown; med; heavy minerals (0.5-1%)		
32						SAND: dark brown; med; heavy minerals (0.5-3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-394

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
43–44		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
45–49		SC				SAND, trace clay: dark brown; med to fine; heavy minerals (0.5-1%)		
50		SP				SAND: brown; med		
51–54		SC				SAND, clayey: dark brown; fine; heavy minerals (0.5-1%)		
55–59		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-395

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3		SP				SAND: tan; med		
4–9		SP				SAND: dark grey; med; heavy minerals (0.5-1%)		
9–21		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
21–27		SP				SAND: orangish brown; med; heavy minerals (<0.5%)		
27		SP				SAND: tan; med		
28		SP				SAND: brown; med; heavy minerals (0.5-1%)		
29		SP				SAND: tan; med		
30		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
31		SP				SAND: brown; med		
32		SP				SAND: tan; med; heavy minerals (0.5-1%)		
33–35		SP				SAND: grey/dark brown; med		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-395

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SC				CLAY, sandy; grey; fine; heavy minerals (<0.5%)		
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-396

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		FILL				Road fill		
3–6		SP				SAND: tan; med		
6–7		SP				SAND: brown; grey; med		
7–19		SP				SAND: dark brown; med; heavy minerals (0.5%)		
19–23		SP				SAND: brown; med; heavy minerals (0.5-1%)		
23–27		SP				SAND: tan; med; heavy minerals (0.5-1%)		
27–35						SAND: orangish brown; med; heavy minerals (<0.5-3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-396

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44		SC				SAND, clayey: dark brown; fine; heavy minerals (<0.5%)		
45								
46								
47		SC				SAND, clayey: light tan; fine; heavy minerals (<0.5%)		
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-397

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3–4		SP				SAND; tan; med		
5–11		SP				SAND: dark brown; heavy minerals (<0.5-0.5%)		
12–16		SP				SAND: dark grayish brown; med; heavy minerals (1.5%)		
17		SP				SAND: dark brown; med		
18		SP				SAND: brown; med; heavy minerals (0.5%)		
19–27		SP				SAND: reddish brown; med; heavy minerals (<0.5%)		
28–35		SP				SAND: tan; med to coarse; heavy minerals (1-2%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; med; heavy minerals (1.5-2%)		
37		SP				SAND: tan; med		
38		SP				SAND: brown; med; heavy minerals (<0.5-1%)		
39								
40		SP				SAND: orangish brown; med to coarse; heavy minerals (1-1.5%)		
41								
42								
43								
44								
45								
46		SC				CLAY, sandy: grey; fine; heavy minerals (<0.5%)		
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-398

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: brown; med		
5–25		SP				SAND: dark brown; med; heavy minerals (0.5%)		
25–28		SP				SAND: brown; med; heavy minerals (1-1.5%)		
28–35		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: orangish brown; med		
38						SAND: tan; med; heavy minerals (0.5-5%)		
39		SP						
40								
41						SAND: dark brown; med		
42		SP						
43						SAND: orange/brown; med to coarse; heavy minerals (0.5%)		
44								
45		SP						
46								
47		SC				SAND, trace clay: dark brown; med to fine		
48						SAND, clayey: dark brown; fine; heavy minerals (0-1%)		
49		SC						
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-399

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND; brown; med		
3		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
17		SP				SAND: brown; med; heavy minerals (0.5%)		
21		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
30		SP				SAND: dark brown; med; heavy minerals (0.5%)		
32						SAND: tan; med; heavy minerals (2-4%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-399

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/19/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
41–46		SC				SAND, trace clay: dark brown; fine; heavy minerals (0.5-1.5%)		
46–50		SC				SAND, clayey: grayish tan; fine; heavy minerals (<0.5%)		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-400

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grayish brown; med		
9		SP				SAND: grey; med; heavy minerals (0.5-1.5%)		
12		SP				SAND: dark brown; med; hard (11.5-15); heavy minerals (0.5%)		
17		SP				SAND: brown; med; heavy minerals (0.5-1%)		
20		SP				SAND: reddish brown; med		
23		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
24		SP				SAND: reddish brown; med		
27		SP				SAND: dark brown; med		
28		SP				SAND: reddish brown; med; heavy minerals (0.5-2.5%)		
30		SP				SAND: tan; med; heavy minerals (<0.5%)		
32		SP				SAND: dark brown; med		
34		SP				SAND: orangish brown; med		
34		SP				SAND: grayish brown; med		
35						*Continued Next Page*		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-400

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; med; heavy minerals (<0.5%)		
37								
38		SC				SAND, clayey: dark brown; fine		
39		SC				CLAY, sandy: tan; fine; heavy minerals (<0.5%)		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-401

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–4		SP				SAND: brown; med		
4–9		SP				SAND: dark brown; med; heavy minerals (0.5%)		
9–10		SP				SAND: brown; med		
10–11		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
11–22		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5-0.5%)		
22–23		SC				SAND, clayey: brown; med to fine		
23–34		SC				CLAY, sandy: tan; fine; heavy minerals (<0.5%)		
34–35						CLAY, sandy: greenish grey; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-401

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/20/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37		SP				SAND: white; fine; heavy minerals (0.5-1%)		
38								
39		SP				SAND: tan; fine; heavy minerals (0.5%)		
40		SC				CLAY, sandy: grey/greenish; fine; heavy minerals (0-<0.5%)		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-402

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–18		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
19		SP				SAND: tan; med; heavy minerals (<0.5%)		
20		SP				SAND: dark brown; med		
21–22		SC				SAND, clayey: light brown; med to fine; heavy minerals (<0.5%)		
23–27		SC				SAND, trace clay: tan; med to fine; heavy minerals (0.5%)		
28		SC				CLAY, sandy: grayish brown; fine		
29		SP				SAND: white; med		
30		SP / CL				SAND: med to fine; heavy minerals (0.5-1%) / CLAY: green grey; plastic		
31		SC				SAND, trace clay: grayish tan; med to fine		
32		CL				CLAY: grey green; plastic		
33–34		SP				SAND: white; med to fine; heavy minerals (0.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36 37 38 39 40		SC				CLAY, sandy: tan; med to fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-403

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3–10		SP				SAND: dark brown; med; heavy minerals (0.5%)		
11		SP				SAND: brown; med; heavy minerals (<0.5%)		
12–17		SC				SAND, clayey: brown; med to fine; heavy minerals (0.5%)		
17–21		SC				SAND, trace clay: tan/light tan; fine; heavy minerals (0.5%)		
21		SC				CLAY, sandy: grey; fine; heavy minerals (0.5%)		
22		SP				SAND: tan; fine		
23–27		CL				CLAY: grey; plastic		
27–30		SC				SAND, trace clay: light tan/white; fine; heavy minerals (0.5-1%)		
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-404

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; med		
5–8		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
8–10		SC				SAND, clayey: grayish tan; fine; heavy minerals (0.5%)		
10–12		SC				SAND, clayey: tan; fine		
12–15		SC				SAND, clayey: dark grayish tan; fine; heavy minerals (0.5%)		
15–16		SP				SAND: tan; med		
16–20		SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (0%)		
20–30						No Recovery		
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-405

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
		SP				SAND: dark brown; med		
2						SAND: grayish brown; med		
3		SP						
4						SAND: dark brown; med		
5		SP						
6						SAND: grey; med; heavy minerals (0.5-1%)		
7		SP						
8								
9						SAND: dark brown; med; heavy minerals (<0.5-1%)		
10								
11								
12		SP						
13								
14								
15						SAND: brown; med; heavy minerals (0.5-1.5%)		
16								
17								
18		SP						
19								
20								
21						SAND: dark brown; med; heavy minerals (0.5%)		
22								
23		SP						
24								
25		SP				SAND: grey; med		
26		SP				SAND: dark brown; med to fine		
27		SP				SAND: white; med to coarse		
28						SAND: tan; med; heavy minerals (0.5-1%)		
29		SP						
30		SP				SAND: white; med to coarse; heavy minerals (0.5-1%)		
31						SAND: light brown; coarse		
32						SAND, trace clay: tan/light brown; med; heavy minerals (0.5-1%)		
33		SC						
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-405

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SC				SAND, trace clay: tan; med; heavy minerals (0.5%)		
38								
39								
40								
41								
42		SC				SAND, trace clay: greenish grey; fine; heavy minerals (0.5%)		
43								
44								
45								
46								
47								
48								
49								
50		SC				SAND, trace clay: greenish grey; coarse; heavy minerals (<0.5%)		
		CL				CLAY: grey/dark grey; dry and white (57-60); plastic; heavy minerals (<0.5%)		
						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-406

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
14		SP				SAND: brown; med		
15		SP						
17		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
18		SP				SAND: light tan/grey; med; heavy minerals (0.5-1.5%)		
22		SP				SAND: grey; med		
24		SP				SAND: tan; med; heavy minerals (1-3.5%)		
28		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
30		SP				SAND: brown; med; heavy minerals (1%)		
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-406

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: grayish brown; med; heavy minerals (1-1.5%)		
38								
39		SP				SAND: tan; med; heavy minerals (1.5-2%)		
40		SC				SAND, trace clay: grey; med		
41						SAND, trace clay: greenish grey; coarse; heavy minerals (<0.5%)		
42								
43								
44								
45		SC						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-407

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
3		SP				SAND: white; med		
4								
5		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10								
13		SP				SAND: brown; med; heavy minerals (<0.5%)		
18								
19		SP				SAND: tan; med; heavy minerals (0.5-2%)		
25		SC				SAND, trace clay: tan; med to fine		
26		SP				SAND: light tan; med; heavy minerals (~1%)		
27		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
30						SAND, trace clay: tan; med; heavy minerals (0.5-1%)		
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-407

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40						SAND, clayey to trace clay: greenish grey; coarse; heavy minerals (<0.5-0.5%)		
41								
42								
43								
44								
45		SC						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-408

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5		SP				SAND: dark grey; med		
6								
7		SP				SAND: tan; med; heavy minerals (1%)		
8								
9		SP				SAND: dark grey/dark brown; med; heavy minerals (1%)		
10								
11		SC				SAND, clayey: dark brown/grayish; fine; heavy minerals (0.5%)		
12								
13								
14								
15								
16		SC				SAND, clayey: tan; fine; heavy minerals (0.5-1%)		
17								
18								
19								
20								
21		SC				SAND, clayey: grey; fine; stiff; heavy minerals (0.5%)		
22								
23								
24		SP				SAND: light tan/white; med to fine; heavy minerals (0.5-1%)		
25								
26								
27								
28								
29								
30								
31								
32		SC				SAND, trace clay: light brown; med; heavy minerals (0.5%)		
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-408

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018

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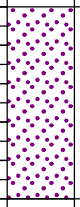
DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: tan; med; heavy minerals (0.5-1%)		
37								
38								
39								
40						No Recovery		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-409

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						SAND: white; fine		
2		SP				SAND: brown; med		
3						SAND: tan; med		
4		SP						
5								
6						SAND: brown; med; heavy minerals (0.5-1%)		
7								
8		SP						
9								
10						SAND: dark brown; med; heavy minerals (1-1.5%)		
11								
12								
13								
14		SP						
15								
16								
17						SAND: brown; med; heavy minerals (1.5-2%)		
18		SP				SAND: tan; med; heavy minerals (0.5-2%)		
19								
20								
21		SP						
22								
23						SAND, trace clay: dark brown; med; heavy minerals (0.5-1%)		
24								
25		SC						
26								
27		SC				SAND, clayey: dark grey; fine; heavy minerals (0.5-1%)		
28						SAND, clayey: tan; fine; heavy minerals (<0.5-1%)		
29								
30		SC						
31								
32								
33		SC				SAND, clayey: dark grey; fine		
34		SC				SAND, clayey: tan; fine		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-409

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				CLAY, sandy: grayish tan; fine; heavy minerals (0.5%)		
37		CL				CLAY: grey; plastic; heavy minerals (~0%)		
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-410

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5								
6		SP				SAND: grayish brown; med		
7		SP				SAND: dark brown; hard (17-18); heavy minerals (0.5-1%)		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23		SP				SAND: grey; med; heavy minerals (0.5-1%)		
24								
25		SP				SAND: grey; med; heavy minerals (0.5-1%)		
26								
27		SP				SAND: tan; med; heavy minerals (1%)		
28								
29		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
30								
31								
32								
33		SP				SAND: brown; med to fine; heavy minerals (<0.5%)		
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; med to fine		
37		SC				SAND, trace clay: dark brown; med to fine		
38						SAND: tan; med; heavy minerals (1-1.5%)		
39		SP						
40						SAND: light brown; med to coarse; heavy minerals (<0.5%)		
41		SP						
42								
43						SAND: tan; coarse to very coarse; heavy minerals (0.5%)		
44								
45								
46								
47		SP						
48								
49								
50								
51		SC				SAND, clayey: dark brown; coarse		
52						SAND, clayey: tan; med to coarse; heavy minerals (0.5%)		
53								
54								
55		SC						
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-411

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
2–3		SP				SAND: brown; med		
3–7		SP				SAND: tan; med		
7–10		SP				SAND: grey; med; heavy minerals (0.5-1%)		
10–19		SP				SAND: dark brown; med; heavy minerals (1%)		
19–23		SP				SAND: brown; med; heavy minerals (1-2%)		
23–30		SC				SAND, clayey: tan; fine to med; heavy minerals (0.5-1%)		
30		SC				CLAY, sandy: tan; fine		
30–31		SP				SAND: tan; fine		
31–35		SC				CLAY, sandy: grey/greenish; fine; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-411

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: white; fine		
37								
38		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
39								
40								
41		SC				SAND, trace clay: tan; med to fine; heavy minerals (<0.5%)		
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-412

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med; organics		
3–5		SP				SAND: tan; med		
5–6		SP				SAND: grayish tan; med		
6–7		SP				SAND: dark brown; med		
7–10		SP				SAND: grayish brown; med; heavy minerals (1%)		
10–17		SP				SAND: dark brown; med; heavy minerals (1-2%)		
17–20		SP				SAND: brown; med; heavy minerals (1-1.5%)		
20–26		SP				SAND: orangish brown; med; mineral banding; heavy minerals (1.5-4%)		
26–27		SP				SAND: tan; med; heavy minerals (1-2%)		
27–29		SC				CLAY, sandy: dark grey; fine		
29–32		SC				CLAY, sandy: tan; fine; heavy minerals (<0.5%)		
32–35		SC				CLAY, moderately clayey:tan; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-412

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36						CLAY: grey; plastic; heavy minerals (<0.5-1%)		
37		CL						
38								
39		SC				SAND, trace clay: white; fine; heavy minerals (<0.5%)		
40		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%) BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-413

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5								
6		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
7								
8								
9								
10								
11								
12		SP				SAND: dark brown; med; heavy minerals (1-1.5%)		
13								
14								
15								
16		SP				SAND: brown; med; heavy minerals (1.5-2%)		
17						SAND: dark brown; med; heavy minerals (0.5-1%)		
18		SP						
19								
20								
21								
22		SP				SAND: reddish brown; med; heavy minerals (1-1.5%)		
23								
24								
25								
26		SP				SAND: orangish brown; med; heavy minerals (0.5-1.5%)		
27								
28								
29								
30								
31								
32								
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-413

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: tan; med		
37		SC				SAND, clayey: dark brown; fine; heavy minerals (1.5-2%)		
38								
39		SC				CLAY, sandy: grey; fine; heavy minerals (<0.5%)		
40								
41		SC				SAND, some to trace clay: tan; fine		
42								
43		SC				SAND, trace clay: tan; fine; heavy minerals (1-1.5%)		
44		CL				CLAY: grey; plastic		
45								
46								
47		SP				SAND: white; fine; heavy minerals (1.5-2%)		
48								
49		SC				SAND, trace clay: brown; fine; heavy minerals (1-1.5%)		
50								
51								
52								
53								
54		SC				SAND, clayey: grayish tan; fine; heavy minerals (0.5-1%)		
55								
56								
57								
58		SC				SAND, clayey: tan; fine; heavy minerals (0.5%)		
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-414

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5								
6		SP				SAND: dark grey; med; heavy minerals (0.5-1%)		
7								
8								
9								
10								
11		SP				SAND: dark brown; med; heavy minerals (1%)		
12								
13		SP				SAND: brown; med; heavy minerals (0.5-1%)		
14								
15								
16								
17		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
18								
19								
20								
21								
22								
23								
24								
25								
26		SP				SAND: reddish brown; med; heavy minerals (0.5-1%)		
27						SAND: orangish tan; med; heavy minerals (1-2%)		
28		SP						
29								
30								
31		SP				SAND: dark brown; med; heavy minerals (1-1.5%)		
32								
33								
34		SP				SAND: grey; med; heavy minerals (0.5-1%)		
35		SP						

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-414

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND: tan/light brown; med; heavy minerals (1-1.5%)		
37						SAND, clayey: brown; med; heavy minerals (0.5-2%)		
38		SC				SAND, clayey: tan; fine; heavy minerals (1-1.5%)		
39								
40								
41								
42		SC				CLAY, sandy: grey; fine		
43								
44								
45		SP				SAND: white; fine; heavy minerals (1.5-2%)		
46								
47		SC				SAND, some to trace clay: tan; fine; heavy minerals (0.5-1.5%)		
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62		SC				SAND, trace clay: tan; med to fine; heavy minerals (0.5-1%)		
63								
64								
65								
66								
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-415

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: dark brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: grey; med; heavy minerals (0.5-1%)		
10		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
23		SP				SAND: brown; med; heavy minerals (0.5%)		
25		SP				SAND: tan; med; heavy minerals (0.5-1%)		
26		SP				SAND: brown; med; heavy minerals (0.5%)		
28		SP				SAND: tan; med; heavy minerals (2-3%)		
29		SP				SAND: brown; med; heavy minerals (0.5%)		
33						SAND: orangish brown; med; heavy minerals (0.5-2.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
41–43		SC				SAND, clayey: dark brown; fine; heavy minerals (0.5-1%)		
43–46		SC				SAND, clayey: dark grey; fine; heavy minerals (<0.5%)		
46–49		SC				SAND, clayey: tan; fine; heavy minerals (1%)		
49–52		SC				SAND, clayey: grey; fine; heavy minerals (<0.5-1.5%)		
52–54		CL				CLAY: grey; plastic		
54–55		SC				SAND, trace clay: grayish tan; med to tan; heavy minerals (0.5%)		
55–56		SC				SAND, clayey: dark brown; fine		
56–60		SC				SAND, clayey: grayish tan; fine; heavy minerals (0.5-1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-416

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–14		SP				SAND: grey; med		
3		SP				SAND: brown; med		
3–4		SP				SAND: tan; med		
4		SP				SAND: grayish brown; med		
5–14		SP				SAND: dark brown; med; heavy minerals (0.5%)		
15–19		SP				SAND: brown; med; heavy minerals (0.5-1%)		
20–22		SP				SAND: dark brown; med; heavy minerals (0.5%)		
23–26		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
27–28		SP				SAND: orangish brown; med; heavy minerals (2%)		
29–30		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
30–32		SP				SAND: brown; med; heavy minerals (0.5%)		
33–35						SAND: orangish tan; med to coarse; heavy minerals (1-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan; med to coarse; heavy minerals (0.5-1%)		
38								
39		SP						
40								
41						SAND: brown; med; heavy minerals (0.5-1%)		
42		SP						
43								
44		SP				SAND: orangish brown; med		
		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
45						SAND, clayey: dark brown; med to fine		
46		SC						
47								
48						SAND, clayey: tan; fine; heavy minerals (1-1.5%)		
49		SC						
50								
51		SC				SAND, clayey: grey; fine; heavy minerals (0.5%)		
52						SAND, clayey: grayish tan; fine; heavy minerals (0.5%)		
53		SC						
54						SAND, clayey: tan; fine; heavy minerals (0.5%)		
55								
56								
57		SC						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-417

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3								
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19		SP				SAND: brown; med; heavy minerals (1-2%)		
20								
21								
22								
23								
24								
25						SAND: orangish brown; med; heavy minerals (1-4%)		
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-417

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–48		SP						
49		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
50–53		SP				SAND: tan; med; heavy minerals (1.5-2%)		
54		SP				SAND: light tan; med to coarse; heavy minerals (1-1.5%)		
55		SC				SAND, clayey: dark brown; med to fine		
56–59		SC				SAND, clayey: tan; fine; heavy minerals (0.5%)		
60–69		SC				SAND, trace clay (some clay at 66-67.5): tan; fine; heavy minerals (0.5-1.5%)		
70		SP				SAND: tan; coarse		
71–74		SC				SAND, clayey: grey; fine; heavy minerals (0.5-1%)		
75								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-417

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76 77 78 79 80		SP				SAND, trace clay: tan; med to fine; heavy minerals (0.5-1%)		
						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-418

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	8'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
3–4		SP				SAND: brown; med		
4–6		SP				SAND: tan; med		
6–26		SP				SAND: dark brown; med; consolidated (16-18); heavy minerals (0.5-1%)		
26–35						SAND: orangish brown; med; heavy minerals (0.5-5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–48		SP						
49		SP				SAND: dark brown; med to coarse; heavy minerals (1%)		
50–53		SP				SAND: orangish brown; med; heavy minerals (1.5-2%)		
54–56		SC				SAND, clayey: dark brown; fine		
57–59		SC				SAND, clayey: tan/light brown; fine; heavy minerals (0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-419

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND; grey; med		
2–4		SP				SAND: dark brown; med; heavy minerals (<0.5%) SAND: brown; med		
4–7		SP				SAND: tan; med		
7–11		SP				SAND: grayish tan; med; heavy minerals (<0.5%)		
11–21		SP SP				SAND: brown; med; heavy minerals (<0.5-0.5%)		
21–26		SP				SAND: brown; med; heavy minerals (<0.5%)		
26–30		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
30–33		SP				SAND: dark brown; med; heavy minerals (0.5%)		
33–35						SAND: orangish brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37		SP				SAND: brown; med; heavy minerals (1.5%)		
38						SAND: white; med		
39		SP						
40		SP				SAND: dark brown; med; heavy minerals (2-2.5%)		
41						SAND: tan; med; heavy minerals (1.5-2%)		
42		SP						
43								
44								
45		SP				SAND: dark brown; med; heavy minerals (1.5-2%)		
46		SP				SAND: orangish brown; med		
47						SAND: dark brown; med; heavy minerals (2%)		
48		SP						
49		SP				SAND: tan; med; heavy minerals (0.5%)		
50		SP				SAND: brown; med		
51		SP				SAND: tan; med to coarse; heavy minerals (1.5-2%)		
52								
53		SP				SAND: orangish brown; med to coarse; heavy minerals (1-1.5%)		
54		SP				SAND: tan; med to coarse; heavy minerals (1-1.5%)		
55						CLAY, sandy: dark grey		
56		SC						
57								
58						SAND, clayey: tan; fine; heavy minerals (0.5%)		
59		SC						
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-420

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
7		SP				SAND: dark brown; med		
8		SP				SAND: brown; med; heavy minerals (0.5-1%)		
13		SP				SAND: light brown; med		
15		SP				SAND: dark brown; med; heavy minerals (1-1.5%)		
16		SP				SAND: light brown; med		
		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
30		SP				SAND: tan and brown mirel; med; heavy minerals (1-1.5%)		
34		SP				SAND: tan; med; heavy minerals (1%)		
35						*Continued Next Page*		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-420

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: dark brown; med; heavy minerals (0.5-1.5%)		
38		SP						
39								
40						SAND: brown; med; heavy minerals (1-1.5%)		
41		SP						
42								
43								
44						SAND: tan/light tan; med to coarse; heavy minerals (0.5%)		
45		SP						
46								
47						SAND, clayey: grayish brown; fine; heavy minerals (<0.5-0.5%)		
48		SC						
49								
50						SAND: tan; med to coarse; heavy minerals (0.5-1%)		
51		SP						
52								
53								
54						SAND, clayey: light brown; fine; heavy minerals (0.5-1%)		
55		SC						
56								
57						SAND, trace clay: tan; fine; heavy minerals (0.5-1%)		
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-421

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark grey; med SAND: dark brown; med		
5–7		SP				SAND: tan; med		
8–11		SP				SAND: grayish brown; med; heavy minerals (0.5-1%)		
12–15		SP				SAND: dark brown; med; heavy minerals (0.5%)		
16–25		SP				SAND: brown; med; heavy minerals (1-2.5%)		
26		SP				SAND: tan; med; heavy minerals (2.5-3%)		
27–28		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
29		SP				SAND: tan/light brown; med; heavy minerals (0.5%)		
30–33		SP				SAND: dark brown; med; heavy minerals (1.5-2%)		
34–35						SAND: brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37		SP				SAND: light brown; med to coarse		
38						SAND: brown; med to coarse; heavy minerals (<0.5-0.5%)		
39								
40								
41								
42		SP						
43								
44								
45								
46								
47		SC				SAND, trace clay: dark brown; med to fine		
48						SAND, clayey: grey; fine; heavy minerals (<0.5%)		
49		SC						
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-422

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
0		SP				SAND: grey; med		
1		SP				SAND: white; med		
2								
3		SP				SAND: brown; med; heavy minerals (0.5%)		
4								
5								
6								
7								
8		SP				SAND: dark brown; med to fine; consolidated; heavy minerals (0.5%)		
9								
10		SP				SAND: dark brown; med; heavy minerals (0.5%)		
11								
12		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
13								
14								
15								
16								
17								
18		SP				SAND: dark brown; med		
19		SP				SAND: grey/light brown; med; heavy minerals (1%)		
20								
21		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
22								
23								
24								
25								
26		SP				SAND: orangish brown; med to coarse; heavy minerals (1%)		
27								
28								
29								
30		SP				SAND: light brown; med to coarse; heavy minerals (<0.5%)		
31								
32								
33						SAND: tan; med to coarse; heavy minerals (1.5-2%)		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-422

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37		SP				SAND: light brown; med; heavy minerals (1%)		
38						SAND: tan; med to coarse; heavy minerals (1.5%)		
39		SP						
40								
41								
42		SC				SAND, trace clay: brown; fine		
43						SAND, clayey: light brown/tan; fine; heavy minerals (0.5-1%)		
44		SC						
45								
46								
47		SC				SAND, clayey: light tan; fine; heavy minerals (0.5%)		
48		SC				SAND, clayey: grey; fine; organics		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-423

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: dark brown; med		
7–12		SP				SAND: dark grey/dark brown; med; heavy minerals (0.5-1.5%)		
12–14		SP				SAND: dark brown; med		
14–24		SP				SAND: grayish tan; med; heavy minerals (1-1.5%)		
24		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
25–29		SP				SAND: tan; med; heavy minerals (0.5%)		
29		SP				SAND: orangish brown; med		
30		SP				SAND: dark brown; med; heavy minerals (0.5%)		
31		SP				SAND: grey; med; heavy minerals (0.5%)		
32–33		SP				SAND: white; med		
34–35						SAND: grey; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
39		SC				CLAY, sandy: grey; fine; heavy minerals (1%)		
40–47		SC				SAND, some to trace clay: tan; fine; heavy minerals (<0.5-0.5%)		
48–49		SC				SAND, clayey: tan; med; heavy minerals (0.5%)		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-424

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4						SAND: grayish brown; med; heavy minerals (0.5%)		
5								
6								
7		SP						
8								
9								
10								
11						SAND: brown; med; heavy minerals (0.5-1%)		
12								
13								
14		SP						
15								
16								
17		SP				SAND: dark brown; med; heavy minerals (1%)		
18		SP				SAND: tan; med; heavy minerals (1-1.5%)		
19		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
20								
21						SAND: grayish tan; med; heavy minerals (1%)		
22		SP						
23								
24						SAND: brown; med; heavy minerals (0.5%)		
25		SP						
26								
27						SAND: dark brown; med; heavy minerals (0.5-1%)		
28								
29								
30								
31								
32								
33		SP						
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-424

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: brown; med; heavy minerals (1%)		
40								
41								
42								
43								
44								
45								
46		SP				SAND: tan; med		
47								
48		SP				SAND: brown and tan mixed; med; heavy minerals (0.5%)		
49		SC				SAND, trace clay: dark brown; fine		
50		SC				SAND, trace clay: tan; fine; heavy minerals (0.5%)		
51								
52								
53		SC				SAND, clayey: tan; fine; heavy minerals (0.5%)		
54								
55								
56								
57						No Recovery		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-425

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: greenish brown; med; heavy minerals (0.5%)		
10		SP				SAND: dark brown; med; consolidated (14-15); heavy minerals (0.5-1%)		
20		SP				SAND: brown; med to fine; heavy minerals (1-1.5%)		
27		SP				SAND: grayish brown; med to fine; heavy minerals (1-1.5%)		
28		SP				SAND: brown; med; heavy minerals (1-1.5%)		
30		SP				SAND: dark brown; med; heavy minerals (0.5%)		
33		SP				SAND: tan; med; heavy minerals (1.5-2%)		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-425

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; med to fine; heavy minerals (<0.5%)		
37								
38								
39								
40		SP				SAND: brown; med; heavy minerals (0.5%)		
41								
42								
43								
44		SP				SAND: tan; coarse; heavy minerals (0.5%)		
45								
46		SP				SAND: dark brown; med to fine; organics; heavy minerals (0.5%)		
47								
48								
49								
50		SP				SAND: tan/light brown; med to coarse; heavy minerals (0.5-1%)		
51								
52								
53								
54								
55		SC				SAND, trace clay: brown; fine		
56								
57		SC				SAND, clayey: grey; fine		
58								
59		SC				SAND, clayey: tan; fine; heavy minerals (0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-426

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
5		SP				SAND: brown; med		
		SP				SAND: tan; med		
6–18		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
19		SP				SAND: dark brown/black; med; lightly consolidated; heavy minerals (<0.5%)		
20–27		SP				SAND: dark brown; med to coarse; heavy minerals (0.5-1.5%)		
27		SP				SAND: brown; med; heavy minerals (0.5-1%)		
28–29		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
30–35						SAND: dark brown; med to coarse; heavy minerals (<0.5-2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-426

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
42–49		SP				SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
50–51		SP				SAND: brown; med; heavy minerals (3-4%)		
52–56		SP				SAND: light tan/white; med; heavy minerals (1.5-2%)		
57–58		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
59–60		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-427

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
5–9		SP				SAND: brown; med		
		SP				SAND: tan; med		
		SP				SAND: grayish brown; med; heavy minerals (0.5-1%)		
10–24		SP				SAND: dark brown; med; lightly consolidated (13-15); heavy minerals (0.5-1%)		
25–28		SP				SAND: reddish/orangish brown; med; heavy minerals (1-2%)		
29–34		SP				SAND: tan/light brown; med; heavy minerals (0.5-4%)		
35						SAND: reddish brown; med; heavy minerals		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-427

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–53		SP				(0.5-1.5%); (3-4% @ 49.5)		
54–56		SP				SAND: grayish brown; med; heavy minerals (0.5-1%)		
57		SP				SAND: white; med; heavy minerals (1-1.5%)		
58–61		SP				SAND: dark brown; med; heavy minerals (<0.5-2%)		
62–66		SP				SAND: reddish brown; med; heavy minerals (0.5-1%)		
67		SP				SAND: dark brown; fine; heavy minerals (<0.5%)		
68–69		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-428

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: white; med		
3		SP				SAND: grayish brown; med		
4		SP				SAND: tan; fine		
5		SP				SAND: grey; med; heavy minerals (0.5%)		
6		SP						
7		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
8		SP						
9		SP						
10		SP						
11		SP						
12		SP						
13		SP						
14		SP						
15		SP						
16		SP						
17		SP						
18		SP						
19		SP						
20		SP				SAND: brown; med; heavy minerals (0.5-1%)		
21		SP						
22		SP						
23		SP						
24		SP						
25		SP						
26		SP						
27		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
28		SP				SAND: brown; med; heavy minerals (0.5%)		
29		SP						
30		SP				SAND: dark brown; med; heavy minerals (0.5%)		
31		SP						
32		SP				SAND: brown; med		
33		SP				SAND: dark brown; med to fine		
34		SP						
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-428

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP				SAND: tan; med; heavy minerals (<0.5%)		
39		SP				SAND: brown; med; heavy minerals (0.5-1%)		
40–42		SP				SAND: dark brown; med to coarse; heavy minerals (1-1.5%)		
43–49		SP				SAND: reddish brown; med; heavy minerals (1.5-3%)		
50–54		SP				SAND: orangish brown; med; heavy minerals (1-1.5%)		
55		SP				SAND: dark brown; med to fine		
56		SP				SAND: tan fine		
57–62		SP				SAND: dark brown; med to fine; heavy minerals (1-1.5%)		
63–64		SP				SAND: light tan; fine		
65–69		SM				SAND, silty: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-429

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
3								
4								
5		SP				SAND: dark brown; med; heavy minerals (0.5-3%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31		SP				SAND: tan; med; heavy minerals (1-1.5%)		
32								
33						SAND: brown; med; heavy minerals (1-2%)		
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
39–52		SP				SAND: orangish brown; med; heavy minerals (0.5-3%)		
53		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
54		SP				SAND: grayish brown; med		
55		SP				SAND: tan; med to fine; heavy minerals (1.5%)		
56–62		SP				SAND: dark brown; med to fine; heavy minerals (<0.5-1%)		
63–64		SP				SAND: brown; fine; heavy minerals (<0.5%)		
65–69		SM				SILT, sandy: tan; fine; organics; heavy minerals (<0.5-1%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-430

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				Road Fill		
2–3		SP				SAND: grey; med		
3–5		SP				SAND: orange; med		
5–10		SP				SAND: grayish brown; med; heavy minerals (1%)		
10–15		SP				SAND: brown; med; heavy minerals (1-2%)		
15–20		SP				SAND: dark brown; med; heavy minerals (1-1.5%)		
20–23		SP				SAND: tan; med; heavy minerals (0.5-1%)		
23–25		SP				SAND: dark brown; med; consolidated		
25–33		SP				SAND: brown; med; heavy minerals (0.5-2%)		
33–35						SAND: orangish brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** A. Bushey

LOCATION Saint George, Georgia **DATE(S) DRILLED** 11/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: dark brown; fine; hard; heavy minerals (0.5%)		
38		SP						
39								
40						SAND: brown; med; heavy minerals (1%)		
41		SP						
42								
43						SAND: orangish tan; coarse; heavy minerals (0.5%)		
44		SP						
45								
46								
47						SAND: tan; med to coarse; heavy minerals (<0.5-1.5%)		
48		SP						
49								
50								
51								
52								
53								
54								
55						SAND: brown; med to fine; heavy minerals (1-2%)		
56		SP						
57								
58								
59								
60						SAND: dark brown; med to fine; heavy minerals (<0.5-1%)		
61		SP						
62								
63								
64								
65								
66						SAND: reddish brown; fine; heavy minerals (<0.5%)		
67		SP						
68								
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-431

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5		SP				SAND: grayish brown; med; heavy minerals (0.5-1%)		
6								
7								
8								
9		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10								
11								
12		SP				SAND: tan/light brown; heavy minerals (0.5-1%)		
13								
14								
15								
16		SP				SAND: dark brown; med to fine; consolidated; heavy minerals (1-1.5%)		
17		SP				SAND: tan/light brown; heavy minerals (1-1.5%)		
18						SAND; dark brown; med to fine; lightly consolidated; heavy minerals (0.5%)		
19		SP						
20								
21								
22								
23		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
24								
25								
26		SP				SAND: orangish brown; med; heavy minerals (0.5-2%)		
27								
28								
29								
30								
31								
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: tan; med; heavy minerals (1-3%)		
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51		SC				SAND, clayey: dark grey; fine; heavy minerals (0.5%)		
52								
53								
54								
55		SC				SAND, clayey: grey/brown; fine; heavy minerals (<0.5%)		
56								
57								
58		SC				CLAY, sandy: tan; fine; heavy minerals (<0.5%)		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-432

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
5		SP				SAND: brown; med		
6–7		SP				SAND: tan; med		
8–9		SP				SAND: dark brown; med		
10–14		SP				SAND: grayish tan; med; heavy minerals (0.5%)		
15–19		SP				SAND: tan; med; heavy minerals (1%)		
20		SP				SAND: dark brown; med; heavy minerals (1%)		
21–26		SP				SAND: brown; med; heavy minerals (0.5%)		
27–29		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
30–35		SP				SAND: brown; med; heavy minerals (0.5-1%) SAND: reddish brown; med to coarse; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-432

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** A. Bushey

LOCATION Saint George, Georgia **DATE(S) DRILLED** 11/1/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: orangish tan; med; heavy minerals (0.5-1.5%)		
38								
39								
40								
41								
42								
43		SP				SAND: tan; med; heavy minerals (1.5%)		
44								
45		SP				SAND: tan; coarse; heavy minerals (0.5%)		
46								
47		SP				SAND: light brown; med to fine		
48								
49								
50		SP				SAND: light tan; fine		
51								
52		SP				SAND: brown; fine; heavy minerals (0.5-1%)		
53								
54								
55								
56		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5-1%)		
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-433

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med; organics		
3		SP				SAND: tan; med		
4		SP				SAND: grayish brown; med		
5		SP				SAND: brown; med; heavy minerals (1-1.5%)		
12		SP				SAND: dark brown; med		
13		SP				SAND: light brown; med		
14		SP				SAND: dark brown; med; heavy minerals (1%)		
15		SP				SAND: grey; med; heavy minerals (1%)		
16		SP				SAND: brown; med; heavy minerals (0.5-1.5%)		
17		SP				SAND: orangish brown; med; 2" hardpan (@29.5); heavy minerals (1.5-2%)		
23		SP				SAND: reddish brown; med; heavy minerals (0.5-2%)		
30								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–44		SP						
44–50		SP				SAND: reddish brown; med to coarse; heavy minerals (0.5%)		
50		SP				SAND: tan/light brown; med to coarse; heavy minerals (2-3%)		
51		SC				SAND, trace clay: dark brown; med to fine; heavy minerals (1%)		
52–54		SC				CLAY, sandy: grey; fine; heavy minerals (<0.5%)		
54–55		SC				CLAY, sandy: grey; fine		
55–61		SP				SAND: light grey/tan; fine; banding; heavy minerals (1.5-2%)		
61–64		CL				CLAY: dark grey; plastic; heavy minerals (1.5-2%)		
64–66		SC				CLAY, sandy: dark grey; fine; heavy minerals (<0.5%)		
66–70		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-434

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grayish brown; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5%)		
8		SP				SAND: brown; med; heavy minerals (0.5%)		
12		SP				SAND: dark brown; med; heavy minerals (1%)		
14		SP				SAND: brown; med; heavy minerals (1-1.5%)		
18		SP				SAND: dark brown; med; consolidated (21-22); heavy minerals (1.5-2%)		
22		SP				SAND: brown; med; heavy minerals (2%)		
23		SP				SAND: tan; med; heavy minerals (2%)		
25		SP				SAND: dark brown; med; heavy minerals (2%)		
28		SP				SAND: brown; med; heavy minerals (1%)		
30		SP				SAND: dark brown; med		
31						SAND: orangish brown; med to coarse; heavy minerals (0.5-1.5%)		
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SP						
50		SP				SAND: grayish brown; med; heavy minerals (1.5%)		
55		SP				SAND: brown; med to fine; heavy minerals (1-1.5%)		
57		SP				SAND: orangish brown; med to fine; heavy minerals (0.5%)		
61		SC				SAND, trace clay: dark brown; fine; heavy minerals (1%)		
66		SC				SAND, clayey: brown; fine; heavy minerals (0.5%)		
67		SP				SAND: tan; fine		
70		SC				SAND, clayey: tan; fine; heavy minerals (0.5%) BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-435

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road Fill		
2		SP				SAND: grey; med		
3		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
17		SP				SAND: brown; med; heavy minerals (1-1.5%)		
18		SP				SAND: dark brown; med; consolidated; heavy minerals (0.5-1%)		
20		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
25		SP				SAND: brown; med; heavy minerals (0.5%)		
29		SP				SAND: dark brown; med; heavy minerals (1%)		
30		SP				SAND: brown; med		
32						SAND: orangish brown; med; heavy minerals (<0.5-2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-435

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–48		SP						
49–52		SP				SAND: tan; med; heavy minerals (1-1.5%)		
53–56		SP				SAND: brown; med; heavy minerals (1-1.5%)		
57–58		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
59		SP				SAND: tan/light brown; med to fine; heavy minerals (1-1.5%)		
60–64			60 - 70	0		No Recovery		
65–69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-436

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
2–19		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
20–24		SP				SAND: brown orangish in some places; med; heavy minerals (<0.5-1%)		
24–25		SP				SAND: dark brown; med to fine; heavy minerals (1.5-2%)		
25–26		SC				SAND, clayey: dark grey; fine		
26–30		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
30–35		SC				SAND, trace clay: tan; fine; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-436

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, clayey: grayish tan; fine; heavy minerals (0-<0.5%)		
38		SC						
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-437

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2–15		SP				SAND: dark brown; med; heavy minerals (0.5%)		
16–25		SP				SAND: brown; med; heavy minerals (0.5-1%)		
26–29		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
30–33		SP				SAND: brown; fine; heavy minerals (0.5-1%)		
34–35						SILT, sandy, clayey: tan; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-437

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
35		SC-SM	30 - 40	85				
36						SILT, sandy: tan; fine; heavy minerals (0.5%)		
37		SM						
38								
39								
40		SM				SILT, sandy: grey; fine; heavy minerals (0.5-1%)		
41						No Recovery		
42								
43								
44								
45			40 - 50	0				
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-438

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS 26-28.5 Heavy Mineral Banding (very large)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
4–6		SP				SAND: dark brown; med		
7–9		SP				SAND: grey; med; heavy minerals (0.5-1%)		
9–22		SP				SAND: dark brown; med; consolidated (11-13 and 16-17.5); heavy minerals (0.5-1.5%)		
23–24		SP				SAND: brown; med; heavy minerals (1.5-2%)		
25–32		SP				SAND: orangish brown; med; heavy mineral banding; heavy minerals (1.5-2.5%)		
33		SP				SAND: dark brown; med to fine; heavy minerals (3-4%)		
34–35						SAND, clayey: light brown; fine; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39		SP				SAND: light tan; fine; heavy minerals (1-1.5%)		
40		SP				SAND: brown; med to fine		
41		SC				SAND, trace clay: tan; fine; heavy minerals (0.5%)		
42								
43								
44		SP				SAND: white; fine; heavy minerals (<0.5%)		
45		SC				SAND, clayey: tan/grey; fine; heavy minerals (<0.5%)		
46								
47								
48								
49		SP				SAND: white; med; heavy minerals (<0.5%)		
50		CL				CLAY: grey; plastic BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-439

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark grey; med SAND: brown; med		
4–21		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
21–22		SP				SAND: brown; coarse; heavy minerals (<0.5%)		
22–27		SP				SAND: dark brown; coarse; lightly consolidated; heavy minerals (0.5%)		
27–30		SP				SAND: tan; med; heavy minerals (<0.5-0.5%)		
30–35						SAND: brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-2%)		
41–50		SP						
51		SP				SAND: brown; med		
52–53		SP						
54		SP				SAND: tan; med to fine; heavy minerals (0.5%)		
55		SP				SAND: brown; med to fine		
56		SC				SAND, clayey: brown; fine		
57–58		SC				SAND, clayey: light brown; fine		
59		SC-SM				SILT, sandy, trace clay: tan; fine; organics; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-440

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med		
6		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
7–10		SP				SAND: tan; med; heavy minerals (0.5-1%)		
11–16		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
17–28		SP				SAND: brown; med; heavy minerals (0.5-2%)		
29–35		SP						

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: brown; coarse; heavy minerals (1-1.5%)		
38						SAND: orangish brown; med; heavy minerals (0.5%)		
39								
40								
41								
42		SP						
43								
44								
45								
46								
47		SP				SAND: grey; med		
48		SP				SAND: tan; med; heavy minerals (1.5%)		
49		SP				SAND: dark brown; med; consolidated; heavy minerals (1.5-2%)		
50						SAND: tan; med; heavy minerals (0.5-1.5%)		
51								
52								
53								
54								
55		SP						
56								
57								
58								
59		SP						
60						SAND: dark brown; med to fine; heavy minerals (0.5%)		
61						SAND, trace clay: brown; fine; heavy minerals (0.5-1%)		
62		SC						
63								
64								
65						SAND: light brown; fine; heavy minerals (<0.5-0.5%)		
66		SP						
67								
68		SC				SAND, trace clay: reddish brown; fine		
69		SM				SILT, sandy: tan; fine; heavy minerals (0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-441

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: grayish brown; med		
6		SP				SAND: dark brown; med; lightly consolidated (16-18); heavy minerals (1-1.5%)		
20		SP				SAND: brown; med; heavy minerals (1%)		
25		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
32		SP				SAND: brown; med; heavy minerals (<0.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: tan; med to coarse; heavy minerals (1.5-2%)		
37								
38								
39		SP				SAND: brown; med to fine; heavy minerals (1.5-2%)		
40		SP				SAND: orangish brown; med; heavy mineral banding; heavy minerals (1-3%)		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53		SP				SAND: brown; med; heavy minerals (0.5-2.5%)		
54								
55								
56		SP				SAND: tan; med to coarse; heavy minerals (1-1.5%)		
57								
58								
59		SP				SAND: orange/brown; med; heavy minerals (<0.5%)		
60								
61								
62		SP				SAND: tan; med to fine		
63		SC				SAND, trace clay: dark brown; fine		
64								
65		SC				SAND, trace clay: tan; fine		
66		SC				SAND, clayey: grey; fine		
67		SM				SILT, sandy: tan; fine		
68								
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-442

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: white; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: grayish brown; med		
7		SP				SAND: dark brown; med; heavy minerals (1%)		
12		SP				SAND: grey; med; heavy minerals (1-1.5%)		
13		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
21		SP				SAND: brown; med; heavy minerals (0.5-1%)		
24		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41								
42–46		SP				SAND: tan; med; heavy minerals (1.5-2%)		
46–51		SP				SAND: orangish tan; med; heavy minerals (1%)		
51–52		SP				SAND: grey; med to fine; heavy minerals (1%)		
52–54		SP				SAND: tan; med; heavy minerals (0.5-1%)		
54–65		SP				SAND: brown; med; heavy minerals (0.5-1.5%)		
65		SP				SAND: tan; med		
66		SC				SAND, clayey: dark brown; fine		
67		CL-ML				CLAY, silty: dark brown; heavy minerals (<0.5%)		
68–69		SC				SAND, trace clay: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-443

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	8'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: light tan; med		
5						SAND: grey; med; heavy minerals (0.5-1%)		
6								
7								
8		SP						
9								
10								
11						SAND; dark brown; med; heavy minerals (0.5-1%)		
12								
13								
14								
15								
16								
17								
18		SP						
19								
20								
21								
22								
23								
24								
25								
26						SAND: brown; med; heavy minerals (0.5-1%)		
27								
28								
29		SP						
30								
31								
32						SAND: dark brown; med; heavy minerals (0.5-1%)		
33								
34		SP						
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: orangish brown; med; heavy minerals (1-2.5%)		
40–53		SP				SAND: brown; med to coarse; heavy minerals (0.5-2%)		
53		SP				SAND: grayish tan; med; heavy minerals (0.5-1%)		
54–55		SP				SAND: tan; med; heavy minerals (1%)		
56–64		SP				SAND: dark brown; med; heavy minerals (0.5%)		
64–65		SP				SAND: brown; med; heavy minerals (0.5%)		
66–68		SP				SAND: light brown; fine; heavy minerals (0.5%)		
69–73		SP				SAND: tan; fine; heavy mineral banding; heavy minerals (1-2%)		
73–75		SC				SAND, clayey: tan; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-443

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SC				CLAY, sandy: grey; fine; heavy minerals (<0.5%)		
77		SC				SAND, trace clay: light tan; fine; heavy minerals (<0.5%)		
78		SP				SAND: grey; fine to med; heavy minerals (<0.5%)		
79								
80						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-444

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grey; med		
5		SP				SAND: dark brown; med		
6		SP				SAND: grey; med; heavy minerals (0.5-1%)		
7		SP				SAND: dark brown; med; consolidated (29-29.5); heavy minerals (0.5-2%)		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19		SP						
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						SAND: tan; med to coarse; heavy minerals (1%)		
31		SP						
32						SAND: brown; med to coarse; heavy minerals (1.5%)		
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP						
40–58		SP				SAND: orangish brown; med to coarse; heavy minerals (1-2.5%)		
58		SP				SAND: tan; med		
59		SP				SAND: dark brown; med to fine; consolidated; heavy minerals (0.5-1%)		
60–63		SP				SAND: brown; fine to med; heavy minerals (0.5%)		
63–65		SP				SAND: dark brown; fine		
65		SP				SAND: brown; fine to med		
66–67		SP				SAND: tan; med to fine; heavy mineral banding; heavy minerals (~4%)		
68–70		SP				SAND: dark brown/tan mixed; fine; organics; heavy minerals (1%)		
71–72		SP				SAND: tan; med; heavy minerals (0.5-1%)		
73–75		SC				SAND, trace clay: tan; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-444

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SC				SAND, clayey: brown; fine; heavy minerals (<0.5%)		
77		SC				CLAY, sandy: grayish tan; fine		
78		SC				SAND, very trace clay: tan; med to fine; heavy minerals (<0.5-0.5%)		
79								
80						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-445

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5						SAND: dark brown; med; heavy minerals (0.5-1%)		
6								
7								
8								
9								
10								
11								
12		SP						
13								
14								
15								
16								
17								
18								
19								
20						SAND: brown to coarse; heavy minerals (1%)		
21								
22		SP						
23								
24								
25		SP				SAND: dark brown; coarse; heavy minerals (1.5-2%)		
26		SP				SAND: brown; med to coarse		
27						SAND: tan; med to coarse; heavy minerals (1%)		
28		SP						
29								
30						SAND: dark brown; med		
31		SP						
32		SP				SAND: light brown; med; heavy minerals (0.5-1%)		
33								
34						SAND: tan; med; heavy minerals (1-1.5%)		
35		SP						

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** A. Bushey

LOCATION Saint George, Georgia **DATE(S) DRILLED** 11/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: dark brown; med		
38						SAND: orangish brown; med; heavy minerals (0.5%)		
39		SP						
40								
41								
42						SAND: orangish brown; coarse; heavy minerals (<0.5%)		
43								
44								
45								
46								
47		SP						
48								
49								
50								
51								
52						SAND: orangish brown; med		
53		SP						
54								
55						SAND: brown; med; heavy minerals (1-1.5%)		
56								
57		SP						
58								
59						SAND: dark brown; med to fine; heavy minerals (0.5%)		
60		SP						
61						SAND: light brown; fine; heavy minerals (0.5%)		
62		SP						
63								
64						SAND, trace clay: tan; fine; heavy minerals (0.5%)		
65		SC						
66								
67						SAND: light tan; fine; heavy minerals (0.5%)		
68		SP						
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-446

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: grey; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5%)		
9		SP				SAND: grey; med; heavy minerals (0.5-1%)		
10		SP				SAND: dark brown/black; med to fine; heavy minerals (<0.5%)		
15		SP				SAND: orangish brown; med; heavy minerals (1-1.5%)		
16		SP				SAND: dark brown; med; heavy minerals (1.5%)		
20		SP				SAND: brown; med; heavy minerals (2%)		
21		SP				SAND: dark brown; med; heavy minerals (1-1.5%)		
23						SAND: orangish brown; med; heavy minerals (0.5-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–51		SP						
52		SP				SAND: dark brown; med to fine		
53–60		SP				SAND: brown; med; heavy minerals (1%)		
61		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
62–72		SP				SAND: brown; med to fine; heavy minerals (0.5-1.5%)		
73		SC				SAND, clayey: brown; fine		
74–75						SAND, trace clay: tan; fine; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-446

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
		SC						
76						CLAY, sandy: grey; fine		
77		SC						
78								
79		SP				SAND: white; fine; heavy minerals (0.5-1%)		
		SP				SAND: tan; fine		
80						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-447

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
17		SP				SAND: tan; med; heavy minerals (1%)		
19		SP				SAND: light tan/white; med; heavy minerals (1-1.5%)		
23		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
25		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
33		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
37–43		SP				SAND: orangish brown; med; heavy minerals (0.5-1.5%)		
44–51		SP				SAND: brown; med; heavy minerals (0.5-4%; 5-6% on band)		
52–54		SP				SAND: dark brown; med; heavy minerals (2-2.5%)		
55		SP				SAND: reddish brown; med		
56						Tree; heavy minerals (0.5%)		
57–59		SC				SAND, trace clay: dark brown; fine; heavy minerals (0.5%)		
60–61		SP				SAND: tan; fine		
62		SP				SAND: dark brown; fine		
63–67		SC-SM				SAND, silty, trace clay: light brown; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-448

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; organics		
2–3		SP				SAND: brown; med		
3–5		SP				SAND: tan; med		
5–6		SP				SAND: dark brown; med; heavy minerals (0.5%)		
6–8		SP				SAND: grey; med; heavy minerals (0.5%)		
8–15		SP				SAND: dark brown; med; consolidated; heavy minerals (0.5%)		
15–19		SP				SAND: dark brown; med; heavy minerals (0.5%)		
19–35		SP				SAND: brown; med; heavy minerals (0.5-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-448

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: tan; med to coarse; heavy minerals (1-2.5%)		
40–45		SP				SAND: dark brown; med; heavy minerals (0.5%)		
45–50		SP				SAND: reddish brown; med to coarse; heavy minerals (1-2.5%)		
50–55		SP				SAND: dark brown; med; heavy minerals (0.5%)		
55–57		SP				SAND: brown; med; heavy minerals (0.5%)		
57–60		SP				SAND: orangish brown; med to fine; heavy minerals (0.5%)		
60–64		SP				SAND: dark brown; med to fine; heavy minerals (0.5-1%)		
64–66		SP				SAND: brown; fine; heavy minerals (0.5%)		
66–67		SP				SAND: dark brown; fine; heavy minerals (0.5%)		
68		SC				SAND, clayey: tan; fine		
69		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-449

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white; med		
2		SP				SAND: tan; med		
3								
4		SP				SAND: grey; med		
5								
6								
7								
8								
9								
10		SP				SAND: dark brown; med; heavy minerals (0.5%)		
11								
12								
13								
14								
15								
16								
17		SP				SAND: brown; med; heavy minerals (0.5%)		
18								
19		SP				SAND: dark brown; med; heavy minerals (0.5%)		
20								
21								
22								
23		SP				SAND: brown; med; heavy minerals (0.5%)		
24								
25								
26								
27								
28								
29		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
30								
31								
32								
33								
34		SP				SAND: brown; med; heavy minerals (<0.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP				SAND: reddish brown; med; heavy minerals (<0.5-1.5%)		
42–61		SP				SAND: orangish brown; med; heavy minerals (0.5-2%)		
61–63		SP				SAND: dark brown; fine		
63–70		SC				SAND, trace clay: tan/light brown; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-450

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4						SAND: dark brown; med; heavy minerals (0.5-1%)		
5								
6								
7								
8								
9								
10								
11								
12		SP						
13								
14								
15								
16								
17								
18								
19								
20		SP				SAND: brown; med; heavy minerals (1-1.5%)		
21						SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
22								
23		SP						
24								
25								
26		SP				SAND: dark brown; med; heavy minerals (0.5%)		
27						SAND: brown; med; heavy minerals (0.5-1%)		
28								
29								
30								
31								
32								
33		SP						
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39								
40						SAND: orangish brown; med; heavy minerals (1.5-2%)		
41–49		SP						
50						SAND: orangish brown; coarse; heavy minerals (1-1.5%)		
51–56		SP						
57		SP				SAND: tan; coarse; heavy minerals (0.5%)		
58–59		SP				SAND: dark brown; fine; consolidated		
60		SP				SAND: grey; fine; heavy minerals (1%)		
61–63		SP				SAND: dark brown; fine; heavy minerals (<0.5%)		
64–68		SP				SAND: brown; fine; heavy minerals (<0.5%)		
69		SC				SAND, trace clay: light brown; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-451

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5		SP				SAND: dark brown; med		
6		SP				SAND: grey; med; heavy minerals (0.5%)		
7								
8		SP				SAND: dark brown; med; heavy minerals (0.5-2%)		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP				SAND: brown; med; heavy minerals (1-1.5%)		
22								
23								
24		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
25								
26								
27								
28								
29								
30								
31		SP				SAND: brown; med		
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light brown; med; heavy minerals (1-1.5%)		
38								
39								
40		SP				SAND: brown; med; heavy minerals (1-2%)		
41								
42								
43								
44								
45								
46								
47		SP				SAND: dark brown; med; consolidated; heavy minerals (1.5-2%)		
48		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
49								
50								
51								
52		SP				SAND: dark brown; med to fine		
53								
54		SP				SAND: grayish tan; med; heavy minerals (1-1.5%)		
55								
56								
57		SP				SAND: dark brown; med; heavy minerals (0.5%)		
58								
59								
60								
61								
62								
63								
64		SP				SAND: orangish brown; med to fine; heavy minerals (<0.5%)		
65								
66		SC				SAND, trace clay: tan; fine; heavy minerals (<0.5-1%)		
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-452

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
2–3		SP				SAND: dark brown; med		
4		SP				SAND: tan; med		
5–9		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10–11		SP				SAND: brown; med; heavy minerals (0.5-1%)		
12–14		SP				SAND: dark brown; med		
15		SP				SAND: tan; med; heavy minerals (1.5%)		
16–35		SP				SAND: dark brown; med; heavy minerals (0.5-2%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: brown; med; heavy minerals (1-1.5%)		
40		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50		SP				SAND: grayish brown; med		
51		SP				SAND: dark brown; med; heavy minerals (1%)		
52								
53								
54								
55								
56		SP				SAND: brown; med; heavy minerals (0.5-1.5%)		
57								
58								
59								
60								
61		SP				SAND: brown; fine; heavy minerals (0.5-1.5%)		
62								
63								
64								
65								
66		SC				SAND, trace clay: tan; fine; heavy minerals (<0.5%)		
67								
68								
69		SC				CLAY, sandy: grey; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-453

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3.5
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
		SP				SAND: dark grey/black; med; organics		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5								
6		SP				SAND: dark brown; med		
7								
8		SP				SAND: brown; med; heavy minerals (0.5-1%)		
9								
10								
11								
12								
13								
14								
15		SP				SAND: dark brown; med; consolidated (17-20); heavy minerals (0.5-1.5%)		
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
27								
28		SP				SAND: tan; coarse; heavy minerals (<0.5%)		
29								
30		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
31								
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP				SAND: dark grey/dark brown; med; heavy minerals (0.5%)		
41–43		SP				SAND: brown; med; heavy minerals (0.5%)		
43–45		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
45–49		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
49		SP				SAND: tan; med; heavy minerals (1-1.5%)		
50		SP				SAND: dark brown; med; consolidated (49.5-50)		
51		SP				SAND: brown; med		
51–56		SP				SAND: tan; med to fine; heavy minerals (0.5-1%)		
56–57		SC				SAND, clayey: dark brown/black; fine; heavy minerals (0.5%)		
58–60		SC				SAND, trace clay: tan; fine; heavy minerals (0.5-1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-454

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: tan; med		
4		SP				SAND: brown; med		
5–9		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
10–17		SP				SAND: brown; med; heavy minerals (0.5-1%)		
18–19		SP				SAND: dark brown; med; heavy minerals (1%)		
20–22		SP				SAND: brown; med; heavy minerals (1%)		
23–26		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
27–33		SP				SAND: brown; med; heavy minerals (0.5-1%)		
34–35		SP				SAND: orangish brown; med		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-454

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; med; heavy minerals (0.5%)		
37		SP				SAND: tan; med; heavy minerals (1.5-2%)		
38								
39		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
40								
41								
42								
43		SP				SAND: brown; med; heavy minerals (1%)		
44		SP				SAND: tan; med; heavy minerals (1-1.5%)		
45								
46								
47		SP				SAND: brown; med; heavy minerals (0.5%)		
48								
49								
50								
51								
52								
53		SC				SAND, trace clay: tan; fine; heavy minerals (0.5%)		
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-455

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
5		SP				SAND: brown; med; heavy minerals (0.5-1.5%)		
16		SP				SAND: dark brown; med; consolidated (18.5-20); heavy minerals (0.5-1.5%)		
23		SP				SAND; tan; med to coarse; heavy minerals (1.5%)		
24		SP				SAND: dark brown; med		
25		SP				SAND: brown; med; heavy minerals (0.5-1%)		
26		SP				SAND: tan; med to coarse		
27		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
38								
39								
40		SP				SAND: dark brown; med; consolidated; heavy minerals (1.5-2%)		
41						SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
42								
43		SP						
44								
45								
46						SAND: grayish tan; med to coarse; heavy minerals (0.5-2%)		
47								
48		SP						
49								
50								
51						SAND: dark brown; coarse; heavy minerals (0.5%)		
52								
53		SP						
54								
55								
56		SP				SAND: dark brown; med		
57						SAND, trace clay: tan; fine; heavy minerals (0.5%)		
58		SC						
59								
60		SC				SAND, trace clay: light brown; fine; heavy minerals (0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-456

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	8'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
5		SP				SAND: tan; med		
6		SP				SAND: dark brown; med		
7–9		SP				SAND: dark grey; med; heavy minerals (0.5-1%)		
10–13		SP				SAND: brown; med; heavy minerals (1-1.5%)		
14–28		SP				SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
29–31		SP				SAND: brown; med; heavy minerals (1.5-2%)		
32–35						SAND: orangish brown; med; heavy minerals (0.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
42		SP				SAND: tan; med to fine; heavy minerals (<0.5%)		
43–46		SP				SAND: brown; med to fine; heavy minerals (0.5-1%)		
47–48		SC				CLAY, sandy: tan; fine		
49–50		SP				SAND: white; fine; heavy minerals (1-1.5%)		
51–59		SC				SAND, trace clay: grayish tan; fine; heavy minerals (<0.5-1.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-457

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med; organics		
2–3		SP				SAND: tan; med		
3–5		SP				SAND: dark brown; med		
6–7		SP				SAND: grey; med		
8–18		SP				SAND; dark brown; med; heavy minerals (0.5-1%)		
19		SP				SAND: brown; med; heavy minerals (~1%)		
20–35		SP				SAND: dark brown; med; consolidated (19-31); heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP				SAND: brown; fine; heavy minerals (0.5-1%)		
38–39		SP				SAND: tan; fine; heavy minerals (0.5%)		
39–40		SP				SAND: brown; fine; heavy minerals (0.5%)		
40–41		SP				SAND: dark brown; fine		
42–46		SP				SAND: brown; fine; heavy minerals (0.5%)		
46–53		SP				SAND: tan; fine; heavy minerals (<0.5-1%)		
53–56		SC				SAND, trace clay: grayish tan; fine; heavy minerals (0.5%)		
56–60		CL				CLAY: bluish grey; plastic; heavy minerals (0%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-458

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark brown; med		
3–4		SP				SAND: grey; med		
4–15		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
15–18		SP				SAND: brown; med; heavy minerals (0.5%)		
18–26		SP				SAND: dark brown; med; heavy minerals (0.5%)		
26–28		SP				SAND: brown; med to coarse		
28–29		SP				SAND: tan; med; heavy minerals (1-1.5%)		
29–30		SP				SAND: dark brown; med		
30		SP				SAND: white; med; heavy minerals (0.5%)		
30–33		SP				SAND: brown; fine; heavy minerals (0.5-1%)		
33–35		SP				SAND: tan; fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-458

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light tan; fine; heavy minerals (0.5-1%)		
38								
39								
40								
41								
42								
43						SAND, trace to some clay: tan; fine; heavy minerals (0.5%)		
44								
45		SC	40 - 50	85				
46								
47								
48								
49		SC-SM				SAND, silty; clayey: grey; fine		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-459

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–5		SP				SAND: brown; med		
5–19		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
19–24		SP				SAND: brown; med; heavy minerals (0.5-1%)		
24–27		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
27–35		SP				SAND: brown; blue staining (27-30); med; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-459

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40								
41–46		SC				SAND, trace clay: dark brown; fine; heavy minerals (0.5-1%)		
47–50		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
51–52		SC				SAND, clayey: dark brown; fine; heavy minerals (0.5%)		
53–59		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-460

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grayish brown; med		
5								
6								
7								
8								
9		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
10								
11								
12								
13								
14		SP				SAND: brown; med; heavy minerals (1-1.5%)		
15								
16								
17								
18								
19		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
20		SP				SAND: brown; med		
21		SP				SAND: dark brown/black; consolidated (23-26); med; heavy minerals (0.5-1%)		
22								
23								
24								
25								
26								
27		SP				SAND: light brown; med; heavy minerals (0.5-1%)		
28								
29								
30		SP				SAND: dark brown; med; heavy minerals (0.5%)		
31								
32								
33						SAND: brown; med; heavy minerals (0.5-1%)		
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: orangish brown; med; heavy minerals (0.5%)		
38		SP						
39								
40						SAND: reddish brown; coarse; heavy minerals (<0.5%)		
41								
42								
43		SP						
44								
45								
46						SAND: tan; med to coarse; heavy minerals (1-1.5%)		
47		SP						
48						SAND, trace clay: tan; med to fine; heavy minerals (0.5-1%)		
49								
50								
51		SC						
52								
53						SAND, silty, trace clay: tan; fine; heavy minerals (0.5%)		
54								
55								
56								
57		SC-SM						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-461

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
1–12		SP				SAND: dark brown; med; heavy minerals (0.5%)		
13–17		SP				SAND: brown; med; heavy minerals (1-1.5%)		
18–25		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
26–35		SP				SAND: orangish brown; med; heavy minerals (0.5-2%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; med; consolidated		
37		SP				SAND: tan; med; heavy minerals (0.5-1%)		
38						SAND: brown; med; heavy minerals (0.5%)		
39								
40		SP						
41								
42								
43						SAND: orangish brown; med; heavy minerals (0.5-1%)		
44								
45								
46		SP						
47								
48								
49								
50						SAND: dark brown; med		
51		SP						
52						SAND: brown; med to fine; heavy minerals (0.5%)		
53								
54								
55		SP						
56								
57								
58						SAND: tan; fine; heavy minerals (0.5-2%)		
59								
60		SP						
61								
62								
63		SC				SAND, trace clay: light brown; fine; heavy minerals (0.5%)		
64						CLAY, sandy: grey and tan; fine; heavy minerals (0.5%)		
65								
66		SC						
67								
68						SAND: tan; fine; heavy minerals (0.5-1%)		
69		SP						
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-462

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
4		SP				SAND: brown; med		
5		SP				SAND: tan		
6		SP				SAND: dark brown		
7–9		SP				SAND: grey; med; heavy minerals (0.5-1%)		
10–17		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
18		SP				SAND: brown; med; heavy minerals (0.5%)		
19–20		SP				SAND: dark brown; med; consolidated; heavy minerals (<0.5%)		
21–29		SP				SAND: dark brown; med; heavy minerals (0.5%)		
30–32		SP				SAND: brown; med; heavy minerals (<0.5%)		
33–35		SP				SAND: orangish tan; med to coarse; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-462

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: grayish tan; med; heavy minerals (1%)		
38								
39								
40		SP						
41								
42								
43								
44						SAND: brown; med; heavy minerals (<0.5%)		
45		SP						
46								
47						SAND: tan/light brown; med; heavy minerals (<0.5%)		
48								
49		SP						
50								
51						SAND: brown; heavy minerals (<0.5%)		
52								
53		SP						
54								
55								
56						SAND: orangish brown; fine		
57								
58		SP						
59								
60		SC-SM				SAND, silty, trace clay: tan; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-463

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–29		SP				SAND: dark brown; med; heavy minerals (<0.5-2%)		
29–30		SP				SAND: brown; med; heavy minerals (0.5%)		
30–31		SP				SAND: tan; med		
31–32		SP				SAND: dark brown; med; heavy minerals (0.5%)		
32–35						SAND: brown; med; heavy minerals (0.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37		SP				SAND: reddish brown; med to coarse		
38		SP				SAND: orangish tan; med; heavy minerals (<0.5%)		
39		SP				SAND: brown; med		
40		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
41								
42								
43		SP				SAND: brown; med; heavy minerals (0.5-1%)		
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58		SP				SAND: light brown; med to fine; heavy minerals (0.5-1%)		
59								
60								
61								
62								
63								
64		SP				SAND: tan; med; heavy minerals (0.5%)		
65								
66		SC-SM				SILT, sandy, clayey: grayish tan; fine; heavy minerals (<0.5%)		
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-464

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; med		
2–4		SP				SAND: dark brown; med		
4–5		SP				SAND: brown; med		
5–6		SP				SAND: grey; med		
6–12		SP				SAND: dark brown; med; heavy minerals (1%)		
12–13		SP				SAND: grey; med; heavy minerals (0.5%)		
13–16		SP				SAND: brown; med; heavy minerals (1-1.5%)		
16–17		SP				SAND: dark brown; med		
17–27		SP				SAND: brown; med; heavy minerals (0.5-1%)		
27–35		SP				SAND: orangish brown; med; heavy minerals (1-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: light brown/tan; med		
37						SAND: dark brown; med; heavy minerals (1-2%)		
38		SP						
39								
40								
41						SAND: dark brown; coarse; heavy minerals (<0.5-0.5%)		
42								
43								
44		SP						
45								
46								
47		SP				SAND: brown; med		
48						SAND: grayish tan; med; heavy minerals (1-1.5%)		
49		SP						
50						SAND: dark brown; med; heavy minerals (0.5-1%)		
51								
52		SP						
53								
54						SAND: orangish brown; med; heavy minerals (0.5-1%)		
55		SP						
56								
57		SP				SAND: tan; med; heavy minerals (0.5%)		
58		SP				SAND: orangish brown; med; heavy minerals (1-3%)		
59						SAND: orangish brown; fine; heavy mineral bonding; heavy minerals (1-2%)		
60								
61								
62								
63		SP						
64								
65								
66								
67						SAND, trace clay: orangish brown; fine; heavy minerals (<0.5%)		
68		SC						
69		SC				SAND, clayey: tan; fine; organics; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-465

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5-1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark brown; med		
		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
3		SP				SAND: brown; med		
4								
5		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
6								
7								
8								
9								
10		SP				SAND: grey; med; heavy minerals (0.5-1%)		
11								
12								
13								
14		SP				SAND: reddish brown; med; heavy minerals (<0.5-0.5%)		
15								
16								
17								
18								
19								
20		SP				SAND: dark brown; med; heavy minerals (0.5%)		
21								
22								
23								
24		SP				SAND: brown; med; heavy minerals (0.5%)		
25								
26		SP				SAND: orangish brown; med; heavy minerals (0.5-2%)		
27								
28								
29								
30								
31								
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41		SP				SAND: dark brown; med to fine; consolidated		
42		SP				SAND: brown; med		
43						SAND: tan; med; heavy minerals (1-2%)		
44								
45		SP						
46								
47						SAND: reddish brown; med to coarse; heavy minerals (<0.5%)		
48								
49								
50		SP						
51								
52								
53						SAND: dark brown; med; heavy minerals (<0.5%)		
54								
55		SP						
56		SP				SAND: brown; med		
57						SAND: dark brown; med; heavy minerals (0.5%)		
58								
59		SP						
60						SAND: orangish brown; med; heavy minerals (<0.5%)		
61								
62		SP						
63								
64		SP				SAND: tan; med		
65						SAND, clayey: dark brown; med to fine		
66		SC						
67		SP				SAND: brown; fine		
68								
69		SC-SM				SAND, silty, trace clay: tan; fine; heavy minerals (0.5-1%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-466

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
4–5		SP				AND: brown; med		
5–6		SP				SAND: white; med		
6–21		SP				SAND: dark brown; med; heavy minerals (0.5-2%)		
21–29		SP				SAND: brown; med; heavy minerals (1-1.5%)		
29–32		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
32–33		SP				SAND: tan; med; heavy minerals (0.5%)		
33–35						SAND: brown; med; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-466

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
44–53		SP				SAND: tan; med; heavy minerals (0.5-1%)		
54–56		SP				SAND: brown; med; heavy minerals (0.5%)		
57–59		SP				SAND: dark brown; med to coarse		
60–61		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
62–63		SC				SAND, trace clay: dark brown; med to fine		
64–65		SP				SAND: brown; fine; heavy minerals (<0.5%)		
66–69		SP				SAND: tan; fine		
70		SC				SAND, clayey: light brown; fine; heavy minerals (<0.5%) BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-467

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: grey; med		
4		SP				SAND: brown; med		
5						SAND: dark brown/black; med; heavy minerals (0.5%)		
6								
7								
8								
9								
10								
11		SP						
12								
13								
14								
15								
16								
17								
18								
19						SAND: brown; med; heavy minerals (0.5-1%)		
20		SP						
21						SAND: grayish brown; med; heavy minerals (0.5-1%)		
22		SP						
23								
24						SAND: brown; med; heavy minerals (0.5%)		
25		SP						
26						SAND: dark brown; med; heavy minerals (0.5%)		
27								
28		SP						
29								
30						SAND: light brown; med; heavy minerals (<0.5-1%)		
31								
32								
33								
34								
35		SP						

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
40		SP				SAND: brown; med; heavy minerals (0.5%)		
47		SP				SAND: dark brown/black; med; consolidated; heavy minerals (0.5%)		
48		SP				SAND: reddish brown; med to coarse; heavy minerals (0.5-1.5%)		
63		SP				SAND, clayey: dark brown; fine; organics; heavy minerals (0.5%)		
67		SP				SAND: tan; fine		
67		SC				SAND, trace clay: dark brown; fine		
68		SC				SAND, trace piece clay: tan; med to fine; heavy minerals (0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-468

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–5		SP				SAND: brown; med		
5–6		SP				SAND: grayish tan; med		
6–10		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10–12		SP				SAND: brown; med; heavy minerals (0.5%)		
12–21		SP				SAND: dark brown; med; heavy minerals (0.5%)		
21–35		SP				SAND: brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: orangish brown; med; heavy minerals (1-1.5%)		
38								
39								
40								
41		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52		SP				SAND: tan to coarse; heavy minerals (0.5%)		
53								
54								
55		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
56								
57								
58								
59								
60		SC				SAND, clayey: dark brown; fine; heavy minerals (0.5%)		
61								
62								
63								
64		SP				SAND: light tan white; fine; heavy minerals (0.5%)		
65								
66								
67		SC				SAND, trace clay: dark brown; fine		
68		SP				SAND. tan; med to fine; heavy minerals (0.5-1%)		
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-469

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; med		
5–21		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
22–26		SP				SAND: tan; med; heavy minerals (0.5%)		
27–32		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
32–35						SAND: brown; med; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/16/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38						SAND: tan; med to coarse; heavy mineral banding; heavy minerals (0.5-3%)		
39								
40								
41								
42								
43								
44		SP						
45								
46								
47								
48								
49								
50						SAND: tan; fine; heavy minerals (0.5%)		
51								
52		SP						
53								
54						SAND, trace clay: brown; fine		
55		SC						
56								
57						SAND, clayey: dark brown; fine; heavy minerals (0.5%)		
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-470

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
5–6		SP				SAND: tan; med		
7–14		SP				SAND: grayish brown; med		
15		SP				SAND: dark brown; med; heavy minerals (1-2%)		
16–18		SP				SAND: brown; med		
19		SP				SAND: dark brown; med; consolidated; heavy minerals (1%)		
20–23		SP				SAND: brown; med; heavy minerals (1%)		
24–35		SP				SAND: dark brown; med; heavy minerals (0.5%)		
						SAND: brown; med; heavy minerals (0.5-1%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39								
40–44		SP				SAND: tan; med; heavy minerals (1-1.5%)		
45–49		SP				SAND: brown; med; heavy minerals (0.5-2%)		
50–51		SP				SAND: dark brown; med; heavy minerals (0.5%)		
52–53		SP				SAND: white; fine; heavy minerals (0.5%)		
54–56		SP				SAND: dark brown; fine		
57–59		SC				SAND, trace clay: brown; fine; heavy minerals (<0.5-0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-471

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
15		SP				SAND: brown; med; heavy minerals (0.5%)		
16		SP				SAND: dark brown; med; consolidated; heavy minerals (0.5%)		
17		SP				SAND: brown; med; heavy minerals (0.5%)		
20		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
24		SP				SAND: dark brown; med; heavy minerals (0.5%)		
27		SP				SAND: tan; med; heavy minerals (0.5%)		
30						SAND: brown; med; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-471

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
41								
42								
43								
44								
45								
46								
47		SP				SAND: brown; med; heavy minerals (0.5-1%)		
48								
49								
50								
51								
52								
53								
54		SP				SAND: black; med to fine; hard		
55		SP				SAND: brown; med; heavy minerals (<0.5%)		
56								
57		SP				SAND: reddish dark brown; wood		
58		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-472

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: grayish tan; med		
4								
5		SP				SAND: dark brown; med; heavy minerals (0.5%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15		SP				SAND: brown; med; heavy minerals (0.5%)		
16		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
17								
18								
19								
20								
21								
22								
23		SP				SAND: brown; med; heavy minerals (1%)		
24								
25								
26								
27		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
28								
29		SP				SAND: brown; med		
30		SP				SAND: tan; med; heavy minerals (0.5%)		
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-472

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; med; heavy minerals (0.5%)		
37						SAND: dark brown; med; heavy minerals (0.5%)		
38		SP						
39								
40								
41		SP				SAND: dark brown/black; med to fine; cemented		
42						SAND: dark reddish brown; med; heavy minerals (0.5-1%)		
43								
44								
45								
46		SP						
47								
48								
49								
50						SAND: orangish brown; med; heavy minerals (<0.5%)		
51								
52								
53								
54								
55		SP						
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-473

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5–11		SP				SAND: grayish brown; med; heavy minerals (<0.5%)		
12–20		SP				SAND: dark brown; med; heavy minerals (0.5%)		
21–29		SP				SAND: brown; med; heavy minerals (<0.5-1%)		
30–34		SP				SAND: dark brown; med; heavy minerals (0.5%)		
35						*Continued Next Page*		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-473

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP				SAND: orangish brown; med; heavy minerals (0.5%)		
42–43		SP				SAND: brown; med		
44–46		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
47–49		SP				SAND: tan; med; heavy minerals (0.5-1%)		
50–52		SP				SAND: brown; med; heavy minerals (0.5-1%)		
53–59		SP				SAND: tan; med; heavy minerals (0.5-1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-474

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med SAND: tan; med		
5–7		SP				SAND: grayish tan; med		
8–10		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
11–19		SP				SAND: brown; med; heavy minerals (0.5%)		
20–22		SP				SAND: dark brown; med to fine; heavy minerals (1%)		
23		SP				SAND: grey; med		
24–28		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
29–32		SP				SAND: brown; med; heavy minerals (0.5-1%)		
33		SP				SAND: dark brown; med; heavy minerals (0.5%)		
34–35						SAND: brown; med; heavy minerals (0.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/17/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan; med; heavy minerals (0.5-1%)		
38								
39		SP						
40								
41								
42						SAND: brown; med to fine; heavy minerals (<0.5%)		
43								
44								
45		SP						
46								
47								
48						SAND, trace clay: brown; fine; heavy minerals (<0.5%)		
49		SC						
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-475

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: brown; med		
4–9		SP				SAND: grey; med; heavy minerals (1%)		
10–16		SP				SAND: brown; med; heavy minerals (0.5-1%)		
17–20		SP				SAND: dark brown; med; very consolidated; heavy minerals (0.5-1%)		
21–28		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
29–31		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
32–35		SP				SAND: dark brown; med; heavy minerals (1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-475

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: brown; med; heavy minerals (<0.5-1%)		
38								
39								
40								
41								
42								
43		SP				SAND: white; med; heavy minerals (<0.5%)		
44								
45								
46								
47								
48								
49		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-476

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med; organics		
5–19		SP				SAND: tan; med		
20–26		SP				SAND: dark brown; med; heavy minerals (0.5%)		
27–35						SAND: brown; med; heavy minerals (0.5-1%)		
						SAND: reddish brown; med to coarse; heavy minerals (<0.5-2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-476

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–54		SP						
55		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5-1%)		
58		SC-SM				SAND, silty, trace clay: tan; fine; heavy minerals (<0.5%)		
60		SC				SAND, clayey: dark brown; fine; heavy minerals (<0.5%) BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-477

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5-1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–21		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
22–23		SP				SAND: brown; med		
24–32		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
32–35						SAND: orangish brown; med; heavy minerals (0.5-2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-477

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SP						
50		SP				SAND: dark brown; med to coarse		
51–52		SP				SAND: brown; med; heavy minerals (0.5%)		
53–54		SP				SAND: white; med to fine		
55		SP				SAND: tan; fine; heavy minerals (1%)		
56–57		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5-1%)		
58–59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-478

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med; organics		
3–5		SP				SAND: brown; med		
5–20		SP				SAND: dark brown; med; roots; heavy minerals (0.5%)		
20–26		SP				SAND: reddish brown; med to coarse; heavy minerals (0.5%)		
26–35						SAND: dark brown; med; heavy minerals (<0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-478

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44						SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
45		SP						
46								
47								
48								
49								
50						SAND: dark brown; med to fine; heavy minerals (0.5%)		
51		SP						
52								
53		SP				SAND: brown; med to fine		
54						SAND: tan; med to fine; heavy minerals (0.5%)		
55		SP						
56						SAND: brown; med; heavy minerals (0.5%)		
57								
58		SP						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-479

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3–4		SP				SAND: dark brown; med		
5–9		SP				SAND: dark brown/black; med; hard; heavy minerals (0.5%)		
10–13		SP				SAND: brown; med; heavy minerals (0.5%)		
14–17		SP				SAND: dark brown; med; heavy minerals (0.5%)		
18–35		SP				SAND: orangish brown; med; heavy minerals (0.5-1.5%)		

Continued Next Page

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-479

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; med		
37						SAND: dark brown; med; heavy minerals (0.5%)		
38		SP						
39								
40						SAND: tan; med to coarse; heavy minerals (0.5%)		
41		SP						
42						SAND: brown; med to coarse; heavy minerals (0.5%)		
43								
44								
45		SP						
46								
47								
48								
49		SP				SAND: dark brown; med; heavy minerals (0.5%)		
50		SP				SAND: orangish dark brown; med		
51						SAND: reddish brown; med to coarse; heavy minerals (0.5-1%)		
52								
53								
54								
55		SP						
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-480

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3–4		SP				SAND: tan; med		
5–6		SP				SAND: brown; med		
7–8		SP				SAND: tan; med; heavy minerals (1-1.5%)		
9–20		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
21–26		SP				SAND: brown; med; heavy minerals (0.5-1%)		
27–32		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
33		SP				SAND: dark brown; med to coarse		
34–35						SAND: orangish tan; med to coarse; heavy minerals		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-ADK-18-480

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				(0.5-1.5%)		
37								
38								
39								
40								
41								
42								
43		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-21

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–17		SP				SAND: brown; coarse		
17–30		SP				SAND: dark brown; humate		
30–35		SP				SAND: brown to grey; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-21

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: light brown to brown		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-22

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–35						No Description		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-22

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-23

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A ~~N'A~~

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road fill		
2		SP				SAND: light tan		
3		SP				SAND: brown		
5		SP				SAND: dark brown; humate		
17		SP				SAND: brown to orange; minerals		
20		SP				SAND: tan to orange; heavy minerals (>2.5%)		
30		SP				SAND: dark brown; humate		
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-23

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: dark grey		
38		SP						
39						SAND: tan to orange		
40								
41								
42								
43								
44								
45		SP						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-33

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–17		SP				SAND: brown; heavy minerals (1-1.5%)		
17–20		SP				SAND: dark brown; hard humate; heavy minerals (0.5-1%)		
20–27		SP				SAND: brown		
27–30		SP				SAND: light brown to tan; trace minerals (<0.5%)		
30–35		SP				SAND: dark brown; hard; humate		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-33

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: orange; heavy minerals (1-1.5%)		
38								
39								
40								
41								
42		SP						
43								
44								
45								
46								
47						SAND: tan to light tan; heavy minerals (1.5%)		
48								
49		SP						
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-34

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–13		SP				SAND: brown; no humate; heavy minerals (1%)		
14		SP				SAND: orange		
15–27		SP				SAND: tan to orange; heavy minerals (1-2%)		
27–35		SP				SAND: light tan to tan; heavy minerals (1-5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-34

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41						SAND: orange to brown; heavy minerals (3-5%)		
42								
43								
44								
45		SP						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-35

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey		
2		SP				SAND: tan to brown		
3								
4		SP				SAND: brown		
5								
6								
7								
8		SP				SAND: grey to brown; heavy minerals (3-4%)		
9								
10								
11								
12								
13								
14								
15								
16		SP				SAND: brown to dark brown		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26		SP				SAND: light tan; heavy minerals (2%)		
27								
28								
29								
30								
31								
32								
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-35

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: orange		
38								
39								
40								
41								
42								
43		SP						
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-36

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: tan		
7–13		SP				SAND: brown		
13–19		SP				SAND: dark brown; humate; dry hard humate; heavy minerals (3-4%)		
19–24		SP				SAND: orange: heavy minerals (>5-8%)		
24–27		SP				SAND: dark brown; hard humate		
27–31		SP				SAND: orange; heavy minerals (3-4%)		
31–35		SP				SAND: grey to white; heavy minerals (1-2%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-36

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: dark brown; hard zone; humate		
38								
39								
40		SP						
41								
42								
43						SAND: orange		
44								
45								
46		SP						
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-37

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5-6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light tan to white		
3–14		SP				SAND: brown; some plant materials; heavy minerals (5-6%)		
14–19		SP				SAND: dark brown; humate		
19–22		SP				SAND: brown; hard; dry; humate		
22–26		SP				SAND: dark brown; hard humate		
26–28		SP				SAND: tan to brown		
28–32		SP				SAND: light tan; heavy minerals (2%)		
32–35		SC				SAND, clayey: dark brown; humate		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-37

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: brown		
38								
39								
40								
41		SP						
42								
43								
44								
45								
46						SAND: dark brown; humate		
47								
48		SP						
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-37

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78								
79								
80						BORING TERMINATED AT 80 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-38

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–22		SP				SAND: brown; humate		
23–24		SP				SAND: white		
25–29		SC				SAND, clayey: tan		
30–35		SP				SAND: light tan; heavy minerals (1.5-2%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-38

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND; clayey: light tan; heavy minerals (1.5%)		
38								
39								
40								
41								
42								
43		SC						
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-39

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6-7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road material		
2–6		SP				SAND: dark grey; heavy minerals (2-3%)		
7–10		SP				SAND: dark brown		
11		SP				SAND: dark brown; humate		
12–19		SP				SAND: dark brown		
20–22		SC				SAND, clayey: dark brown		
23–26		SC				SAND, clayey		
27–31		SC				SAND, clayey		
32–35						SAND, clayey: light tan; heavy minerals (1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-39

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/16/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40								
41								
42								
43		SP				SAND: white		
44						SAND, clayey: light grey		
45		SC						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-41

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N'A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light tan		
5–6		SP				SAND: brown; heavy minerals (>1.5%)		
7–9		SP				SAND: light tan		
10–12		SP				SAND: brown		
13–19		SC				SAND, clayey: dark brown; hard		
20–23		SP				SAND: light brown; minerals		
24–26		SP				SAND: dark brown		
27–35		SP				SAND: light brown; minerals		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-41

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/16/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41						SAND: light brown; humate		
42		SP						
43								
44								
45						SAND: dark brown to orange		
46								
47		SP						
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-106

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light gray; coarse		
2						SAND tan: coarse		
3		SP						
4								
5						SAND: dark brown; coarse		
6								
7								
8								
9								
10								
11		SP						
12								
13								
14								
15								
16								
17								
18						SAND: dark blackish-brown; med; consolidated		
19								
20								
21								
22		SP						
23								
24								
25						SAND: brown; coarse		
26								
27								
28								
29								
30								
31		SP						
32								
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: reddish-brown; coarse		
38								
39								
40		SP						
41								
42								
43						SAND: orange; coarse		
44								
45		SP						
46								
47								
48		SP				SAND: dark brown; consolidated		
49		SM				SAND, silty: light tan		
50						SAND: reddish-brown; med		
51								
52								
53								
54								
55		SP						
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-107

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–10		SP				SAND: dark brown to black; coarse		
10–22		SP				SAND: brown; coarse		
22–30		SP				SAND: light reddish-brown; coarse		
30–35						SAND: reddish-brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
44–46		SP				SAND: dark brown; consolidated; coarse		
47–48		SP				SAND: white; coarse		
49–53		SP				SAND: dark brown; coarse		
54–55		SP				SAND: reddish-brown; med		
56–59		CH				CLAY: light tan		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-108

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6-7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: white to tan; coarse		
5–19		SP				SAND: dark brown; coarse		
19		SP				SAND: dark brown; consolidated; coarse		
19–25		SP				SAND: dark brown; coarse		
25–28		SP				SAND: brown; coarse		
28–30		SP				SAND: reddish-brown; coarse		
30–35						SAND: brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40		SP				SAND: light brown; coarse		
41–45		SP						
46		SP				SAND: dark brown; consolidated; coarse		
47		SP				SAND: brown; coarse		
48–49		SP				SAND: dark brown; consolidated; coarse		
50–56		SP				SAND: reddish-brown; med		
57–59		CH				CLAY: grayish-green		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-111

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light tan to dark brown; coarse		
10–24		SP				SAND: dark brown; coarse		
25		SP				SAND: light tan; coarse		
26–33		SP				SAND: light brown; coarse		
33–35						SAND, silty: light tan		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-111

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-112

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light tan; coarse		
3–30		SP				SAND: dark brown; coarse		
30–31		SP				SAND: alternating white/brown; coarse		
31–35		SP				SAND: dark brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-112

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP				SAND: tan; coarse		
38–40		SP				SAND: brown; coarse		
40–43		SM				SAND, silty: dark brown		
43–45		SP				SAND: light brown; med		
45–51		SM				SAND, silty: reddish-brown		
51–53		SC				CLAY, sandy; light tan		
53–60		SM				SAND, silty: light tan		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-113

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: white; coarse		
3–22		SP				SAND: dark brown; coarse		
22–25		SP				SAND: brown; coarse		
25–35		SP				SAND: reddish-brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-113

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40		SP				SAND: brown; hard; consolidated; coarse		
41								
42								
43								
44		SP				SAND: light gray; coarse		
45								
46								
47		SP				SAND: brown; coarse		
48								
49		SP				SAND: brownish-grey; coarse		
50								
51		SP				SAND: brown; coarse		
52								
53						SAND, silty: reddish-brown		
54								
55								
56		SM						
57								
58								
59								
60		SC				CLAY, sandy: greenish-grey BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-114

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5-6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: brown to reddish-brown (upper); light tan to dark brown (lower); coarse		
10–19		SP				SAND: dark brown; hard consolidated; coarse		
20–35		SP				SAND: brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-114

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42		SP				SAND: light brown; coarse		
43								
44		SP				SAND: light grey to white; coarse		
45								
46						SAND: brown; coarse		
47								
48								
49								
50								
51		SP						
52								
53								
54								
55								
56								
57						SAND, silty: light brown		
58		SM						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-115

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light brown; coarse		
5–10		SP				SAND: brown; coarse		
10–15		SP				SAND: dark brown; consolidated; coarse		
15–22		SP				SAND: brown; coarse		
22–35		SP				SAND: reddish-brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39						SAND: light brown; coarse		
40		SP						
41								
42		SP				SAND: dark brown; consolidated; coarse		
43								
44		SP				SAND: dark brown; coarse		
45		SP				SAND: light grey; coarse		
46						SAND: dark brown; coarse		
47		SP						
48		SP				SAND: light grey; coarse		
49								
50		SP				SAND: dark brown; coarse		
51						SAND: reddish-brown; coarse		
52								
53		SP						
54								
55								
56								
57						SAND, silty: reddish-brown		
58								
59								
60		SM						
61								
62								
63						SAND, silty: light tan		
64								
65								
66		SM						
67								
68								
69		SM				SAND, silty: grey		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-116

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	Surface
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan to dark brown; coarse		
5–20		SP				SAND: dark brown: coarse		
20–22		SP				SAND: brown; coarse		
22–30		SP				SAND: brown to reddish-brown; coarse		
30–35		SP				SAND: reddish-brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: brown; coarse		
40						SAND: reddish-brown; coarse		
41								
42								
43								
44		SP						
45								
46								
47								
48		SP				SAND: light tan to white; coarse		
49								
50						SAND: brown; coarse		
51								
52		SP						
53								
54								
55						SAND, silty: reddish-brown		
56								
57		SM						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-117

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; coarse		
5–19		SP				SAND: dark brown; coarse		
19–23		SP				SAND: reddish-brown; coarse		
23–27		SM				SAND, silty: tan		
27–35		SM				SAND, silty: tan to white		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-117

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39								
40						SAND, silty: tan		
41–44		SM						
45						SAND: light greenish-grey; coarse		
46–50		SP						
51						CLAY, sandy: greenish-grey		
52–59		SC						
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-118

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light tan to light grey; coarse		
10–17		SP				SAND: dark brown; coarse		
17–20		SP				SAND: tan; coarse		
20–35		SM				SAND, silty: tan		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-118

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47						SAND, silty: greenish-grey		
48		SM						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-119

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: tan; coarse		
5–18		SP				SAND: dark brown; coarse		
19–22		SP				SAND: light tan to grey; coarse		
22–33		SP				SAND: dark brown; coarse		
33		SP				SAND: tan; coarse		
34–35		SP				SAND: grey; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-119

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: dark brown to black; coarse		
38								
39								
40								
41								
42		SP				SAND: light tan; med		
43								
44								
45								
46								
47								
48								
49								
50		SP				SAND: light brown; med		
51								
52		SC				CLAY, sandy: light tanish-grey		
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-120

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–12		SP				SAND: dark brown; coarse		
13–14		SP				SAND: brown; coarse		
15–19		SP				SAND: dark brown; hard consolidated; coarse		
20–27		SP				SAND: dark brown; coarse		
28–35						SAND: brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-120

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–45		SP						
45–54		SP				SAND: reddish-brown; coarse		
55–57		SP				SAND: dark brown; coarse		
58		SP				SAND: white; coarse		
59		SP				SAND: brown; coarse		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-121

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: gray to dark brown; coarse		
5–10		SP				SAND: dark brown; coarse		
10–11		SP				SAND: brown; coarse		
13–14		SP				SAND: light grey; coarse		
15–25		SP				SAND: brown; coarse		
25–30		SP				SAND: brown to reddish-brown; coarse		
30–35		SP				SAND: light reddish-brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-121

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: brown; coarse		
38								
39		SP						
40								
41						SAND: light tan; coarse		
42								
43								
44		SP						
45								
46								
47						SAND: dark brown; coarse		
48		SP						
49								
50						SAND: brown; coarse		
51								
52								
53		SP						
54								
55								
56								
57						SAND: dark brown; coarse		
58		SP						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-122

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–13		SP				SAND: dark brown; coarse		
13–21		SP				SAND: black; consolidated; coarse		
21–23		SP				SAND: brown; coarse		
23–25		SP				SAND: light tan; coarse		
25–27		SP				SAND: dark brown; coarse		
27–35						SAND: brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-122

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP						
47–51		SP				SAND: reddish-brown; coarse		
52–57		SP				SAND: dark brown; hard consolidated; coarse		
57–60		SM				SAND, silty: light tan		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-123

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light tan; coarse		
5–6		SP				SAND: reddish-orange; coarse		
7–17		SP				SAND: dark brown; coarse		
18–25		SP				SAND: brown; coarse		
26–28		SP				SAND: dark brown; consolidated; coarse		
29		SP				SAND: light tanish grey; coarse		
30–32		SP				SAND: dark brown; consolidated		
33–35						SAND: brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
38–40		SP				SAND: dark brown; consolidated; coarse		
40–43		SP				SAND: brown; coarse		
43–49		SP				SAND: white; coarse		
49–51		SP				SAND: brown; coarse		
51–53		SM				SAND, silty: dark brown		
53–57		SM				SAND, silty: reddish-brown		
57–60		SM				SAND, silty: reddish-brown to tan		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-124

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light tan; coarse		
3–19		SP				SAND: dark brown; coarse		
20–21		SP				SAND: light tan; coarse		
22–24		SP				SAND: dark brown; coarse		
25–26		SP				SAND: brown; coarse		
27–28		SP				SAND: light tan; coarse		
29		SP				SAND: dark brown; coarse		
30–32		SP				SAND: brown; coarse		
33–35		SP				SAND: light brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-124

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, silty: tan		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48		SM						
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-125

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: tan; coarse		
3–20		SP				SAND: dark brown; coarse		
20–22		SP				SAND: grayish-brown; coarse		
22–27		SP				SAND: brown; coarse		
27–28		SP				SAND: dark brown; coarse		
28–29		SM				SAND, silty: brown		
29–35						SAND, silty: light tan		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-125

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM						
37								
38								
39								
40						CLAY, sandy: greenish-grey		
41								
42								
43								
44								
45		SC						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-126

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: light brown; coarse		
6–15		SP				SAND: dark brown; coarse		
15–24		SP				SAND: brown; coarse		
24–25		SP				SAND: white; coarse		
25–28		SP				SAND: brown; coarse		
28–32		SM				SAND, silty: reddish-brown		
32–35						SAND, silty: tan		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-126

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SM						
40		SP				SAND: white; coarse		
41–44		CH				CLAY: greenish-grey		
45–49		SM				SAND, silty: tan		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-127

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: brown; coarse		
7–24		SP				SAND: dark brown; coarse		
24–29		SM				SAND, silty: light brown		
29–35		SP				SAND: light tan; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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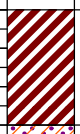
TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-127

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CH				CLAY: greenish-grey; hard		
37								
38								
39		SC				CLAY, sandy: light tan; soft		
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-128

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				SAND: dark grey; road material		
2–9		SP	0 - 10	60		SAND: dark brown; coarse; fine humate; heavy minerals (1.5-2.0%)		
16		SP				SAND: dark brown		
17		SP				SAND: light tan to white		
18–21		SP				SAND: dark brown; humate		
22		SP				SAND: brown		
23–34		SP				SAND: brown; hard; heavy minerals (1.0%)		
34–35						SAND, clayey: light tan; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-128

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40								
41						SAND, clayey: grey; heavy minerals (1.0%)		
42								
43								
44								
45								
46								
47								
48		SC						
49								
50								
51								
52								
53								
54								
55						SAND, clayey: light greenish grey		
56								
57		SC						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-129

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL	0 - 10	60		Road material; mottled tan to grey		
2		SP				SAND: tan; coarse		
3						SAND: dark brown; coarse; heavy minerals (1.5%)		
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16		SP						
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29						SAND: hard/brittle		
30		SP						
31		SP				SAND: brown; coarse; heavy minerals (1.0%)		
32						SAND: grey; very coarse		
33		SP						
34						SAND: brown; coarse; heavy minerals (1.0%)		
35						*Continued Next Page*		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-129

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38		SP				SAND: tan to grey; med to fine		
39		SP				SAND: dark brown; med		
40						SAND: light brown; fine		
41		SP						
42								
43								
44		SP				SAND: dark brown; hard to brittle		
45						SAND: brown to tan; fine		
46		SP						
47								
48								
49		SP				SAND: tan; fine; heavy minerals (1.0-1.5%)		
50								
51						SAND, clayey: light tan; hard		
52								
53								
54								
55								
56		SC						
57								
58								
59								
60								
61								
62						CLAY, sandy: greenish grey; heavy minerals (<0.5-2.0%)		
63								
64								
65								
66		SC						
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-130

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	Surface
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–12		SP	0 - 10	50		SAND: dark brown; med		
13–15		SP				SAND: light tan; coarse; heavy minerals (2-3%)		
16–20		SP				SAND: brown; coarse; heavy minerals (1.5%)		
21–22		SP				SAND: dark brown; hard; brittle		
23–24		SP				SAND: brown; coarse		
25–26		SP				SAND: dark grey to brown; coarse		
27–29		SP				SAND: dark brown; coarse		
30–32		SP				SAND: reddish brown; coarse		
33		SP				SAND: dark brown; coarse		
34–35						SAND: hard		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 6/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
38–40		SP				SAND: light brown to tan; coarse		
40–48		SP				SAND: reddish brown to tan; coarse		
48–50		SP				SAND: dark brown; hard		
50–53		SP				SAND: dark brown		
53–54		SP				SAND		
54–55		SC				SAND, clayey: dark brown to black; hard		
55–61		SC				SAND, clay: heavy minerals (3%)		
61–70		SP				SAND: light tan; fine; heavy minerals (2%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-131

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road material		
1		SP				SAND: dark grey; coarse; heavy minerals (1%)		
8		SP				SAND: dark brown; coarse; heavy minerals (1.5%)		
16		SP				SAND: reddish brown; coarse; heavy minerals (2%)		
21		SP				SAND: dark brown		
27		SP				SAND: brown to tan; coarse		
28		SP				SAND: dark brown to black		
34						SAND: med brown; coarse; heavy minerals (1-1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40		SP				SAND: dark brown; hard		
41–42								
43–46		SP				SAND: dark brown; coarse		
47–48		SP				SAND: tan		
49–51		SP				SAND: grey; coarse		
52–53		SP				SAND: dark brown		
54		SC				SAND, clayey: dark brown; fine		
55–56		SP				SAND: orangish to tan; fine		
57–59		SP				SAND: light tan; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-132

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road Material		
2		SP				SAND: grey		
3		SP				SAND: reddish tan		
4		SP				SAND: brown; fine; coarse; heavy minerals (1-6%)		
16		SP				SAND: dark brown; coarse; heavy minerals (1%)		
19		SP				SAND: hard		
22		SP				SAND: dark brown; coarse		
25		SP				SAND: dark reddish brown; heavy minerals (1-1.5%)		
27		SP				SAND: grey; fine; coarse		
28		SP				SAND: dark brown		
30		SP				SAND: brown; coarse		
35						*Continued Next Page*		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38		SP				SAND: grayish-green; coarse		
39		SP				SAND: dark brown; hard		
40								
41		SP				SAND: dark brown; coarse		
42								
43						SAND: tan; heavy minerals (1-1.5%)		
44		SP						
45								
46								
47								
48		SP				SAND: tan grey; coarse; heavy minerals (<0.5%)		
49						SAND: reddish tan; heavy minerals (1%)		
50								
51								
52		SP						
53								
54								
55								
56		SP				SAND: dark brown; heavy minerals (<0.5%)		
57		SC				CLAY, sandy: dark grey		
58						SAND: tan; fine; heavy minerals (<1%)		
59		SP						
60								
61						SAND: dark reddish brown		
62		SP						
63								
64						SAND: tan; med		
65								
66		SP						
67								
68								
69		SC				SAND, clayey: light tan/white; med to fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-133

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP	0 - 10	80		SAND: brown; med		
2						SAND: tan; med; heavy minerals (<0.5%)		
3		SP						
4								
5								
6						SAND: dark brown; med; heavy minerals (0.5-1%)		
7								
8								
9								
10								
11								
12								
13								
14		SP						
15								
16								
17								
18								
19								
20								
21								
22						SAND: dark reddish brown; med		
23		SP						
24						SAND: tan; med; high heavy minerals (6%)		
25		SP						
26						SAND: dark brown; med		
27								
28		SP						
29								
30								
31						SAND: grey; coarse; heavy minerals (<0.5%)		
32		SP						
33						SAND: dark brown to black		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-133

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan with dark brown layers; mostly organics; heavy minerals (1%)		
38		SP						
39								
40						SAND: dark brown; med; heavy minerals (0.5-1%)		
41								
42		SP						
43								
44								
45						SAND: tan to reddish tan brown; med; high heavy minerals (3%)		
46								
47								
48		SP						
49								
50								
51						SAND: tan to reddish tan brown; med; heavy minerals		
52		SP						
53						SAND: brown to grey; med to coarse; heavy minerals (<1%)		
54		SP						
55						SAND: dark brown; med		
56		SP						
57						SAND, clayey: tan; fine; heavy minerals (<0.5%)		
58		SC						
59								
60						SAND clayey: light grey; fine; heavy minerals (1%)		
61								
62								
63		SC						
64								
65			60 - 70	40				
66								
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-134

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				SAND: light grey; road material		
1						SAND: dark brown; med		
2–17		SP						
18		SP				SAND: dark brown; med; hard; brittle		
19						SAND: dark brown; med		
20–24		SP						
25		SP				SAND: reddish tan; med; heavy minerals (3-4%)		
26						SAND: dark brown; med to coarse; heavy minerals (0.5-1%)		
27–35		SP						

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 6/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: grey; coarse		
37		SP				SAND: dark brown		
38		SP				SAND: dark brown to black layered; med to coarse		
39								
40		SP				SAND: reddish brown; heavy minerals (7%)		
41								
42								
43								
44								
45								
46		SC				SAND, clayey: reddish brown		
47		SP				SAND: tan to white; fine; heavy minerals (1-1.5%)		
48								
49								
50		SP				SAND: dark brown; med		
51								
52		SP				SAND: tan; coarse		
53		SC				SAND: dark brown; hard; brittle		
54								
55		SM				SAND, silty: reddish tan to brown; fine; heavy minerals (0.5-1%)		
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-135

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white to grey; coarse; road material		
2								
3		SP				SAND: tan; coarse		
4								
5		SP				SAND: dark brown; med to coarse; heavy minerals (2-3%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20		SP				SAND: brown; med; heavy minerals (1.5%)		
21								
22								
23								
24								
25								
26		SP				SAND: dark brown; hard; brittle		
27								
28		SP				SAND: tan; coarse; banded; heavy minerals high (5-7%)		
29								
30								
31		SP				SAND: reddish brown; coarse; heavy minerals (1.5%)		
32								
33		SP				SAND: dark brown; hard		
34						SAND: brown to grey; very coarse		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: dark brown; coarse		
38		SP						
39								
40						SAND: dark brown; coarse; hard		
41		SP						
42						SAND: dark brown; coarse; heavy minerals (1%)		
43								
44		SP						
45								
46						SAND: light tan		
47		SP						
48						SAND: brown; coarse; heavy minerals (0.5-1%)		
49		SP						
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-137

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				Road material		
2–5		SP				SAND: light tan; med; heavy minerals (<0.5%)		
5–23		SP	0 - 10	55		SAND: dark brown; heavy minerals (1-2%)		
24–25		SP				SAND: tan; coarse		
26–28		SP				SAND: tan to orangish tan; coarse; heavy minerals (1.5%)		
29–30		SP				SAND: dark grey; coarse		
30–35		SP				SAND: dark brown to black, coarse, with clean white sand; heavy minerals (1.5%)		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 6/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: tan; coarse		
38								
39		SP				SAND: coarse; heavy minerals (<0.5%)		
40								
41		SP				SAND: light tan; coarse; heavy minerals (1%)		
42								
43		SP				SAND: brown to tan; coarse; bands of clear white sand; heavy minerals (1.5%)		
44								
45								
46								
47								
48		SP				SAND: dark brown; med to coarse; hard		
49								
50								
51								
52								
53		SP				SAND: tan; fine		
54								
55								
56		SC				SAND, clayey: greenish grey; fine; heavy minerals (1-1.5%)		
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-138

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2-3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–12		SP	0 - 10	87		SAND: dark brown; coarse; heavy minerals (<1%)		
13–15		SP				SAND: orange; coarse; heavy minerals (<1%)		
16–19		SP				SAND: dark brown; coarse; heavy minerals (1.5%)		
20–27		SP				SAND: brown to dark grey; coarse		
28–31		SP				SAND: dark brown with layers; heavy minerals (1.5-2%)		
32–35		SC				SAND, clayey: tan; heavy minerals (1-1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-138

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, trace clay: light tan to white; fine; heavy minerals (1-1.5%)		
38		SC						
39								
40						No Recovery		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-139

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; coarse		
3–8		SP				SAND: tan; coarse		
8–15		SP				SAND: dark brown; coarse		
15–18		SP				SAND: dark reddish brown; coarse		
18–23		SP				SAND: orangish tan to dark brown; coarse		
23–28		SP				SAND; grey to light tan; coarse; heavy minerals (2%)		
28–32		SP				SAND: dark brown; coarse		
32–35		SP				SAND: brown; coarse; heavy minerals (1-2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-139

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: light tan; coarse		
37		SP				SAND: light tan fine; heavy minerals (1%)		
43		SC				SAND, clayey: light grey; woody material		
46		SP				SAND: light tan to grey; fine to med; heavy minerals (1-1.5%)		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-140

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; coarse		
4–13		SP				SAND: dark brown; coarse		
14–15		SP				SAND: grayish tan; coarse		
16–20		SP				SAND: light brown; coarse; heavy minerals (2-3%)		
21–28		SP				SAND: dark brown to grey; coarse		
29–30		SP				SAND: dark grey; coarse		
30–33		SC				SAND, trace clay: light tan; med to coarse; heavy minerals (1.5%)		
34–35						SAND, trace clay: dark to light grey; med to coarse; heavy minerals (1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-140

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40								
41								
42								
43								
44		SC				SAND, clayey: dark grey to tan; coarse		
45								
46		SC				SAND, clayey: greenish grey; heavy minerals (<0.5%)		
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-141

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	<1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey to tan; coarse		
3–7		SP	0 - 10	50		SAND: tan; coarse		
8–30		SP				SAND: dark brown; coarse; heavy minerals (1.5-2%)		
31–34		SP				SAND: orangish brown; coarse		
35						*Continued Next Page*		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-141

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP				SAND: tan to brown; coarse		
41–50		SP				SAND: reddish brown; very coarse; heavy minerals (3%)		
50–57		SP				SAND: light tan; coarse; heavy minerals (1.5%)		
57–58		SP				SAND: dark grey to black; layered		
58–60		SC				SAND, trace clay: dark red to brown; fine strands with organics; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-142

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2-3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: tan/light brown/grey; coarse; heavy minerals (1.5%)		
6–9		SP				SAND: dark brown; coarse; heavy minerals (1.5%)		
10–16		SP				SAND: brownish grey; very coarse; heavy minerals (1%)		
17–21		SP				SAND: tan to grey; coarse; heavy minerals (2-3%)		
22–27		SP				SAND: grey to brown; coarse		
28–35						SAND: reddish tan; coarse; heavy minerals (1-3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-142

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
43		SP				SAND: tan; coarse		
44–48		SP				SAND: white; heavy minerals (1%)		
49–50		SP				SAND: tan to brown; med		
51–55		SP				SAND: dark reddish brown; med; heavy minerals (<0.5%)		
56–58		SP				SAND: dark brown; fine to med		
59–60		SP				SAND: tan; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-143

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP	0 - 10	93		SAND: grey; coarse		
2		SP				SAND: orange; coarse		
3		SP				SAND: light tan; med to coarse		
4								
5		SP				SAND: brown to grey; coarse		
6								
7						SAND: dark brown; coarse; heavy minerals (1-1.5%)		
8								
9								
10								
11								
12								
13								
14								
15		SP						
16								
17								
18								
19								
20								
21								
22						SAND: tan; coarse		
23		SP						
24								
25						SAND: grey; coarse; heavy minerals (2-3%)		
26		SP						
27						SAND: dark grey/black/brown; coarse; heavy minerals (1-1.5%)		
28		SP						
29								
30						SAND: orangish tan; coarse; heavy minerals (1%)		
31								
32								
33								
34		SP						
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: white; coarse; heavy mineral bands (1%)		
40								
41		SP				SAND: dark brown; med to coarse; hard		
42		SP				SAND: light grey; coarse		
43						SAND: tan/brown; coarse		
44								
45								
46								
47		SP						
48								
49								
50						SILT: dark brown		
51		ML						
52						SILT: tan/orange		
53								
54								
55		ML						
56								
57						SILT: tan; heavy minerals (<0.5%)		
58								
59		ML						
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-145

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				Road material		
2–5		SP				SAND: light grey to tan; coarse; heavy minerals (1%)		
5–8		SP				SAND: grey; coarse		
8–14		SP				SAND: dark brown; coarse; heavy minerals (1-1.5%)		
14–15		SP				SAND: dark brown; coarse; hard; brittle		
15–27		SP				SAND: dark brown; heavy minerals (<1%)		
27–33		SP				SAND: dark brown/black; very coarse; heavy minerals (<0.5%)		
33–35						SAND: tan; very coarse; high heavy minerals		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
39		SP				SAND: dark brown; very coarse		
40–44		SP				SAND: tan; very coarse; heavy minerals (<0.5-1%)		
45		SC				SAND, clayey: brown; fine to med; heavy minerals (1%)		
46–47		SC				SAND, clayey: brown; fine to med		
48–51		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
52–55		SC				SAND, clayey		
56–57		SC				CLAY, sandy: greenish-grey		
58–59		SC				SAND, trace clay: light tan/white; fine; heavy minerals (1-1.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-146

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; coarse		
2						SAND: tan to grey; coarse		
3		SP						
4								
5								
6						SAND: dark brown; coarse; heavy minerals (0.5-1%)		
7								
8								
9								
10								
11		SP						
12								
13								
14								
15								
16						SAND: dark brown; coarse; heavy minerals (1.0-1.5%)		
17								
18								
19		SP						
20								
21								
22						SAND: dark brown; coarse; heavy minerals (2%)		
23								
24								
25		SP						
26								
27								
28								
29		SP				SAND: dark brown to black; coarse; heavy minerals (2.5-3.0%)		
30								
31		SP				SAND: grey with dark streaks; wash		
32						SAND: dark grey; coarse		
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38		SP				SAND: dark brown; coarse		
39						SAND: dark brown; coarse		
40		SP						
41								
42								
43								
44								
45						SAND: light tan; coarse		
46		SP						
47						SAND, silty: dark brown; fine		
48		SM						
49						SAND: light tan to brown; coarse; heavy minerals (2.0-3.0%)		
50		SP						
51		SC				SAND, clayey: brown; fine		
52						SAND: tan orange; coarse; heavy minerals (1.0%)		
53		SP						
54								
55						SAND, clayey: light grey to greenish grey; heavy minerals (1-1.5%)		
56		SC						
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-147

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2-3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; coarse		
2		SP				SAND: brown to tan; coarse		
5		SP				SAND: grey; coarse		
6		SP				SAND: brown to grey; coarse		
10		SP				SAND: dark brown; coarse		
15		SP				SAND: brown; coarse; heavy minerals (2.0-3.0%)		
17		SP				SAND: dark brown; coarse; hard; heavy minerals (4.0-5.0%)		
19		SP				SAND: brown; coarse		
26		SP				SAND: tan; coarse; heavy minerals (1.5-2.5%)		
32		SP				SAND: tan to white; coarse; heavy minerals (1.5-2.5%)		
35						*Continued Next Page*		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-147

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; coarse		
37–47						SAND: light tan; med fine to med; heavy minerals (1.5-2.0%)		
48–59		SP						
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-148

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road base		
2–5		SP				SAND: light tan; coarse		
6–11		SP				SAND: dark brown; coarse grained		
12–13		SP				SAND: dark brown; consolidated; coarse		
14–21		SP				SAND: brown; coarse		
22–25		SP				SAND: dark brown; consolidated; coarse		
26–28		SP				SAND: reddish-brown; coarse		
29–35		SP				SAND: grayish-brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; coarse		
37								
38		SP				SAND: dark brown; coarse		
39								
40								
41								
42		SP				SAND: brown; coarse		
43								
44		SP				SAND: light tan; coarse		
45								
46		SP				SAND: grayish-brown; coarse		
47								
48								
49								
50		SP				SAND: brown; coarse		
51								
52								
53								
54								
55								
56								
57		SP				SAND: brown; med		
58		SC				CLAY, sandy: brown		
59		SP				SAND: light tan; med		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-149

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: light tan; coarse		
6–17		SP				SAND: dark brown; coarse		
17–18		SP				SAND: light brown; coarse		
18–22		SP				SAND: brown; coarse		
22–25		SP				SAND: grayish-brown; coarse		
25–26		SP				SAND: light tan; coarse		
26–29		SP				SAND: dark brown to black; coarse		
29–30		SP				SAND: brown; coarse		
30–31		SP				SAND: tan; coarse		
31–35						SAND: light tan to white; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-149

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44		SC				CLAY, sandy: greenish-grey		
45								
46								
47								
48		SM				SAND, silty: greenish-tan		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-150

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: brown; coarse		
10–19		SP				SAND: dark brown to grayish-brown; coarse		
20–35		SP				SAND: brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43		SP				SAND: white to light tan; coarse		
44								
45								
46		SP				SAND: brown; coarse		
47								
48		SP				SAND: dark brown; coarse		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-151

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: tan to brown; coarse		
10–13		SP				SAND: brown; coarse		
14–15		SP				SAND: dark brown; coarse		
16–18		SP				SAND: dark brown; consolidated; coarse		
19–25		SP				SAND: reddish-brown; coarse		
26–30		SP				SAND: grayish-brown; coarse		
31–35		SP				SAND: dark brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-151

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light brown; coarse		
38								
39		SP				SAND: brown; coarse		
40								
41		SP				SAND: brown; med to coarse		
42								
43								
44		SP				SAND: white to light tan; med to coarse		
45								
46								
47						SAND: brown; med		
48								
49								
50								
51								
52		SP						
53								
54								
55								
56								
57								
58		SP				SAND: light tan; med		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-152

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grayish-brown; coarse		
5–10		SP				SAND: light tan; coarse		
10–18		SP				SAND: grayish-brown; coarse		
18–23		SP				SAND: dark brown; coarse		
23–25		SP				SAND: reddish-brown; coarse		
25–26		SP				SAND: dark brown; coarse		
26–27		SP				SAND: brown; coarse		
27–30		SP				SAND: grayish-brown; coarse		
30–34		SP				SAND: dark brown; coarse		
34–35						SAND: light brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-152

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; coarse		
37		SP				SAND: light brown; coarse		
38		SP						
39		SP				SAND: brown; med		
40		SP						
41		SP						
42		SP						
43		SP				SAND: light tan; med		
44		SP				SAND: light brown; med		
45		SP						
46		SP				SAND: light tan; med		
47		SP						
48		SP						
49		SP						
50		SP				BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-153

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–18		SP				SAND: dark brown; coarse		
18–20		SP				SAND: brown; med to coarse		
20–30		SP				SAND: reddish-brown; coarse		
30–35		SP				SAND: grayish-black; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-153

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38		SP				SAND: light tan; coarse		
39		SP				SAND: black; coarse		
40						SAND: light brown; coarse		
41		SP						
42		SP				SAND: dark brown; consolidated; coarse		
43						SAND: reddish-brown; coarse		
44		SP						
45								
46						SAND: light brown; med		
47								
48								
49								
50		SP						
51								
52								
53								
54						SAND: light tan to white; med		
55								
56								
57		SP						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-154

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan to light brown; coarse		
5–10		SP				SAND: light brown to brown; coarse		
10–11		SP				SAND: dark brown; consolidated; coarse		
12–15		SP				SAND: light brown; coarse		
16–23		SP				SAND: dark brown; consolidated; coarse		
23–26		SP				SAND: brown; coarse		
26–29		SP				SAND: reddish-brown; coarse		
29–32		SP				SAND: light brown; coarse		
32–35		SP				SAND: dark brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: light tan; coarse		
		SP				SAND: dark brown; coarse		
37		SP				SAND: light tan; coarse		
38						SAND: dark brown; coarse		
39		SP						
40								
41						SAND: brown; coarse		
42		SP						
43						SAND: dark brown; coarse		
44		SP						
45						SAND: light brown; coarse		
46								
47		SP						
48								
49								
50						SAND: light tan to white; coarse		
51		SP						
52						SAND: dark brown; med to coarse		
53								
54								
55								
56								
57		SP						
58								
59								
60								
61								
62						SAND: light brown; med		
63		SP						
64								
65		SP				SAND: white; coarse		
66						SAND: light tan; med		
67		SP						
68								
69		SP				SAND: white; med		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-155

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: light tan; coarse		
6–19		SP				SAND: dark brown; coarse		
19–20		SP				SAND: light; grayish-brown; coarse		
20–22		SP				SAND: light tan to white; coarse		
22–25		SP				SAND: dark brown; coarse		
25–30		SP				SAND: grayish-brown; coarse		
30–35						SAND: brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-155

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
43–47		SP				SAND: reddish-brown; coarse		
47		SP				SAND: brown; consolidated; coarse		
48		SP				SAND: light tan; coarse		
49		SP				SAND: brown; coarse		
50–52		SP				SAND: light tan; coarse		
53–60		SP				SAND: brown; med		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-156

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan to brown; coarse		
5–10		SP				SAND: brown to grayish-brown; coarse		
10–11		SP				SAND: dark brown to black; consolidated; coarse		
11–16		SP				SAND: dark brown; coarse		
16–22		SP				SAND: dark brown to black; consolidated; coarse		
22–24		SP				SAND: reddish-tan; coarse		
24–29		SP				SAND: grayish-brown; coarse		
29–30		SP				SAND: dark brown; coarse		
30–35		SP				SAND: light brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-156

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: brown; coarse		
38								
39								
40		SP				SAND: reddish-brown; coarse		
41								
42								
43								
44								
45								
46		SP				SAND: light brown; coarse		
47								
48								
49								
50		SP				SAND: light tan to white; coarse		
51								
52								
53		SP				SAND: brown; med		
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-157

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: tan; coarse		
5–23		SP				SAND: dark brown; coarse		
23–26		SP				SAND: dark brown; consolidated; coarse		
26–28		SP				SAND: dark brown; coarse		
28–29		SP				SAND: dark brown to black; consolidated; coarse		
29–30		SP				SAND: light brown; coarse		
30–35						SAND: grayish brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-157

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40		SP				SAND: brown; coarse		
41								
42								
43								
44								
45		SP				SAND: light brown; coarse		
46								
47		SP				SAND: reddish brown; coarse		
48								
49								
50								
51								
52		SP				SAND: light tan; coarse		
53		SP				SAND: dark brown; coarse		
54								
55								
56		SP				SAND: light tan; coarse		
57		SP				SAND: brown; med		
58		SP				SAND: reddish brown; med		
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-158

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey; coarse		
3–8		SP	0 - 10	60		SAND: dark brown; coarse		
8–24		SP	10 - 20	50		SAND: brown; coarse; heavy minerals (1%)		
24–27		SP				SAND: light grey to white; coarse; heavy minerals (1-1.5%)		
27–30		SP				SAND: brown to black; med		
30–34		SP				SAND: light tan to grey; heavy minerals (<1-1.5%)		
34–35						SAND: dark brown		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 7/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan; coarse		
38		SP						
39								
40						SAND: grey; med; heavy minerals (<0.5-1%)		
41								
42								
43		SP						
44								
45								
46								
47						SAND, clayey: grey to tan		
48		SC						
49								
50						SAND: grey to white; heavy minerals (1-1.5%)		
51								
52		SP						
53								
54						CLAY: grey; fat		
55								
56								
57		CH						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-160

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Description		
3–6		SP	0 - 10	50		SAND: white to tan; med		
7–9		SP				SAND: dark brown; med		
10–14		SP				SAND: brown; med		
15–18		SP				SAND: dark brown; med; hard		
19–24		SP				SAND: brown; med		
25–31		SP				SAND: dark brown; med		
32–35						SAND: dark brown to grey; med		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38						SAND: dark brown; med		
39		SP						
40								
41						SAND: consolidated; hard		
42		SP						
43						SAND: brown; med; coarse		
44		SP						
45								
46						SAND: red brown to tan; med		
47								
48		SP						
49								
50						SAND: tan; med		
51		SP						
52								
53						SAND: brown; fine to med		
54								
55		SP						
56								
57						SAND: light tan; fine; with roots		
58		SP						
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-219

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
2–10		SP				SAND: dark brown to black; med; lighter banding		
10–15		SP				SAND: dark brown to grey; med		
15		SP				SAND: grey; med; heavy minerals (1.0%)		
15–23		SP				SAND: dark brown to black; med to fine; consolidated (15.5-18); heavy minerals (1.0%)		
23		SP				SAND: light brown; med to coarse; heavy minerals (0.5%)		
24–26		SP				SAND: grey; med; heavy minerals (0.5-1.0%)		
26–28		SP				SAND: dark brown to black; med to fine; consolidated (26-27)		
28–30		SP				SAND: light brown to black; med; heavy minerals (1.0%)		
30		SP				SAND: off white; coarse		
31–32		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
32–35						SAND: med to dark brown; med to coarse; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-219

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP						
40–45		SP				SAND: tan to light brown; med to coarse; heavy minerals (0.5-1.0%)		
45–48		SP				SAND: med brown; coarse		
48–56		SP				SAND: dark brown; med to med to fine; heavy minerals (1.5-2.0%)		
56–59		SP				SAND: reddish brown; fine; black banding; heavy minerals (<0.5%)		
59–60		SP				SAND: light brown; fine; heavy minerals (1.0-1.5%)		
60–62		SP				SAND: med brown; fine		
62–63		SC-SM				SAND, silty, clayey: grey to brown		
63–65		SP				SAND: light brown; fine		
65–66		SP				SAND: white; fine		
66–67		SP				SAND: tan; med; heavy minerals (1.0-1.5%)		
67–69		CL-ML				CLAY, silty: greenish		
69–70		SM				SAND, silty: tan; fine		
						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-220

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med; organics		
3		SP				SAND: white; med		
4–23		SP				SAND: dark brown to black; med to fine; consolidated (3-5,14-16,19-19.5); heavy minerals (0.5%)		
24–27		SP				SAND: med brown to grey; med to coarse; heavy minerals (0.5-1.0%)		
28		SP				SAND: dark brown to black; med to fine		
29–33		SP				SAND: med to dark brown; med		
34–35						SAND: tan reddish; med to coarse; heavy minerals (1.5-2.0%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-220

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
44		SP				SAND: tan; coarse		
45–47		SP				SAND: dark brown to black; med to fine; black hard cobbles; heavy minerals (1.5-2.0%)		
48–54		SP				SAND: tan; med to fine; heavy minerals (1.0%)		
55–56		SP				SAND: light brown; med to fine		
57		SP				SAND: dark brown; med to fine		
58–59		SP				SAND: black; fine; hard; organics; heavy minerals (<0.5%)		
60–63		SP				SAND: tan; fine		
64–66		CL-ML				CLAY, silty: greenish grey		
67–69		ML				SILT: tan to off white		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-221

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				Road material		
2–15		SP				SAND: dark brown to black; med to fine; consolidated (11-13)		
15–17		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
18		SP				SAND: dark brown to black; med to fine		
19–22		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
22–23		SP				SAND: med brown; med; heavy minerals (0.5%)		
23–25		SP				SAND: tan; med to coarse; heavy minerals (1.5%)		
26–27		SP				SAND: dark brown; med		
28–35						SAND: light to med brown; med; heavy minerals (0.5-1.0%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-221

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43						SAND: reddish brown; med; heavy minerals (<0.5%)		
44								
45		SP						
46								
47								
48								
49		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
50						SAND: tan to light brown; fine to coarse; heavy minerals (~1.0%)		
51								
52								
53		SP						
54								
55								
56		SP				SAND: dark brown; med		
57								
58		SP				SAND: dark brown; med to fine		
59		SP				SAND: light grey; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-222

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey; med		
3–4		SP				SAND: light brown; med		
5–9		SP				SAND: dark brown to black; med		
10–24		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%); interbedded consolidated and unconsolidated)		
25–27		SP				SAND: dark brown; med; heavy minerals (~1.0%)		
28–29		SP				SAND: dark brown; med; heavy minerals (1.0-1.5%)		
30–35		SP				SAND: dark grey to tan; med to coarse; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-222

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: dark brown to black; med; heavy minerals (~1.0%)		
38								
39								
40								
41		SP				SAND: dark brown to grey; med to coarse; heavy minerals (~1.0%)		
42								
43								
44								
45		SP				SAND: dark brown to black; med to fine		
46		SP				SAND: dark brown; med		
47		SP				SAND: light brown; med; heavy mineral bands (2.0-2.5%)		
48		SP				SAND: dark brown; med to fine; consolidated		
49								
50		SP				SAND: dark brown; med		
51		SP				SAND: tan; med; heavy minerals (<0.5%)		
52		SP				SAND: med brown; med		
53								
54								
55		SP				SAND: light brown to tan; med to fine; heavy minerals (~1%)		
56								
57								
58		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
59								
60								
61		SP				SAND: dark brown; med to fine		
62								
63								
64		SP				SAND: med brown; fine		
65								
66								
67		SC-SM				SAND, silty, clayey: light brown; fine		
68								
69		SP				SAND: white; med to fine		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-223

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark grey to black; med		
1–4		SP				SAND: med brown; med		
4–17		SP				SAND: dark brown to black; med to fine; consolidated (14-16); heavy minerals (0.5%)		
17–20		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
20–23		SP				SAND: dark brown to black; med; heavy minerals (0.5%)		
23–31		SP				SAND: med brown; med; heavy minerals (<0.5%)		
31		SP				SAND: dark reddish brown; med; heavy minerals (<0.5%)		
32		SP				SAND: light to med brown; med to fine		
33–35						SAND: reddish brown; med to coarse; heavy minerals (~1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan to light brown; med to dine; heavy minerals (1.0-1.5%)		
38								
39		SP						
40								
41								
42		SP				SAND: med brown; med to fine; heavy minerals (0.5%)		
43						SAND: dark brown; med to fine; heavy minerals (<0.5%)		
44								
45								
46								
47								
48		SP						
49								
50								
51								
52								
53								
54						SAND: med brown; med		
55		SP						
56		SP				SAND: dark brown; fine		
57								
58		SP				SAND: light to med brown; coarse; heavy minerals (<0.5%)		
59		CL-ML				CLAY, silty: dark brown to black		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-224

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark grey; med		
2		FILL				Road material		
3		SP				SAND: med brown; med		
4		SP				SAND: dark brown; med		
5		SP				SAND: dark brown to dark grey; med		
10		SP				SAND: dark brown; med to fine; consolidated (17.5-21); heavy minerals (0.5-1.0%)		
25		SP				SAND: med reddish to dark brown; med; heavy minerals (<0.5%)		
30		SP				SAND: dark brown; med; heavy minerals (1.0%)		
33		SP				SAND: light to med brown; med; heavy minerals (<0.5%)		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-224

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: reddish dark brown; med to coarse		
37		SP				SAND: dark brown; med		
38						SAND: med brown; med; heavy minerals (0.5%)		
39		SP						
40								
41								
42						SAND: reddish brown; med; heavy minerals (0.5-1.5%)		
43								
44								
45								
46								
47		SP						
48								
49								
50								
51								
52								
53						SAND: dark brown to black; fine		
54		SP						
55								
56						SAND: tan to light brown; med to fine		
57		SP						
58		SP				SAND: med brown; fine		
59		SP				SAND: med brown; med to fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-225

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med SAND: light brown; med; white layers med (2.5)		
4–22		SP				SAND: dark brown to black; med to fine; fine/light consolidation (16.5-22); heavy minerals (<0.5%)		
22–23		SP				SAND: light brown; med to coarse; heavy minerals (~0.5%)		
23–30		SP				SAND: med brown; med; heavy minerals (0.5-1.0%)		
30–31		SP				SAND: dark brown; med		
31–35		SP				SAND: reddish med brown; med; heavy minerals (1.0-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: reddish dark brown; med; heavy minerals (<0.5%)		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50		SP				SAND: white to tan; fine		
51						SAND: dark brown; fine		
52		SP						
53								
54						SAND: reddish dark brown; fine; hard cobbles		
55		SP						
56						SAND: reddish brown; fine		
57		SP						
58								
59		SP				SAND: light brown; fine		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-226

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey to off white; med		
3–12		SP				SAND: dark brown to black; med to fine		
13–16		SP				SAND: med to dark brown; med; heavy minerals (2.0-3.0%)		
17–24		SP				SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
25		SP				SAND: med brown; med		
26–30		SP				SAND: light brown to tan and grey; med; heavy minerals (~1.5%)		
30–32						Lost		
33–35		SP				SAND: dark brown to black; med to fine; heavy minerals (1.0-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: tan to brown; med to coarse; heavy minerals (1.0-1.5%)		
38		SP						
39								
40						SAND: reddish brown; med		
41		SP						
42						SAND: dark brown reddish; med; heavy minerals (1.0-2.0%)		
43		SP						
44						SAND: tan to light brown; med; heavy minerals (0.5-1.0%)		
45		SP						
46								
47						SAND: dark brown; med to fine; heavy minerals (<0.5%)		
48								
49								
50								
51		SP						
52								
53								
54								
55								
56						SAND: dark brown to black; med to fine; consolidated		
57		SP						
58						SAND: med brown; fine; heavy minerals (<0.5%)		
59		SP						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-227

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark grey to black; med		
2–4		SP				SAND: light grey to tan; med fine		
4–5		SP				SAND: med brown; med		
5–13		SP				SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
13–14		SP				SAND: tan; med; heavy minerals (<0.5%)		
14–23		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
23–26		SP				SAND: med brown; med to fine; heavy minerals (<0.5%)		
26–30		SP				SAND: light brown to tan; fine; heavy minerals (<0.5%)		
30–33		SP				SAND: tan; fine; white, med to fine at 31'; heavy minerals (<0.5%)		
33–35						SAND: white; fine; heavy minerals (0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-227

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-228

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: med brown; med		
3–15		SP				SAND: grayish brown; med to fine; heavy minerals (0.5%)		
16–20		SP				SAND: grayish brown; med to fine; heavy minerals (0.5%)		
21–23		SP				SAND: dark brown to black; med to fine		
24–25		SP				SAND: med brown to black; fine; heavy minerals (<0.5%)		
26–28		SP				SAND: light brown; fine		
29–31		SM				SAND, silty: tan; fine; heavy minerals (<0.5%)		
32–33		SP				SAND: tan, med to fine		
34–35						SAND: white; med		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-228

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-229

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: white; med SAND: light brown to off white; med; heavy minerals (0.5-1.0%)		
8–12		SP				SAND: dark brown to black; med		
13–20		SP				SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
21–27		SP				SAND: tan to light brown; med		
28		SP				SAND: dark brown to black; med to fine		
29–31		SP				SAND: grayish brown; med; heavy minerals (0.5-1.0%)		
32–35		SP				SAND: dark brown to black; med to fine; consolidated (31.5-34.5)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-229

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: med brown; med to fine; grey bands; heavy minerals (<0.5%)		
38								
39		SP				SAND: dark brown to black; med to fine		
40						SAND: dark brown; fine; heavy minerals (<0.5%)		
41								
42								
43		SP						
44								
45								
46								
47						SILT, trace clay: tan		
48		CL-ML						
49		SM				SAND, silty: off white; heavy minerals (<0.5%)		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-230

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey; med		
3		SP				SAND: black; med to fine		
4		SP				SAND: light brown; med to fine		
5–22		SP				SAND: dark brown to black; fine to fine; single light band (18); heavy minerals (<0.5%)		
23–25		SP				SAND: dark brown to grey; med; heavy minerals (0.5%)		
27		SP				SAND: dark brown to black; med to fine		
28–35		SP				SAND: dark brown; fine; heavy minerals (<0.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-230

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: tan; fine; heavy minerals (0.5%)		
40								
41								
42								
43								
44		CL-ML				SILT, clayey: tan		
45								
46		SM				SAND, silty: white		
47		CL-ML				CLAY, silty: grey		
48								
49		SP				SAND: tan; fine; heavy minerals (0.5%)		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-231

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light grey; med		
5–6		SP				SAND: orange; fine		
7		SP				SAND: grey; med		
8		SP				SAND: dark brown; med		
9–19		SP				SAND: tan; med; heavy minerals (0.5%)		
20–22		SP				SAND: dark brown to black; med to fine; heavy minerals (~0.5%)		
23–28		SP				SAND: dark brown; med;		
29–33		SP				SAND: dark brown to black; med to fine; consolidated (23-26); heavy minerals (<0.5%)		
34–35						SAND: grayish brown; med; heavy minerals (<0.5%)		
						SAND: dark brown to black; med; heavy minerals (1.0%)		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** A. Bushey

LOCATION Saint George, Georgia **DATE(S) DRILLED** 8/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39		SP				SAND: med brown; med; heavy minerals (0.5-1.0%)		
40		SP				SAND: dark brown to black; med; heavy minerals (0.5%)		
41								
42								
43		SP				SAND: med brown; med; heavy minerals (<0.5%)		
44								
45		SP				SAND: dark brown to black; med to fine		
46								
47		SP				SAND: grey to black; fine; heavy minerals (0.5%)		
48								
49								
50		SP				SAND: dark brown to black; med to fine		
51		SP				SAND: tan to brown; med; heavy minerals (<0.5%)		
52		SP				SAND: dark brown; med to fine		
53								
54								
55								
56								
57								
58		ML				SILT: light to med brown; heavy minerals (~0.5%)		
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-232

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: black; med		
2		SP				SAND: tan; med; heavy minerals (0.5-1.0%)		
3		SP				SAND: med brown; med		
4								
5						SAND: dark brown to black; med to fine; consolidated (18-19); heavy minerals (0.5%)		
6								
7								
8								
9								
10								
11								
12								
13								
14		SP						
15								
16								
17								
18								
19								
20								
21								
22								
23						SAND: grayish brown; med; heavy minerals (~1.0%)		
24		SP						
25						SAND: dark brown; med; black bands (25-29); heavy minerals (0.5%)		
26								
27								
28								
29								
30								
31		SP						
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-232

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light to med brown; med; heavy minerals (0.5%)		
38								
39		SP				SAND: grayish tan; med to fine; heavy minerals (1-1.5%)		
40								
41						SAND: white; fine; heavy minerals (0.5%)		
42								
43		SP						
44								
45								
46								
47						SAND: dark brown to black; fine; consolidated; heavy minerals (<0.5%)		
48		SP						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-233

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light to med grey; med		
3–6		SP				SAND: med to dark brown; med		
6–16		SP				SAND: dark brown to black; med to fine		
16–18		SP				SAND: light brown; med; heavy minerals (0.5%)		
18–22		SP				SAND: dark brown to black; med to fine		
22–23		SP				SAND: grayish brown; med to fine		
23–35		SP				SAND: reddish brown; med to coarse; heavy metals (0.5-1.0%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-233

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43								
44						SAND: light brown; med		
45		SP						
46								
47						SAND: dark brown to black; med to fine		
48		SP						
49								
50						SAND: tan; fine; heavy minerals (~1.0%)		
51		SP						
52						SAND: dark brown to black; med to fine; very fine (56-59)		
53								
54								
55		SP						
56								
57								
58								
59						SAND, silty: light brown; fine; heavy minerals (<0.5%)		
60		SM				BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-234

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark grey; med		
2		SP				SAND: white; med		
3		SP				SAND: med brown; med		
4		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
10		SP				SAND: light brown to grey; med; heavy minerals (0.5%)		
12		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
21		SP				SAND: dark brown; med; heavy minerals (0.5-1.0%)		
29		SP				SAND: dark brown to black; med; heavy minerals (1.0-1.5%)		
32						SAND: dark brown; med; heavy minerals (1.5-2.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–48		SP				SAND: dark brown; med to fine		
48–53		SP				SAND: grey; med to fine; heavy minerals (1.0-1.5%)		
53–54		SP				SAND: light brown; med to fine		
54–58		SP				SAND: dark brown to black; fine; consolidated		
58–59		SM				SAND: light brown; silt; fine		
59–60		SC-SM				SAND, silty, clayey: med brown; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-235

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark brown; med		
2		SP				SAND: grey; med		
3		SP				SAND: dark brown to black; med to fine		
4		SP				SAND: grayish tan; med; heavy minerals (~0.5%)		
5								
6								
7		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18		SP				SAND: med brown; med to coarse; heavy minerals (<0.5%)		
19		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
20						SAND: reddish brown; med to coarse; heavy minerals (0.5-1.0%)		
21								
22								
23								
24		SP						
25								
26								
27								
28								
29		SP				SAND: brown with black banding; med to coarse; heavy minerals (0.5%)		
30								
31		SP				SAND: light brown to tan; med; heavy minerals (1.0-1.5%)		
32		SP				SAND: light brown; med to coarse		
33						SAND: reddish med to dark brown; med; heavy minerals (<0.5%)		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-235

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–46		SP				SAND: light brown to tan; med to fine; heavy minerals (~1.5%)		
47		SP				SAND: grayish to light brown; fine; heavy minerals (1.0-1.5%)		
48–49		SP				SAND: dark grayish to med brown; fine		
50–54		SP				SAND: dark brown to black; med to fine		
55		SP				SAND: reddish dark brown; med		
56		SM				SAND, silty: dark brown to black; heavy minerals (<0.5%)		
57–59		ML				SILT: tan to light brown		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-236

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		CL-ML				CLAY, silty: grey		
1		SP				SAND: med grey; med		
2		SP				SAND: dark brown; med		
6		SP				SAND: dark grey; med; heavy minerals (0.5%)		
10		SP				SAND: dark brown to black; med to fine; consolidated		
20		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
23		SP				SAND: reddish dark brown; med; heavy minerals (0.5-1%)		
30						SAND: med to dark brown; med; heavy minerals (3-3.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-DPF-18-236

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP						
43–47		SP				SAND: med brown; med; hard black cobbles		
47–53		SP				SAND: tan to light brown; med; heavy minerals (3-3.5%)		
53–54		SP				SAND: reddish brown; coarse; heavy minerals (3-3.5%)		
55		SP				SAND: dark brown to black; fine		
56		SP				SAND: dark grey; fine		
57		SP				SAND: dark brown; fine		
58–60		SC-SM				SAND, silty, clayey: tan to light brown; fine		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-24

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/13/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				SAND: light tan; road fill		
1–5		SP				SAND: light tan to brown		
5–13		SC				SAND, clayey: dark brown; humate		
13–23		SP				SAND: dark brown; hard humate		
23–31		SP				SAND: brown; heavy minerals (>5%)		
31–35		SP				SAND: orange; minerals		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-24

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: brown		
38								
39								
40								
41								
42		SP						
43								
44								
45								
46								
47						CLAY: tan to orange		
48								
49		CH						
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-25

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road Material		
1–6		SP				SAND: brown to tan		
6–17		SP				SAND: dark brown; humate		
17–27		SP				SAND: brown; heavy minerals (>3%)		
27–35		SP				SAND: orange; heavy minerals (>5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-25

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						No Recovery		
38								
39								
40						SAND: brown		
41								
42								
43								
44								
45		SP						
46								
47								
48								
49								
50		SP				SAND: light tan to white; minerals		
						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-26

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				SAND: light tan; road fill		
1–14		SP				SAND: dark brown; humate		
14–18		SP				SAND: light brown		
18–27		SC				SAND, clay: dark brown; humate; clay lenses		
27–35						SAND: light brown; minerals (1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-26

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-27

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road Fill		
1–5		SP				SAND: light tan to orange		
5–19		SP				SAND: dark brown some grey; humate		
19–22		SP				SAND: orange		
22–27		SP				SAND: dark brown; some minerals		
27–35						SAND: light brown to orange; heavy minerals (1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-27

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-28

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6-7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–19		SP				SAND: dark brown; humate; no clay		
19–35		SP				SAND: tan to orange; minerals (1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-28

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-29

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N'A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light grey to brown		
4–7		SP				SAND: dark grey		
7–19		SP				SAND: dark brown; minor humate; high zircon; heavy minerals (2%)		
19–31		SP				SAND: light tan; heavy minerals (2%)		
31–35		SP				SAND: brown; high illuminite		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-29

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38						SAND: tan		
39		SP						
40						No Recovery		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-30

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey		
3–6		SP				SAND: brown		
7–12		SP				SAND: grey		
13–17		SP				SAND: brown; hard; humate		
18–19		SP				SAND: orange		
20–21		SP				SAND: tan		
22		SP				SAND: brown		
23–32		SP				SAND: orange		
32–35						SAND, clayey: brown; hard; humate		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-30

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39						SAND: orange to tan		
40								
41								
42								
43								
44								
45		SP						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-31

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
						Lime rock base		
1–5		SP				SAND: tan		
5–15		SP				SAND: dark brown; not hard humate; heavy minerals (1%)		
20–25		SC				SAND, clayey: dark brown; hard clayey humate		
25–35		SP				SAND: tan to brown		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-31

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: brown		
38								
39								
40								
41								
42								
43		SP						
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-32

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						Road fill		
1–9		SP				SAND: grey; coarse		
9–12		SP				SAND: dark brown		
12–15		SC				SAND, clayey: dark brown; humate; hard		
15–17		SP				SAND: brown		
17–28		SP				SAND: tan; heavy minerals (1.5-2%)		
28–33		SP				SAND: brown; not hard; no clay; heavy minerals (>2%)		
33–35						SAND: tan; minerals		

Continued Next Page

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-32

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40		SP				SAND: orange		
41								
42								
43								
44								
45								
46		SP				SAND: light tan		
47								
48								
49		SP				SAND: brown; good mineral		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-40

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light brown to tan		
9–20		SP				SAND: dark brown		
20–24		SP				SAND: light tan; heavy minerals (1%)		
24–35		SP				SAND: brown; heavy minerals (>3-4% @29) (1% @34)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-40

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/16/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42		SP				SAND: light brown; heavy minerals (1.5%)		
43								
44								
45								
46								
47		CH				CLAY: dark brown; hard; humate		
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-97

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	Surface
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9						5' Recovery		
10–18		SP				SAND: dark brown to black		
19–24		SP				SAND: light brown; coarse (good mineral showing first 2.5')		
25–29		SP				SAND: reddish-brown; coarse		
30–35		SP				SAND: dark-brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-97

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: reddish-brown; coarse		
38								
39		SP						
40								
41						SAND: gray to dark grey; coarse		
42								
43		SP						
44								
45								
46						SAND: brown; coarse		
47								
48								
49		SP						
50								
51								
52						SAND: dark brown to black; coarse		
53		SP						
54		SP				SAND: brown; coarse		
55		SM				SAND, silty: light brown		
56						CLAY: grey		
57								
58		CH						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-98

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	Surface
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light to dark brown; coarse		
10–19		SP				SAND: very dark brown; coarse		
20–22		SP				SAND: dark brown; coarse		
23–24		SP				SAND: dark brown to black; consolidated; coarse		
25–31		SP				SAND: dark brown; coarse		
32–35						SAND: black; consolidated; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-98

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39		SP				SAND: dark brown; coarse		
40								
41								
42		SP				SAND: dark grey; coarse		
43								
44								
45		SP				SAND: dark brown; coarse		
46								
47								
48								
49		SP				SAND: brown; coarse		
50								
51								
52								
53								
54								
55								
56								
57		SP				SAND: light brown; coarse		
58		CH				CLAY: brown to grey		
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-99

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	Surface
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9						5' Recovery		
10–21		SP				SAND: dark brown to black; coarse		
22–26		SP				SAND: dark brown; coarse		
27–35		SP				SAND: very dark brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-99

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light tan; coarse		
38								
39		SP				SAND: dark brown; coarse		
40						SAND: light brown; coarse		
41								
42		SP						
43								
44								
45		SP				SAND: dark brown; coarse		
46								
47						SAND: reddish-brown; coarse		
48								
49								
50								
51		SP						
52								
53								
54								
55		SP				SAND: dark brown; coarse		
56								
57		SP				SAND: light tan; coarse		
58						CLAY: light brown		
59		CH						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-100

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light grey; coarse		
5–8		SP				SAND: brown; coarse		
8–10		SP				SAND: dark brown; coarse		
10–20		SP				SAND: dark brown; coarse; consolidated		
20–24		SP				SAND: dark brown; coarse		
24–29		SP				SAND: reddish-brown; coarse		
29–30		SP				SAND: dark brown; coarse		
30–32		SP				SAND: light brown; coarse		
32–35		SP				SAND: dark brown; coarse; consolidated		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-100

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: brown; coarse		
38								
39								
40		SP				SAND: reddish-brown; coarse		
41								
42								
43		SP				SAND: light tan; coarse		
44								
45								
46								
47								
48		SP				SAND: brown; coarse		
49								
50								
51								
52								
53		SM				SAND, silty: light tan		
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-101

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: dark brown; coarse		
10–14		SP				SAND: dark brown to reddish-brown; coarse		
15–25		SP				SAND: dark brown; coarse		
26–27		SP				SAND: light tan; coarse		
28–33		SP				SAND: dark brown; coarse		
33–35						SAND: dark brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-101

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40		SP				SAND: light brown; coarse		
41								
42								
43								
44								
45								
46								
47		SP				SAND: dark brown; coarse		
48								
49								
50								
51								
52		SP				SAND: reddish-brown; fine		
53								
54								
55								
56		SM				SAND, silty: light tan		
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-102

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light gray to light brown; coarse		
5–17		SP				SAND: dark brown; coarse		
17–21		SP				SAND: brown to reddish-brown; coarse		
21–22		SP				SAND: dark brown; coarse; consolidated		
22–30		SP				SAND: brown; coarse		
30–35						SAND: reddish-brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-102

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–62		SP						
63–64		SP				SAND: white; coarse		
65–69		SM				SAND, silty: light tan		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-103

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: dark grayish-brown; coarse		
10–19		SP				SAND: dark brown to black; coarse		
20–25		SP				SAND: brown; coarse		
26–29		SP				SAND: reddish-brown; coarse		
30–35						SAND: brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-103

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP						
47–64		SP				SAND: reddish-brown; coarse		
65–69		SM				SAND, silty: light tan to light green		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-104

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light tan; coarse at top; dark brown to black toward bottom		
10–19		SP				SAND: dark brown to black; coarse		
20–23		SP				SAND: light brown; coarse		
24–28		SP				SAND: dark brown; coarse; consolidated		
29		SP				SAND: brown; coarse		
30–35						SAND: reddish-brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-104

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–55		SP						
56		SP				SAND: dark-brown; coarse; consolidated		
57–58		SP				SAND: tan to white; coarse		
59		SP				SAND: dark brown; coarse; consolidated		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-105

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light brown to tan; coarse grained		
4–5		SP				SAND: light brown; coarse grained		
5–10		SP				SAND: black; coarse grained; consolidated		
10–11		SP				SAND: dark grayish-brown; coarse grained		
11–15		SP				SAND: dark brown; coarse grained; consolidated		
15–16		SP				SAND dark brown, coarse grained		
16–20		SP				SAND grayish-brown, coarse grained		
20–25		SP				SAND: brown; coarse		
25–30		SP				SAND: reddish-brown; coarse with intermittent hard dark brown layers		
30–33		SP				SAND: reddish-brown; coarse		
33–35						SAND: brown; coarse; hard sand at contact		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-105

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–48		SP						
49		SP				SAND: brown; fine; hard sand at contact		
50–54		SP				SAND: brown; coarse		
55–59		SP				SAND: dark brown to black; coarse		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-237

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road Fill		
2		SP				SAND: brown; med		
3		SP				SAND: grey; med		
4								
5		SP				SAND: dark brown/black; med to fine		
6								
7								
8		SP				SAND: dark grey; med; heavy minerals (0.5%)		
9						SAND: dark brown/ black; med to fine		
10								
11		SP						
12								
13								
14								
15						SAND: med brown/ black; med; heavy minerals (<0.5%)		
16								
17								
18		SP						
19								
20								
21						SAND: light to med brown; med; heavy minerals (<0.5%)		
22		SP						
23								
24						SAND: reddish brown; med; heavy minerals (0.5-1%)		
25								
26								
27								
28		SP						
29								
30								
31								
32								
33						SAND: reddish tan; med; heavy minerals (2-3%)		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-237

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–47		SP				SAND: reddish dark to med brown; med; heavy minerals (0.5-1%)		
47		SP				SAND: dark brown; fine		
47–50		SP				SAND: tan; med to coarse; heavy minerals (1-1.5%)		
50–57		SP				SAND: brown (reddish from 54-57); med		
57–60		SP				SAND: dark brown/black; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-238

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SC				SAND, clayey: light grey; orange clay; med		
3–4		SP				SAND: med grey; med		
5–6		SP				SAND: light brown; med		
7–8		SP				SAND: dark brown/black; med to fine		
9–14		SP				SAND: dark grey; med		
15–16		SP				SAND: tan; med; heavy minerals (0.5-1%)		
17–25		SP				SAND: dark brown/black; med to fine; heavy minerals (0.5-1%)		
26		SP				SAND: med brown; med; heavy minerals (0.5%)		
27–28		SP				SAND: tan; med; heavy minerals (0.5%)		
29–34		SP				SAND: dark brown/black; med to fine		
35						SAND: tan and dark brown; interbedded med sands		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-238

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
39								
40								
41		SP				SAND: med brown; med		
42								
43		SP				SAND: tan; med		
44								
45								
46								
47		SP				SAND: dark brown/black; hard; fine		
48		SP				SAND: reddish brown; med		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-239

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med to fine		
2		SP				SAND: dark brown; med		
3		SP				SAND: tan/light grey; med		
4								
5								
6		SP				SAND: dark brown; med		
7		SP				SAND: black; med to fine		
8		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
9								
10								
11								
12								
13								
14								
15								
16								
17		SP				SAND: dark brown/black; med to fine		
18		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
19		SP				SAND: dark brown/black; med to coarse; heavy minerals (<0.5%)		
20								
21								
22								
23								
24								
25								
26								
27		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5%)		
28						SAND: light brown; med; heavy minerals (0.5%)		
29								
30								
31								
32		SP				SAND: dark brown; med		
33								
34		SP				SAND:med brown; med; heavy minerals (0.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: light brown reddish; med; heavy minerals (0.5%)		
40–56		SP				SAND: dark brown; med; coarse bands; heavy minerals (0.5-1%)		
56		SP				SAND: dark brown/black; heavy minerals (1-1.5%)		
57		SP				SAND: dark grey; fine		
58–59		SC-SM				SAND. silty, clayey: dark grey; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-240

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light grey orange; med; organics SAND: dark brown; med		
5–8		SP				SAND: dark brown/black; med to fine		
9		SP				SAND: dark brown/black; med; heavy minerals (0.5%)		
10–14		SP				SAND: dark grey; med		
15–20		SP				SAND: dark brown/black; med to fine; consolidated (18-19.5); heavy minerals (0.5-1%)		
21–23		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
24–25		SP				SAND: med brown; heavy minerals (<0.5%)		
26		SP				SAND: light brown; med to coarse		
27–29		SP				SAND: med to dark brown; med		
30–35		SP				SAND: white; med to coarse; heavy minerals (<0.5-0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-240

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-241

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: black; med to fine		
3		SP				SAND: light brown; med		
4		SP				SAND: med brown; med		
5						SAND: dark brown/black; med to fine; heavy minerals (<0.5%)		
6								
7		SP						
8								
9								
10						SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
11								
12								
13								
14		SP						
15								
16								
17								
18						SAND: dark brown/black; med to fine		
19								
20		SP						
21								
22						SAND: dark brown; med		
23		SP						
24						SAND: light brown; med; heavy minerals (<0.5%)		
25		SP						
26						SAND: dark brown; med; black bands		
27		SP						
28						SAND: tan/white; med		
29		SP				SAND: brown and black; heavy minerals (0.5%)		
30								
31						SAND: dark grey/black; med to coarse; heavy minerals (0.5%)		
32								
33		SP						
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43		SP				SAND: dark brown/black; med to fine; coarse; heavy minerals (0.5-1.5%)		
43		SP				SAND: med brown; med; heavy minerals (1-1.5%)		
44		SP				SAND: white; coarse		
45–46		SP				SAND: tan/light brown; med; heavy minerals (<0.5%)		
47		SP				SAND: med brown; med		
48–49		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
50–52		SP				SAND: grayish tan; med to coarse; heavy minerals (3-4.5%)		
53–56		SP				SAND: tan; med to coarse; heavy minerals (2-4%)		
57–59		SM				SAND, silty: dark brown; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-242

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; med		
		SP				SAND: dark brown/ black; med to fine		
2		SP				SAND: light grey; med		
3		SP				SAND: med brown; med		
4								
5		SP				SAND: dark brown/black; med		
6								
7		SP				SAND: dark grey/black; med; heavy minerals (<0.5%)		
8								
9								
10		SP				SAND: light grey; med; heavy minerals (0.5-1%)		
11		SP				SAND: dark brown/black; med to fine		
12								
13								
14		SP				SAND: dark brown; med; heavy minerals (1%)		
15								
16								
17		SP				SAND: dark brown/black; med to fine; consolidated (17.5-19.5)		
18								
19								
20								
21		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
22								
23								
24								
25								
26								
27								
28		SP				SAND: dark brown/black; med to fine		
29		SP				SAND: dark brown with black banding; med; heavy minerals (<0.5-1%)		
30								
31								
32						SAND: reddish med brown; med; heavy minerals (0.5-1%)		
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40–42		SP				SAND: tan/light brown; med to coarse; heavy minerals (2-3%)		
43–63		SP				SAND: med brown reddish; med to coarse (very coarse at 54-56); heavy minerals(<0.5-2%)		
64		SP				SAND: white; med to fine		
65–66		CL-ML				SILT, trace clay: grey; heavy minerals (<0.5%)		
67–69		CL-ML				SILT, clayey: tan/grayish; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-336

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		FILL				Road fill		
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
3		SP				SAND: brown; med; heavy minerals (<0.5%)		
15		SP				SAND: tan; med		
15		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
17		SP				SAND: brown; med; heavy minerals (0.5-1%)		
19		SP				SAND: dark brown; med to fine; consolidated		
23		SP				SAND: tan; med; heavy minerals (1%)		
26		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
29		SP				SAND: tan; med; heavy minerals (0.5%)		
32		SP				SAND: light tan/white; med; heavy minerals (1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-336

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/23/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP				SAND: light brown; med; heavy minerals (0.5-1%)		
47–59		SP				SAND: orangish brown; med to coarse; heavy minerals (1-4%)		
60–62		SP				SAND: tan; coarse; heavy minerals (<0.5%)		
63–65		SC				SAND, clayey: brown; fine		
66–68		SC				SAND, trace clay: tan; fine		
69–70		SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-337

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: light grey; med		
3		SP				SAND: dark brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
12		SP				SAND: brown; med; heavy minerals (<0.5%)		
18		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
20		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
24		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1.5%)		
31						SAND: reddish brown; med to coarse; heavy minerals (0.5-2%)		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-337

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/23/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40						SAND: dark brown; med; heavy minerals (1%)		
41–43		SP						
44						SAND: brown; med to coarse; heavy minerals (1.5%)		
45		SP						
46						SAND: tan; med to coarse; heavy minerals (1-1.5%)		
47–52		SP						
53						SAND: brown; med; heavy minerals (1%)		
54		SP						
55						SAND: dark brown; med to coarse; very coarse pockets; heavy minerals (0.5-2%)		
56–63		SP						
64						SAND, trace clay: dark brown; fine		
65		SC						
66		SC				SAND, trace clay: tan; fine		
67		SC				SAND, clayey: grey; fine; heavy minerals (<0.5%)		
68		SC-SM				SAND, silty, trace clay: tan; fine		
69		SC-SM				SAND, silty, clayey: white; fine; heavy minerals (<0.5-1%)		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-338

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: grey; med		
5		SP				SAND: brown; med		
		SP				SAND: tan; med		
6–15		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
16–21		SP				SAND: dark brown/black; med to fine; heavy minerals (0.5%)		
22–27		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
28–31		SP				SAND: brown; med; heavy minerals (1-1.5%)		
32–35						SAND: orangish brown; med; heavy minerals (0.5-4%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-338

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–64		SP						
65		SP				SAND: tan; fine; heavy minerals (<0.5%)		
66		SC				SAND, trace clay: grayish tan; fine		
67–69		SC-SM				SAND, silty, clayey: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-339

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS Hard binding at 41-45

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		FILL				SAND: grey; med; road fill		
4		SP				SAND: brown; med		
5–11		SP				SAND: dark brown; med; heavy minerals (0.5%)		
11–22		SP				SAND: brown; med; heavy minerals (1-2%)		
22–26		SP				SAND: dark brown; med to fine; heavy minerals (1%)		
26		SP				SAND: grey; med; heavy minerals (0.5%)		
27–30		SP				SAND: dark brown; med to fine		
30–35						SAND: tan/light brown; med to coarse; heavy minerals (<0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-339

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						SAND: orangish brown; med to coarse; heavy minerals (0.5-5%)		
41								
42								
43								
44								
45		SP						
46								
47								
48								
49								
50						SAND: dark brown; coarse		
51		SP						
52		SP				SAND: grey; fine; heavy minerals (<0.5%)		
53						SAND, trace clay: dark brown; fine		
54								
55		SC						
56								
57						SAND, silty, clayey: light brown; fine; heavy minerals (<0.5%)		
58		SC-SM						
59								
60		SC				SAND, trace clay: light brown; fine; heavy minerals (0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-340

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med; organics		
3		SP				SAND: brown; med		
5		SP				SAND: dark brown; med		
7		SP				SAND: grey; med; heavy minerals (1%)		
12		SP				SAND: dark brown; med; heavy minerals (0.5%)		
18		SP				SAND: brown; med		
22		SP				SAND: dark brown; med to fine; heavy minerals (<0.5%)		
28		SP				SAND: tan; med		
30						SAND: orangish light brown; med to coarse; heavy minerals (0.5-2.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/24/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SP						
50–54		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
55		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
56		SP				SAND: tan; med; heavy minerals (<0.5%)		
57–58		SC				SAND, trace clay: tan; fine; heavy minerals (<0.5%)		
59–60		SC				SAND, trace clay: light brown; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-341

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white; med		
2		SP				SAND: tan; med		
3								
4		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
5								
6								
7								
8		SP				SAND: dark grey; med; heavy minerals (0.5%)		
9								
10								
11		SP				SAND: dark brown; med; heavy minerals (0.5%)		
12								
13								
14								
15								
16		SP				SAND: brown; med; heavy minerals (0.5%)		
17						SAND: dark brown; med to fine; heavy minerals (0.5%)		
18		SP						
19								
20		SP				SAND: grayish brown; med to fine; heavy minerals (0.5%)		
21								
22								
23								
24								
25								
26								
27		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
28						SAND: tan; med to coarse; heavy minerals (1-2%)		
29								
30								
31								
32		SP						
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-341

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: orangish brown; med to coarse; heavy minerals (1%)		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50		SP				SAND: orangish tan; med to coarse; heavy minerals (0.5%)		
51								
52		SP				SAND: tan; fine; heavy minerals (0.5%)		
53								
54								
55		SC				SAND, trace clay: brown; fine		
56		SC				SAND, clayey: dark brown; fine		
57								
58		SC-SM				SAND, silty, clayey: brown		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-342

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med; organics		
2		SP				SAND: white; med		
3		SP				SAND: grey; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med		
6								
7								
8								
9		SP				SAND: grey; med; heavy minerals (0.5%)		
10		SP				SAND: brown; med		
11		SP				SAND: dark brown; med to fine; heavy minerals (0.5-1%)		
12								
13								
14								
15								
16								
17								
18								
19		SP				SAND: brown; med; heavy minerals (0.5%)		
20		SP				SAND: grey; med; heavy minerals (0.5%)		
21								
22								
23		SP				SAND: dark brown; med; heavy minerals (1%)		
24								
25								
26								
27								
28								
29		SP				SAND: light brown/tan; heavy minerals (2-2.5%)		
30						SAND: orangish tan; med; heavy minerals (0.5-1%)		
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-342

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP						
46–48		SP				SAND: white/light tan; fine; heavy minerals (0.5%)		
48–54		SP				SAND: dark brown; fine; heavy minerals (<0.5-1%)		
54–57		SC	50 - 60	60		SAND, trace clay: dark brown; fine		
57–60		SC-SM				SAND, silty, clayey: tan; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-343

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
4		SP				SAND: grayish brown; med		
5		SP				SAND: dark brown; med; heavy minerals (0.5%)		
9		SP				SAND: grey; med		
10		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
22		SP				SAND: grayish tan; med; heavy minerals (0.5%)		
26		SP				SAND: dark brown; med to fine; consolidated; heavy minerals (1%)		
29		SP				SAND: brown; med to coarse; heavy minerals (1%)		
33						SAND: tan; med to coarse; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: brown; med to coarse; heavy minerals (0.5-1.5%)		
38								
39								
40		SP						
41								
42								
43						SAND: orangish brown; med to coarse; some strong mineral bands; heavy minerals (1.5-5%)		
44								
45								
46		SP						
47								
48								
49								
50		SP				SAND: dark brown/black; med; heavy minerals (~1%)		
51		SP				SAND: brown; med; heavy minerals (0.5%)		
52						SAND: tan; fine		
53								
54		SP						
55								
56		SC				SAND, trace clay: brown; fine		
57		SP				SAND: black; fine; hard; heavy minerals (0.5%)		
58								
59		SC				SAND, clayey; brown; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-344

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: grayish brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
20		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
23		SP				SAND: light grey; med to coarse		
24		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
27		SP				SAND: brown; med to coarse; heavy minerals (0.5-2%)		
35						*Continued Next Page*		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-344

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43		SP				SAND: orangish tan; med		
44								
45								
46						SAND: white; fine; heavy minerals (0.5-1%)		
47		SP						
48								
49								
50		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-345

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
4		SP				SAND: brown; med		
5		SP				SAND: tan; med		
6–16		SP				SAND: dark brown; med; heavy minerals (0.5-2%)		
17–20		SP				SAND: brown; med; heavy minerals (<0.5-0.5%)		
21–24		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
25–26		SP				SAND: brown; med; heavy minerals (0.5%)		
27–28		SP				SAND: dark brown/grey; med		
29–30		SP				SAND: brown; med to coarse; heavy minerals (1.5-2%)		
31–32		SP				SAND: black/grey; med to coarse; heavy minerals (1.5-2%)		
33–35						SAND: orangish brown; med; heavy minerals (0.5-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-345

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP						
40						SAND: tan; fine; heavy minerals (0.5-1%)		
41–45		SP						
46						SAND: brown; fine; heavy minerals (0.5-1%)		
47–49		SP						
50						SAND, clayey: dark brown; fine; heavy minerals (0.5%)		
51–54		SC						
55						SAND, silty, clayey: tan; fine; heavy minerals (<0.5%)		
56–59		SC-SM						
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-346

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark grey; med; organics		
2		SP				SAND: brown; med		
3								
4		SP				SAND: tan/light brown; med		
5		SP				SAND: dark brown; med; heavy minerals (~1%)		
6								
7								
8								
9		SP				SAND: grey; med; heavy minerals (~1%)		
10								
11								
12		SP				SAND: dark brown; med to fine; heavy minerals (<0.5%)		
13								
14								
15								
16								
17		SP				SAND: brown; med; heavy minerals (0.5-1%)		
18								
19								
20								
21								
22								
23		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
24								
25								
26								
27								
28								
29								
30								
31						SAND: brown; med; heavy minerals (1.5-2.5%)		
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–45		SP						
45–46		SP				SAND: dark brown; med to fine; heavy minerals (2-2.5%)		
46–48		SP				SAND: tan; med to coarse; heavy minerals (1%)		
48–50		SP				SAND: med; heavy minerals (~2%)		
50–53		SP				SAND: grey; medl heavy minerals (1.5-2%)		
53–55		SP				SAND: dark brown; fine; heavy minerals (0.5-1%)		
55–57		SC				SAND, clayey: dark brown; fine		
57–59		SC				SAND, clayey: grayish tan; fine; heavy minerals (~0%)		
59–60		SC-SM				SAND, silty, trace clay: tan; fine; heavy minerals (~0%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-347

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; med; organics SAND: brown; med SAND: tan; med		
6–17		SP				SAND: dark brown; med; heavy minerals (0.5%)		
17–21		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5%)		
21–34		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
34–35						SAND: orangish brown; med to coarse; heavy		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP				minerals (0.5-1%)		
43–47		SP				SAND: orangish tan; coarse; heavy minerals (1-1.5%)		
48–51		SP				SAND: tan/light brown; med; heavy minerals (1.5-2%)		
52–53		SP				SAND: brown; med to fine		
54–57		SC				SAND, clayey: dark brown; fine		
58–59		SC				SAND, clayey: tan; fine		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-348

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med; organics		
2		SP				SAND: brown; med		
3								
4		SP				SAND: tan; med		
5								
6								
7		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
8								
9								
10								
11								
12								
13		SP				SAND: dark brown; med to coarse		
14								
15		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
16								
17						SAND: dark brown; med coarse; heavy minerals (0.5-1%)		
18		SP						
19								
20								
21								
22						SAND: reddish brown; med to coarse; heavy minerals (<0.5%)		
23								
24								
25		SP						
26								
27								
28								
29								
30								
31						SAND: dark brown; med to coarse; heavy minerals (0.5-1.5%); 3" grey layer at 31; 4" white layer at 34		
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-348

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40		SP				SAND: grayish brown; med to coarse		
41						SAND: white; med to coarse; heavy minerals (1%)		
42		SP						
43								
44		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
45								
46		SC				SAND, clayey: dark brown; fine; heavy minerals (<0.5%)		
47								
48								
49								
50		SP				SAND: dark grey; fine; heavy minerals (<0.5%) BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-349

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N'A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4								
5		SP				SAND: dark brown; med		
6								
7		SP				SAND: grayish tan; med; heavy minerals (<0.5%)		
8		SP				SAND: dark brown; med		
9								
10		SP				SAND: grey; med; heavy minerals (~1.5%)		
11		SP				SAND: dark brown; med; consolidated (16'); heavy minerals (0.5-1%)		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23		SP				SAND: brown; med; heavy minerals (1%)		
24								
25								
26		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
27								
28								
29								
30		SP				SAND: brown; med to coarse		
31								
32		SP				SAND: dark brown; med to coarse; heavy minerals (0.5-1%)		
33						SAND: tan; med to coarse; good banding; heavy minerals (0.5-2%)		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-349

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/26/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
40								
41		SP				SAND: orangish brown; med to coarse; heavy minerals (1-4%)		
42								
43								
44								
45								
46		SP				SAND: dark brown; med to coarse; heavy minerals (1-1.5%)		
47		SP				SAND: tan; med to fine; heavy minerals (0.5-1%)		
48								
49		SP				SAND: black; med to fine; heavy minerals (0.5-1%)		
50								
51		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
52								
53								
54		SC				SAND, trace clay: dark brown; fine; heavy minerals (0.5%)		
55								
56		SP				SAND: dark brown/black; fine; hard		
57								
58		SC-SM				SAND, silty, clayey: tan; fine; heavy minerals (0-0.5%)		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-350

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: brown; med; organics		
2						SAND: tan; med		
3		SP						
4								
5						SAND: dark brown; med; heavy minerals (<0.5-2.5%)		
6								
7								
8								
9								
10		SP						
11								
12								
13								
14								
15								
16						SAND: grayish tan; med; heavy minerals (0.5-1%)		
17								
18		SP						
19								
20						SAND: dark brown grayish; med; heavy minerals (0.5-1.5%)		
21								
22		SP						
23								
24								
25						SAND: tan; med to coarse; heavy minerals (0.5-1%)		
26								
27								
28								
29								
30		SP						
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-350

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: reddish brown; med to coarse; heavy minerals (0.5-1%)		
38								
39								
40								
41		SP				SAND: tan; coarse		
42								
43		SP				SAND: dark brown; fine to med; heavy minerals (0.5%)		
44		SP				SAND: white; fine to med		
45		SP				SAND: grey; fine; heavy minerals (0.5%)		
46								
47		SP				SAND: dark brown; fine		
48						SAND, trace clay: dark brown; fine; hard; heavy minerals (0.5%)		
49								
50		SC						
51								
52								
53								
54		SP				SAND: brown; fine		
55						SAND, clayey: tan; fine		
56								
57		SC						
58								
59								
60		SP				SAND: white; fine		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-351

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0-0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4						SAND: dark brown; med; heavy minerals (0.5%)		
11		SP						
18		SP				SAND: white; med; heavy minerals (0.5%)		
19						SAND: dark brown; med; heavy minerals (<0.5%)		
20		SP						
21						SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
26		SP						
32						SAND: orangish tan; med to coarse; heavy mineral banding; heavy minerals (0.5-2.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SP						
49–52		SP				SAND: reddish brown; med; heavy minerals (0.5-1%)		
52–53		SP				SAND: dark brown; med		
53–55		SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
55–57		SP				SAND: tan; med		
57–62		SP				SAND: dark reddish brown; med to coarse; heavy minerals (~1%)		
62–63		SP				SAND: dark brown; med; heavy minerals (0.5%)		
63–64		SC				SAND, trace clay: tan; fine		
64–65		SC				SAND, trace clay: brown; fine		
65–70		SC				SAND, trace clay: tan; fine		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-352

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0-0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
3		SP				SAND: grayish brown; med		
4								
5		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22		SP				SAND: brown; med; heavy minerals (0.5%)		
23								
24								
25								
26								
27								
28		SP				SAND: dark brown; med to coarse; heavy minerals (1-1.5%)		
29								
30								
31								
32								
33		SP				SAND: orangish tan; med to coarse; heavy minerals (0.5%)		
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-352

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5-4%)		
41		SC				SAND, trace clay: dark brown; med; heavy minerals (1%)		
46		SP				SAND: tan; med		
47		SP				SAND: brown; med; organics; heavy minerals (0.5-1%)		
50		SP				SAND: reddish brown; med; heavy minerals (1-1.5%)		
60		SP				SAND: black/dark brown; med to coarse; heavy minerals (1-1.5%)		
61		SC				SAND, clayey: dark brown; med; heavy minerals (0.5-1%)		
63		SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-353

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
5		SP				SAND: brown; med		
6		SP				SAND: dark brown; med; heavy minerals (0.5%)		
12		SP				SAND: grayish tan; med to coarse; heavy minerals (0.5-1%)		
13		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
19		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
21		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
30						SAND: brown; med to coarse; heavy minerals (0.5-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP						
40–46		SP				SAND: tan orangish; coarse to med; heavy minerals (0.5-7%)		
46–59		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-4%)		
59–63		SP				SAND: tan grayish; coarse; heavy minerals (0.5-1%)		
63		SP				SAND: dark brown; med		
64		SP				SAND: brown; fine		
65		SP				SAND: white; fine		
65–70		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-354

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark brown/black; med		
2		SP				SAND: tan/grayish; med		
3						SAND: dark brown/black; med; heavy minerals (<0.5%)		
4								
5								
6								
7		SP						
8								
9								
10								
11						SAND: dark brown; med to coarse; heavy minerals (0.5%)		
12								
13								
14		SP						
15								
16						SAND: reddish brown; med to coarse; heavy minerals (0.5%)		
17								
18		SP						
19		SP				SAND: dark brown; med		
20		SP				SAND: brown; med to coarse		
21						SAND: orange/tan' med to coarse; heavy minerals 0.5%)		
22		SP						
23								
24		SP				SAND: dark brown; med to coarse; heavy minerals (1.5-2%)		
25						SAND: orange/tan; med to coarse; heavy minerals (<0.5-1%)		
26								
27								
28								
29								
30								
31								
32		SP						
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-354

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40						SAND: tan/light brown; med to coarse; heavy minerals (<0.5-1.5%)		
41								
42								
43								
44								
45		SP						
46								
47								
48								
49						SAND: reddish brown; med to coarse; heavy minerals (<0.5-1.5%)		
50								
51								
52								
53								
54		SP						
55								
56								
57								
58								
59		SC				SAND, clayey: brown; fine; heavy minerals (~0%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-355

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: light tan/white; med		
4		SP				SAND: grey; med		
5–19		SP				SAND: dark brown; med; heavy minerals (<0.5-1%)		
20–33		SP				SAND: brown; med; heavy minerals (0.5-1%); hardpan at 24.5'		
34–35		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light tan; med to coarse; heavy minerals (1.5-2%)		
42		SP				SAND: light tan; med to coarse; heavy minerals (0.5-1%)		
50		SP				SAND: light brown; med to coarse; heavy minerals (1.5-2%)		
55		SP				SAND: light brown; coarse; heavy minerals (1-2%)		
59		SP				SAND: tan; coarse; heavy minerals (~1%)		
60		SP				SAND: brown; med to fine; heavy minerals		
62		SP				SAND: tan; fine		
63		SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-356

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; med; organics		
5–19		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
19–28		SP				SAND: brown; med to coarse; heavy minerals (<0.5-1%)		
28–30		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
30–35						SAND: orangish tan; coarse to med; heavy minerals (0.5-3%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–55		SP						
56–57		SP				SAND: brown; med		
57–63		SP				SAND: tan; med to coarse; heavy minerals (1.5-2%)		
63–67		SC				SAND, clayey: grey; fine		
67–70		SC				SAND, trace clay: white; fine		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-357

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med; organics		
3		SP				SAND: tan; med		
4–11		SP				SAND: dark brown; med; heavy minerals (0.5%)		
12–13		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
14–15		SP				SAND: dark brown; med; heavy minerals (0.5%)		
16–21		SP				SAND: brown; med to coarse; heavy minerals (<0.5%)		
22–23		SP				SAND: dark brown; med; heavy minerals (0.5%)		
24–35		SP				SAND: white; med to coarse; heavy minerals (0.5-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-357

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: light brown; med to coarse		
37		SP				SAND: white; med to coarse; heavy minerals (1.5-3%)		
40		SP				SAND: light brown; med to coarse; heavy minerals (2%)		
45		SP				SAND: white; med to coarse; heavy minerals (0.5-2%)		
57		SC				SAND, trace clay: dark brown; med		
58		SP				SAND: brown; med to coarse; heavy minerals (1.5-2%)		
63		SC				SAND, clayey: dark brown; med to fine; heavy minerals (0.5-1%)		
66		SC-SM				SAND, silty, trace clay: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-358

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–8		SP				SAND: dark brown; med; heavy minerals (0.5%)		
8–10		SP				SAND: dark brown; med; heavy minerals (0.5%)		
10–23		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
23–25		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5%)		
25–26		SP				SAND: dark brown; med to coarse		
26–30		SP				SAND: reddish brown; med to coarse; heavy minerals (0.5%)		
30–35						SAND: orangish brown; med to coarse; heavy minerals (0.5-2.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-358

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/5/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
41–50		SP				SAND: orangish tan; med to coarse; heavy minerals (1.5-3%)		
50–63		SP				SAND: tan; med to coarse; heavy minerals (0.5-2%)		
63–70		SC				SAND, clayey tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-359

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
10						No Recovery		
21		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
23		SP				SAND: brown; med to coarse; heavy minerals (<0.5%)		
30		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
35		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-359

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/6/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP				SAND: orangish brown; med to coarse; heavy minerals (3-4%)		
41–59		SP				SAND: tan; med to coarse; heavy minerals (1-8%)		
59–60		SC				SAND, clayey: dark brown; fine; heavy minerals (<0.5%)		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-360

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey; med		
5–9		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
10		SP				SAND: grey; med		
10–16		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
17–29		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
30		SP				SAND: tan; med to coarse		
31–33		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
34–35						SAND: dark brown; med to coarse; heavy minerals (0.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SP						
50		SP				SAND: brown; med to coarse; heavy minerals (<0.5-1%)		
51–61		SP						
62		SC				SAND, trace clay: tan; grey clay; fine; heavy minerals (<0.5%)		
63–65		SC						
66		SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<1%)		
67–69		SC-SM						
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-361

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/6/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med		
3–6		SP				SAND: tan; med		
6–16		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
16–19		SP				SAND: orangish brown; med to coarse;		
19–23		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
23–35		SP				SAND: brown; med to coarse; heavy minerals (<0.5-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–43								
43–61		SP				SAND: orangish brown; med to coarse; heavy minerals (1-2%)		
61–62		SC				SAND, trace clay: brown; med to fine		
62–63								
63–65		SC				SAND, trace clay: grey; fine		
65–66		SP				SAND: white; fine		
66–70		SC				SAND, clayey: grayish; fine; heavy minerals (0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-362

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: dark grey; med; organics		
4		SP				SAND: light grey; med; organics		
5–9		SP				SAND: dark brown; med; organics; heavy minerals (0.5-1%)		
10		SP				SAND: grey; med; heavy minerals (0.5-1%)		
11–25		SP				SAND: dark brown; med; consolidated (16-19); heavy minerals (<0.5-0.5%)		
26–27		SP				SAND: brown; med to coarse		
28–29		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
30–35						SAND: brown; med to coarse; heavy minerals (0.5-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–47		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
47–50		SP				SAND: brown; med; heavy minerals (1-1.5%)		
50–62		SP				SAND: tan/light brown; med; heavy minerals (<0.5-1%) (~10 @ 53)		
62		SP				SAND: brown; med		
63		SP				SAND: dark brown; med		
64		SP				SAND: tan/brown; mixed		
65–67		SC				SAND, clayey: brown; med to fine		
67–70		SC				SAND, clayey: white; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-363

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: white; med		
3		SP				SAND: grey; med		
4		SP				SAND: tan; med		
5		SP				SAND: grayish brown; med		
6						SAND: dark brown; med; hard consolidated (34-35); heavy minerals (<0.5-0.5%)		
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20		SP						
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-363

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; med		
37–50		SP				SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
51		SP				SAND: grey; med to coarse		
52–54		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
55		SP				SAND: grey and brown; mixed med to coarse		
56–59		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5-0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-364

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark grey; med		
2		SP				SAND: light grey; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: grayish tan; med		
6		SP				SAND: light brown; med		
7		SP				SAND: dark brown; med		
8		SP				SAND: grey; med		
9		SP				SAND: dark brown; med; heavy minerals (<0.5-2%)		
27		SP				SAND: brown; med; heavy minerals (0.5-1%)		
30		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
38								
39								
40								
41								
42								
43		SP				SAND: brown; med to coarse; heavy minerals (1-1.5%)		
44								
45								
46								
47								
48								
49								
50		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)		
51								
52								
53								
54								
55								
56								
57								
58		SC				SAND, trace clay: brown; med		
59		SC				SAND, clayey: brown; fine; heavy minerals (0.5-1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-365

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3–4		SP				SAND: brown; med		
5–9		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
10–11		SP				SAND: brown; med; heavy minerals (1-1.5%)		
12–21		SP				SAND: dark brown; med; hard consolidated (16-19.5); heavy minerals (0.5%)		
22–35		SP				SAND: brown; med to coarse; heavy minerals (<0.5-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-365

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: light grey/white; med to coarse' heavy minerals (<0.5%)		
37								
38		SC				SAND, trace clay: dark brown/black; med; heavy minerals (0.5-1%)		
39								
40								
41								
42								
43		SP				SAND, brown; med		
44								
45		SP				SAND: dark brown; brown; med; heavy minerals (0.5-1%)		
46								
47								
48								
49		SP				SAND: brown; med to coarse; 2" hardpan (51-52); heavy minerals (<0.5-1%)		
50								
51								
52								
53								
54		SP				SAND: orangish tan; med to coarse; heavy minerals (<0.5%)		
55								
56								
57		SC				SAND, trace clay: brown; med to fine		
58						SAND, clayey: tan; fine; heavy minerals (<0.5%)		
59		SC						
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-366

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white; med		
2		SP				SAND: brown; med		
3		SP				SAND: white; med		
4		SP				SAND: brown; med		
5		SP				SAND: tan; med		
6		SP						
7		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
8		SP						
9		SP						
10		SP						
11		SP						
12		SP				SAND: grey/tan; med; heavy minerals (0.5%)		
13		SP						
14		SP				SAND: brown; med; heavy minerals (0.5%)		
15		SP						
16		SP				SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
17		SP						
18		SP						
19		SP						
20		SP						
21		SP						
22		SP						
23		SP						
24		SP						
25		SP				SAND: brown; med to coarse; heavy minerals (1-3%)		
26		SP						
27		SP						
28		SP						
29		SP						
30		SP						
31		SP						
32		SP				SAND: orangish brown; med to coarse; heavy minerals (2%)		
33		SP						
34		SP						
35		SP						

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: brown; med to coarse; heavy minerals (1-2%)		
43		SP				SAND: grey; med to coarse; heavy minerals (0.5%)		
46		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
50		SP				SAND: tan; med to coarse; heavy minerals (<0.5%)		
54		SP				SAND: dark brown; med		
55		SP				SAND: light tan/white; med to fine; heavy minerals (<0.5%)		
56		SC				SAND, clayey: tan/grey; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-367

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
3								
4		SP				SAND: white; med		
5								
6		SP				SAND: grayish tan; med		
7						SAND: dark brown; med; heavy minerals (0.5-1%)		
8								
9								
10								
11								
12								
13		SP						
14								
15								
16								
17								
18								
19								
20		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
21								
22						SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
23								
24								
25								
26								
27		SP						
28								
29								
30								
31								
32								
33						SAND: light tan; med to coarse; heavy minerals (1-2.5%)		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-367

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
41–50		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
50–55		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
55–57		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
57–60		SC				SAND, trace clay: dark brown; med; heavy minerals (<0.5-0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-368

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
0		SP				SAND: grey; med		
1		SP				SAND: tan; med		
2		SP				SAND: brown; med		
3						SAND: dark brown; med; heavy minerals (0.5-2%); (2" white; med sand @ 17)		
4								
5								
6								
7								
8								
9								
10								
11								
12		SP						
13								
14								
15								
16								
17								
18								
19								
20								
21								
22		SP				SAND: brown; med to coarse; heavy minerals (1.5-2%)		
23								
24		SP				SAND: dark brown; med to coarse; heavy minerals (0.5-1%)		
25								
26								
27		SP				SAND: light grey/white; med to coarse; heavy minerals (0.5-1%)		
28								
29		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
30								
31								
32								
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-368

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
40		SP				SAND: dark brown; med to coarse		
41–46		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		
47–49		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
50–55		SP				SAND: brown; med to coarse; heavy minerals (0.5-7%)		
56–61		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
62–65		SC				CLAY, sandy: grey; fine		
66–67		SC				CLAY, sandy: tan; fine		
68		SC				SAND, clayey: grey; fine		
69		SC				SAND, clayey: tan, fine, heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-369

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: white; med		
2–3		SP				SAND: dark brown; med		
3–5		SP				SAND: tan; med		
5–9		SP				SAND: dark brown; med		
9		SP				SAND: grey; med		
9–21		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
21–24		SP				SAND: brown; med to coarse; heavy minerals (<0.5%)		
24–27		SP				SAND: dark brown; med; heavy minerals (0.5%)		
27–35		SP				SAND: brown; med to coarse; heavy minerals (0.5-1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-369

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41								
41–43		SP				SAND: dark brown; med to coarse		
43–53		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-4%)		
53–60		SP				SAND: tan; med to coarse; heavy minerals (<0.5-1%)		
60–61		SC				SAND, clayey: dark brown; fine; heavy minerals (0.5%)		
61–66		SC-SM				SAND, silty, clayey: light tan; fine		
66–67		SC				SAND, trace clay: grey; fine; heavy minerals (0.5%)		
67–70		SC				SAND, clayey: tan; fine; heavy minerals (0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-370

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey/white; med		
2–3		SP				SAND: tan; med		
3–5		SP				SAND: white; med		
5–17		SP				SAND: dark brown; med; heavy minerals (0.5-1.5%)		
17–21		SP				SAND: brown; med to coarse; heavy minerals (1%)		
21–35		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5-2.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-370

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/8/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND: grey; med to coarse; heavy minerals (0.5%)		
47								
48		SP				SAND: dark brown; med; organics		
49		SP				SAND: grayish tan; med; heavy minerals (<0.5%)		
50								
51		SP				SAND: grayish brown; med; heavy minerals (0.5%)		
52								
53								
54						SAND: dark brown; med to fine		
55		SP						
56								
57		SC				SAND, clayey: tan; fine; heavy minerals (0.5%)		
58		SP				SAND: white; fine		
59		SC				CLAY, sandy: tan; fine; heavy minerals (0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-371

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: white; med		
3		SP				SAND: orange; med		
4		SP				SAND: grey; med		
5		SP				SAND: tan; med		
6		SP				SAND: dark brown; med; heavy minerals (1.5-5%)		
21		SP				SAND: tan; med to coarse; heavy minerals (2-2.5%)		
31						SAND: dark brown; med; heavy minerals (0.5-1.5%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
43		SP				SAND: tan; med		
44		SP				SAND: dark brown; med		
45–46		SP				SAND: grey; med; heavy minerals (0.5-1%)		
47–49		SP				SAND: brown/dark brown; med to fine		
50		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
51–52		SP				SAND: brown; fine		
53–56		SP				SAND: light brown/tan; fine; heavy minerals (0.5-1%)		
57–59		SP				SAND: dark brown/grey; fine		
60		SP				SAND: tan; fine; heavy minerals (0.5-1%)		
61–69						No Recovery		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-372

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0-0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: tan; med		
3								
4		SP				SAND: dark brown; med		
5		SP				SAND: brown; med		
6								
7		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
8								
9								
10								
11								
12								
13								
14		SP				SAND: brown; med; heavy minerals (0.5-1%)		
15								
16		SP				SAND: black; med to fine; hard; heavy minerals (<0.5%)		
17								
18								
19		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
20								
21								
22								
23								
24		SP				SAND: brown; med; heavy minerals (<0.5%)		
25								
26		SP				SAND: orangish brown; med; heavy minerals (<0.5%)		
27								
28								
29								
30								
31		SP				SAND: dark brown; med; heavy minerals (0.5%)		
32						SAND: orangish brown; med to coarse; heavy minerals (0.5%)		
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
39		SP				SAND: dark brown; med		
40		SP				SAND: orangish brown; med; heavy minerals (0.5%)		Log is estimated due to rain from 40-60 feet bgs.
41–45		SP				SAND: dark brown; med; heavy minerals (1-2%)		
46		SP				SAND: brown; med		
47		SP				SAND: dark brown; med; hard		
48–50		SP				SAND: orangish brown; med; heavy minerals (~1.5%)		
51–52		SP				SAND: dark brown; med to fine		
53		SP				SAND: white; med		
54		SP				SAND: dark brown; med		
55–56		SP				SAND: white; med		
57		SC				SAND, trace clay: dark brown; fine; hard		
58–59		SC				SAND, clayey: tan and grey; fine; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-373

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark grey; med		
2		SP				SAND: tan; med		
3		SP				SAND: brown; med		
4		SP				SAND: grey; med		
5						SAND: dark brown; med; heavy minerals (0.5%)		
10		SP						
17		SP				SAND: brown; med		
18						SAND: dark brown; med; heavy minerals (0.5%)		
21		SP						
25		SP				SAND: brown; med; heavy minerals (0.5-1%)		
27		SP				SAND: dark brown; med		
28		SP				SAND: tan; med; heavy minerals (0.5-1%)		
31		SP				SAND: brown; med; heavy minerals (1%)		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/9/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: tan; med to coarse; heavy minerals (<0.5%)		
37		SP				SAND: dark brown; med		
38		SP				SAND: brown; med to coarse; heavy minerals (0.5-1.5%)		
48		SP				SAND: dark brown; med		
49		SP				SAND: tan; med to coarse; heavy minerals (2-3.5%)		
57		SP				SAND: brown; med		
58		SC				SAND, clayey: dark brown; fine		
59		SC-SM				SAND, silty, clayey: tan; fine; heavy minerals (0.5-1%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-374

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5–15		SP				SAND: dark brown; med; heavy minerals (0.5%)		
16–20		SP				SAND: brown; med; heavy minerals (0.5-1%)		
21–25		SP				SAND: orangish tan; med; heavy minerals (0.5-1.5%)		
26–33		SP				SAND: orangish brown; med; heavy minerals (0.5-1%; 4% in banding)		
33–35						SAND: tan; med to coarse; heavy minerals (<0.5-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-374

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/10/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP						
47–50		SP				SAND: brown; med to coarse; heavy minerals (0.5-2%)		
51–63		SP				SAND: orangish brown; med to coarse; heavy minerals (1-2.5%)		
64		SP				SAND: dark brown; med to coarse; heavy minerals (1-1.5%)		
65		SP				SAND: tan; med to fine; heavy minerals (<0.5%)		
66		SC				SAND, clayey: orangish brown; fine		
67–68		SC				SAND, clayey: tan; fine		
69		SC				SAND, clayey: tan/grey; fine; heavy minerals (0.5%)		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-375

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med		
3		SP				SAND: brown; med		
3–4		SP				SAND: tan; med		
4–15		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
16–17		SP				SAND: brown; med; heavy minerals (0.5%)		
18–19		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
20		SP				SAND: brown; med; heavy minerals (<0.5%)		
21–25		SP				SAND: tan; med to coarse; heavy minerals (0.5%)		
26–35		SP				SAND: orangish tan; med to coarse; heavy minerals (0.5-1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38								
38–62		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1.5%)		
62–63		SP				SAND: brown; fine		
63–64		SP				SAND: tan; fine		
64–65		SP				SAND: brown; fine; heavy minerals (0.5%)		
65–70		SC				SAND, trace clay: tan; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-KEY-18-376

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: white; med		
3		SP				SAND: dark brown; med		
4								
5		SP				SAND: tan; med		
6		SP				SAND: dark brown; med; hard consolidation; heavy minerals (0.5-1%)		
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22		SP				SAND: brown; med to coarse; heavy minerals (0.5%)		
23								
24								
25		SP				SAND: reddish brown; med to coarse; heavy minerals (0.5-1.5%)		
26								
27								
28								
29								
30		SP				SAND: dark brown; med		
31		SP				SAND: grayish tan; med to coarse		
32		SP				SAND: dark brown; med;		
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–70		SP				SAND: orangish brown; med to coarse (2" very coarse @ 37); heavy minerals (0.5-2.5%)		
59		SC				SAND, trace clay: dark brown; med; heavy minerals (1%)		
60		SP				SAND: tan; med to fine		
61–62		SC				SAND, trace clay: brown; med		
63–68		SC-SM				SAND, silty, clayey: tan; fine; heavy minerals (0.5-1%)		
69–70		SC				SAND, clayey: grey; fine; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-2

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/27/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	<7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS map hole 40

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–15		SP				SAND: dark brown; roots medium to dense - humate/ brown staining		
16–23		SP				SAND: brown		
23–29		SP				SAND: grey; coarse mineral		
29–30		SP				SAND: brown		
31–35		SP				SAND: light brown		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/27/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: med brown		
37						SAND: light brown		
38–46		SP						
47						SAND: light brown; minerals		
48–60		SP						
61						SAND, clayey: light brown		
62		SC						
63						SAND: light tan; minerals		
64–66		SP						
67						SAND, clayey: light grey; fine; minerals		
68–74		SC						
75								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-2

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/27/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78								
79								
80						SAND: light grey; coarse; trace heavy minerals		
81								
82								
83		SP						
84								
85								
86								
87						BORING TERMINATED AT 87 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-3

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	<7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light tan and gray		
2		SP				SAND: humate; organic rich		
3		SP				SAND: dark brown		
5		SP				SAND: dark brown		
17		SP				SAND: dark brown and black; fine organics		
20		SP				SAND: brown; fine humate		
30		SP				SAND: light tan; good mineral		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-3

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39						SAND: brown; minerals		
40								
41								
42								
43								
44								
45		SP						
46								
47								
48								
49								
50								
51								
52						SAND: light tan; minerals		
53								
54								
55		SP						
56								
57								
58						SAND: light gray and white		
59								
60		SP						
61								
62						SAND: brown; clay; hard		
63		SC				CLAY: gray; fat; hard		
64								
65		CH						
66								
67						BORING TERMINATED AT 67 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-4

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	~1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						Topsoil		
2		SP				SAND: tan and orange		
3		SP				SAND: dark brown; with Fe2O3 nodules		
4		SP				SAND: tan and orange		
5						SAND: dark brown; minerals		
6								
7								
8								
9								
10								
11								
12								
13		SP						
14								
15								
16								
17								
18								
19								
20								
21								
22						SAND: tan and orange		
23		SP						
24						SAND: dark brown; minerals		
25								
26								
27								
28								
29								
30		SP						
31								
32								
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-4

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: brown and orange		
40–47		SP				SAND: light brown and tan		
47–53		SP				SAND: orange		
53–57		SP				SAND: orange and tan; minerals		
57–67		SP				SAND: light tan fine; minerals		
67						BORING TERMINATED AT 67 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-5

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	8'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				Road material		
2		SP				SAND: dark brown; roots		
3						SAND: dark brown and orange		
4						SAND: light tan		
5		SP						
6								
7						SAND: dark grey		
8								
9		SP						
10								
11						SAND: medium grey; coarse with minerals		
12								
13								
14								
15		SP						
16								
17								
18								
19								
20						SAND: dark brown; humate		
21								
22								
23								
24		SP						
25								
26								
27						SAND: tan; coarse		
28								
29								
30								
31								
32								
33								
34		SP						
35								

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
40		SP				SAND: tan and grey; coarse		
42		SP				SAND: brown; coarse SAND: light grey; coarse		
50		SP				SAND: medium brown		
57		SP				SAND: medium dark brown		
61		SP				SAND: medium tan		
71		SC				SAND, clayey: tan; hard		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-5

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED**

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77						BORING TERMINATED AT 77 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-6

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	8'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–15		SP				SAND: brown; coarse		
16–29		SP				SAND: dark brown; some humate		
30–35		SP				SAND: tan/orange; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: orange; coarse		
40–52		SP				SAND: light tan		
52–57		SP				SAND: dark brown; no visible minerals		
						BORING TERMINATED AT 57 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-7

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: grey SAND: tan		
5–15		SP				SAND: dark brown		
15–24		SP				SAND: dark brown		
24–27		SP				SAND: humate		
27–34		SP				SAND: tan/orange		
34–35						SAND: grey		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-7

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
38–49		SP				SAND: tan/orange		
49–57		SP				SAND: light tan		
57–63		SC				CLAY, sandy: tan; some minerals		
63–75		SC				SAND, sandy: light grey; some minerals		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-7

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78								
79								
80						SAND: light grey; coarse; very little minerals		
81								
82								
83		SP						
84								
85								
86								
87						BORING TERMINATED AT 87 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-8

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark grey/brown		
5–6		SP				SAND: light tan		
7–21		SP				SAND: dark brown		
22–26		SC				CLAY, sandy: tan		
27–29		SP				SAND: tan/orange		
30–35						SAND: tan		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–49		SC				SAND, clayey: grey		
49–70		SP				SAND: grey; coarse; trace minerals		
70–75		SP				SAND: grey; coarse; little mineral		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-8

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77						BORING TERMINATED AT 77 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-9

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SC				SAND, clayey: tan to grey		
7–21		SC				SAND, trace clay: tan; med; coarse		
21–29		SC				SAND, clayey: tan; clay lenses		
29–35		SC				SAND, clayey: grey		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-9

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, clayey: grey; coarse; trace mineral		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47		SC						
48								
49								
50								
51								
52								
53								
54								
55								
56								
57						SAND: grey		
58								
59								
60								
61								
62		SP						
63								
64								
65								
66								
67						CLAY: dark grey to grey; fat		
68								
69								
70								
71								
72		CH						
73								
74								
75								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-9

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77						BORING TERMINATED AT 77 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-10

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–17		SP				SAND: dark brown; minerals		
17–27		SP				SAND: tan light brown; minerals		
27–35						SAND, clayey: light grey		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SC						
47						SAND: grey; coarse; very little minerals		
47–67		SP						
67						BORING TERMINATED AT 67 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-11

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: brown/light tan		
7–15		SP				SAND: dark brown; humate		
15–18		SC				SAND, clayey: dark brown; humate		
18–25		SP				SAND: orange; coarse		
25–27		SP				SAND: light tan to grey		
27–33		SP				SAND: dark grey/black; no humate		
33–35		SC				SAND, clayey: dark brown; humate		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-11

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown/brown		
37		SP				SAND: orange; coarse		
38						SAND: light tan; coarse		
39–47		SP						
48–56								
57						CLAY, sandy: fat		
58–62		SC						
63						SAND, clayey: grey; very coarse		
64–66		SC						
67						BORING TERMINATED AT 67 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-12

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: tan brown; topsoil		
3–8		SP				SAND: dark brown; humate		
8–22		SC				SAND, clayey beads: dark brown; humate; hard		
22–25		SP				SAND: light brown; coarse		
25–27		SP				SAND: dark brown; humate; more woody heavy material		
27–35						SAND: brown to orange; med; coarse; heavy minerals (1-5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–46		SP						
47						SAND: light tan; med; trace minerals		
48–68		SP						
69						CLAY, sandy: light tan		
70–75		SC						

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-12

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
		SC				SAND, clayey: light tan		
77						BORING TERMINATED AT 77 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-13

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: tan/brown		
4–23		SP				SAND: brown; humate; heavy minerals (1-2% @20)		
23–35						SAND: tan/brown; humate; heavy minerals (2% @32) (2-4% @47)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–75		SP						

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-13

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87						BORING TERMINATED AT 87 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-14

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–13		SP				SAND: dark brown; fine; humate		
14–15		SC				SAND, clayey: dark brown; humate; hard		
16		SP				SAND: dark brown; coarse; humate		
17–35						SAND: brown to tan; coarse; heavy minerals (1-3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-14

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–62		SP						
63–67		SC				CLAY, sandy: grey; heavy minerals (1%)		
						BORING TERMINATED AT 67 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-15

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
5–9		SP				SAND: dark brown; heavy minerals (1%)		
10–15		SC				SAND, clayey: dark brown; humate; heavy mineral (<0.5%)		
16–35		SP				SAND: brown; med; coarse; heavy minerals (<2%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
50		SM				SAND, silty: brown; fine		
53		SP				SAND: orange; med		
57		SP				SAND: tan to light tan; heavy minerals (1%)		
66		SP				SAND: white; trace heavy minerals		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77						BORING TERMINATED AT 77 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-16

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–8		SP				SAND: light grey to brown; coarse; heavy minerals (1%)		
8–21		SP				SAND: dark brown; humate; heavy minerals (<1%)		
21–35		SP				SAND: orange; coarse; heavy minerals (<1%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-16

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42						SAND: tan to brown; high heavy minerals (>8%)		
43								
44								
45		SP						
46								
47								
48								
49						SAND: light tan		
50								
51								
52								
53								
54								
55		SP						
56								
57								
58								
59								
60						SAND: dark brown		
61								
62								
63		SP						
64								
65						SAND: brown; fine; no mineral		
66		SP						
67						BORING TERMINATED AT 67 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-17

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: brown; med		
7–24		SP				SAND: dark brown; med to coarse		
24–27		SP				SAND: dark brown; heavy mineral (>4.5%)		
27–35		SP				SAND: light grey; coarse; trace minerals		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39								
40						SAND: orange; coarse; some minerals (<1%)		
41–46		SP						
47						SAND: orange; fine		
48–54		SP						
55						SAND, clayey: orange; hard		
56–57		SC						
57						SAND: light tan to white; heavy mineral (<1%)		
58–66		SP						
67						SAND, clayey: light tan; trace minerals		
68–75		SC						

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-17

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77						BORING TERMINATED AT 77 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-18

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–13		SP				SAND: brown; coarse; some humate		
14–16		SP				SAND: dark brown; chunks of organics		
17–35						SAND: brown; humate		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–57		SP						
57						SAND: light tan		
57–64		SP						
64						CLAY, sandy: grey; fat		
64–67		SC						
67						BORING TERMINATED AT 67 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-19

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: light tan; coarse		
4–12		SC				SAND: dark brown; clay; humate; heavy minerals (<1.0%)		
12–27		SP				SAND: brown; heavy minerals (2%)		
27–31		SP				SAND: tan to tan/orange; heavy minerals (<1%)		
31–35						SAND: orange; heavy minerals (1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
41–47		CH				CLAY: tan/grey; hard		
47–52		CH				CLAY: tan; soft		
52–57		SC				CLAY: green/grey; sand		
57–67		SP				SAND: grey; coarse; some minerals		
67						BORING TERMINATED AT 67 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-20

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	8'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: tan		
4–22		SP				SAND: dark brown; humate; heavy minerals (3%)		
22–35		SP				SAND: tan/brown; mottled		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41								
41–58		SP				SAND: light tan; coarse		
58–59		CH				CLAY: humate; bank and roots		
59–61		CH				CLAY: tan; hard		
61–70		SP				SAND: light tan; fine; heavy minerals (1%)		
70–75		CH				CLAY: grey; fat		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-20

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77						BORING TERMINATED AT 77 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-86

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/14/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: white/grey; coarse		
2		SC-SM				SAND, silty, clayey: tan to brown		
3						SAND: dark brown; heavy minerals (1%)		
4								
5								
6								
7								
8								
9		SP						
10								
11								
12								
13								
14		SP				SAND: dark grey		
15		SP				SAND: dark brown/black		
16						SAND: brown; heavy minerals (1%)		
17								
18		SP						
19						SAND: tan/orange; fine; hard; heavy minerals (1-1.5%)		
20								
21								
22								
23								
24								
25		SP						
26						SAND: tan; coarse; heavy minerals (1-1.5%)		
27								
28								
29								
30		SP						
31						SAND, clayey: tan		
32								
33		SC						
34						SAND, clayey: greenish grey; heavy minerals		
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36						(<0.5%)		
37								
38								
39								
40								
41								
42		SC						
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-87

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		FILL				Road material; grey; coarse		
2–7		SC				SAND, clayey: brown; heavy minerals		
7–13		SP				SAND: dark brown/black to reddish		
13–32		SP				SAND: tan; coarse; heavy minerals (<0.5%)		
32–35						SAND, trace clay: greenish grey; coarse; heavy minerals (<0.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41		SC						
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-88

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey; road material		
3		SC				SAND, clayey: tan		
4		SP				SAND: grayish brown		
5–19		SP				SAND: dark brown; heavy minerals (1.5%)		
20–26		SP				SAND: grey; coarse; heavy minerals (<1.5%)		
27–33		SP				SAND: dark; coarse; hard; heavy minerals (1-1.5%)		
34–35		SP				SAND: tan; organized; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-88

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SC				SAND, clayey: tan; med; organized		
42–44		CH				CLAY: tan; fat; heavy minerals (1.5%)		
45–49		SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
50–59		SC				SAND, clayey: greenish grey		
60–69						Redo dropped 10 inches, no recovery, no sample		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-89

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; coarse		
2		SP				SAND: tan; heavy minerals (1-1.5%)		
4		SP				SAND: dark brown; coarse; heavy minerals (1-1.5%)		
10		SP				SAND: dark brown; coarse; consolidated; hard		
12		SP				SAND: dark brown; unconsolidated; heavy minerals (<0.5%)		
27		SP				SAND: grey		
28		SP				SAND: dark brown; hard		
31						SAND: reddish brown; fine to med; heavy minerals (1%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-89

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						SAND: tan; fine to med		
41								
42								
43								
44								
45								
46								
47								
48		SP						
49								
50								
51								
52								
53								
54								
55								
56						SAND, clayey: tan; fine; heavy minerals (1%)		
57								
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-90

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SP				SAND: dark brown; unconsolidated		
4		SP				SAND: tan; coarse; heavy minerals (1.5%)		
5								
6						SAND: dark brown; unconsolidated		
7								
8		SP						
9								
10								
11								
12						SAND: reddish brown; coarse; heavy minerals (1.0-1.5%)		
13		SP						
14								
15						SAND: dark brown; coarse; heavy minerals (<1%)		
16		SP						
17						SAND: reddish brown; coarse; heavy minerals (<0.5%)		
18		SP						
19								
20						SAND: dark brown		
21								
22								
23		SP						
24								
25								
26		SP				SAND: grey; coarse; heavy minerals (1.5%)		
27						SAND: dark brown; consolidated; hard		
28		SP						
29								
30						SAND: tan; coarse; heavy minerals (1%)		
31								
32		SP						
33								
34						SAND: light brown; coarse; heavy minerals (1.5%)		
35								

Continued Next Page

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-90

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/15/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND, clayey: tan; med; heavy minerals (1%)		
38								
39								
40								
41								
42								
43		SC						
44								
45								
46								
47								
48								
49								
50						No recovery		
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						No recovery		
61								
62								
63								
64								
65								
66								
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-92

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3-4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SC				SAND, clayey: grey		
3–23		SP				SAND: dark brown; heavy minerals (1%)		
23–26		SP				SAND: tan; very coarse; heavy minerals (2%)		
26–32		SP				SAND: tan to orange; med; coarse		
32–35		SP				SAND: tan; coarse; heavy minerals (1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/16/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SC				SAND: tan; clay; fine; heavy minerals (1.5%)		
40–49		SC				SAND, clayey: tan; very soft; heavy minerals (2%)		
50–59		SC				SAND, clayey: light grey; coarse; heavy minerals (1%)		
60–69		SC				SAND, clayey: grey; coarse		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-93

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/16/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey; coarse; heavy minerals (0.5-1%)		
3		SP				SAND: dark grey		
4		SP				SAND: tan; heavy minerals (0.5-1%)		
5–12		SP				SAND: dark brown; heavy minerals (1%)		
13–19		SP				SAND: dark brown; consolidated; heavy minerals (2%)		
20–21		SP				SAND: tan; coarse; heavy minerals (1%)		
22–23		SP				SAND: brown; coarse; heavy minerals (1.5%)		
24		SP				SAND: grey		
25–33		SP				SAND: brown; coarse		
33–35						SAND: tan; coarse; heavy minerals (6-7%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/16/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
42–47		SP				SAND: orangish tan; fine to med; heavy minerals (0.5%)		
47–50		SC				SAND, clayey		
50–53		SP				SAND: tan; very coarse; occasional quartz		
53–70		SP				SAND: tan		
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-95

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: grey/brown; heavy minerals (1.5-2%)		
10–15		SP				SAND: dark brown; heavy minerals (1.5%)		
16–17		SP				SAND: dark brown; hard; consolidated		
18–21		SP				SAND: dark brown; unconsolidated		
22–33		SP				SAND: brown; consolidated; heavy minerals (2%)		
33–35						SAND: tan/brown; heavy minerals (1.5-5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–54		SP						
55						SAND, clayey: tan; fine		
56–59		SC						
60						SAND, clayey: tan; heavy minerals (0.5-1%)		
61–62		SC						
62						SAND: tan; coarse; heavy minerals (0.5-1%)		
63–69		SP						
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-96

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/17/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey		
3–5		SP				SAND: tan; heavy minerals (1.5-2%)		
5–11		SP				SAND: dark brown; coarse		
11–20		SP				SAND: brown		
20–26		SP				SAND: tan; coarse; heavy minerals (1-1.5%)		
26–28		SP				SAND: grey to tan; coarse		
28–30		SP				SAND: brown to black; coarse		
30–31		SP				SAND: grey to black; coarse; heavy minerals (1.5-2%)		
31–35		SP				SAND: dark brown; coarse; heavy minerals (0.5-1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SP				SAND: consolidated; hard		
40		SP				SAND: tan to orange; coarse		
41–42		SP				SAND: brown; coarse; heavy minerals (1-1.5%)		
43–45		SP				SAND: orange to tan; med		
46–55		SP				SAND: tan; med; heavy minerals (1-1.5%)		
56–59		SC				SAND, clayey: tan		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-161

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	6'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP	0 - 10	70		Road material; grey SAND: light tan; med SAND: brown to grey; med; heavy minerals (1.5%)		
5–16		SP						
17–29		SP				SAND: dark brown; med; coarse; heavy minerals (1-4%)		
30–35						SAND: brown to red; med; heavy minerals (2-3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-161

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41		SP						
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52		SP				SAND: tan brown to red; fine		
53								
54		SP				SAND: white; med; heavy minerals (<1%)		
55								
56						SAND: brown grey; med; heavy minerals (<0.5%)		
57								
58		SP						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-162

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light tan; med		
3		SP				SAND: tan to grey; coarse		
4–9		SP				SAND: dark grey to black; heavy minerals (1%)		
10–13		SP				SAND: dark brown; med; heavy minerals (2%)		
14–24		SP				SAND: tan to light brown; med; coarse; heavy minerals (1-2%)		
25–29		SP				SAND: brown to dark brown; med		
30–34		SP				SAND: brown; med; coarse; heavy minerals (1.5-2%)		
35						*Continued Next Page*		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-162

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SP				SAND: reddish brown; coarse; high zircon; heavy minerals (1.5-2%)		
50		SP				SAND: light tan; med; heavy minerals (2-2.5%)		
51		SC				SAND, clayey: brown; hard		
52–54		SP				SAND: light tan; med		
55–59		SP				SAND: dark reddish brown; med; no heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-164

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	Surface
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan to brown; coarse		
5–13		SP				SAND: dark brown; coarse		
13–15		SP				SAND: dark brown; consolidated; coarse		
15–16		SP				SAND: dark brown; coarse		
16–17		SP				SAND: dark brown; consolidated; coarse		
17–25		SP				SAND: brown; coarse		
25–27		SP				SAND: tan; coarse		
27–30		SP				SAND: grayish brown; coarse		
30–32		SP				SAND: dark brown; coarse		
32–35		SP				SAND: dark brown; consolidated; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-164

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; coarse		
37								
38		SP				SAND: light brown; medium		
39								
40								
41								
42		SP				SAND: light tan to white; fine to medium		
43								
44								
45								
46								
47								
48		SC				SAND, clayey: light brown		
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-165

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: tan; coarse		
2–11		SP				SAND: dark brown; coarse		
12–15		SP				SAND: grayish-brown; coarse		
16–23		SP				SAND: dark brown; consolidated; coarse		
23–25		SP				SAND: brown; coarse		
25–28		SP				SAND: alternating white and brown; coarse		
29–30		SP				SAND: grayish-brown; coarse		
31		SP				SAND: dark brown; consolidated; coarse		
32		SP				SAND: dark brown; coarse		
32–35						SAND: brown; medium		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-165

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						SAND: light tan; fine to medium		
41		SP						
42								
43								
44								
45								
46								
47						CLAY: brown		
48		CH						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-166

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: grayish brown; coarse SAND: light tan; coarse		
6–12		SP				SAND: dark brown; coarse SAND: dark brown; consolidated; coarse		
12–17		SP				SAND: dark brown; coarse SAND: grayish brown; coarse		
17–28		SP				SAND: dark brown; coarse		
28–31		SP				SAND: brown; coarse SAND: light tan; coarse		
31–35		SP				SAND: brown; fine to medium		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-166

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, clayey: brown		
38		SC						
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-167

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: brownish-grey; coarse		
5–18		SP				SAND: dark brown; coarse		
18–20		SP				SAND: light tan; coarse		
20–30		SP				SAND: light tan; fine to medium		
30–35						CLAY: greenish-grey		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED** 7/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CH						
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-168

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–10		SP				SAND: grayish brown; coarse		
10–22		SP				SAND: dark brown; coarse		
22–28		SP				SAND: reddish brown; coarse		
28–29		SP				SAND: med brown; coarse		
30		SP				SAND: light tan; coarse		
31–35		SP				SAND: grayish brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: med brown; coarse		
40								
41		SP				SAND: dark brown; consolidated; coarse		
42								
43								
44						SAND: brown; coarse		
45								
46		SP						
47								
48								
49								
50								
51		SP				SAND: dark brown; coarse		
52								
53		SP				SAND: light tan; coarse		
54						SAND: reddish brown; med		
55		SP						
56								
57								
58		SP				SAND: brown; med		
59		SP				SAND: light tan; coarse		
60		SP				SAND: reddish brown; med BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-169

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–10		SP				SAND: dark brown; coarse		
10–11		SP				SAND: grey; coarse		
12–17		SP				SAND: brown; coarse		
17–20		SP				SAND: reddish brown; coarse		
20–33		SP				SAND: brown; coarse		
33–35						SAND: light brown; coarse		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-169

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SP						
43–49		SP				SAND: light tan; med		
50–59						No Recovery		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-170

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light tan; coarse		
3–10		SP				SAND: light brown; coarse		
10–17		SP				SAND: dark brown; coarse		
17–20		SP				SAND: dark brown; consolidated; coarse		
20–21		SP				SAND: brown; coarse		
21–28		SP				SAND: light to reddish brown; coarse		
28–29		SP				SAND: brown; coarse		
30		SP				SAND: grayish brown; coarse		
31–32		SP				SAND: dark brown; coarse		
33–35		SP				SAND: grayish brown; coarse		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** M. Fowler

LOCATION Saint George, Georgia **DATE(S) DRILLED** 7/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; coarse		
37		SP				SAND: grayish brown; coarse		
38		SP				SAND: dark brown; coarse		
39								
40								
41		SP				SAND: dark brown; consolidated; coarse		
42		SP				SAND: grayish brown; coarse		
43		SP				SAND: brown to reddish brown; coarse		
44								
45								
46								
47								
48		SP				SAND: brown; medium		
49								
50								
51								
52								
53		SP				SAND: light brown; coarse		
54								
55								
56								
57		SP				SAND: light tan; coarse		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-171

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light tan; coarse		
3–10		SP				SAND: light brown; coarse		
10–17		SP				SAND: dark brown; consolidated; coarse; good mineral		
17–20		SP				SAND: dark brown; consolidated; coarse		
20–21		SP				SAND: brown; coarse		
21–28		SP				SAND: light to reddish-brown; coarse		
28–29		SP				SAND: brown; coarse		
30		SP				SAND: grayish-brown; coarse		
31–32		SP				SAND: dark brown; coarse		
33–35		SP				SAND: grayish-brown; coarse		

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** J. Powell

LOCATION Saint George, Georgia **DATE(S) DRILLED** 7/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown; coarse		
37		SP				SAND: grayish-brown; coarse		
38		SP				SAND: dark brown; coarse		
39								
40								
41		SP				SAND: dark brown; coarse		
42		SP				SAND: grayish-brown; coarse		
43		SP				SAND: brown to reddish-brown; coarse; good mineral		
44								
45								
46								
47								
48		SP				SAND: brown; med		
49								
50								
51								
52								
53		SP				SAND: light brown; coarse		
54								
55								
56								
57		SP				SAND: light tan; coarse		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-172

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–10		SP				SAND: brown; coarse		
10–22		SP				SAND: dark brown; coarse; good mineral		
22–25		SP				SAND: tan; coarse		
25–33		SP				SAND: brown; coarse		
33–35		SP				SAND: dark brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: tan; coarse		
38								
39								
40						SAND: light reddish brown; coarse; good mineral		
41								
42								
43		SP						
44								
45								
46						SAND: reddish brown; coarse; good mineral		
47		SP						
48		SP				SAND: dark brown; unconsolidated; hard; coarse; good mineral		
49						SAND: tan; coarse		
50								
51								
52		SP						
53								
54								
55						SAND: brown; med		
56								
57		SP						
58						SAND: reddish brown; coarse		
59								
60		SP						
61								
62						SAND: light tan; fine to med		
63								
64								
65		SP						
66								
67						CLAY: tan		
68		CH						
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-173

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–10		SP				SAND: dark brown to grayish-brown; coarse		
10–11		SP				SAND: dark brown; coarse		
12		SP				SAND: tan; coarse		
13		SP				SAND: dark brown; consolidated; coarse		
14–17		SP				SAND: dark brown; coarse		
18		SP				SAND: brown; coarse		
19–23		SP				SAND: dark brown; coarse		
24–26		SP				SAND: dark brown to reddish-brown; coarse		
27–35						SAND: reddish-brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-173

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50		SP				SAND: dark brown; coarse		
51		SP				SAND: dark brown; coarse		
52								
53		SP				SAND: tanish-grey; coarse		
54						SAND: reddish-brown; fine to med		
55								
56		SP						
57								
58								
59		SP				SAND: reddish-brown; coarse		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-174

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan to brown; coarse		
5–12		SP				SAND: dark brown; coarse		
12–15		SP				SAND: grayish brown; coarse		
15–20		SP				SAND: dark brown; coarse		
20–25		SP				SAND: brown; coarse		
25–28		SP				SAND: light brown; coarse		
28–30		SP				SAND: dark brown; coarse		
30–35						SAND: brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42		SP				SAND: dark brown; consolidated; coarse		
43						SAND: reddish brown; coarse		
44								
45		SP						
46								
47								
48		SP				SAND: dark brown; coarse; hard nodules		
49						SAND: reddish brown; coarse		
50								
51		SP						
52								
53		SP				SAND: dark brown; coarse		
54		SP				SAND: brown; coarse		
55		SP				SAND: tan to white; coarse		
56								
57						SAND: brown; med		
58		SP						
59								
60						SAND: reddish brown; med		
61		SP						
62								
63						SAND: tan; coarse		
64								
65		SP						
66								
67						SAND: light tan to white; coarse		
68		SP						
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-175

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: dark brown; coarse		
10–17		SP				SAND: brown; coarse		
18–22		SP				SAND: dark brown; coarse		
23–29		SP				SAND: brown; coarse		
30–35		SP				SAND: reddish brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38		SP				SAND: brown; coarse		
39								
40		SP				SAND: light brown; coarse		
41								
42								
43								
44		SP				SAND: brown; coarse; hard nodules		
45		SP				SAND: light brown; coarse		
46								
47		SP				SAND: dark brown; coarse; plant matter		
48		SP				SAND: light brown; coarse		
49								
50		SP				SAND: light tan to white; coarse		
51								
52								
53		SP				SAND: brown; med		
54		SP				SAND: brown; fine to med		
55								
56								
57		SP				SAND: reddish brown; med		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-176

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–16		SP				SAND: grayish brown; coarse		
16–20		SP				SAND: dark brown; coarse		
20–22		SP				SAND: dark brown; consolidated; coarse		
22–27		SP				SAND: dark brown; coarse		
27–35		SP				SAND: reddish brown; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: brown; coarse		
38								
39								
40		SP						
41								
42								
43						SAND: reddish brown; coarse		
44								
45		SP						
46								
47						SAND: light brown; coarse		
48								
49		SP						
50								
51								
52						SAND: dark brown; coarse		
53		SP						
54								
55						SAND: light tan; coarse		
56		SP						
57						SAND: dark brown; med to fine		
58		SP						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-177

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	N/A
DRILLING METHOD	Sonic	**WATER ELEVATION**	N/A

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–17		SP				SAND: dark brown; coarse		
17–20		SP				SAND: dark brown; coarse; hard black layers		
20–22		SP				SAND: grayish brown; coarse		
22–30		SP				SAND: brown; coarse		
30–33		SC				SAND, clay streaks: brown; coarse; dark clay streaks		
33–35						SAND: reddish brown; coarse		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-177

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	J. Powell
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–48		SP						
49		SP				SAND: dark brown; consolidated; coarse		
50		SP				SAND: brown; coarse		
51–53		SP				SAND: dark brown; consolidated; coarse		
54–56		SP				SAND: brown; coarse		
57–59		SC				SAND, clay streaks: dark brown; coarse; dark grey streaks		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-178

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: grey to light grey; coarse SAND: brown to tan; med to coarse		
6–13		SP				SAND: dark grey to black; med; heavy minerals (1-1.5%)		
13–18		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
18–21		SP				SAND: brown; med; heavy minerals (<0.5%)		
22–26		SP				SAND: dark brown; med; hard; consolidated; heavy minerals (0.5%)		
27–35		SP				SAND: reddish brown; med to coarse; heavy minerals (1.5-2%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-178

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42								
43						SAND: tan; coarse; heavy minerals (<0.5%)		
44								
45								
46								
47								
48		SP						
49								
50								
51								
52								
53		SP				SAND: dark brown; consolidated; hard; med		
54						SAND: tan; med		
55		SP						
56								
57						SAND: dark grey; med to fine		
58		SP						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-179

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/19/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan to brown; coarse		
5–12		SP				SAND: dark brown; coarse; heavy minerals (1.5-3%)		
12–15		SP				SAND: grayish-brown; coarse; heavy minerals (1.5-2%)		
15–20		SP				SAND: dark brown; coarse; heavy minerals (2-2.5%)		
20–25		SP				SAND: brown; coarse; heavy minerals (1.5-2%)		
25–28		SP				SAND: light brown; coarse		
28–30		SP				SAND: dark brown; coarse; heavy minerals (1.5-2%)		
30–35						SAND: brown; coarse; heavy minerals (2%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42		SP				SAND: dark brown; consolidated; coarse		
43		SP				SAND: reddish-brown; coarse; heavy minerals (1.5-2%)		
44								
45								
46								
47								
48		SP				SAND: dark brown; coarse; hard nodules; heavy minerals (1.5%)		
49		SP				SAND: reddish-brown; coarse		
50								
		SP				SAND: dark brown; coarse		
		SP				SAND: brown; coarse		
		SP				SAND: tan to white; coarse		
		SP				SAND: brown; med		
		SP				SAND: reddish-brown; med		
		SP				SAND: tan; coarse		
		SP				SAND: light tan to white; coarse		
						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-181

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light tan; med		
2		SP				SAND: dark brown; med to fine		
3		SP				SAND: tan; med grained		
4								
5		SP				SAND: light grey; med		
6								
7		SP				SAND: dark grey to black; fine to med; small consolidated area; heavy minerals (1.5-2%)		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17		SP				SAND: dark grey to black; fine to med; heavy minerals (2%)		
18								
19								
20								
21		SP				SAND: brown; med; heavy minerals (1-1.5%)		
22								
23								
24		SP				SAND: tan; med to coarse: heavy minerals (1.5-2%)		
25		SP				SAND: dark brown; med		
26								
27								
28		SP				SAND: brown; med to coarse; heavy minerals (1.5-2%)		
29								
30								
31		SP				SAND: dark brown; med grained; heavy minerals (<0.5-2.5%)		
32								
33								
34								
35								

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-181

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: brown; med; heavy minerals (0.5-1%)		
40								
41								
42								
43								
44								
45		SP				SAND: reddish; coarse		
46								
47								
48		SP				SAND: tan; coarse; heavy minerals (3-4%)		
49								
50								
51								
52		SP				SAND: black; med		
53		SP				SAND: light grey; coarse to med		
54								
55		SP				SAND: tan to brown; very fine; heavy minerals (<0.5%)		
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-182

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse; heavy minerals (0.5%)		
5–16		SP				SAND: grayish-brown; coarse; heavy minerals (<0.5%)		
16–20		SP				SAND: dark brown; coarse		
20–22		SP				SAND: dark brown; consolidated; coarse; heavy minerals (<0.5%)		
22–27		SP				SAND: dark brown; coarse; heavy minerals (1%)		
27–35		SP				SAND: reddish-brown; coarse; heavy minerals (0.5-1.5%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** A. Bushey

LOCATION Saint George, Georgia **DATE(S) DRILLED** 7/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND: brown; coarse; heavy minerals (1.5-2%)		
38								
39								
40		SP						
41								
42								
43						SAND: reddish-brown; coarse; heavy minerals (1.5-2%)		
44								
45		SP						
46								
47						SAND: light brown; coarse; heavy minerals (2-2.5%)		
48								
49								
50		SP						
51								
52						SAND: dark brown; coarse		
53								
54		SP						
55						SAND: light tan; coarse; heavy minerals (1%)		
56		SP						
57						SAND: dark brown; med to fine; heavy minerals (<0.5%)		
58								
59		SP						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-183

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/20/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light grey; med		
3		SP				SAND: brown; med		
4–8		SP				SAND: dark brown to black; med to fine		
8–10		SP				SAND: grey; coarse; heavy minerals (2-2.5%)		
10–13		SP				SAND: dark brown; med		
13–14		SP				SAND: dark black; consolidated to fine		
14–15		SP				SAND: brown; med		
15–17		SP				SAND: tan; coarse; heavy minerals (~1%)		
17–23		SP				SAND: dark brown; lightly consolidated; med; heavy minerals (1.5%)		
23–35		SP				SAND: dark brown; med to fine; consolidated		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40						SAND: orange to tan; med to coarse; heavy minerals (<0.5-1.5%)		
41								
42								
43								
44								
45		SP						
46								
47								
48								
49								
50		SP				SAND: brown; med; heavy minerals (<0.5%)		
51		SP				SAND: tan; med to coarse grained		
52		SP				SAND: dark brown; med		
53						SAND, trace clay: brown; fine; visible mineral banding; heavy minerals (~10% @ 59)		
54								
55								
56								
57								
58		SC						
59								
60								
61								
62						SAND: light brown; med to coarse; heavy minerals (1-1.5%)		
63								
64		SP						
65						SAND, clayey: grey; heavy minerals (1-1.5%)		
66								
67		SC						
68						CLAY: grey		
69		CH				SAND: white; coarse; heavy minerals (<0.5%)		
70		SP				BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-184

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: light tan; coarse		
5–17		SP				SAND: dark brown; coarse; heavy minerals (<0.5%)		
17–20		SP				SAND: dark brown; coarse; heavy minerals (<0.5%)		
20–22		SP				SAND: grayish-brown; coarse		
22–30		SP				SAND: brown; coarse; heavy minerals (1.5-2%)		
30–33		SC				SAND, clayey: brown; coarse; dark clay streaks; heavy minerals (2-3%)		
33–35						SAND: reddish-brown; coarse; (0.5-2%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/21/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41		SP						
42								
43								
44								
45								
46								
47								
48								
49		SP				SAND: dark brown; consolidated; coarse; heavy minerals (<0.5%)		
50		SP				SAND: brown; coarse		
51						SAND: dark brown; consolidated; coarse		
52		SP						
53								
54						SAND: brown; coarse; heavy minerals (<0.5%)		
55		SP						
56								
57						SAND, clayey: dark brown; coarse; dark clay streaks; heavy minerals (<0.5%)		
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-185

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/21/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: tan; coarse		
4–5		SP				SAND: dark brown; med; organics		
6–11		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
12–13		SP				SAND: dark brown to black; light consolidation; med; heavy minerals (~0.5%)		
14–16		SP				SAND: grey; coarse; heavy minerals (~0.5%)		
17		SP				SAND: dark brown to black; med to coarse		
18–24		SP				SAND: dark brown to black; med to fine; consolidation; heavy minerals (0.5-1%)		
25–29		SP				SAND: dark brown; med to coarse; heavy minerals (0.5-1.5%)		
30–32		SP				SAND: dark brown; consolidated; med to fine		
33		SP				SAND: dark brown; med		
34		SP				SAND: brown; coarse		
35						*Continued Next Page*		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
36–41		SP				SAND: light brown; heavy minerals (1-1.5%)		
42–50		SP				SAND: coarse; heavy minerals (<0.5%)		
51		SP				SAND: dark brown; med		
52–55		SP				SAND: tan; med		
56–59		SP				SAND: brown; fine; organics; heavy minerals (1-1.5%)		
60		SC				SAND, clayey: brown; fine		
61–64		SP				SAND: light brown; med to coarse; heavy minerals (<0.5%)		
65–66		SC				SAND: light brown; med		
67–69		SP				SAND: light tan; med to coarse; heavy minerals (<0.5%)		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-188

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: tan; coarse; organics		
3–4		SP				SAND: brown to light brown; med to coarse		
5–16		SP				SAND: dark brown to black; med; heavy minerals (1.5%)		
17–20		SP				SAND: med brown; med to coarse; heavy minerals (<0.5%)		
21–29		SP				SAND: med brown; coarse; dark brown to black consolidated layer; mineral banding from 28-30; heavy minerals (1.5%)		
30–35						SAND: reddish brown; coarse; mineral banding from 36-38; heavy minerals (4%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/22/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–41		SP						
42		SP				SAND: med brown med to fine; heavy minerals (0.5-1%)		
43–49		SP				SAND: reddish tan; coarse; heavy minerals (<0.5%)		
50–51		SP				SAND: light brown to tan; coarse		
52–56		SP				SAND: med brown to dark brown; fine to med; heavy minerals (0.5-1%)		
57		SP				SAND: med brown; coarse		
58		SP				SAND: brown; fine; heavy minerals (<0.5%)		
59		SP				SAND: med brown; coarse to very coarse; heavy minerals (0.5-1.0%)		
60		SC-SM				SAND, silty, clayey: med brown; consolidated; organics		
						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-189

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/22/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey to white; coarse; organics		
3–4		SP				SAND: light grey; med to coarse; heavy minerals (1.5%)		
5–16		SP				SAND: dark brown to black; med; heavy minerals (8-10%)		
17		SP				SAND: dark brown to black; med; consolidated; some heavy minerals		
18		SP				SAND: dark brown to black; fine grains		
19		SP				SAND: dark brown to black; med; heavy minerals (3-4%)		
20–23		SP				SAND: brown; med to coarse		
24–26		SP				SAND: dark brown to black; coarse; heavy minerals (1.5-2%)		
27–28		SP				SAND: light grey; coarse		
29		SP				SAND: dark grey to black; med to coarse; heavy minerals (1.5%)		
30		SP				SAND: tan; coarse		
31		SP				SAND: dark brown to black; coarse		
32–35		SP				SAND: light brown to grey; coarse; heavy minerals (0.5-1.0%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–37		SP				SAND: dark brown to black; med to coarse		
38–39		SP				SAND: light brown to grey; coarse		
40–45		SP				SAND: med to brown; coarse; heavy minerals (<0.5%)		
46		CL-ML				SILT, clayey: dark brown		
46–47		SP				SAND: light grey; coarse		
47–48		SP				SAND: light brown; med to coarse		
49		SP				SAND: dark brown; fine to very fine		
50–51		SP				SAND: med brown; fine		
52		SP				SAND: light brown; med		
53–54		SC				SAND, clayey: dark brown/reddish; fine; heavy minerals (0.5%)		
55–60		SP				SAND: tan; coarse; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-190

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: light grey; coarse; organics		
3–4		SP				SAND: med brown; med; organics		
5–20		SP				SAND: dark brown; med; heavy minerals (1-5%)		
20–21		SP				SAND: dark brown to black; med to fine; consolidated		
22–23		SP				SAND: light brown to red brown; coarse; heavy minerals (0.5%)		
24–25		SP				SAND: dark brown to black; med to fine; consolidated		
25–32		SP				SAND: light brown; coarse; lens of dark brown; med to fine; heavy minerals (<0.5%)		
32–35						SAND: med brown; coarse; heavy minerals (1.0%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-190

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–44		SP						
45		SP				SAND: dark brown to black; fine; consolidated		
46–51		SP				SAND: light brown; coarse; heavy mineral banding 48-49		
52–54		SM				SAND, silty: med brown; fine		
55		CL-ML				SILT, clayey: light brown to med brown; heavy minerals <0.5%)		
56–57		SP				SAND: light brown; med to fine		
58		SP				SAND: light brown; coarse		
59		CL-ML				SILT, clayey: tan; hard		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-191

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: light brown; coarse; organics		
4		SP				SAND: tan; coarse		
5–8		SP				SAND: light brown; coarse; heavy miners (1-1.5%)		
9–13		SP				SAND: dark brown; med		
14		SP				SAND: light grey; coarse; heavy minerals (0.5%)		
15		SP				SAND: dark brown to black; med		
16–18		SP				SAND: dark brown to black; med to fine; consolidated		
19		SP				SAND: dark brown to black; med; heavy minerals (1.0%)		
20		SP				SAND: dark brown to black; med to fine; consolidated		
21–26		SP				SAND: light brown to light grey; coarse; heavy minerals (1.0%)		
27–29		SP				SAND: tan to reddish; coarse; heavy minerals (1.5%)		
30–31		SP				SAND: med brown; coarse		
32–33		SP				SAND: light brown; coarse; heavy minerals (2.5-3%)		
34–35		SP				SAND: tan; med to coarse; heavy minerals (3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-191

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: light brown; med to coarse		
38								
39		SP				SAND: med brown to dark brown; heavy minerals (1-1.5%)		
40								
41								
42								
43		SP				SAND: med brown; coarse		
44								
45								
46								
47								
48		SP				SAND: med brown; med to fine; heavy minerals (<0.5%)		
49								
50		SP				SAND: tan; med; heavy minerals (1-1.5%)		
51								
52								
53								
54								
55								
56								
57								
58								
59		SM				SAND, silty: med brown; fine to silt; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-192

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1-1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: tan to white; coarse; organics		
2–3		SP				SAND: med brown; med		
3–6		SP				SAND: tan; coarse		
6–7		SP				SAND: med brown; coarse		
7–12		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
12–13		SP				SAND: light brown; med; heavy minerals (<0.5%)		
13–20		SP				SAND: med brown; med to coarse; heavy minerals (0.5-1%)		
20–26		SP				SAND: dark brown to black; med to fine; consolidated		
26–34		SP				SAND: med brown; coarse		
34–35		SP				SAND: dark brown to black; consolidated; med to		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				fine SAND: dark brown; coarse; organic layer		
37–45		SP				SAND: tan; coarse; high ilmenite; heavy minerals (9-10%)		
46		SP				SAND: light brown; coarse		
47–49		SP				SAND: med brown to dark brown; med to fine; heavy minerals (0.5%)		
50–54		SP				SAND: brown; coarse; heavy minerals (3-4%)		
55–56		SP				SAND: dark brown to black; med to fine; consolidated		
57–59		SM				SAND, silty: dark brown; fine		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-193

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; coarse; organics		
2–4		SP				SAND: tan; coarse		
5		SP				SAND: light brown; coarse		
6–14		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
15		SP				SAND: dark grey to black; coarse; heavy minerals (2.5%)		
16–18		SP				SAND: tan; coarse; black consolidated organics; heavy minerals (1.5%)		
19–20		SP				SAND: dark brown; med; heavy minerals (1.5%)		
21		SP				SAND: med brown; med to coarse		
22–23		SP				SAND: grey; coarse		
24–26		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
27–29		SP				SAND: brown; med to coarse		
30–35		SP				SAND: dark brown to black; med to coarse; heavy minerals (2-3%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-193

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: med brown to dark brown; coarse; heavy minerals (2-3%)		
37								
38		SP				SAND: brown; coarse; heavy minerals (1%)		
39								
40		SP				SAND: black to dark brown; organic		
41		SP				SAND: med brown; med to coarse; heavy minerals (<0.5%)		
42						SAND: tan to light brown; coarse; heavy minerals (1%)		
43		SP						
44								
45						SAND: med brown; heavy minerals (0.5-1%)		
46								
47		SP						
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-194

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light brown; coarse; organics		
2		SP				SAND: grey; coarse		
3		SP				SAND: med brown; med		
4		SP				SAND: tan; coarse; heavy minerals (0.5%)		
5		SP				SAND: dark brown to black; med; heavy minerals (0.5-1%)		
10		SP				SAND: dark grey; med to coarse		
15		SP				SAND: dark brown to black; med; heavy minerals (0.5-1%)		
23		SP				SAND: tan to light brown; med to coarse; heavy minerals (1.5-2%)		
24		SP				SAND: med brown; med		
27		SP				SAND: grey; coarse; heavy minerals (1%)		
30		SP				SAND: dark brown to black; med		
34						SAND: med brown; med to coarse; heavy minerals (1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-194

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan; med to fine; black fine layer; heavy minerals (1%)		
38		SP						
39								
40						SAND: med brown; med		
41		SP						
42						SAND: light brown; coarse		
43		SP						
44						SAND, silty: med brown; fine to silt		
45								
46		SM						
47								
48		SP				SAND: tan; coarse		
49						SAND, silty: med brown; fine to silt		
50								
51								
52								
53								
54		SM						
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-195

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; coarse; organics		
		SP				SAND: tan; coarse		
2		SP				SAND: grey; coarse		
3								
4		SP				SAND: dark brown; med; heavy minerals (1-1.5%)		
5								
6								
7								
8								
9		SP				SAND: dark brown to black; med to fine		
10		SP				SAND: dark brown; med to coarse; heavy minerals (1%)		
11								
12								
13								
14								
15		SP				SAND: dark brown to black; med; hard pan layer		
16								
17								
18								
19		SP				SAND: light grey; coarse; heavy minerals (2-2.5%)		
20		SP				SAND: med brown; coarse		
21		SP				SAND: dark brown; black; med		
22		SP				SAND: coarse; heavy minerals (1.5-2%)		
23		SP				SAND: med brown; med		
24								
25		SP				SAND: light brown; coarse		
26								
27		SP				SAND: dark brown; med; heavy minerals (1.5-2%)		
28								
29								
30		SP				SAND: dark brown; coarse		
31		SP				SAND: dark brown to black; med to fine		
32		SP				SAND: dark brown; med; coarse; heavy minerals (<0.5%)		
33						SAND: dark brown; med to coarse		
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-195

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38		SP				SAND: brown; coarse		
39		SP				SAND: tan to reddish; fine		
40		SP				SAND: med brown; coarse		
41		SM				SAND, silty: reddish brown; fine to silt; heavy mineral (<0.5%)		
42								
43								
44								
45								
46		CL-ML				CLAY, silty: tan; heavy minerals (<0.5%)		
47								
48								
49		SP				SAND: white; coarse		
50		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-196

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey to white; med to coarse; organics		
2		SP				SAND: light grey; med to coarse		
3		SP				SAND: light brown; med		
4		SP				SAND: dark brown; med to fine; heavy minerals (1.5%)		
8		SP				SAND: dark brown to black; med to fine; consolidation; heavy minerals (<0.5%)		
10		SP				SAND: dark brown; med		
12		SP				SAND: med brown; coarse		
14		SP				SAND: dark brown; med		
15		SP				SAND: light grey to tan; coarse; heavy minerals (1%)		
17		SP				SAND: dark brown to black; med to fine; heavy minerals (1%)		
18		SP				SAND: grey to black; med		
19		SP				SAND: dark brown to black; consolidated		
20		SP				SAND: dark brown; med to coarse		
23		SM				SAND, silty: med brown; fine to silt		
24		SP				SAND: tan; med; heavy minerals (0.5%)		
27		SM				SAND, silty: tan; fine to silt		
28		SP				SAND: reddish; coarse		
29		SP				SAND: tan; med; heavy minerals (1-1.5%)		
30		SP				SAND: tan; coarse		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SC				SAND, clayey: tan; fine		
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-197

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey; med		
3		SP				SAND: tan; med to coarse		
4–8		SP				SAND: dark brown; med		
9		SP				SAND: dark brown to black; med to fine; consolidated; heavy minerals (0.5%)		
10–14		SP				SAND: dark brown; med		
15		SP				SAND: dark brown to black; med to fine; consolidated		
16–19		SP				SAND: med brown; med to coarse; heavy minerals (0.5-1%)		
20–26		SP				SAND: med brown; heavy minerals (2-2.5%)		
27		SP				SAND: dark brown; med to fine		
28		SP				SAND: light grey; coarse		
29		SP				SAND: dark grey to black; med to coarse; heavy mineral (<0.5%)		
30		SP				SAND: dark grey; med to coarse; heavy minerals (1-1.5%)		
31		SP				SAND: dark grey to black; med to fine		
32–35		SP				SAND: dark grey to black; consolidated		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-197

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: med brown to dark brown; med		
37						SAND: med brown; med; heavy minerals (1-1.5%)		
38								
39								
40								
41								
42								
43						SAND: tan; med to fine; heavy minerals (1-1.5%)		
44								
45		SP						
46								
47								
48						SAND, clayey: tan; med to fine		
49		SC						
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-198

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0-1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: med grey; med; organics		
2		SP				SAND: tanish grey; fine to med; heavy minerals (0.5-1.0%)		
6		SP				SAND: dark brown; med; heavy minerals (0.5-1.0%)		
12		SP				SAND: med brown to dark brown; med		
14		SP				SAND: dark brown; med; heavy mineral (1-1.5%)		
16		SP				SAND: black; med to fine		
17		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
18		SP				SAND: dark grey; med		
23		SP				SAND: dark brown to black; med to fine; heavy minerals (2%)		
27		SP				SAND: dark brown to grey; med		
28		SP				SAND: dark brown; med to fine		
29		SP				SAND: dark brown; med; heavy minerals (0.5-1.0%)		
30		SP				SAND: light brown; med		
34		SP				SAND: tan; coarse		
35						SAND: light brown; med to fine		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-198

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37						SAND: tan; med; heavy minerals (0.5-1.0%)		
38								
39		SP						
40								
41								
42		SP				SAND: tan; fine		
43		SP				SAND: light grey; med to coarse		
44						CLAY, silty: tan		
45		CL-ML						
46								
47						SAND, clayey: tan; fine		
48		SC						
49								
50		SC				SAND, clayey: tan; fine BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-199

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/24/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: dark grey; med		
2		SP				SAND: dark brown; med to fine		
5		SP				SAND: dark brown to black; fine to med		
13		SP				SAND: grey to tan; med to coarse		
16		SC				SAND, clayey: dark brown; fine to med		
17		SP				SAND: tan to brown; fine to med		
20		SP				SAND: tan; med to coarse		
28		CH				CLAY: greenish grey; fat		
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-200

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–12		SP				SAND: dark brown to black; med to fine; heavy minerals (0.5-1.0%)		
12–15		SP				SAND: dark brown to black; med to fine; consolidated		
16		SP				SAND: dark brown; med; heavy minerals (1%)		
17–18		SP				SAND: brown; med to coarse; heavy minerals (1.0%)		
19–25		SP				SAND: dark brown to black; med		
26		SP				SAND: dark brown; med		
27–30		SP				SAND: med to coarse		
31–35		SP				SAND: tan; med to coarse; heavy minerals (1-1.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-200

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: tan; small clay band		
37								
38		SC-SM				SAND, silty; clayey: tan; heavy minerals (1%)		
39								
40								
41								
42		CL-ML				CLAY, silty: greenish grey; soft		
43								
44								
45								
46								
47		SM				SAND, silty: greenish grey; heavy minerals (<0.5%)		
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-201

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SP				SAND: dark brown		
2–4		SP				SAND: light brown; med		
4–17		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
17–19		SP				SAND: dark brown to black; med to fine; consolidated; heavy minerals (0.5%)		
19–20		SP				SAND: dark brown to black; med		
20–25		SP				SAND: med brown; med to coarse; heavy minerals (0.5%)		
25–27		SP				SAND: dark brown to black; med to fine; consolidated		
27–30		SP				SAND: dark grey to black; med to coarse; heavy minerals (0.5-1%)		
31–33		SP				SAND: dark brown to black; med to fine; consolidated		
33–35		SP				SAND: med brown; med; heavy mineral (1%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-201

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: med brown; med to coarse; heavy minerals (0.5%)		
42		SP				SAND: tan; med to fine		
47		SM				SAND, silty: tan; fine; heavy minerals (0.5%)		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-202

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med to coarse; heavy minerals (<0.5%)		
2								
3		SP				SAND: med brown; med		
4								
5		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15		SP				SAND: dark grey to dark brown; med; heavy minerals (0.5-1.0%)		
16						SAND: dark brown to black; med to fine; heavy minerals (0.5-1.0%)		
17		SP						
18								
19								
20								
21								
22		SP				SAND: dark brown to black; med to fine; consolidation		
23								
24		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
25								
26		SP				SAND: med brown; med		
27		SP				SAND: dark brown to black; med; heavy minerals (0.5-1.0%)		
28								
29		SP				SAND: tan to brown; med to fine		
30		SP				SAND: dark brown; med to fine		
31								
32								
33		SP				SAND: dark brown; med to fine		
34						SAND: med brown; med; heavy minerals (~1%)		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-202

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41								
42								
43								
44		SP				SAND: tan to light brown; med to fine; heavy minerals (~1%)		
45								
46								
47								
48		SP				SAND: tan to light brown; fine; heavy minerals (<0.5%)		
49								
50		SP				SAND: med brown; med		
51		SP				SAND: dark brown; fine to med		
52								
53								
54		SP				SAND: med brown; fine		
55								
56								
57		SM				SAND, silty: tan; fine		
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-203

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; med to coarse		
2		SP				SAND: dark reddish orange; coarse		
3		SP				SAND: light tan; med to coarse		
4		SP				SAND: light tan to grey; med		
5		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
13		SP				SAND: dark black to brown; med to fine; heavy minerals (0.5%)		
14		SP				SAND: dark brown; med		
16		SP				SAND: med brown; med; heavy minerals (0-1.5%)		
18		SP				SAND: dark brown to black; med to fine; consolidated; heavy minerals (0.5%)		
19		SP				SAND: dark brown to black; med to fine		
20		SP				SAND: dark brown to black; fine to med; consolidated		
22		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
27		SP				SAND: dark brown; med to fine		
32		SP				SAND: tan; med to coarse; heavy minerals (1-1.5%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/25/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38						SAND: med brown; med; heavy minerals (0.5%)		
39								
40								
41		SP						
42								
43								
44								
45		SP				SAND: dark brown; med to fine		
46						SAND: light brown; med; heavy minerals (0.5-1%)		
47								
48		SP						
49								
50						SAND: tan; med to coarse; heavy minerals (<0.5%)		
51		SP						
52								
53						SAND: dark brown; med to fine		
54		SP						
55		SP				SAND: dark grey; med		
56		SP				SAND: light brown; med; heavy minerals (<0.5%)		
57		SP				SAND: dark brown; med to fine; consolidated		
58		SM				SAND, silty: tan; fine; heavy minerals (<0.5%)		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-205

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; coarse; organics		
2		SP				SAND: light brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: med grey; med		
5		SP				SAND: dark brown; med to fine; heavy minerals (0.5-1.0%)		
14		SP				SAND: dark brown to black; med to fine; consolidated; heavy minerals (<0.5%)		
17		SP				SAND: dark brown; med		
22		SP				SAND: light brown; med to coarse; heavy minerals (<0.5%)		
24		SP				SAND: dark brown; med to fine		
25		SP				SAND: med brown; med		
26		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
30		SP				SAND: tan to light brown; coarse		
32		SP				SAND: med brown; med to fine; heavy minerals (2.0%)		
34						SAND: light brown; med		
35						*Continued Next Page*		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
39		SP				SAND: dark brown; fine		
40–52		SP				SAND: tan; med to coarse; heavy minerals (1-3%)		
53		SP				SAND: white; med to coarse		
54		SP				SAND: dark brown; med		
55–56		SP				SAND: dark brown; fine; organics; heavy minerals (<0.5%)		
57–58		SP						
59		SM				SAND, silty: tan; fine		
60		SP				SAND: tan; med to coarse; heavy minerals (<0.5%)		
61–63		SC-SM				SAND, silty, clayey: light brown to grey		
64–69		SP				SAND: tan; med		
70–75						SAND: white; coarsening downward; med to fine		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SP						
77								
78								
79								
80						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-206

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	4'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med to coarse; organics		
2		SP				SAND: tan; med		
3								
4								
5		SP				SAND: med brown; med		
6		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
7								
8								
9								
10								
11								
12		SP				SAND: dark brown; med to fine		
13								
14		SP				SAND: dark brown; med to fine; slightly consolidated; heavy minerals		
15								
16		SP				SAND: dark brown to black; med		
17		SP				SAND: dark brown; med to fine; consolidated		
18		SP				SAND: dark brown; med; heavy minerals (1.5-2.0%)		
19								
20								
21								
22		SP				SAND: dark brown; 1" consolidated black; fine; remaining med to fine		
23								
24								
25								
26								
27		SP				SAND: dark brown to black; med		
28		SP				SAND: tan; med to coarse		
29								
30								
31								
32		SP				SAND: light brown to grey; med to coarse		
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown to grey; med; heavy minerals (1.0%)		
37		SP				SAND: reddish tan; coarse; fine; heavy minerals (1.5%)		
38								
39								
40		SP				SAND: med brown; med		
41								
42		SP				SAND: dark brown; med		
43		SP				SAND: tan; med to coarse		
44								
45								
46		SP				SAND: dark brown; med to fine		
47		SP				SAND: tan; coarse to med		
48								
49								
50		SP				SAND: med brown; fine		
51								
52								
53		SP				SAND: med brown to dark brown; fine		
54								
55		SC				SAND, clayey: dark grey to orange; fine		
56								
57		SP				SAND: tan; med to coarse		
58		SC-SM				SAND, silty, clayey: tan; fine		
59								
60		SP				SAND: tan; med to fine BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-207

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: off white; med; organics		
6		SP				SAND: med brown; med		
7–11		SP				SAND: dark brown to black; med; heavy minerals (0.5%)		
12–17		SP				SAND: dark brown to black; med to fine		
18–21		SP				SAND: dark brown; med; heavy minerals (0.5%)		
22–26		SP				SAND: dark grey; med to coarse; heavy minerals (2%)		
27–35		SP				SAND: dark brown to black; med; heavy minerals (2-2.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-207

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/26/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown to black; med to fine		
37		SP				SAND: light brown; med to coarse		
38								
39						SAND: med brown; med; heavy minerals (0.5%)		
40		SP						
41								
42						SAND: dark brown; med to coarse		
43		SP						
44						SAND: med brown; very fine		
45								
46		SP						
47								
48								
49		SP				SAND: light brown; coarse		
50		SC-SM				SAND, silty, trace clay: fine BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-208

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	2'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
0		SP				SAND: grey; med to coarse; organics		
1		SP				SAND: dark grey; med		
2								
3								
4								
5								
6		SP				SAND: dark brown to black; med to fine		
7		SP				SAND: black; med to fine; hard humate; heavy minerals (0.5-1.0%)		
8								
9								
10		SP				SAND: dark brown; med		
11								
12								
13		SP				SAND: dark brown to black; med		
14								
15		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
16								
17		SP				SAND: dark brown to black; med; heavy minerals (<0.5%)		
18								
19								
20								
21		SP				SAND: tan; med to coarse; heavy minerals (1.5-2.0%)		
22								
23								
24		SP				SAND: light to med grey; med to coarse; heavy minerals (1.0%)		
25								
26		SP				SAND: dark black; med to fine; humate		
27								
28								
29		SP				SAND: dark brown; med to fine; lightly consolidated		
30		SP				SAND: dark grey; med		
31		SP				SAND: dark brown to black; med		
32						SAND: med brown; med; heavy minerals (~1.5%)		
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-208

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40								
41						SAND: med brown; med; heavy minerals (1.5%)		
42		SP						
43								
44								
45								
46						SAND: tan; med to coarse; heavy minerals		
47		SP				SAND: tan; med; heavy minerals (0.5-1.0%)		
48								
49		SP						
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-209

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey; med; organics		
3		SP				SAND: light brown to light grey; med		
4–14		SP				SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
15		SP				SAND: light brown; med		
15–25		SP				SAND: dark brown to black; med to fine; heavy minerals (1.0%), 4" light grey inclusion at 18		
25–29		SP				SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
30		SP				SAND: dark brown; med to fine; consolidated		
30–31		SP				SAND: med brown; med to coarse		
32		SP				SAND: dark grey; med to fine		
32–35		SP				SAND: dark brown; med; heavy minerals (<0.5%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-209

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36 37 38 39 40		SP				SAND: tan; fine; heavy minerals (~0.5%) BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-210

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: med brown to grey; med; organics		
		SP				SAND: dark grey; med		
3–10		SP				SAND: dark brown to black; med to fine; hard; heavy minerals (0.5-1.0%)		
10–12		SP				SAND: dark brown to black; med		
13		SP				SAND: dark grey; med		
14–16		SP				SAND: brown; med to fine		
16–23		SP				SAND: tan; med; heavy minerals (0.5%)		
23		SP				SAND: grayish tan; med to fine; heavy minerals (0.5%)		
24–30		SP				SAND: tan; med to coarse; heavy minerals (<0.5%)		
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-211

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
0		SP				SAND: black; med to fine; dry		
1		SP				SAND: grey; med; organics		
2						SAND: brown; med		
3		SP						
4								
5						SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
6								
7		SP						
8								
9								
10						SAND: dark brown to black; med to fine; consolidated		
11		SP						
12						SAND: dark brown to black; med; heavy minerals (<0.5%)		
13								
14								
15		SP						
16								
17						SAND: grey to black; med; fine organics; heavy minerals (<0.5%)		
18								
19		SP						
20						SAND: dark brown; med to fine		
21								
22		SP						
23						SAND: tan; med		
24		SP						
25		SP				SAND: off white; coarse		
26						SAND: med; some fine		
27								
28								
29								
30								
31								
32		SP						
33								
34								
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-211

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
		SP				SAND: white; med		
39		SP				SAND: tan; med; heavy mineral (~1.0%)		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-212

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; med to coarse		
2		SP				SAND: med brown; med		
3		SP				SAND: light brown to tan; med		
4								
5		SP				SAND: brown; med		
6								
7								
8		SP				SAND: light grey; med to coarse; heavy minerals (1.0-1.5%)		
9								
10		SP				SAND: dark grey to black; med; heavy minerals (1.0-1.5%)		
11								
12		SP				SAND: dark brown to black; med to fine		
13		SP				SAND: dark brown to black; med to fine; consolidation; 3" organic fine layers		
14								
15								
16								
17								
18								
19								
20		SP				SAND: dark brown; med; heavy minerals (1.5%)		
21								
22								
23								
24		SP				SAND: med brown; med		
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/2/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: tan		
37						SAND: reddish to brown; med		
38		SP						
39								
40								
41						SAND: med brown to brown; predominantly med; some fine; heavy minerals (0.5-1.0%)		
42								
43		SP						
44								
45								
46								
47		SP				SAND: dark brown; med to coarse; heavy minerals (0.5%)		
48		SP				SAND: dark brown; med to fine		
49						SAND: tan to light brown; med to fine; heavy minerals (1.0-1.5%)		
50								
51								
52								
53		SP						
54								
55								
56								
57								
58						SAND: grey; med; black hard med/fine cobbles		
59		SP						
60		SP				SAND: dark brown to black; fine		
61		SP				SAND: brown; med to fine		
62		SP				SAND: med tan		
63		SC-SM				SAND, silty, clayey: grey; fine		
64								
65						SAND: tan; fine; heavy minerals (0.5%)		
66								
67		SP						
68								
69								
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-213

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	1.5-2.0'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey; med; heavy minerals (0.5%)		
4–9		SP				SAND: dark brown to black; med to fine; consolidation; heavy minerals (0.5-1.0%)		
10–11		SP				SAND: dark brown to black; med		
12–19		SP				SAND: dark grey to black; med; heavy minerals (0.5-1.0%)		
20–22		SP				SAND: light grey to brown; med to coarse; heavy minerals (<0.5%)		
23–24		SP				SAND: dark brown; med to fine; heavy minerals (1-1.5%)		
25–29		SP				SAND: light brown to tan; med to med/fine; heavy minerals (0.5%)		
30–35		SP				SAND: light brown; med		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: tan to off white; fine; heavy minerals (1-1.5%)		
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-214

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: grey; med; organics		
3		SP				SAND: tan; med		
4		SP				SAND: grey; med		
5–13		SP				SAND: dark brown to black; med to fine; heavy minerals (~1.0%)		
14		SP				SAND: dark brown; med to fine; heavy minerals (3-4%)		
15–21		SP				SAND: dark brown to black; med; med to coarse layer at 18		
21–27		SP				SAND: grey to black; med; heavy minerals (0.5%)		
28–29		SP				SAND: brown; med to fine; heavy minerals (<0.5%)		
30–33		SP				SAND: reddish brown; med; heavy minerals (<0.5%)		
34–35						SAND: tan; med to med/fine; heavy minerals (0.5-1.0%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-214

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP						
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-215

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–7		SP				SAND: dark grey; med		
8		SP				SAND: tan to light brown; med; heavy minerals (1.5%)		
9–14		SP				SAND: dark brown to black; med to fine; heavy minerals (1-1.5%)		
15		SP				SAND: brown to dark brown; med		
16–18		SP				SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
19–23		SP				SAND: brown; med		
24		SP				SAND: light brown; med to coarse		
25–26		SP				SAND: tan to off white to grey; med to coarse; heavy minerals (1.0%)		
27–29		SP				SAND: grey to black; med; heavy minerals (1.5-2.0)		
30–31		SP				SAND: dark brow to black; med to fine		
32–35		SP				SAND: light brown; med; heavy minerals (0.5-2.0%)		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-215

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: dark brown to black; med		
37		SP				SAND: med brown to dark brown; med to fine		
38								
39		SP				SAND: tan; med; heavy minerals (0.5-1.0%)		
40								
41								
42		SP				SAND: tan; med to fine		
43								
44								
45		SP				SAND: reddish tan; heavy minerals (0.5%)		
46		SP				SAND: tan; med to fine		
47								
48		SP				SAND: tan; med		
49								
50								
51								
52								
53		SP				SAND: tan; coarse		
54						CLAY, silty: greenish grey		
55		CL-ML						
56								
57								
58								
59								
60		CL-ML				SILT, trace clay: greenish grey BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-216

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	7'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: orangeish tan; med; organics		
3–4		SP				SAND: tan to grey; med; transition		
5–11		SP				SAND: dark brown; med; organics		
12–13		SP				SAND: black; med		
14–18		SP				SAND: dark brown to black; med to fine; consolidated; heavy minerals (0.5%)		
19–23		SP				SAND: dark brown to black; med to fine; consolidated		
24		SP				SAND: dark brown to black; med to fine; consolidated		
25–29		SP				SAND: light brown to med brown; med to fine; heavy minerals (~2.5%)		
30		SP				SAND: dark brown; med		
31–35		SP				SAND: dark grey to brown; med; heavy minerals (0.5-1.0%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SP				SAND: dark brown to black; med to fine; consolidated		
38								
39		SP				SAND: dark brown; med; heavy minerals (0.5%)		
40								
41								
42		SP				SAND: dark brown; med to med/coarse		
43								
44		SP				SAND: light brown to tan; med to coarse; heavy minerals (0.5-1.0%)		
45								
46								
47		SP				SAND: dark grey; med to fine		
48		SP				SAND: tan; med; heavy minerals (<0.5%)		
49								
50		SP				SAND: med brown; fine to med/fine		
51								
52								
53								
54		SP				SAND: grey; fine		
55		SC-SM				SAND, silty, clayey: grey to tan		
56						SAND: tan to white; med to fine		
57		SP						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-217

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: grey; med		
2		SP				SAND: light brown; med		
3		SP				SAND: off white to grey; med		
4								
5		SP				SAND: dark brown to black; med to fine; consolidated between 11-12; heavy minerals (1-1.5%)		
10								
15								
17		SP				SAND: tan to med brown; med; heavy minerals (0.5%)		
18		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
25		SP				SAND: light brown; med to coarse; heavy minerals (<0.5%)		
27		SP				SAND: dark brown to black; med to fine; consolidated		
28		SP				SAND: grey; med; heavy minerals (0.5%)		
30		SP				SAND: dark brown to black; interbedded consolidation fine nodules; heavy minerals (0.5%)		
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-217

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				SAND: brown; med to coarse		
37								
38		SP				SAND: tan; med; heavy minerals (<0.5%)		
39		SP				SAND: brown; med to fine		
40								
41		SP				SAND: med brown; med to fine; heavy minerals (<0.5%)		
42								
43								
44		SC-SM				SAND, silty, clayey: tan		
45		SP				SAND: tan; med; heavy minerals (<0.5%)		
46						SAND: tan; fine; heavy minerals (<0.5%)		
47								
48		SP						
49								
50								
51								
52						CLAY, silty: greenish grey; fine; heavy minerals (<0.5%)		
53								
54								
55								
56		CL-ML						
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-218

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	3'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SP				SAND: grey to off white; med		
2–3		SP				SAND: dark brown to black; med to fine		
3–6		SP				SAND: med grey to dark grey; med		
6–15		SP				SAND: dark brown to black, med		
15–23		SP				SAND: dark brown to black; med to fine; consolidated; hard organics; heavy minerals (<0.5%)		
23–25		SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5%)		
25–26		SP				SAND: tan; med to coarse		
26–29		SP				SAND: reddish brown; med to coarse		
29–30		SP				SAND: dark brown; coarse		
30–34		SP				SAND: light grey; med; heavy minerals (2-2.5%)		
34–35						SAND: dark brown to black; med to fine; consolidated		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-LON-18-218

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Bushey
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38		SP						
39		SP				SAND: dark brown; med		
40–43		SP				SAND: med brown; med; with black hard; fine sand cobbles; heavy minerals (1-1.5%)		
44		SP				SAND: light brown; med to coarse		
45–46		SP				SAND: med brown; med to fine		
47		SP				SAND: tan		
48–53		SP				SAND: med brown; fine		
54–55		SP				SAND: light brown; fine		
56–59		SP				SAND: tan; med to fine; heavy minerals		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-18-109

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	
DRILLER	Twin Pines	**DEPTH TO WATER**	5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: light grey; coarse		
2		SP				SAND: light brown; coarse		
3						SAND: dark brown; coarse		
4								
5								
6								
7								
8								
9								
10								
11								
12								
13		SP						
14								
15								
16								
17								
18								
19								
20								
21								
22								
23		SP				SAND: brown; coarse		
24								
25		SP				SAND: white; coarse		
26		SP				SAND: brown; coarse		
27		SP				SAND: white; coarse		
28								
29		SP				SAND: grayish-brown; coarse		
30						SAND: dark brown; coarse		
31								
32								
33								
34		SP						
35								

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-18-109

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: light to reddish-brown; med		
40								
41								
42						SAND, silty: light tan		
43								
44								
45								
46								
47								
48		SM						
49								
50								
51								
52								
53								
54								
55								
56		SC				CLAY, sandy: greenish-grey		
57								
58						SAND, silty: light tan		
59		SM						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-18-110

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	NM
DRILLER	Twin Pines	**DEPTH TO WATER**	4-5'
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: light grey to dark brown; coarse		
10–14		SP				SAND: dark brown; consolidated; coarse		
15–19		SP				SAND: reddish brown; coarse		
20–35		SM				SAND, silty: orange		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-18-110

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Fowler
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/3/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41								
42						SAND: tan; coarse		
43								
44								
45								
46		SP						
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report:ENV LOG - NO WELL

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APPENDIX B
TWIN PINES SOIL BORING DATA
LOGGED BY TTL, INC.

Attached Documents:
Table B1: Boring Location Database Summary
Boring Logs

APPENDIX B
TABLE

Table B1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]
SA-TIA-19-270	BORING	50	137.61	03/28/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	189958.2695	666499.2418
SA-TIA-19-271	BORING	50	136.18	03/28/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	189653.1256	666105.4879
SA-TIA-19-272	BORING	50	133.66	03/28/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	189346.4387	665707.3142
SA-TIA-19-273	BORING	50	142.82	03/28/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	188681.0961	667107.8737
SA-TIA-19-274	BORING	50	141.10	03/28/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	189088.8811	667042.605
SA-TIA-19-275	BORING	30	138.18	03/28/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	189487.3406	666698.5901
SA-TIA-19-276	BORING	60	138.88	03/29/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	190348.3669	666841.9145
SA-TIA-19-277	BORING	50	143.77	03/29/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	190712.172	667233.3406
SA-TIA-19-278	BORING	50	148.20	03/29/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	190958.2667	667544.8757
SA-TIA-19-279	BORING	50	145.70	03/29/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	191903.1915	667238.2775
SA-TIA-19-280	BORING	50	148.15	03/29/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	191538.4073	667595.1343
SA-TIA-19-281	BORING	50	151.98	03/29/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	191242.9469	667891.9864
SA-TIA-19-282	BORING	60	157.48	03/30/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	190931.0088	668271.9097
SA-TIA-19-283	BORING	60	165.42	03/30/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	194669.2857	669337.5623
SA-TIA-19-284	BORING	50	162.17	03/30/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	194312.1311	668907.7165
SA-TIA-19-285	BORING	50	158.53	03/30/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	193985.6405	668520.5429
SA-TIA-19-286	BORING	60	149.97	03/30/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	193378.4032	667607.3258
SA-TIA-19-287	BORING	40	146.98	03/30/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	193164.887	667152.795
SA-TIA-19-288	BORING	50	143.58	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	192952.7438	666684.2769
SA-TIA-19-289	BORING	40	140.69	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	192740.5363	666228.5127
SA-TIA-19-290	BORING	50	138.00	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	192535.8132	665781.0587
SA-TIA-19-291	BORING	50	136.83	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	193388.2138	665551.3908
SA-TIA-19-292	BORING	40	138.57	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	194341.6103	665780.6773
SA-TIA-19-293	BORING	40	139.24	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	195474.0734	665967.639
SA-TIA-19-294	BORING	50	141.36	03/31/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	196464.1419	666142.1914
SA-TIA-19-295	BORING	50	146.04	04/02/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	196841.0224	666884.3612
SA-TIA-19-296	BORING	60	154.33	04/02/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	196498.5072	668210.3884
SA-TIA-19-297	BORING	60	154.50	04/02/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	195695.1222	668482.7054
SA-TIA-19-298	BORING	70	163.64	04/02/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	196242.0674	669301.9447
SA-TIA-19-299	BORING	50	143.28	04/02/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	191128.3035	667147.2724
SA-TIA-19-300	BORING	50	154.85	04/02/19	Twin Pines	A. Blackwood	M. Lucas	Sonic	190802.0778	668027.7144
SA-TIA-19-487	BORING	80	151.09	06/18/19	Twin Pines	A. Blackwood	T. Hall	Sonic	188887.1577	668092.0862
SA-TIA-19-488	BORING	40	152.53	06/18/19	Twin Pines	A. Blackwood	T. Hall	Sonic	189488.3589	668193.4492
SA-TIA-19-489	BORING	50	157.97	06/18/19	Twin Pines	A. Blackwood	T. Hall	Sonic	189950.6615	668410.4564
SA-TIA-19-490	BORING	40	150.97	06/18/19	Twin Pines	A. Blackwood	T. Hall	Sonic	190196.6425	667912.2493
SA-TIA-19-491	BORING	60	145.06	06/18/19	Twin Pines	A. Blackwood	T. Hall	Sonic	190413.6205	667451.2949
SA-TIA-19-492	BORING	50	156.19	06/19/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191678.7769	668304.4694
SA-TIA-19-493	BORING	60	161.38	06/19/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191461.8172	668812.6021

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Table B1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]
SA-TIA-19-495	BORING	50	163.91	06/20/19	Twin Pines	A. Blackwood	T. Hall	Sonic	192097.1722	669311.0167
SA-TIA-19-496	BORING	60	163.70	06/20/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195430.2072	669179.6615
SA-TIA-19-497	BORING	50	157.92	06/20/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195506.8072	668739.3214
SA-TIA-19-498	BORING	40	148.16	06/20/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195629.5328	667754.2069
SA-TIA-19-499	BORING	40	146.89	06/20/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195690.4765	667402.6692
SA-TIA-19-500	BORING	40	144.44	06/20/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195760.2428	667017.5853
SA-TIA-19-501	BORING	40	141.86	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195731.5469	666534.8561
SA-TIA-19-502	BORING	40	141.18	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195911.6852	666094.6349
SA-TIA-19-503	BORING	80	143.48	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194879.0296	666935.9226
SA-TIA-19-504	BORING	40	140.40	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194931.3403	666385.5431
SA-TIA-19-505	BORING	40	138.06	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194963.2512	665938.674
SA-TIA-19-506	BORING	40	141.01	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	193921.1842	666150.7283
SA-TIA-19-507	BORING	40	143.90	06/21/19	Twin Pines	A. Blackwood	T. Hall	Sonic	193842.3289	666715.8275
SA-TIA-19-508	BORING	40	148.23	06/24/19	Twin Pines	A. Blackwood	T. Hall	Sonic	193769.8506	667252.0745
SA-TIA-19-509	BORING	50	151.50	06/24/19	Twin Pines	A. Blackwood	T. Hall	Sonic	193697.7139	667709.8346
SA-TIA-19-510	BORING	50	152.40	06/24/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194640.6012	668234.2697
SA-TIA-19-511	BORING	50	158.60	06/24/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194601.448	668642.8259
SA-TIA-19-512	BORING	50	162.18	06/24/19	Twin Pines	A. Blackwood	T. Hall	Sonic	193706.6375	669060.4165
SA-TIA-19-513	BORING	100	153.10	06/24/19	Twin Pines	A. Blackwood	T. Hall	Sonic	192878.0603	668138.016
SA-TIA-19-514	BORING	40	150.33	06/25/19	Twin Pines	A. Blackwood	T. Hall	Sonic	192780.4233	667837.9543
SA-TIA-19-515	BORING	40	143.38	06/25/19	Twin Pines	A. Blackwood	T. Hall	Sonic	192093.538	666916.5446
SA-TIA-19-516	BORING	40	142.37	06/25/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191982.5765	666728.7407
SA-TIA-19-517	BORING	40	139.30	06/25/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191753.4645	666400.6488
SA-TIA-19-518	BORING	70	134.97	06/25/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191043.929	665965.6114
SA-TIA-19-519	BORING	40	135.46	06/26/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191071.5162	666342.6852
SA-TIA-19-520	BORING	30	131.37	06/26/19	Twin Pines	A. Blackwood	T. Hall	Sonic	190773.2813	665412.7444
SA-TIA-19-521	BORING	40	129.80	06/26/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191033.4062	665049.0952
SA-TIA-19-522	BORING	30	133.13	06/26/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191314.663	665516.74
SA-TIA-19-523	BORING	40	136.08	06/26/19	Twin Pines	A. Blackwood	T. Hall	Sonic	191502.3988	665992.2852
SA-TIA-19-524	BORING	40	137.64	06/26/19	Twin Pines	A. Blackwood	T. Hall	Sonic	192034.8718	665926.9741
SA-TIA-19-527	BORING	30	135.76	06/27/19	Twin Pines	A. Blackwood	T. Hall	Sonic	190293.121	666205.3697
SA-TIA-19-528	BORING	30	132.47	06/27/19	Twin Pines	A. Blackwood	T. Hall	Sonic	189801.7963	665589.4531
SA-TIA-19-529	BORING	60	131.08	07/01/19	Twin Pines	A. Blackwood	T. Hall	Sonic	189833.22	665229.8032

[1] ft. bgs = below ground surface

[2] ft. AMSL = feet above mean sea level

[3] State Plane Coordinates - Georgia East NAD83

APPENDIX B
BORING LOGS

geotechnical // analytical // materials // environmental

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-270

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	137.61 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: dark grey (7.5 YR 4/1); dark brown (7.5 YR 3/2) with black mottles (7.5 YR 2.5/1); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
6–8		SC				SAND, clayey: light brown (7.5 YR 5/3); white (7.5 YR (8/1); fine (15%); med (80%); clay (5%); well sorted; subround;		
9		SM				Sand, White (7.5YR 8/1); consolidated,		
9–10		SC				SAND, clayey: light brown (7.5 YR 5/3); fine (15%); med (80%); clay (5%); well sorted; subround; unconsolidated;		
10–15		SM				SAND, silty: dark brown (7.5 YR 3/2); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
15–30		SM				SAND, silty: light brown (7.5 YR 6/3) and yellowish brown (10YR 5/4) mottles; fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
30–35						SAND, clayey with clay lenses: light brown (7.5 YR 6/3); light olive brown (2.5 Y 5/3); fine (30%); med (60%); clay (10%); well sorted; round; unconsolidated; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-270

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40						SAND, silty, clay lense: greyish green (5 GY 5/2); fine (75%); silt (25%); well sorted; round; unconsolidated		
41								
42								
43								
44								
45		SC-SM						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-271

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	136.18 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SM				SAND, silty: light grey (5 YR 7/1); white (7.5 YR 9/1); fine (5%); med (90%); silt (<5%); well sorted; round; unconsolidated; organics		
2–15		SC-SM				SAND, clayey: brown (7.5 YR 5/3); dark brown (7.5 YR 3/2); fine (10%); med (90%); clay (<1%); well sorted; round; unconsolidated		
15–20		SC				SAND, clayey: brown (7.5 YR 5/3); dark brown (7.5 YR 3/2); fine (10%); med (50%); clay (<1%); round		
20–30		SM				SAND, silty: light brown (7.5 YR 6/3); brown (7.5 YR 5/3); fine (10%); med (85%); silt (5%); well sorted; round to subround; unconsolidated		
30–34		SM				SAND, silty: light brown (7.5 YR 6/3); fine (15%); med (80%); silt (5%); well sorted; round; unconsolidated		
34–35		SM				SAND, silty: reddish yellow (7.5 YR 6/6); fine (20%);		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-271

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36						med (70%); silt (10%); well sorted; round; unconsolidated		
37						SAND, clayey: light brown (7.5 YR 6.3); yellowish brown (10 YR 5/4); grey (7.5 YR 6/1); fine (30%); med (60%); clay (10%); well sorted; round		
38								
39								
40								
41								
42		SC						
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-272

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	133.66 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SM				SAND, silty: grey (7.5 YR 5/1); fine (5%); med (95%); well sorted; round; unconsolidated; organics		
5–9		SM				SAND, silty: dark brown (7.5 YR 3/3); fine (10%); med (90%); well sorted; round; unconsolidated; fine black grains		
10–14		SC				SAND, clayey: light brown (7.5 YR 6/4); well sorted; round		
15–19		SC-SM				SAND, clayey, silty: pale brown (7.5 YR 8/2) to light brown (7.5 YR 6/3); dark brown (7.5 YR 3/3) mottles; fine (10%); med (90%); well sorted; round; unconsolidated		
20–30		SM				SAND, silty: brownish yellow (10 YR 6/6); dark brown (7.5 YR 3/3); fine (10%); med (90%); well sorted; round; unconsolidated; moist		
30–35						SAND, clayey: pale brown (2.5 Y 8/2); light olive brown (2.5 Y 5/3); fine (30%); med (65%); clay (5%); well sorted; round		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-272

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40		SC						
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-273

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	142.82 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: dark grey (7.5 YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated		
5–10		SM				SAND, silty: black (7.5 YR 2.5/1) fine (60%); med (35%); silt (<5%); well sorted; rounded; consolidated		
10–15		SM				SAND, silty: black (7.5 YR 2.5/1); dark grey (7.5 YR 4/1); brown (7.5 YR 5/4); fine (50%); med (45%); silt (<5%); will sorted; round; unconsolidated; moist; mottles		
15–20		SM				SAND, silty: grey (2.5 Y 6/1); some light grey (2.5 Y 7/1); fine (40%); med (55%); silt (<5%); well sorted; round; unconsolidated; mottled		
20–25		SM				SAND, silty: light brown (7.5 YR 6/3); brown (7.5 YR 5/4) and dark grey (7.5 YR 4/1) mottles; fine (40%); med (55%); silt (<5%); well sorted; round; saturated; unconsolidated		
25–29		SC				SAND, clayey: light yellowish brown (2.5 Y 6/3); fine (60%); med (35%); silt (<5%); well sorted		
29–30		CL				CLAY, silty: pale olive (5 Y 6/3); fine (75%); med (25%); well sorted; round		
30–31		SC				SAND, clayey: pale brown (2.5 Y 7/3); fine (60%); med (35%); clay (<5%); well sorted; subround		
31–35						SAND, silty: pale brown (2.5 Y 7/3); fine (60%); med (35%); silt (<5%); well sorted; round to subround; unconsolidated; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-273

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM						
37								
38								
39								
40								
41		SM				SAND, silty: pale brown (2.5 Y 7/3) mottles with black grains; fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
42								
43								
44								
45								
46		CL				CLAY, silty, sandy: light greyish green (5 GY 6/2); fine (75%); med (25%); well sorted; subround to round		
47								
48		SC				SAND, clayey: pale brown (2.5 Y 7/3); fine (55%); med (40%); clay (<5%); well sorted; round		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-274

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	141.10 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SM				SAND, silty: black (7.5 YR 2.5/1); pale brown (10 YR 6/3); fine (50%); med (40%); silt (<10%); well sorted; round; unconsolidated; organics		
10–17		SM				SAND, silty: very dark brown (7.5 YR 2.5/3) with fine black grains; fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; moist		
18–19		SM				SAND, silty: strong brown (7.5 YR 5/6); light grey (7.5 YR 2/1); dark grey (7.5 YR 4/1); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated		
20–33		SC				SAND, silty: strong brown (7.5 YR 5/6); fine (60%); med (35%); clay (<5%); well sorted; round; moist		
33–35						SAND, silty: pale brown (10 YR 6/3); fine (60%); med (35%); silt (<5%); well sorted; round to subround; unconsolidated; wet		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-274

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM						
37								
38								
39								
40								
41								
42								
43								
44								
45						SAND, clayey, silty: pale brown (10 YR 6/3); fine (65%); med (35%); clay (<1%); well sorted; round to subround; unconsolidated; wet		
46								
47								
48		SC-SM						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-275

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	138.18 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SM				SAND, silty: grey (7.5 YR 5/1) to dark brown (7.5 YR 3/3) with fine black grains; fine (60%); med (35%); silt (<5%); well sorted; round; semi-consolidated		
10–13		SM				SAND, silty: dark brown (7.5 YR 3/3) with black grains; fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
14		SM				SAND, silty: dark brown (7.5 YR 3/3) with black grains; fine (60%); med (35%); silt (<5%); well sorted; round; semi-consolidated		
15–19		SM				SAND, silty: reddish yellow (7.5 YR 6/6); fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
20–29		SM				SAND, silty: dark brown (7.5 YR 3/3) with hard nodules; reddish yellow (7.5 YR 6/6) mottles; strong brown (7.5 YR 4/6); fine (55%); med (40%); silt (<5%); well sorted; round; unconsolidated		
30						BORING TERMINATED AT 30 FEET.		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-275

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/28/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			30 - 40	0				

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-276

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	138.88 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SM				SAND, silty: grey (5 YR 6/1) to dark grey (5 YR 4/1); fine (30%); med (65%); silt (<5%); well sorted; round to subround; unconsolidated; organics		
5–7		SM				SAND, silty: very dark grayish brown (10 YR 3/2); fine (45%); med (50%); silt (<5%); well sorted; round to subround; semi-consolidated		
8–14		SM				SAND, silty: dark reddish brown (5 YR 3/3); black mottles (10 YR 2.5/1); fine (45%); med (50%); silt (<5%); well sorted; round to subround; semi-consolidated		
15–20		SM				SAND, silty: yellowish brown (10 YR 5/4) to grey (5 YR 6/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
20–21		SM				SAND, silty: brown (10 YR 4/3); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; wet		
22–30		SM				SAND, silty: very pale brown (10 YR 7/4); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; wet		
30–35		SC				CLAY, sandy: pale brown (10 YR 6/3); fine (75%); med (10%); clay (15%); well sorted; round; wet		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-276

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SC				SAND, clayey: pale brown (10 YR 6/3); fine (40%); med (50%); clay (10%); well sorted; round; wet		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48		SC				SAND, clayey: grey (10 YR 5/1); fine (40%); med (50%); clay (10%); well sorted; round; fine; wet		
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-277

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	143.77 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SM				SAND, silty: dark grey (10 YR 4/1); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; organics		
7–9		SM				SAND, silty: black (10 YR 2/1); fine (45%); med (50%); silt (<5%); well sorted; round; consolidated		
10–11		SM				SAND, silty: very dark grey (5 YR 3/1); black (10YR 2/1); fine (45%); med (50%); silt (<5%); well sorted; round; semi-consolidated		
12–14		SM				SAND, silty: very dark grey (5 YR 3/1); black (10YR 2/1); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated		
15–19		SM				SAND, silty: very dark grey (5 YR 3/1); reddish brown (10 YR 5/4); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated		
20–22		SM				SAND, silty: very pale brown (10 YR 8/2); reddish brown (5 YR 4/3); fine (50%); med (45%); silt (<5%); well sorted; round; unconsolidated		
23–25		SC				SAND, clayey: mottled reddish brown (5 YR 4/3); very pale brown (10 YR 8/2); fine (50%); med (40%); silt (<5%); well sorted; round		
26–29		SM				SAND, silty: light reddish brown (5 YR 6/4); very pale brown (10 YR 8/2) mottles; fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated		
30–35						SAND, clayey: very pale brown (10 YR 7/3); fine (55%); med (40%); clay (5%); well sorted; round; wet		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-277

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40						SAND, clayey: light greyish-green (5 GY 6/2); fine (75%); clay (25%); well sorted; round; wet		
41								
42								
43								
44								
45		SC						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-278

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	148.20 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: very dark grey (10 YR 3/1) grading to pale brown (10 YR 6/3); fine (60%); med (30%); silt (10%); well sorted; round; unconsolidated; organics; clay lenses		
5–8		SM				SAND, silty: black (10 YR 2/1); fine (60%); med (35%); silt (5%); well sorted; round; semi-consolidated		
8–10		SM				SAND, silty: black (10 YR 2/1); fine (60%); med (35%); silt (5%); well sorted; round; unconsolidated		
10–15		SM				SAND, silty: dark brown (10 YR 3/3); fine (60%); med (35%); silt (5%); well sorted; round; unconsolidated		
15–17		SM				SAND, silty: dark brown (10 YR 3/3); yellowish brown (10 YR 5/4) mottles; fine (65%); med (30%); silt (5%); well sorted; round; unconsolidated		
17–20		SP				SAND: yellowish brown (10 YR 5/4) grading to pale brown (10 YR 6/3); fine (65%); med (30%); silt (5%); well sorted; round; unconsolidated		
20–26		SM				SAND, silty: grey (10 YR 5/1) grading to dark grey (10 YR 4/1); fine (65%); med (30%); silt (5%); well sorted; round; unconsolidated		
26–29		SM				SAND, silty: brown (10 YR 5/3); grey (10 YR 6/1) mottles; fine (65%); med (30%); silt (5%); well sorted; round; unconsolidated		
29–30		SC				SAND, clayey: dark yellowish brown (10 YR 4/6); fine (70%); med (20%); clay (10%); well sorted; round		
30–35		SC				SAND, clayey: yellowish brown (10 YR 5/4); fine (60%); med (30%); clay (10%); well sorted; round		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-278

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC				SAND, clayey: pale brown (10 YR 6/3); dark greyish brown (10 YR 4/2) mottles; fine (40%); med (50%); clay (10%); round		
37								
38								
39								
40		SC				SAND, clayey: pale yellow (5 Y 7/3); fine (65%); med (25%); clay (10%); well sorted; round; wet		
41								
42								
43								
44								
45			40 - 50	0		No Recovery		
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-279

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	145.70 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: light grey (10 YR 7/1) to dark grey (10 YR 4/1); fine (60%); med (40%); silt (<1%); well sorted; round; unconsolidated; organics; moist		
6–12		SM				SAND, silty: dark brown (10 YR 3/3) to black (10 YR 2/1); fine (60%); med (35%); silt (<1%); well sorted; round; semi-consolidated; moist		
12–15		SM				SAND, silty: strong brown (7.5 YR 4/6) mottles; fine (60%); med (35%); silt (5%); well sorted; round; unconsolidated		
15–21		SM				SAND, silty: dark grey (10 YR 4/1); light grey (10 YR 7/1); black (7.5 YR 2.5/1); fine (60%); med (35%); silt (5%); well sorted; round to subround; unconsolidated		
21–25		SM				SAND, silty: brown (7.5 YR 5/4) to pale brown (2.5 YR 7/3); fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
25–30		SC				SAND, clayey: strong brown (7.5 YR 4/6); pale brown (2.5 Y 8/2) mottles; fine (60%); med (30%); clay (10%); well sorted; round		
30–35		SM				SAND, silty: light brown (7.5 YR 6.3); pale brown (2.5 Y 8/2); fine (60%); med (30%); silt (10%); well sorted; round; unconsolidated; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-279

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36						SAND, clayey: light brown (7.5 YR 6/3) to light brownish grey (10 YR 6/2); fine (65%); med (20%); clay (15%); well sorted; round; moist		
37								
38								
39								
40		SC						
41								
42								
43								
44								
45						CLAY, sandy: light greyish green (5 GY 6/2); dark greyish olive (5 GY 4/2) banding; fine (75%); clay (25%); fat; well sorted; round		
46								
47								
48		CL						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-280

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	148.15 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SM				SAND, silty: dark grey (7.5 YR 4/1); light grey (7.5 YR 7/1) grains; fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
3–5		SM				SAND, silty: brown (7.5 YR 5/4); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
5–14		SM				SAND, silty: very dark brown (7.5 YR 2.5/2); black (7.5 YR 2.5/1); fine (20%); med (75%); silt (5%); well sorted; round; semi-consolidated; moist		
14–17		SM				SAND, silty: strong brown (7.5 YR 5/6); fine (10%); med (90%); silt (<1%); well sorted; round to subround; unconsolidated		
17–22		SM				SAND, silty: color grading from very dark brown (7.5 YR 5/4) to grey (7.5 YR 6/1) to dark grey (7.5 YR 4/1); fine 10%); med (85%); silt (<5%); well sorted; round; unconsolidated		
22–27		SP				SAND, brown (7.5 YR 5/3); pale brown (10 YR 6/3); white (10 YR 8/1); fine (10%); med (90%); silt (<1%); well sorted; round to subround; unconsolidated; moist		
27–30		SM				SAND, silty: very dark brown (7.5 YR 2.5/2); black (7.5 YR (2.5/1); fine (30%); med (60%); silt (10%); well sorted; round to subround; semi-consolidated		
30–35		SM				SAND, silty: very dark brown (7.5 YR 2.5/2); black (7.5 YR (2.5/1); fine (30%); med (60%); silt (10%); well sorted; round to subround; unconsolidated		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-280

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM				SAND, silty: pale brown (10 YR 6/3); fine (30%); med (60%); silt (10%); well sorted; round; unconsolidated; wet		
37								
38		CL				CLAY, silty: light olive brown (2.5 Y 5/3); light grey (2.5 Y 7/1); fine (70%); silt (30%); well sorted; round		
39								
40								
41						SAND, clayey: light greenish grey (GLEY 8/1); fine (45%); med (45%); clay (10%); well sorted; round		
42								
43		SC						
44								
45								
46								
47								
48		CL				CLAY, silty, sandy: light greyish green (5 GY 6/2); fine (70%); clay (30%); well sorted; round; moist		
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-281

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	151.98 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SP				SAND: light grey (10 YR 7/1); white (10 YR 8/1); dark grey (10 YR 4/1); fine (5%); med (95%); well sorted; round; unconsolidated; organics		
6–10		SM				SAND, silty: dark brown (7.5 YR 3/3); black (7.5 YR 2.5/1); fine (20%); med (75%); silt (5%); well sorted; round; semi-consolidated		
11–13		SM				SAND, silty: dark brown (7.5 YR 3/3); fine (20%); med (75%); silt (5%); well sorted; round; unconsolidated		
14–15		SM				SAND: dark brown (7.5 YR 3/3); black (7.5 YR 2.5/1); fine (10%); med (90%); well sorted; round; semi-consolidated		
16		SP				SAND; pale brown (10 YR 6/3); Brown (10 YR 4/3), fine (10%); med (90%), well sorted, round, unconsolidated		
17–22		SM				SAND, silty: black (10 YR 2/1); fine (10%); med (90%); well sorted; round to subround; consolidated		
22–27		SM				SAND, silty: very dark brown (10 YR 2/2); brown (10 YR 4/3); fine (10%); med (90%); well sorted; round to subround; unconsolidated		
27–28		SP				SAND: white (10 YR 8/1); pale brown (10 YR 6/3); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
28–35		SM				SAND, silty: dark grey (10 YR 4/1); dark brown (10 YR 3/3) mottles; fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-281

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/29/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM				SAND, silty: dark brown (10 YR 3/3); fine (25%); med (65%); silt (10%); well sorted; round; unconsolidated; moist		
37								
38								
39		SC				SAND; clayey, brown (10 YR 5/3); grey (10 YR 6/1); fine (70%); med (10%); silt (20%); well sorted; subround; wet		
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-282

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	157.48 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SP				SAND: color grades light grey (10 YR 7/1) to dark grey (10 YR 4/1) to brown (10 YR 5/3); fine (40%); med (60%); silt (<1%); well sorted; round; unconsolidated		
5–15		SM				SAND, silty: very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
15–20		SM				SAND, silty: dark yellowish brown (10 YR 4/6); very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
20–26		SM				SAND, silty: black (10 YR 2/1); fine (85%); med (15%); well sorted; round; semi-consolidated; moist		
26–27		SM				SAND, silty: black (10 YR 2/1); fine (85%); med (15%); well sorted; round; consolidated; moist		
27–30		SM				SAND, silty: black (10 YR 2/1); fine (85%); med (15%); well sorted; round; semi-consolidated; moist		
30–35		SM				SAND, silty: very dark greyish brown (10 YR 3/2); grey (10 YR 5/1); black (10 YR 2/1); fine (60%); med (40%); silt (<1%); well sorted; round; unconsolidated; moist		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-282

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SM				SAND, silty: color grades brown (10 YR 4/3) very dark greyish brown (10 YR 4/2) with black grains; fine (60%); med (40%); silt (<1%); well sorted; round; unconsolidated		
40		SM				SAND, silty: moist very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated; wet		
45		SC				SAND, clayey: pale brown (10 YR 6/3); light olive grey (5 Y 6/2); fine (40%); med (55%); silt (<5%); well sorted; subround		
50		SM				SAND, silty: olive brown (2.5 Y 4/4); fine (30%); med (70%); silt (<1%); well sorted; round; unconsolidated; wet		
52		SC				SAND, clayey, silty: light olive (5 Y 6/2); light greyish green (5 GY 6/2); grading to clayey silt; fine (70%); med (20%); clay (<5%); well sorted		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-283

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	165.42 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: color grades yellowish brown (10 YR 5/4) to light grey (10 YR 7/2); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
6		SM				SAND, silty: pale brown (10 YR 6/3); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated		
7–8		SM				SAND, silty: Black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round; semi-consolidated		
9		SM				SAND, silty: very dark grayish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated		
10–14		SM				SAND, silty: very dark greyish brown (10 YR 3/1); black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; round; unconsolidated; wet		
15–19		SM				SAND, silty: black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; round; semi-consolidated; wet		
20–24		SP				SAND: pale brown (10 YR 6/3); light grey (10 YR 7/1); fine (20%); med (75%); silt (<5%); round; unconsolidated; moist		
25–29		SM				SAND, silty: very dark greyish brown (10 YR 3/2) with black grains; fine (60%); med (35%); silt (<5%); round; unconsolidated; moist		
30–35		SP				SAND: light yellowish brown (10 YR 6/4); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-283

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: mottles dark yellowish brown (10 YR 4/4); to pale brown (10 YR 6/3) to light grey (10 YR 7/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
40–45		SM				SAND, silty: yellowish brown (10 YR 5/4); brown (10 YR 4/3); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
45–47		SM				SAND, silty: brown (10 YR 4/3); black (10 YR 2/1); fine (25%); med (70%); silt (<5%); well sorted; round; unconsolidated		
47–54		SM				SILT, sandy: yellowish red (5 YR 4/6); black nodules; fine (70%); med (20%); silt (<10%); well sorted; unconsolidated		
54–60		SC				SAND; clayey, silty: grey (7.5 YR 6/1); fine (75%); med (20%); silt (<5%); well sorted; round; moist		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-284

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	162.17 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SC				SAND, clayey: grey (5 YR 6/1); reddish brown (5 YR 5/3); pale brown (10 YR 6/3); fine (15%); med (80%); silt (<5%); well sorted; round		
5–10		SM				SAND, silty: brown (10 YR 4/3); black (10 YR 2/1); dark yellowish brown (10 YR 4/4); fine (25%); med (70%); silt (<5%); well sorted; round; unconsolidated		
10–18		SM				SAND, silty: dark brown (7.5 YR 3/3); black (7.5 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated; moist		
18–21		SM				SAND, silty: black (7.5 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round; semi-consolidated; moist		
21–26		SP				SAND: light brown (7.5 YR (6/3); brown (7.5 YR 5/3); fine (15%); med (85%); silt (<1%); well sorted; round; unconsolidated		
26–30		SM				SAND, silty: grey (5 YR 6/1); black (10 YR 2/1); fine (35%); med (60%); silt (<5%); round; unconsolidated		
30–35		SM				SAND, silty: black (10 YR 2/1); fine (40%); med (50%); silt (<10%); well sorted; round; semi-consolidated; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-284

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, silty: brown (7.5 YR 4/3); strong brown (7.5 YR 5/5); black mottles; fine (40%); med (50%); silt (<10%); well sorted; round; unconsolidated; moist		
38								
39								
40								
41								
42								
43		SM						
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-285

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	158.53 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SM				SAND, silty: grey (2.5 Y 6/1); brown (10 YR 5/3) mottles; black (10 YR 2/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
9–20		SM				SAND, silty: black (10 YR 2/1); fine (40%); med (55%); silt (<5%); well sorted; round; semi-consolidated; moist		
20–26		SM				SAND, silty: brown (10 YR 5/3); dark grey (10 YR 4/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
26–30		SM				SAND, silty: very dark greyish brown (10 YR 3/2); black (10 YR 2/1); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
30–35		SM				SAND, silty: grey (10 YR 6/1); brown (10 YR 5/3); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-285

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		SM				SAND, silty: dark brown (10 YR 3/3) with black grains; fine (55%); med (40%); silt (<5%); well sorted; round; unconsolidated		
38								
39								
40		SM				SAND, silty: olive brown (2.5 Y 4/3); black banding and nodules; fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
41								
42								
43								
44		SC				SAND, clayey: yellowish brown (10 YR 5/8); black banding; fine (70%); med (20%); clay (<10%); well sorted; round; moist		
45								
46								
47		SC				SAND; clayey, silty: grey (10 YR 6/1); greyish brown (10 YR 5/2); fine (75%); med (20%); clay (<5%); well sorted; round;ted		
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-286

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	149.97 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SM				SAND, silty: grey (10 YR 6/1); pale brown (10 YR 6/3); fine (25%); med (70%); silt (<5%); well sorted; round; unconsolidated; moist		
4–18		SM				SAND, silty: black (7.5 YR 2/1); fine (40%); 35%); silt (<5%); well sorted; round to subround; semi-consolidated; moist		
18–20		SM				SAND, silty: dark brown (7.5 YR 3/2); yellow (10 YR 7/6) and black (7.5 YR 2/1) mottles; fine (40%); med (35%); silt (<5%); well sorted; round; semi-consolidated; moist		
20–25		SM				SAND, silty: dark yellowish brown (10 YR 5/6); greyish brown (10 YR 5/2); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
25–26		SM				SAND, silty: dark brown (7.5 YR 3/2); fine (40%); med (35%); silt (<5%); well sorted; round; semi-consolidated; moist		
26–27		SP				SAND: pale brown (10 YR 6/3); dark brown (10 YR 3/3) mottles; fine (25%); med (70%); silt (<5%); well sorted; round; unconsolidated		
27–35		SM				SAND, silty: pale brown (10 YR 6/3); brown (10 YR 5/3); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39		SP				SAND: very pale brown (10 YR 8/2); fine (15%); med (80%); silt (<5%); well sorted; round; unconsolidated		
40								
41						SAND; clayey, silty: greyish brown (10 YR 5/2); light greyish green (5 GY 6/2); fine (50%); med (40%); clay/silt (<5%); well sorted; round; unconsolidated		
42								
43		SC-SM						
44								
45								
46						SAND, silty: white (10 YR 8/1); fine (30%); med (70%); silt (<1%); well sorted; round; unconsolidated		
47								
48		SM						
49								
50						SAND; clayey: grey (10 YR 6/1); light greyish green (5 GY 6/2); greyish green (5 GY 5/2); fine (85%); med (10%); clay (<5%); well sorted; round		
51								
52		SC						
53								
54								
55						SAND: light grey (2.5 Y 7/1); white (2.5 Y 8/1); fine (20%); med (70%); silt (<10%); well sorted; round; unconsolidated		
56								
57		SP						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-287

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	146.98 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SM				SAND, silty: pale brown (10 YR 6/3); dark grey (10 YR 4/1); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated		
5–9		SM				SAND, silty: black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round to subround; semi-consolidated; moist		
10–19		SM				SAND, silty: black (10 YR 2/1); dark reddish brown (5 YR 3/3); fine (65%); med (30%); silt (<5%); well sorted; round to subround; unconsolidated; moist		
20–21		SP				SAND: (white 5 YR 8/1); fine (15%); med (85%); silt (<5%); well sorted; round; unconsolidated		
22–24		SM				SAND, silty: dark brown (7.5 YR 3/3); black (7.5 YR 2/1); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
25–29		SC				SAND, clayey: strong brown (7.5 YR 5/6); fine (60%); med (35%); clay (<5%); well sorted; round		
30–35		SM				SAND, silty: strong brown (7.5 YR 5/6); white (7.5 YR 8/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-287

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/30/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36 37 38 39 40		SC				SAND; Clayey: pale brown (10 YR 6/3); fine (65%); med (30%); clay (<5%); well sorted; round		
						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-288

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	143.58 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SM				SAND, silty: grey (7.5 YR 6/1); black (7.5 YR 2.5/1); fine (15%); med (50%); silt (<5%); well sorted; round; unconsolidated		
5–9		SM				SAND, silty: black (7.5 YR 2.5/1); fine (30%); med (65%); silt (<5%); well sorted; round; semi-consolidated		
10–19		SM				SAND, silty: dark brown (7.5 YR 3/3); black (7.5 YR 2.5/1); fine (20%); med (65%); silt (<5%); well sorted; round; unconsolidated		
20–21		CL				CLAY: strong brown (7.5 YR 5/6); fine (80%); silt (20%); well sorted; round; hard		
22–27		SC				SAND, clayey: strong brown (7.5 YR 5/6); fine (75%); med (10%); clay(15%); well sorted; round		
28–29		SM				SAND, silty: brown (7.5 YR (5/3); white (7.5 YR 8/1); fine (30%); med (60%); silt (<10%); well sorted; round; unconsolidated		
30–31		SM				SAND, silty: very pale brown (10 YR 7/3); fine (30%); med (55%); silt (<5%); well sorted; round; unconsolidated		
32–35						SAND, silty, clayey: very pale brown (10 YR 7/3); fine (50%); med (50%); clay/silt (<1%); well sorted; round; unconsolidated		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-288

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC-SM						
37								
38								
39								
40		CH				CLAY, marl: very dark greyish green (5 GY 3/2); very dark greyish olive (10 Y 3/2); fine (80%); silt (20%); well sorted; round; fat		
41						CLAY, marl: light greenish grey (GLEY 4/1); well sorted; round; fat		
42								
43								
44								
45		CH						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-289

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	140.69 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey (10 YR 4/1); light grey (10 YR 7/1); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
3–5		SM				SILT, sandy: dark brown (10 YR 4/4); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
6–15		SM				SAND, silty: black (10 YR 2.5/1); well sorted; round; semi-consolidated; slightly moist		
16–20		SM				SAND, silty: yellowish red (5 YR 5/6); some fine black grains; fine (40%); med (55%); silt (<5%); well sorted; round; semi-consolidated		
21–26		SC				SAND, clayey: brown (7.5 YR 4/4); hard nodules; fine (60%); med (30%); clay (<10%); well sorted; round; wet		
27–35		SM				SILT, sandy: very pale brown (10 YR 8/2); pale brown (10 YR 6/3); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated; moist		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-289

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37		CL				CLAY, marl, silty: light greenish grey (GLEY 8/1); well sorted; round; fat		
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-290

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	138.00 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: dark grey (7.5 YR 4/1); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
5–11		SM				SAND, silty: black (7.5 YR 2.5/1); trace strong brown grains (7.5 YR 4/6); fine (40%); med (55%); silt (<5%); well sorted; round; semi-consolidated; moist		
11–20		SM				SAND, silty: strong brown (7.5 YR 4/5); very pale brown (10 YR 8/2); fine (40%); med (55%); silt (<5%); well sorted; unconsolidated		
20–30		SC				SAND; clayey: yellow (10 YR 8/8); fine (50%); med (40%); clay (<10%); well sorted; round; wet		
30–35		SC				SAND, clayey: very pale brown (10 YR 4/2); fine (65%); med (30%); clay (<5%); well sorted; round; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-290

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CL				CLAY, sandy: very pale brown (10 YR 8/2); fine (70%); med (10%); silt (20%); well sorted; round; wet		
37								
38								
39								
40		SC				SAND, clayey: very pale brown (10 YR 8/2); fine (55%); med (40%); clay (<5%); well sorted; round; wet		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-291

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	136.83 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: grey (5 YR 6/1); reddish brown (5 YR 5/3); fine (10%); med (90%); silt (<1%); well sorted; round and subround; unconsolidated		
5–16		SM				SAND, silty: black (5 YR 2.5/1); dark reddish brown (5 YR 3/3); fine (45%); med (50%); silt (<5%); well sorted; round; semi-consolidated		
16–25		SM				SAND, silty: strong brown (7.5 YR 5/6); nodules; black bands; fine (10%); med (85%); silt (<5%); well sorted; round; unconsolidated		
25–30		SM				SAND, silty: brownish yellow (10 YR 6/6); pale brown (2.5 Y 8/3); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated; wet; moist		
30–35						SAND, clayey: brownish yellow (10 YR 6/6); very pale brown (10 YR 8/3); fine (40%); med (55%); clay (<5%); well sorted; round; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-291

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47		SP				SAND: light brownish grey (10 YR 6/2); fine (5%); med (80%); silt (<5%); well sorted; round; unconsolidated; wet		
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-292

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	138.57 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey (5 Y 4/1); light grey (5 Y 7/1) mottles); fine (10%); med (85%); silt (<5%); well sorted; round; unconsolidated		
3–4		SC				SAND, clayey: light olive brown (2.5 Y 6/3); fine (30%); med (65%); silt (<5%); well sorted; round to subround		
5–15		SM				SAND, silty: black (2.5 Y 2.5/1); fine (45%); med (50%); silt (<5%); well sorted; round to subround; semi-consolidated		
16–20		SM				SAND, silty: dark yellowish brown (10 YR 4/6); black mottles; fine (15%); med (80%); silt (<5%); well sorted; round to subround; unconsolidated		
21–27		SM				SAND, silty: dark yellowish brown (10 YR 4/6); brownish yellow (10 YR 6/6); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated; wet		
28–29		SP				SAND: brownish yellow (10 YR 6/6); very pale brown (10 YR 8/4) mottles; very dark grey (10 YR 3/1); fine (50%); med (40%); silt (<10%); wet		
30–35						SAND; clayey, silty: brownish yellow (10 YR 6/6); fine (60%); med (30%); clay/silt (<10%); well sorted; round; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-292

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC-SM						
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-293

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	139.24 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey (7.5 YR 4/1); light gray (7.5 YR 7/1) mottled; fine (10%); med (95%); silt (<1%); well sorted; round; unconsolidated		
2–5		SM				SAND, silty: brown (5Y 6/3); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
5–15		SM				SAND, silty: black (7.5 YR 2.5/1); fine (30%); med (65%); silt (<5%); semi-consolidated		
15–20		SM				SAND, silty: pale brown (7.5 YR 2.5/3); very dark brown (7.5 YR 2.5/3) mottles; fine (25%); med (70%); silt (<5%); round; unconsolidated		
20–24		SM				SAND, silty: brown (7.5 YR 4/4); black mottles; fine (40%); med (55%); silt (<5%); well sorted; round; unconsolidated		
24–30		SC				SAND, clayey: reddish yellow (7.5 YR 6/6); fine (40%); med (55%); clay (<5%); well sorted; round		
30–32		SC				SAND, clayey: pale yellow (5 Y 7/4); fine (50%); med (40%); clay (<5%); well sorted; round; wet		
32–35						CLAY, sandy: pale yellow (5 Y 7/4); fine (70%); med (10%); silt (20%); well sorted; round; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-293

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CL						
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-294

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	141.36 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2		SP				SAND: dark grey (7.5 YR 4/1); light grey (7.5 YR 7/1); fine (10%); med (85%); silt (<5%); well sorted; round; unconsolidated		
3–5		SM				SAND, silty: very dark brown (7.5 YR 2.5/3); fine (10%); med (85%); silt (<5%); well sorted; round; unconsolidated		
6–9		SM				SAND, silty: black (7.5 YR 2.5/1); brown (7.5 YR 5/4); fine (60%); med (30%); silt (<10%); well sorted; round; semi-consolidated		
10–19		SM				SAND, silty: black (7.5 YR 2.5/1); brown (7.5 YR 5/4); fine (60%); med (30%); silt (<10%); well sorted; round; unconsolidated		
20–24		SC				SAND, clayey: reddish yellow (7.5 YR 7/6); black (7.5 YR 2.5/1) mottles; very dark brown (7.5 YR 2.5/3); fine (60%); med (30%); clay (<10%); well sorted; round; wet		
25–29		SC				SAND; clayey: reddish yellow (7.5 YR 7/6); some brown (7.5 YR 4/4); fine (60%); med (30%); clay (<10%); well sorted; round		
30–35		SC				SAND; clayey: pale brown (2.5 Y 7/3); fine (60%); med (25%); clay (<15%); well sorted; round; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-294

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/31/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		CL				CLAY; sandy: light yellowish brown (2.5 Y 6/4); fine (80%); silt (20%); well sorted; round; wet		
37								
38								
39								
40		SC				SAND, clayey: clay lenses; light yellowish brown (2.5 Y 6/4); fine (60%); med (20%); clay (20%); well sorted; round		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-295

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	146.04 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SM				SAND, silty: brown (7.5 YR 5/4); light grey (7.5 YR 7/1); strong brown (5 YR 4/6); fine (45%); med (50%); silt (5%); well sorted; round; unconsolidated		
6–14		SM				SAND, silty: black (7.5 YR 2.5/1); fine (15%); med (35%); silt (10%); well sorted; round; semi-consolidated		
14–16		SM				SAND, silty: black (7.5 YR 2.5/1); fine (15%); med (35%); silt (10%); well sorted; round; consolidated		
16–23		SM				SAND, silty: black (7.5 YR 2.5/1); fine (15%); med (35%); silt (10%); well sorted; round; semi-consolidated		
23–28		SM				SAND, silty: brown (7.5 YR 5/4); light brown (7.5 YR 6/4); fine (30%); med (65%); silt (5%); well sorted; round; unconsolidated; moist		
28–31		SM				SAND, silty: brown (7.5 YR 5/4); black mottles; fine (30%); med (65%); silt (5%); well sorted; round; unconsolidated; moist		
31–35		SC				SAND, clayey: brown (7.5 YR 5/4); white (7.5 YR 8/1) mottles; fine (75%); clay (25%); well sorted; round; moist		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-295

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37						SAND, clayey: white (7.5 YR 8/1); fine (75%); clay (25%); well sorted; round; moist		
38		SC						
39								
40						SAND, clayey: light brownish grey (2.5 Y 6/2); pale brown (2.5 Y 8/2); greyish brown (2.5 Y 5/2); fine (70%); silt (30%); well sorted; wet		
41								
42		SC						
43								
44						CLAY, sandy: light olive brown (2.5 Y 5/3); greyish green (5 GY 5/2); well sorted; wet; moist		
45								
46								
47		CL						
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-296

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	154.33 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SM				SAND, silty: brown (7.5 YR 4/4) dark grey (7.5 YR 4/1) grading to Black (10 YR 2/1); some light grey (7.5 YR 7/1); fine (20%); med (75%); silt (5%); well sorted; round; unconsolidated		
10–19		SM				SAND, silty: very dark grey (7.5 YR 3/1); black (7.5 YR 2.5/1); fine (65%); med (20%); silt (15%); well sorted; subround; semi-consolidated; slightly moist		
20–25		SC-SM				SAND; clayey, silty, greyish brown (10 YR 5/2); grey (10 YR 6/1); to very dark greyish brown (10 YR 3/2); fine (15%); med (85%); clay/silt (<5%); well sorted; round; moist		
26–35		SC-SM				SAND, clayey, silty: pale brown (10 YR 6/3); grey (10 YR 6/1); fine (20%); med (75%); silt (5%); well sorted; round; moist		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–49		SC				SAND, clayey: light yellowish brown (10 YR 6/4); fine (75%); clay (25%); well sorted; round; wet		
50–54		SC-SM				CLAY, silty, sandy: greyish olive (10 Y 5/2); light grey (7.5 YR 7/1); fine (30%); med (60%); silt (<10%); well sorted; round; wet		
55–59		CL				CLAY, sandy: light olive grey (5 Y 6/2); well sorted; round; moist		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-297

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	154.50 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: dark grey (7.5 YR 4/1); brown (7.5 YR 5/4); fine (20%); med (80%); silt (<1%); well sorted; round; unconsolidated; organics		
6		SM				SAND, silty: black (7.5 YR 2.5/1); dark brown (7.5 YR 3/2); fine (35%); med (60%); silt (5%); well sorted; round; semi-consolidated; moist		
7–10		SM				SAND, silty: dark brown (7.5 YR 3/2); fine (35%); med (60%); silt (5%); well sorted; round; unconsolidated; moist		
11–16		SM				SAND, silty: black (7.5 YR 2.5/1); dark brown (7.5 YR 3/2); fine (35%); med (60%); silt (5%); well sorted; round; semi-consolidated; moist		
17–19		SM				SAND, silty: strong brown (7.5 YR 5/6); fine (10%); med (90%); silt (<1%); well sorted; round to subround; unconsolidated; moist		
20–22		SM				SAND, silty: very dark brown (7.5 YR 2.5/2); black and strong brown mottles; fine (45%); med (50%); silt (5%); well sorted; round; semi-consolidated		
23–24		SP				SAND: dark grey (7.5 YR 4/1); light grey (7.5 YR 7/1); fine (15%); med (85%); silt (<1%); well sorted; round; unconsolidated		
25–26		SM				SAND, silty: very dark brown (7.5 YR 2.5/2); black (7.5 YR 2.5/1); fine (45%); med (50%); silt (<5%); well sorted; round; semi-consolidated; moist		
27–35		SP				SAND: light brown (7.5 YR 6/3); brown (7.5 YR 5/2) mottles; fine (15%); med (85%); silt (<1%); well sorted; round; unconsolidated; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-297

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36								
37								
38								
39								
40								
41		SC				SAND, clayey: yellowish brown (10 YR 5/6); fine (65%); med (20%); clay (15%); well sorted; round;wet		
42								
43								
44								
45								
46		SC				SAND; clayey light olive gray (5 Y 6/2); fine (70%); med (5%); clay (25%); well sorted; round; wet		
47								
48								
49								
50								
51		SC-SM				SAND, clayey, silty: light olive gray (5 Y 6/2); fine (40%); med (55%); clay/silt (5%); well sorted; round; wet		
52								
53								
54								
55								
56								
57								
58		CL				CLAY, sandy, silty: light olive grey (5 Y 6/2); dark blueish grey (GLEY 2 4/1. 5 PB); fine (80%); clay (20%); well sorted; round;		
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-298

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	163.64 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SM				SAND, silty: pinkish grey (7.5 YR 6/2); brown (7.5 YR 5/3); dark reddish brown (2.5 YR 3/4); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
6–20		SM				SAND, silty: black (5 YR 2.5/1); brown (7.5 YR 5/3) mottles; fine (15%); med (80%); silt (5%); well sorted; round; semi-consolidated; slightly moist		
20–27		SP				SAND: pale brown (10 YR 6/3); brown (10 YR 5/3); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated; moist		
27–35		SP				SAND, dark grey (10 YR 4/1); light grey (10 YR 7/1); dark brown (10 YR 3/3); fine (10%); med (90%); silt (<1%); well sorted; unconsolidated; moist		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: brown (7.5 YR 5/3); pale brown (10 YR 6/3); dark brown (10 YR 3/3) banding; fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated; wet		
40–45		SP				SAND: dark brown (10 YR 3/3); light brownish grey (10 YR 6/2); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
45–50		SM				SAND, silty: brown (7.5 YR 5/3); light brownish grey (10 YR 6/2); dark brown (10 YR 3/3); black (5 YR 2.5/1) mottles; fine (10%); med (85%); silt (5%); well sorted; round; unconsolidated; wet		
50–56		SC				SAND, clayey: dark brown (10 YR 3/3); brown (7.5 YR 5/3); fine (40%); med (50%); silt (10%); well sorted; round		
56–60		SC-SM				SAND, clayey, silty: light olive grey (5 Y 6/2); light grey (5 Y 7/2); fine (45%); med (40%); clay/silt (15%); well sorted; round; wet		
60–70		SC				SAND, clayey: light olive grey (5 Y 6/2); dark blueish grey (GLEY 2/4, 1/5 PB) mottles; fine (70%); clay (30%); wet		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-299

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	143.28 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: dark grey (10 YR 4/1); dark greyish brown grains; fine (5%); med (95%); silt (<1%); well sorted; subround; unconsolidated; moist		
5–10		SM				SAND, silty: dark brown (10 YR 3/3) grading to black (10 YR 2/1); fine (5%); med (95%); silt (<1%); well sorted; subround; unconsolidated; moist		
10–15		SM				SAND, silty: black (10 YR 2/1); fine (5%); med (95%); silt (<1%); well sorted; subround; semi-consolidated; moist		
15–17		SM				SAND, silty: black (10 YR 2/1); fine (5%); med (95%); silt (<1%); well sorted; subround; unconsolidated; moist		
17–35		SC				SAND, clayey: brown (10 YR 4/3); light yellowish brown (10 YR 6/4); mottles; fine (15%); med (80%); clay (5%); well sorted; subround		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-299

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SC				SAND, clayey: white (2.5 Y 8/1) grading to light grey (2.5 Y 7/1); dark greyish green clay lense (5 GY 4/2); fine (10%); med (85%); clay (5%); well sorted; round to subround; unconsolidated; moist		
40–45		SC				SAND, clayey: light olive grey (5 Y 6/2); pale brown (10 YR 6/3); fine (15%); med (80%); clay (5%); well sorted; round to subround; wet		
45–48		SC				Sand, clayey: greyish olive (5 GY 5/2); dark blueish grey (GLEY 2 4/1, 5 PB) mottles; fine (80%); clay (20%); round to subround; wet		
48–50		SC				SAND, clayey: greyish olive (5 GY 5/2); pale brown (10 YR 6/3); fine (40%); med (50%); clay (10%); round to subround; wet		
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-300

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	154.85 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9		SP				SAND: grey (10 YR 6/1); pale brown (10 YR 6/3); greyish brown (10 YR 5/2); fine (10%); med (90%); well sorted; round; unconsolidated; moist		
10–15		SM				SAND, silty: very dark greyish brown (10 YR 3/2); fine (10%); med (85%); silt (5%); well sorted; unconsolidated; moist		
16–19		SM				SAND, silty: black (10 YR 2/1); fine (10%); med (85%); silt (5%); well sorted; consolidated; moist		
20–29		SM				SAND, silty: very dark greyish brown (10 YR 3/2); fine (10%); med (85%); silt (5%); well sorted; unconsolidated; moist		
30–31		SP				SAND: very dark greyish brown (10 YR 3/2); fine (15%); med (85%); silt (<1%); well sorted; round; consolidated; moist		
32–33		SM				SAND, silty: grey (10 YR 6/1); fine (15%); med (85%); silt (<1%); well sorted; round; unconsolidated; moist		
34–35						SAND: grey (10 YR 6/1); light grey (10 YR 7/1)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-300

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	M. Lucas
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/2/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP				mottles; very dark greyish brown (10 YR 3/2); fine (15%); med (85%); silt (<1%); well sorted; round; semi-consolidated; moist		
37								
38								
39								
40								
41		SC				SAND, clayey: dark yellowish brown (10 YR 4/4), greyish brown (10 YR 5/2); dark blueish grey; to pale brown (10 YR 6/3); fine (65%); med (30%); clay (5%); well sorted; round; moist		
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-487

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	151.09 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
3–6		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
6–12		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
12–13		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%)'; med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
13–14		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt(<5%); well sorted; subround; semi-consolidated; wet		
14–15		SM	10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
15–18		SP				SAND (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18–20		SP				SAND (quartz): light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20–21		SM	20 - 30	90		SAND, silty (quartz): dark grayish brown (10YR 3/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
21–25		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
25–34		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
34–45			30 - 40	100		SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46–55		SC-SM	50 - 60	80				
56–65		SC-SM	60 - 70	70		SAND, silty and clayey (quartz): light brownish gray (10YR 6/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%): wet		
65–70		SP				SAND (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; fine black grains (<1%)		
70–75		SC	70 - 80	100		SAND, clayey (quartz): dark gray (GLEY 1 4/1); fine (50%); med (40%); coarse (5%); clay (<5%); well sorted; subround; fine black grains (<1%); wet		
75–78		CH				CLAY: dark greenish gray (GLEY 1 4/10Y); fat; reacts with HCL		
78–80		CL				CLAY: white (GLEY 8/N); lean; chalky; reacts with HCL		
80						BORING TERMINATED AT 80 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-488

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	152.53 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
4–8		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet		
8–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13–15		SM	10 - 20	100		SAND, silty (quartz): black (10YR 2/1); fine(75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16–20		SP				SAND (quartz): yellowish brown (10YR 5/6); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25–30		SP	20 - 30	90		SAND (quartz): light yellowish brown (10YR 6/4); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grain (<1%); wet		
32–33		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; fine black grains		
33–35		SP				SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
35–37		CL				CLAY, sandy: pale brown (10YR 6/3); fine grain; fine black grains (<1%)		
37–40		SC-SM				SAND, silty clay (quartz): light gray (10YR 7/1); fine grain; fine black grains (<1%)		
						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-489

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	157.97 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SM				SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic material (wood); moist		
4								
5		SM	0 - 10	80		SAND, silty (quartz): dark brown (10YR 3/3); fine (60%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet		
6								
7								
8								
9		SM				SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidaed; wet		
10								
11								
12								
13		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (25%); silt (<5%); well sorted; subround; well consolidated; wet		
14								
15		SM				SAND, silty (quartz): dark brown (10YR 3/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
16								
17								
18								
19								
20								
21								
22		SM				SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; alternating layers (2-3") of unconsolidated and well consolidated; wet		
23								
24								
25			20 - 30	80				
26		SM				SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27								
28								
29		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
30								
31								
32								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-489

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
33								
34								
35		SM	30 - 40	80		SAND, silty (quartz): dark gray brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; possibly compacted		
36								
37						SAND (quartz): gray (10YR 5/1); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
38								
39		SP						
40								
41								
42								
43								
44						SAND, clayey: light brownish gray (10YR 6/2); fine grain; fine black grain (<1%); wet		
45			40 - 50	90				
46								
47		SC						
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-490

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	150.97 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2			0 - 10	70		No Recovery		
3–4		SM				SAND, silty (quartz): gray (10YR 6/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics (roots/wood); moist		
5		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
6–7		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
8–9		SM				SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–14		SM	10 - 20	80		SAND, silty (quartz): very grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
15		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16–20		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
21–24		SM	20 - 30	80		SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; fine black grains (<1%); wet		
25–26		SP				SAND (quartz): gray (10YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27–29		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30–33		SC				SAND, clayey: light brownish gray (10YR 6/2); fine grain; fine black grain (<1%)		
34–39		SP	30 - 40	80		SAND (quartz): gray (10YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-491

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	145.06 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
1–5		SM	0 - 10	90		SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic material (wood and roots); moist		
5–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–13		SM	10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
13–14		SM				SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; gravel size; well consolidated material; wet		
14–15		SM						
15–16		SM				SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16–17		SM						
17–18		SM				SAND, silty (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18–19		SM						
19–20		SM				SAND, silty (quartz): dark gray brown (10YR 4/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
20–21		SP	20 - 30	80		SAND, silty (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21–22		SP						
22–24		SC				SAND (quartz): very pale brown (10YR 7/3); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
24–25		SC				SAND, clayey: light brownish gray (10YR 6/2) fine grained		
25–26		SC						
26–27		SP				SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
27–28		SP						
28–33						SAND, silty and clayey (quartz): light brownish gray (10YR 6/2); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-491

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/18/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
34								
35		SC-SM	30 - 40	90				
36								
37								
38								
39								
40								
41								
42						CLAY, sandy: light brownish gray (10YR 6/2); fine grained; wet		
43								
44								
45		CL	40 - 50	90				
46								
47						SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine (50%); med (45%); silty/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
48		SC-SM						
49								
50						No Recovery		
51								
52								
53								
54								
55			50 - 60	0				
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-492

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	156.19 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SM				SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic (wood); moist		
4		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
5			0 - 10	80				
6						SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7		SM						
8								
9								
10								
11		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
12						SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		
13								
14								
15			10 - 20	90				
16								
17								
18								
19		SM						
20								
21								
22								
23								
24								
25								

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** T. Hall

LOCATION Saint George, Georgia **DATE(S) DRILLED** 6/19/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
26			20 - 30	90				
27		SM				SAND, silty (quartz): black (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
28								
29								
30								
31								
32								
33		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
34								
35			30 - 40	70				
36		SM				SAND, silty (quartz): brown (10YR 4/8); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
37								
38								
39								
40		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
41								
42		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
43								
44		SM				SAND, silty (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%)		
45			40 - 50	90				
46								
47								
48		SC-SM				Sand, silty and clayey (quartz): brown (10YR 4/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-493

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	161.38 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3–5		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 6/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material (wood); moist		
5–6		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
6–10		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–13		SM	10 - 20	80		SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
13–14		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
14–24		SM				SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
24–25		SM	20 - 30	80		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
25–28		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt <5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
28–30		SP				SAND (quartz): light gray (10YR 7/1); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
30–36		SM	30 - 40	100		SAND, silty (quartz): very dark grayish brown (10YR 3/2); fine (75%); med (20%); silt (<5%); well sorted; semi-consolidated		
36–39						SAND (quartz): pale brown (10YR 6/3); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-493

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/19/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
40		SP						
41								
42								
43								
44		SM	40 - 50	90		SAND, silty (quartz): very dark grayish brown (10YR 3/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated but crumbles		
45								
46						SAND, silty (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
47		SM						
48								
49								
50						SAND, silty and clayey (quartz): light yellowish brown (10YR 6/4); fine grained; fine black grain (<1%); wet		
51								
52								
53		SC-SM						
54								
55			50 - 60	90				
56								
57								
58		SC-SM				SAND, silty and clayey (quartz): light brownish gray (10YR 6/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; wet		
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-495

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	163.91 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3–4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated, organic (roots); moist		
5–7		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8–9		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
10–15		SM	10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		
16–17		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted, subround; well consolidated		
18–19		SM				SAND, silty (quartz): dark yellowish brown (10YR 3/4); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20		SM	20 - 30	90				
21						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
22		SP						
23						SAND (quartz): gray (10YR 5/1); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
24–25		SM						
25						SAND, silty (quartz): dark yellowish brown (10YR 4/4); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
26–27		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subrounded; unconsolidated; wet		
28–30		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		
31–34						SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-495

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
35		SP	30 - 40	90				
36								
37								
38								
39		SM				SAND, silty (quartz): dark yellowish brown (10YR 3/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
40								
41						SAND, silty and clayey (quartz): very dark gray (10YR 3/1); well sorted; subround; fine grained; fine black grains (<1%); wet		
42								
43		SC-SM						
44								
45			40 - 50	80				
46		SM				SAND, silty (quartz): gray (10YR 5/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated		
47								
48		CL				CLAY, sandy: light brownish gray (10YR 6/2); fine grained; fine black grain (<1%)		
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-496

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	163.70 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
4–5		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics (roots); fine black grains (<1%)		
6–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
11–12		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13–14		SM	10 - 20	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
15–19		SM				SAND, silty (quartz): brown (10YR 5/3); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated;		
20–21		SM						
22–23		SP				SAND (quartz): light gray (10YR 7/2); fine (50%); med (25%); coarse (25%)		
24		SM	20 - 30	100		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
25–26		SM						
27–28		SM				SAND, silty (quartz): brown (10YR 5/2); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
29–30		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
31–34		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-496

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
35			30 - 40	100				
36								
37						SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)		
38								
39		SP						
40								
41								
42						SAND, silt (quartz)y: fine (60%); med (35%); silt (<5%)		
43		SM						
44		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
45			40 - 50	80				
46						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
47		SM						
48								
49								
50								
51						SAND, silty and clayey (quartz): yellowish brown (10YR 5/4); fine grained		
52								
53		SC-SM						
54								
55			50 - 60	90				
56								
57						SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet		
58		SC-SM						
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-497

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	157.92 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
4–5		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
6–8		SM				SAND, silty (quartz): very dark brown (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated		
9–10		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well consolidated		
11–14		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
15			10 - 20	100				
16–21		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated		
22–24								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
25			20 - 30	80				
26								
27						SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
28		SM						
29						SAND, silty (quartz): very dark brown (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
30								
31								
32								
33								
34								
35		SM	30 - 40	80				
36								
		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
37						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated		
38								
39								
40								
41		SM						
42								
43								
44								
45			40 - 50	80				
46						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
47								
48		SM						
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-498

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	148.16 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
5–6		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material (roots); moist		
7–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
11–15		SM	10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16–20		SM				SAND, silty (quartz): light brownish gray (10YR 6/2); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21–25		SM				SAND, silty (quartz): gray (10YR 6/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
26–28		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
29–35		SC-SM	30 - 40	70		SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; fine black grains (<1%); wet		
36–40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-499

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	146.89 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
4–5		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic; moist		
6–8		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9–12		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
13–15		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
16–25		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
26–34		SM				SAND, silty (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
34–35		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)		
35–40		SC-SM				SAND, silty and clayey (quartz): light gray (10YR 7/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-500

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/20/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	144.44 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3–5		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5–10		SM				SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–15		SM	10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
15–20		SM						
20–24		SM	20 - 30	90		SAND, silty (quartz): dark brown (10YR 3/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
24–29		SM				SAND, silty (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
29–30		SC-SM				SAND, silty and clayey (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
30–35		SC-SM	30 - 40	80				
35–40		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-501

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	141.86 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SM	0 - 10	90		No Recovery SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist		
4–8		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
9–15		SM	10 - 20	90		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
16–20		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21–22		SP	20 - 30	100		SAND (quartz): light brownish gray (10YR 6/2): fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
23–24		SP				SAND (quartz): light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25–31		SP				SAND (quartz): light brownish gray (10YR 6/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
32–40		SC				SAND, clayey: greenish gray (GLEY 1 7/10Y); fine-medium grained; fine black grains (<1%); wet BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-502

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	141.18 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic (wood); wet		
3								
4		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
5			0 - 10	90				
6								
7						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
8								
9		SM						
10								
11								
12								
13						SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
14								
15		SM	10 - 20	80				
16								
17						SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silty (<5%); well sorted; subround; unconsolidated; wet		
18		SM						
19								
20						SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21								
22		SM						
23								
24						SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
25								
26								
27								
28								
29		SM						
30								
31								
32								
33								
34						SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
35								
36								
37		SC-SM						
38								
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-503

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	143.48 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
4–5		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic; moist		
5–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–15		SM	10 - 20	80		SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
15–20		SC-SM	20 - 30	90		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine-grained; fine black grains (<1%); wet		
20–27		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
27–30		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		
30–40		SC-SM	30 - 40	80				
40–45						SAND, silty and clayey (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46		SC-SM	40 - 50	90				
47								
48								
49								
50						SAND, silty and clayey (quartz): greenish gray (GLEY 6/10Y); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		
51								
52								
53								
54								
55			50 - 60	70				
56								
57								
58								
59								
60								
61								
62								
63		SC-SM						
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75						CLAY: greenish gray (GLEY 3/10GY); fat; reacts with HCL		
76								
77		CH						
78								
79		CL				CLAY: light greenish gray (GLEY 8/5GY); lean; chalky; reacts with HCL		
80						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-504

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	140.40 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic; wet; moist		
4								
5			0 - 10	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
6								
7								
8		SM						
9								
10								
11								
12								
13						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
14		SM						
15			10 - 20	80				
16								
17						SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18		SM						
19								
20								
21		SM				SAND, silty (quartz): pale brown (10YR 6/3); fine grained; fine black grain (<1%); wet		
22								
23		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%);		
24		SM						
25			20 - 30	80		SAND, silty (quartz): pale brown (10YR 6/3); fine grained; fine black grain (<1%); wet		
26								
27						SAND, silty and clayey (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
28								
29		SC-SM						
30								
31								
32								
33								
34								
35			30 - 40	90		SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
36								
37		SC-SM						
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-505

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	138.06 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
3–6		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist		
6–16		SM	10 - 20	80		SAND, silty (quartz): dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
16–20		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet; contains gravel sized well consolidated pieces; dark grayish brown (10YR 4/2)		
20–23								
23–24		SC-SM	20 - 30	90		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
24–30		SM				SAND, silty (quartz): light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
30–35		SC-SM	30 - 40	90		SAND, silty and clayey (quartz): light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
35–40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-506

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	141.01 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic		
3		SP						
4						SAND (quartz): light gray (10YR 7/2); fine (50%); med (50%); well sorted; sub round; unconsolidated; fine black grains (<1%); moist		
5		SM	0 - 10	90				
6						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
7								
8						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9								
10								
11		SM						
12								
13								
14								
15		SM	10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
16		SM						
17		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
18								
19						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
20		SM						
21						SAND, silty (quartz): grayish brown (10YR 5/2); fine (75%); med (20%); silt (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
22								
23								
24		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%);well sorted; sub round; unconsolidated; fine black grains (<1%); wet		
25								
26						SAND, silty (quartz): light gray (10YR 7/2); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
27								
28								
29								
30								
31								
32		SM						
33								
34								
35								
36								
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-507

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/21/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	143.90 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SM				SAND, silty (quartz): gray (10YR 5/1): fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
4		SM						
5			0 - 10	80		SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
6								
7		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8								
9								
10						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
11		SM						
12								
13								
14		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
15			10 - 20	80				
16		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%), med (20%); silt (<5%); well sorted; subround; well consolidated		
17								
18						SAND, silty (quartz): very dark brown (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; semi-consolidated		
19								
20		SM						
21								
22								
23								
24		SC-SM				SAND, silty and clayey (quartz): brown (10YR 5/2); fine grained; fine black grains (<1%); wet		
25			20 - 30	80				
26						SAND, silty and clayey (quartz): Pale brown (10YR 6/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
27								
28								
29		SC-SM						
30								
31								
32								
33								
34		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
35			30 - 40	90				
36						SAND, silty and clayey (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
37								
38		SC-SM						
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-508

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	148.23 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
4–8		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic (roots); moist		
8–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–15		SM	10 - 20	80				
15–20		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
20–21		SP	20 - 30	90		SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21–24		SM				SAND, silty (quartz): gray (10YR 5/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
24–27		SM				SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27–35		SC-SM				SAND, silty and clayey (quartz): light brownish gray (10YR 6/2); fine grained; well sorted; subround; fine black grains (<1%); wet		
35–36		SP	30 - 40	100		SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; fine black grains (<1%); wet		
36–40		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; fine black grains (<1%); wet		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-509

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	151.50 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
3–5		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
5–7		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
7–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13–14		SM	10 - 20	100		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
14–19		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
19–20		SP				SAND (quartz): brown (10YR 5/3); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20–29		SM	20 - 30	90		SAND, silty (quartz): dark yellowish brown (10YR 3/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
29–30		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30–40		SC-SM	30 - 40	90		SAND, silty and clayey (quartz): yellowish brown (10YR 3/4); fine (75%); med 20%); silt/clay (<5%); well sorted; subround; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-509

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
41						SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; wet		
42								
43								
44								
45		SC-SM						
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-510

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	152.40 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
4–5		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med(45%); silt (<5%); well sorted; subround; unconsolidated; wet		
6–10		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well consolidated; well sorted; subround; wet		
14–20		SM	10 - 20	100		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
25		SP	20 - 30	100		SAND (quartz): light gray (10YR 7/2); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)		
26–28		SM				SAND, silty (quartz): brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-510

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
29		SM				SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30						SAND, silty (quartz): light gray (10YR 7/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
31								
32		SM						
33								
34						SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
35		SM	30 - 40	100				
36								
37						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
38		SM						
39								
40						SAND, silty (quartz): light gray (10YR 7/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
41								
42		SM						
43								
44		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
45			40 - 50	90				
46						SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; fine black grains (<1%); wet		
47		SC-SM						
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-511

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	158.60 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
4		SP						
5		SM	0 - 10	70		SAND (quartz): pale brown (10YR 6/3); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
6–7		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9–10								
11		SM	10 - 20	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
12–17								
18		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
19–24			20 - 30	90				
25–26								
27		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
28–29								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-511

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
30								
31						SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
32								
33								
34								
35		SM	30 - 40	100				
36								
37								
38								
39								
40						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
41								
42								
43		SM						
44								
45			40 - 50	100				
46		SM						
47		SM				SAND, silty (quartz): grayish brown (10YR 5/2); thin layer of well consolidated material		
48		SC-SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
49						SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-512

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	162.18 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
3–5		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5–9		SM				SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9–15		SM	10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
15–19		SM				SAND, silty (quartz): very dark brown (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
19–23		SM	20 - 30	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
23–25		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
25–28		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
28–30		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
30–36		SM	30 - 40	100		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
36–37		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
37–40		SM				SAND, silty (quartz): light gray (10YR 7/1); fine (50%); med (45%); silt (5%); well sorted; subround;		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
41		SM				unconsolidated' fine black grains (<1%); wet SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
42								
43								
44								
45								
46								
47		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; crumbles into well consolidated pieces; wet		
48		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-513

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	153.10 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2			0 - 10	70		No Recovery		
3–5		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
6–9		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
11–12		SM	10 - 20	90		SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
13–15		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		
16–17		SP				SAND (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18–20		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
21–23		SM	20 - 30	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
24–25		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); fine (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
26		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
27–29		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30–34		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-513

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
35			30 - 40	80				
36						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
37								
38		SM						
39								
40						SAND, clayey: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
41								
42		SC						
43						SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
44		SP						
45			40 - 50	90		SAND, clayey: light grey (10YR 7/1); fine grained; fine black grains (<1%); wet		
46		SC						
47						SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; wet		
48								
49								
50		SC-SM						
51								
52								
53						SAND, clayey: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
54								
55								
56								
57								
58								
59								
60		SC						
61								
62								
63								
64								
65								
66						SAND, silty and clayey (quartz): gray (10YR 5/1): fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		
67								
68		SC-SM						
69								
70						SAND, silty and clayey (quartz): dark gray (GLEY 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
71								
72								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-513

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/24/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
74								
75		SC-SM						
76								
77								
78								
79								
80						SAND, silty and clayey (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		
81								
82								
83								
84								
85								
86								
87		SC-SM						
88								
89								
90								
91								
92								
93								
94								
95						CLAY: dark greenish gray (GLEY 1 4/10Y); fat; reacts with HCL		
96								
97		CH						
98								
99						CLAY, silty: white (GLEY 1 8/N); lean; chalky; reacts with HCL		
100		CL				BORING TERMINATED AT 100 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-514

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/25/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	150.33 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist		
4								
5		SM	0 - 10	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
6								
7						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
8		SM						
9								
10								
11								
12						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13								
14								
15		SM	10 - 20	90				
16								
17								
18								
19		SP				SAND (quartz): gray (10YR 5/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20								
21		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
22								
23						SAND (quartz): gray (10YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
24		SP						
25			20 - 30	100				
26		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
27		SP						
28						SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
29		SM						
30						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
31		SM						
32								
33						SAND, silty (quartz): dark yellowish brown (10YR 3/4); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
34		SM						
35			30 - 40	100				
36						SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
37								
38		SC-SM						
39								
40						SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; fine black grains (<1%); wet		
						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-515

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/25/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	143.38 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
3		SM						
4								
5			0 - 10	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
6								
7		SM						
8						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
9								
10								
11						SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
12								
13		SM						
14								
15			10 - 20	90				
16						SAND, silty (quartz): brown (10YR 5/3); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
17								
18								
19		SM						
20								
21								
22								
23		SP				SAND (quartz): light gray (10YR 7/1); fine (50%); med (45%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
24								
25			20 - 30	100				
26		SM				SAND, silty (quartz): brown (10YR 4/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27								
28								
29		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; fine black grains (<1%); wet		
30								
31		SM						
32						SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
33								
34		SC-SM						
35			30 - 40	100		SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
36								
37						SAND, silty and clayey (quartz): light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
38		SC-SM						
39								
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-516

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/25/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	142.37 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics;		
3		SM						
4								
5			0 - 10	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
6								
7								
8						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
9								
10		SM						
11								
12								
13								
14								
15		SM	10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated		
16								
17		SM				SAND, silty (quartz): brown (10YR 5/3); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18								
19		SM						
20						SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
21								
22								
23		SC-SM				SAND, silty and clayey (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); unconsolidated; wet		
24								
25			20 - 30	90				
26								
27						SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
28								
29		SM						
30								
31								
32		SM				SAND, silty (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
33								
34		SC-SM				SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; well sorted; subround; fine black grains (<1%); wet		
35			30 - 40	90				
36								
37		SC-SM				SAND, silty and clayey (quartz): light gray (10YR 7/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-517

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/25/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	139.30 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2			0 - 10	70		No Recovery		
3		SP				SAND (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist		
4		SM						
5–6		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics (roots)		
7–10		SM				SAND, silty (quartz): very dark gray (10 YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
11–14						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
15–19		CL				CLAY, silty: dark yellowish brown (10YR 4/4); well compacted; hard; small amount of fine quartz sand		
20–22		SC-SM				SAND, silty and clayey (quartz): brown (10YR 5/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
23–24		SP				SAND (quartz): light gray (10YR 7/1); fine (75%); med (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25–39		SC-SM				SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; fine black grains (<1%); wet		
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-518

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/25/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	134.97 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3		SM				SAND, silty (quartz): gray (10 YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics		
4–5		SM	0 - 10	70		SAND, silty (quartz): gray (10 YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; unconsolidated; wet		
6–8		SM				SAND, silty (quartz); very dark gray (10 YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9–12		CL				CLAY, silty and sandy: dark yellowish brown (10 YR 4/4); fine; well compacted		
13–14		SM				SAND, silty (quartz): brown (10 YR 5/5); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
15–16		SP				SAND (quartz): light gray (10 YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
17–25		SC-SM	20 - 30	100		SAND, silty and clayey (quartz): light gray (10 YR 7/2); fine; fine black grains (<1%)		
26–30		CL				CLAY, sandy: brown (10 YR 5/3); fine; moist; fine black grains (<1%)		
31–35								

Continued Next Page

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-518

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/25/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36			30 - 40	80				
37								
38								
39								
40								
41						SAND, silty and clayey (quartz): light gray (10 YR 7/2); fine (50%); med (40%); silt/clay (<5%); course (5%); well sorted; subround; wet; fine black grains (<1%)		
42								
43								
44								
45		SC-SM	40 - 50	90				
46								
47								
48								
49								
50						No Recovery		
51								
52								
53								
54								
55			50 - 60	0				
56								
57								
58								
59								
60								
61						SAND, silty and clayey (quartz): fine (50%); med (25%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
62								
63		SC-SM						
64								
65			60 - 70	80				
66		CH				CLAY: fat; does not react with HCl		
67		SC				SAND, clayey: thin; coarse/med; does not react with HCl		
68		CH				CLAY: fat; does not react with HCl		
69		CH				CLAY: fat; does react with HCl		Top of Hawthorn
70		CL				CLAY: lean; does react with HCl BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-519

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/26/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	135.46 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
2–4		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
4–10		SM	0 - 10	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–17		CL	10 - 20	80		CLAY, silty and sandy (quartz): brown (10YR 5/3); well compacted; fine black grains (<1%); wet		
17–18		SP				SAND (quartz): light gray (10YR 7/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18–20		SM						
20–24		SM				SAND, silty (quartz): brown (10YR 4/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
24–25						SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
25–30		SC-SM	20 - 30	100		SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
30–35		SC-SM	30 - 40	90		SAND, silty and clayey (quartz): gray (10YR 6/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
35–40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-520

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/26/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	131.37 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2								
3		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
4								
5			0 - 10	80				
6						CLAY, silty and sandy: dark yellowish brown (10YR 4/4); well compacted; fine black grains (<1%); wet		
7								
8		CL						
9								
10								
11								
12		SP				SAND (quartz): light gray (10YR 7/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
13								
14						SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
15			10 - 20	100				
16								
17		SM						
18								
19								
20								
21						SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
22								
23								
24								
25		SM	20 - 30	50				
26								
27								
28								
29								
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-521

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/26/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	129.80 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
5			0 - 10	50				
6		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (50%); well sorted; subround; unconsolidated; organics (grass roots); moist		
7–8		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9–10		SM						
11		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
12–14		CL	10 - 20	90		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%)		
15–16		SP				CLAY, silty and sandy: dark yellowish brown (10YR 4/4); well compacted; fine black grains (<1%); wet		
17–19		SP				SAND (quartz): light gray (10YR 7/1); fine (75%); med (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20–24		SP				SAND (quartz): gray (10YR 6/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25		SC-SM	20 - 30	100		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
26–30		SC-SM						
31		SC-SM	30 - 40	50		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
32–40		SC-SM						
						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-522

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/26/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	133.13 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
3								
4		SC-SM				SAND, silty and clayey (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt/clay (<5%); well sorted; subround; semi-consolidated; wet		
5			0 - 10	80				
6						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7		SM						
8								
9								
10						CLAY, silty and sandy: gray (10YR 6/1); fine grained; well sorted; subround; fine black grains (<1%); wet		
11								
12		CL						
13								
14								
15			10 - 20	100		SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16		SP						
17						SAND, silty and clayey (quartz): light gray (10YR 7/2); fine (75%); med (20%); silt/clay(<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18								
19								
20								
21		SC-SM						
22								
23								
24								
25			20 - 30	90		CLAY, silty and sandy: gray (10YR 6/1); fine grained; well sorted; subround; fine black grains (<1%); wet		
26								
27		CL						
28								
29								
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-523

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/26/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	136.08 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SM / SC-SM	0 - 10	100		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
3–10		SM				SAND, silty and clayey (quartz): dark yellowish brown (10YR 4/4); fine (50%) med (45%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); moist SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–20		CL	10 - 20	90		CLAY, silty and sandy: dark yellow brown (10YR 4/4); well compacted; fine black grains (<1%); moist		
20–26		SP	20 - 30	100		SAND (quartz): light gray (10YR 7/2); fine (75%); med (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
26–30		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30–40		CL	30 - 40	100		CLAY, silty and sandy: brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
40						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-524

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/26/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	137.64 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3–4		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5–6		SM	0 - 10	70		SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
7–9		SM				SAND, silty (quartz): black (10YR black); fine (75%); med (25%); silt (<5%); well sorted; subround; well consolidated; wet		
10–13		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
14–19		CL	10 - 20	100		CLAY, silty and sandy: dark yellowish brown (10YR 4/4); fine grained; well sorted; subround; fine black grains (<1%); moist		
20–21		SP				SAND (quartz): light gray (10YR 7/2); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
22–24		SC-SM				SAND, silty and clayey (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
25–30		SC-SM	20 - 30	100		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
31–35		SC-SM	30 - 40	100		SAND, silty and clayey (quartz): yellowish brown (10YR 5/4); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
36–37		SM				SAND, silty (quartz): light gray (10YR 7/2); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
38–40		SC-SM				SAND, silty and clayey (quartz): yellowish brown (10YR 5/4); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; wet; unconsolidated; fine black grains (<1%); wet		
						BORING TERMINATED AT 40 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-527

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	135.76 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SM	0 - 10	100		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
2		SM				SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
3						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
4								
5								
6								
7		SP				SAND (quartz): yellowish brown (10YR 5/4); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%);		
8		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
9								
10								
11		CL				CLAY, silty and sandy: pale brown (10YR 6/3); well compacted; fine grained; fine black grains (<1%); moist		
12								
13								
14								
15		SM	10 - 20	100		SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16		SP				SAND (quartz): light gray (10YR 7/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
17								
18		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
19								
20								
21		SC-SM	20 - 30	90		SAND, silty and clayey (quartz): brown (10YR 4/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
22								
23								
24								
25								
26								
27								
28		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; unconsolidated; fine black grains (<1%); wet		
29								
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-528

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	132.47 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						No Recovery		
2		SM				SAND, silty (quartz): gray (10 YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics		
3		SC-SM						
4						SAND, silty and clayey (quartz): brown (10 YR 5/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
5			0 - 10	80				
6		SM				SAND, silty (quartz): dark brown (10 YR 3/3); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7								
8								
9		SC-SM				SAND, silty and clayey (quartz): brown (10 YR 4/3); fine; well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
10								
11						CLAY, silty and sandy: brown (10 YR 5/3); well compacted; moist; fine black grains (<1%)		
12								
13		CL						
14								
15			10 - 20	100				
16		SP				SAND (quartz): light gray (10 YR 7/2); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
17						SAND, silty and clayey (quartz): pale brown (10 YR 6/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
18								
19								
20								
21		SC-SM						
22								
23								
24								
25			20 - 30	100				
26						SAND, silty and clayey (quartz): pale brown (10 YR 6/3); fine; well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
27								
28		SC-SM						
29								
30						BORING TERMINATED AT 30 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-529

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	131.08 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–2						No Recovery		
3–4		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organic materials		
5–9		SC-SM	0 - 10	80		SAND, silty and clayey (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
10–13		SC-SM				SAND, silty and clayey (quartz): gray (10YR 6/1); fine; wet; fine black grains (<1%)		
14–29		SM	10 - 20 20 - 30	100 100		SAND, silty (quartz): light gray (10YR 7/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
30–39		SC-SM	30 - 40	50		SAND, silty and clayey (quartz): light gray (10YR 7/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
40–45						SAND, silty and clayey (quartz): light gray (10YR 7/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING SA-TIA-19-529

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46		*SC-SM	40 - 50	100				
47								
48								
49								
50								
51		CL				CLAY, sandy: gray (GLEY 1 6/N); med-coarse		
52								
53								
54								
55			50 - 60	90				
56		CH				CLAY: greenish grey (GLEY 5/10GY); fat; moist; does not react with HCl		
57								
58		CL				CLAY: light greenish gray (GLEY 1 7/10Y); chalky; does react with HCl		
59		CH				CLAY: greenish gray (GLEY 1 6/10GY) ; fat; moist; does react with HCl		
60						BORING TERMINATED AT 60 FEET.		

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APPENDIX C

TTL EXPLORATORY BORING DATA

Attached Documents:
Table C1: Boring Location Database Summary
Boring Logs

APPENDIX C

TABLE

Table C1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]
EB01	BORING	95	123.50	08/22/18	Walker Hill	F. Harrington	T. Hall	Sonic	212330.1081	664320.5674
EB02	BORING	125	163.74	09/10/18	Walker Hill	F. Harrington	T. Hall	Sonic	210086.1495	670440.1822
EB03	BORING	95	145.44	08/23/18	Walker Hill	F. Harrington	T. Hall	Sonic	206290.6294	667706.7987
EB04	BORING	70	124.76	08/27/18	Walker Hill	F. Harrington	T. Hall	Sonic	202723.4314	662561.7477
EB05	BORING	93	147.71	09/11/18	Walker Hill	F. Harrington	T. Hall	Sonic	201266.6573	667385.8811
EB06	BORING	120	171.50	09/06/18	Walker Hill	F. Harrington	T. Hall	Sonic	198366.9546	672066.9668
EB07	BORING	80	142.86	08/28/18	Walker Hill	F. Harrington	T. Hall	Sonic	197014.5209	666280.0943
EB08	BORING	133	173.68	08/30/18	Walker Hill	F. Harrington	T. Hall	Sonic	191112.0239	672464.5741
EB13	BORING	135	171.00	11/14/18	Betts	C. Pendarvis	T. Hall	Sonic	205542.5462	672382.4939
EB14	BORING	110	153.22	11/07/18	Betts	C. Pendarvis	T. Hall	Sonic	204209.2560	676984.2090
EB15	BORING	60	111.19	11/01/18	Betts	C. Pendarvis	T. Hall	Sonic	201968.9581	681604.4414
EB16	BORING	90	140.28	12/04/18	Betts	C. Pendarvis	T. Hall	Sonic	198336.5709	677165.4342
EB17	BORING	60	102.66	11/01/18	Betts	C. Pendarvis	T. Hall	Sonic	198475.4368	682032.7183
EB18	BORING	100	148.45	10/30/18	Betts	C. Pendarvis	T. Hall	Sonic	190502.8515	678123.4613
OWA EB	BORING	120	171.62	12/12/18	Betts	C. Pendarvis	T. Hall	Sonic	203884.5850	673150.7503
OWB EB	BORING	130	172.69	12/11/18	Betts	C. Pendarvis	T. Hall	Sonic	191497.5343	670463.7695
PB05	BORING	90	147.33	07/01/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194343.6128	675542.2522
PB06	BORING	70	140.18	06/27/19	Twin Pines	A. Blackwood	T. Hall	Sonic	189158.6339	667009.0555
PB07	BORING	120	173.50	07/01/19	Twin Pines	A. Blackwood	T. Hall	Sonic	188827.8588	670819.8075
PB08	BORING	120	171.03	06/27/19	Twin Pines	A. Blackwood	T. Hall	Sonic	194053.3500	671292.1400
PB09	BORING	121	173.25	07/02/19	Twin Pines	A. Blackwood	T. Hall	Sonic	188605.7972	674394.9854
PB10	BORING	70	126.87	07/02/19	Twin Pines	A. Blackwood	T. Hall	Sonic	195666.2100	677512.9700

[1] ft. bgs = below ground surface

[2] ft. AMSL = feet above mean sea level

[3] State Plane Coordinates - Georgia East NAD83

APPENDIX C
BORING LOGS

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB01

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/22/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	123.50 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–6		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (95%); silty (<5%); well sorted; subround; unconsolidated; wet; organics		
6–9		SM				SAND, silty: 10yr 6/2 (Light Brownish-Gray); med (60%); fine (35%); silt <5%, well sorted; subround; semi-consolidated; wet		
9–12		SP				SAND: 10yr 2/1 (Black); med (50%); fine (50%) ; well sorted; subround; well consolidated; moist		
12–15		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (15%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
15						No Recovery		
16–18		SP				SAND: fine (90%); med (10%); well sorted; subround; wet; unconsolidated; <1% fine black grains		
18–22		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); subround; well sorted; unconsolidated; wet		
23–28		SP				SAND: 10yr 6/2 (Light Brownish-Gray); med (50%); fine (50%); well sorted; subround; unconsolidated		
28		CL				CLAY, sandy: 10yr 5/2 (Grayish-Brown); lean; wet		
29–30		SM				SAND, silty: 10yr 6/2 (Light Brownish-Gray); fine (90%); silt (<10%); well sorted; subround; wet; unconsolidated		
31–35						SAND, silty, clayey: 5yr 5/1 (Gray); wet; well sorted; subround		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB01

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/22/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SC-SM						
37								
38								
39						SAND, clayey: 5yr 5/1 (Gray); wet		
40								
41								
42								
43								
44		SC						
45								
46								
47								
48								
49						SAND, clayey: 5yr 5/1 (Gray)		
50								
51								
52								
53								
54								
55								
56								
57		SC						
58								
59								
60								
61								
62								
63								
64								
65						SAND: GREY 1 7/10yr (Light Greenish-Gray); med (50%); fine (50%); wet; subround; well soft; wet		
66								
67								
68		SP						
69								
70								
71						SAND, clayey: GLEY 1 6/10y (Greenish-Gray); fine (60%); med (30%); clay (<10%)		
72								
73								
74		SC						
75								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB01

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/22/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78		CH				MARL, clay: dense; fat; GLEY 1 4/5G (Dark Greenish-Gray)		
79								
80								
81								
82								
83								
84								
85								
86								
87								
88		CH				Mixture of clay marl and marl; stone gravel		
89								
90		CH				CLAY MARL: GLEY 1 4/5G (Dark Greenish-Gray); dense		
91								
92								
93								
94								
95						BORING TERMINATED AT 95 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB02

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/10/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	163.74 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: 10yr 3/4 (Dark Yellowish-Brown); fine (50%); med (45%); silt (<5%); well sorted; sub round; unconsolidated; moist; abundant organics; <1% fine black grains		
6		SP				SAND: fine (60%); med (40%); well sorted; sub round; unconsolidated; wet; (<1%) fine black grains		
7		SP						
8–9		SM				SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
10–12		SP				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt <5%; well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
13						SAND: med (50%); fine (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
14–17		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
18–22		SM				SAND, silty: 10yr 2/1 (Black); fine (90%); med (5%); silt (<5%); well sorted; subround; well consolidated; wet		
23		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
24–35		SP				SAND: 10yr 5/3 (Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB02

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42								
43		SP				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
44–45								
45		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
46–49								
50		SM				SAND, silty: 10yr 4/3 (Brown); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains; Relatively large (0.5 - 1 inch) well consolidated nodules between 50'-55.' Nodules consist of fine black grains with med-coarse white to clear grains		
51–58								
59		SP				Fine black grains and coarse white clear grains (well consolidated layer); similar to nodules noted above		
60		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
61–62								
62		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; wet; unconsolidated; (<1%) fine black grains		
63		SC				SAND, clayey:10yr 4/4 (Dark Yellowish-Brown); fine-grained sand; well sorted; subround; moist		
64								
65		SP				SAND: 10yr 3/2 (Very Dark Grayish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains; well consolidated nodules of fine black grains and coarse white/clear grains (similar to 59.0-59.5)		
66–67								
68		SP				SAND: med (50%); fine (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
69–71								
72		CH				CLAY: 10yr 5/1 (Gray); fat		
73–74						SAND: 10yr 5/1 (Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
75								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB02

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76–78		SP						
79–84		SP				SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
85–93		SP				SAND: 10yr 8/1 (White); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
94–98		SC				SAND, clayey: 10yr 7/2 (Light Gray); fine (80%); med (15%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		
99–108		SP				SAND: 10yr 8/3 (Very Pale Brown); fine (90%); med (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
108–115		SP				SAND: 10yr 5/1 (Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB02

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/10/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
116								
117						CLAY: GLEY 2 4/10BG (Dark Greenish-Gray); fat; reacts with HCl		
118								
119								
120								
121		CH						
122								
123								
124								
125						BORING TERMINATED AT 125 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB03

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/23/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	145.44 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; moist; unconsolidated 10yr 4/3 (Brown)		
5–9		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; semi-consolidated		
9–13		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; semi-consolidated		
13–17		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated		
17–23		SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet		
23–24		SM				SAND, silty: 10yr 2/1 (Black); fine (80%); med (15%); silt (<5%); subround; well sorted; well consolidated; moist		
24–27		SP				SAND: 10yr 3/4 (Dark yellowish-brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
27–32		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
32–35		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–42		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; (<1%) fine black grains		
42–45		SP				SAND: fine (60%); med (40%); well sorted; subround; wet; unconsolidated; (<1%) fine black grains		
45–46		SP				SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet		
47–54		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (90%); clay (<10%); lean; well sorted; subround; moist		
54–63		SP				SAND: GLEY 1 6/10yr (Greenish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		
63–70		SC				SAND, clayey: GLEY 1 6/10y (Greenish-Gray); fine (60%); med (35%); clay (<5%); well sorted; subround; wet; (<1%) fine black grain		
70–75						SAND: GLEY 1 5/5yr (Greenish-Gray); med (60%); fine (40%); well sorted; subround; wet/saturated; (<1%) fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB03

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/23/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78								
79								
80		SP						
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91		CH				MARL (Fat Clay): GLEY I 4/5G (Dark Greenish-Gray)		
92						Shelby Tube Push		
93								
94								
95						BORING TERMINATED AT 95 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB04

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/27/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	124.76 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
5–11		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); clay (<5%); well sorted; subround; wet		
11–15		SM				SAND, silty: 10yr 3/2 (Very dark grayish-brown); fine (60%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
15–18		SP				SAND: 10yr 5/2 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
18–35		SP				SAND: color grades from 10yr 6/4- 7/1 with depth (Light yellowish-brown-light gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/27/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–38								
38–46		SP				SAND: 5y 5/1 (Gray); fine (50%); med (50%); well sorted; subround; wet; (<1%) fine black grains		
46–60		SC				SAND, clayey: GLEY 6/1 (Gray); fine (60%); med (30%); clay (<10%); well sorted; subround; wet		
60–66		CH				MARL (Fat Clay): GLEY 1 4/5Gy (Dark Greenish-Gray)		
66–70		CL-ML				CLAY; silty: GLEY 1 7/N (Light Gray); dry		
70						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB05

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/11/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	147.71 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP				SAND: 10yr 8/1 white; fine (75%); med (25%); well sorted; subround; unconsolidated; dry; (<1%) fine black grains; organic material (Roots)		
2		SP				SAND: 10yr 4/1 (Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; (<1%) fine black grains		
5		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10		SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
15		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; sub round; semi-consolidated; wet		
20		SP				SAND: 10yr 5/1 (Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
25		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
30		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
32		SP				SAND: 10yr 8/1 (White); med (60%); fine (30%); coarse (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
33		SC						
34		SP				SAND, clayey: 10yr 5/4 (Yellowish-Brown); fine		
35						*Continued Next Page*		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–37		SC				(50%); med (45%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		
						SAND: 10yr 7/1 (Light Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
38–47		SP				SAND, clayey: 10yr 4/2 (Brown); fine (80%); med (15%); clay (5%); well sorted; subround; wet SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet		
47–58		SC				SAND, clayey: 10yr 5/2 (Brown); fine (95%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		
59–75		SC				SAND, clayey: 10yr 4/1 (Dark Gray); fine (75%); med (20%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB05

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/11/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78						CLAY: GLEY 2 4/10 G (Dark Greenish-Gray); fat - reacted (slightly) with HCL		
79		CH						
80								
81						CLAY: GLEY 2 6/10 BG (Greenish-Gray); fat - reacted (significantly) with HCL		
82								
83								
84								
85								
86								
87		CH						
88								
89								
90								
91								
92		GP				Thin layer of gravel site material		
93		CH				CLAY: GLEY 2 5/5 BG (Greenish-gray); fat BORING TERMINATED AT 93 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB06

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/6/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	171.50 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SM				SAND, silty: 10yr 5/1 (Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics		
3–4		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; organics; wet		
4–5		SP				SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
5–8		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8–19		SP				SAND: 10yr 6/4 (Light Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet		
19–25		SM				SAND, silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
25–25		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
25–26		SP						
26–28		SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
28–32		SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet		
32–32		SP				SAND: 10yr 4/1 (Dark Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
32–35		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/6/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–39		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (85%); med (10%); silt (<5%); well sorted; subround; unconsolidated; wet		
39–47		SP				SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
47–48		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
48–50		SP				SAND: 10yr 4/1 (Dark Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
50–61		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (95%); silt (5%); well sorted; subround; well consolidated; wet		
61–64		SP				SAND: 10yr 5/6 (Yellowish-Brown); fine grained; well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
64–68		CL				CLAY, sandy: 10yr 7/1 (Light Gray); fine; unconsolidated; wet; <1% fine black grains		
68–75		SP				SAND: 10yr 8/1 (White); fine; well sorted; subround; unconsolidated; saturated; (>1%) fine black grains		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/6/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SC				SAND, clayey: 10yr 6/2 (Light Brown Gray); fine; (<1%) fine black grains		
77		CL				CLAY, sandy: 10yr 4/1 (Dark Gray); fine; (<1%) fine black grains		
79		CL				CLAY, sandy: 10yr 4/1 (Dark Gray); fine; (<1%) fine black grains; wet		
86		CL				CLAY, sandy: GLEY I 7/1 (Light Gray); fine; well sorted; subround; unconsolidated; saturated; (<1%) fine black grains		
105		SP				SAND: med (75%); fine (20%); coarse (10%); well sorted; subround; wet; unconsolidated; coarse grains consisted of white, clear, and black grains; fossil fragments; possible coarse grains, ilmenite or staurolite		
107		CH				CLAY (Marl): GLEY I 4/10 5 gy (Dark Greenish-Gray); fat; fossiliferous; calcareous (reacts with HCl)		
110		CH				CLAY: chalky dry clay (Light Gray)		
115								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB06

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
116								
117								
118								
119								
120						BORING TERMINATED AT 120 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB07

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/28/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	142.86 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
3–8		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
8–24		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; moist/wet; well consolidated		
24–25		SP				SAND: 10yr 6/2 (Light Brownish-Gray); mottled with 10yr 2/1 (Black); fine (60%); med (40%); well sorted; subround; wet; unconsolidated; (<1%) fine black grains		
25–26		SP				SAND: 10yr 3/1 (Very Dark Gray); fine (75%); med (25%); well sorted; subround; wet; unconsolidated		
26–27		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; unconsolidated		
27–29		SM				SAND, silty: 10yr 6/2 (Light Brownish-Gray); fine (95%); silt (<5%); well sorted; subround; wet; unconsolidated; (<1%) black fine grains		
29–34		SC				SAND, clayey: 10 YR 5/3 (Brown); fine (75%); med (15%); clay (10%); well sorted; subround; moist; (<1%) fine black grains		
34–35						SAND: GLEY I 7/N (Light Gray); fine (75%); med		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/28/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–50		SP				(25%); well sorted; subround; saturated		
51–61		SP				SAND: GLEY I 6/N (Gray); fine (50%); med (50%); well sorted; subround; saturated; unconsolidated		
62–64		CH				MARL (Fat Clay): GLEY I 5/10 Y (Greenish-Gray); fossiliferous		
65–68		CH				MARL (Fat Clay): GLEY I 5/5Gy (Greenish-Gray); mottled GLEY I 8/N (Light Greenish-Gray); med; fossiliferous; hard clay (dry) nodules		
69–75		CH				MARL (Fat Clay): GLEY 5/Gy (Greenish-Gray); fossiliferous		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB07

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/28/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76								
77								
78								
79		CH				CLAY: nodules; dry		
80		CH				MARL(Fat Clay): GLEY 1 4/N (Dark Greenish-Gray); fossiliferous; dense		
						BORING TERMINATED AT 80 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB08

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/30/2018
DRILLING COMPANY	Walker Hill	**GROUND ELEVATION**	173.68 Ft. AMSL
DRILLER	F. Harrington	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1		SP	0 - 10	80		SAND: 10yr 7/1 (Light Gray); med (50%); fine (50%); well sorted; subround; unconsolidated; moist		
2		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
3		SP						
4		SM				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
5								
6						SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; wet		
7								
8						SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9								
10		SM						
11								
12								
13								
14								
15			10 - 20	80		SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; well consolidated		
16								
17								
18								
19		SM						
20								
21								
22								
23			20 - 30	90		SAND: 10yr 5/3 (Brown); med (60%); coarse (30%); fine (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/30/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP	30 - 40	70				
40–50		SP	40 - 50	80				
50–60		SP	50 - 60	70		SAND: 10yr 5/6 (Yellowish-Brown); fine (75%); med (25%); well sorted; subround; wet; unconsolidated; slight increase in amount of fine black grains		
60–70		SP	60 - 70	70		SAND: 10yr 5/1 (Gray); fine (75%); med (25%); well sorted; subround; wet; unconsolidated; (<1%) black grains		
70–72		SP				SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; wet; unconsolidated		
72–75						SAND, clayey: 10yr 6/1 (Gray); fine (95%); clay (5%); well sorted; subround; saturated 10yr 6/1 (Gray)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB08

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/30/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SC						
77								
78						SAND: 10yr 8/1 (White); fine (100%); well sorted; subround; saturated; unconsolidated; (<1%) fine black grains		
79								
80								
81		SP						
82								
83								
84								
85			80 - 90	60		SAND, clayey: 10yr 5/1 (Gray); fine (75%); med (20%); clay (5%); well sorted; well rounded; wet		
86								
87								
88		SC						
89								
90						SAND: fine (75%); med (25%); well sorted; subround; wet; <1% fine black grains (Light Brownish-Gray) 10yr 6/2		
91								
92		SP						
93								
94						SAND: 10yr 5/1 (Gray); fine (60%); med (30%); coarse (10%); well sorted; subround; wet; (<1%) fine black grains		
95			90 - 100	70				
96								
97		SP						
98								
99								
100						SAND: fine (90%); med (10%); well sorted; subround; saturated; (<1%) fine black grains		
101								
102								
103								
104								
105		SP						
106								
107								
108								
109								
110						SAND: 10yr 5/1 (Gray); fine (60%); med (40%); well sorted; subround; wet; unconsolidated		
111								
112								
113								
114								
115								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB08

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/30/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
116		SP						
117								
118								
119								
120								
121						CLAY (marl): GLEY 1 5/10 GY (Greenish-gray); fat; fossiliferous		
122		CH						
123								
124								
125								
126								
127								
128						MARL stone		
129		CH						
130		CH				CLAY: marl GLEY 1 6/5 GY (Greenish-Gray); fat		
131						Shelby Tube Push		
132								
133						BORING TERMINATED AT 133 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB13

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018 - 11/15/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	171.00 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–9			0 - 10	0		No Recovery		
10–11						No Recovery		
12–13		SM				SAND, silty: very dark brown (quartz); fine (50%); med (25%); coarse (20%); silt (<5); well sorted; subround; moist; unconsolidated		
13–14		SC-SM				SAND, silty, clayey: very dark brown (quartz); fine (75%), med (20); silt/clay (<5%), well sorted, subround, semi consolidated, moist		
15–16		SM	10 - 20	80		SAND, silty: (quartz); fine (50%), med (25%), coarse (20%), silt (<5%); well sorted; subround		
17–18		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; unconsolidated; contains gravel size pieces of silty black quartz sand (fine 95%, silt <5%) well consolidated		
19–20		SP				SAND: dark yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; moist; unconsolidated; FBG (<1%)		
21–25		SP	20 - 30	70		SAND: dark brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
26–30		SP				SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<15%)		
31–35						SAND: yellowish brown (quartz), fine 50%, med		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018 - 11/15/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP	30 - 40	70		40%, coarse 10%, well sorted, subround, unconsolidated, moist		
37		SP				SAND: (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
38		SP				SAND: (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
39								
40						SAND: (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
41		SP						
42						SAND: (quartz); fine (50%); med (25); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
43								
44								
45		SP	40 - 50	80		SAND: dark brown (quartz); med (60%); fine (20%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
46								
47								
48		SP				SAND: brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
49								
50								
51								
52								
53		SP				SAND: grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
54								
55			50 - 60	60				
56								
57						SAND: dark yellowish brown (quartz); fine (40%); med (40%); coarse (20%); well sorted; FBG (<1%); subround; unconsolidated; moist		
58								
59								
60		SP						
61								
62								
63								
64								
65		SM	60 - 70	70		SAND, silty: dark yellowish brown (quartz); fine (50%); med (25%); coarse (20%); silt (<5%); subround; well sorted; unconsolidated; moist; contains gravel size fragments (> 1 inch) of well consolidated silty sand (fine 75%, med 20%, silt <5%) fragments are black		
66								
67								
68						SAND: grayish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; unconsolidated; subround; moist; FBG (<1%)		
69		SP						
70								
71								
72		SP				SAND: (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
73								
74		SP				SAND: brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
75								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018 - 11/15/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76			70 - 80	80				
77		SC				SAND, clayey: dark grayish brown (quartz); fine (80%); med (15%); clay (<5%); well sorted; subround; moist; semi-consolidated		
78						CLAY, sandy: grey; fine		
79								
80								
81								
82		CL						
83								
84								
85			80 - 90	90				
86								
87						SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
88								
89		SP						
90								
91								
92						SAND, silty, clayey: brownish grey (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
93		SC-SM						
94						SAND: yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
95		SP	90 - 100	80				
96								
97						SAND: brown (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
98		SP						
99						SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
100								
101								
102								
103								
104		SP						
105			100 - 110	60				
106								
107								
108								
109								
110						No Recovery		
111								
112								
113								
114								
115								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB13

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018 - 11/15/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
116								
117								
118								
119								
120								
121		CH				CLAY: dark green; fat; does not react with HCl		
122								
123								
124		SC				SAND, clayey: light grayish green; fine (50%); med (25%); coarse (20%); clay (<5%); well sorted; subround; unconsolidated; does not react with HCl		
125								
126		SC				SAND, clayey: greenish grey; med (50%); fine (50%); does not react with HCl		
127								
128						CLAY: silty; lean; fragment (>2 inch) of weathered limestone; crumbly; does react with HCl		
129		CL-ML						
130								
131		CH				CLAY: dark grayish green; fat; does react with HCl		
132		CL-ML				CLAY, silty: lean; fragment (>2 inch) of weathered limestone; crumbly; does react with HCl		
133		CL-ML				CLAY, silty: light grayish green; lean; well compacted		
134								
135						Shelby tube crushed in - 6 to 8 inches of clay retrieved		
						BORING TERMINATED AT 135 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB14

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	153.22 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–12						No Recovery		
12–13		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
13–15		SC-SM	10 - 20	80		SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
15–25		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
25–29		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
29–35		SP				SAND: brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36			30 - 40	70				
37								
38								
39								
40						SAND: yellowish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
41								
42								
43		SP						
44								
45			40 - 50	80				
46								
47		SP				SAND: light yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
48		CL				CLAY, sandy: very dark grey; fine		
49								
50		SC-SM				SAND, silty, clayey: light brownish grey (quartz); fine (95%); silty/clay (<5%); well sorted; subround; unconsolidated; moist		
51		SP				SAND: dark yellowish brown (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
52								
53		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
54								
55			50 - 60	90		SAND: grayish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
56		SP						
57								
58		SP				SAND: light grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
59								
60						SAND: grayish brown (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
61		SP						
62								
63								
64								
65		SC-SM	60 - 70	90		SAND, silty, clayey: brown (quartz); fine (50%); med (45%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
66		SP				SAND: light brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		
67								
68		CH				CLAY: dark grey; fat		
69								
70						No Recovery		
71								
72								
73								
74								
75								

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SC-SM	70 - 80	50		SAND, silty, clayey: grayish brown; fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
77		CL				CLAY: dark grey; sandy; fine		
78								
79		SP				SAND: dark grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
80								
81						No Recovery		
82								
83								
84								
85			80 - 90	50				
86						SAND: dark grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
87		SP						
88								
89								
90						No Recovery		
91								
92								
93								
94								
95			90 - 100	50				
96						SAND: dark grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
97		SP						
98								
99								
100						CLAY: light greenish grey; lean; does react with HCl		
101								
102								
103		CL						
104								
105						CLAY, sandy: grayish green; med; fine; does not react with HCl		
106								
107		CL						
108						CLAY: dark green; fat		
109		CH						
110						BORING TERMINATED AT 110 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB15

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	111.19 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–5			0 - 10	40		No Recovery		
6–7		SP				SAND: dark grey (quartz); med (60%); fine (20%); coarse (20%); well sorted; subround; unconsolidated; dry		
8		SM				SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
9–10		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
11–13		SM				SAND, silty: brown (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
14		SM	10 - 20	90		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; pebble to gravel size fragments of highly consolidated silty sands, (fragment composition = black; fine (80%); med (14%); does not appear to contain target mineral)		
15		SP				SAND: dark yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		
16		SC-SM				SAND, silty, clayey: dark yellowish brown mottled with grey (quartz); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; moist		
17		SM				SAND, silty: very dark brown (quartz); fine (90%); med (5%); silt (<5%); dry; possible hardpan (well cemented); fragmented in sample; sub-angular fragments; difficult to break fragments by hand pressure		
18–19		SM				SAND, silty: dark yellowish brown (quartz); fine (80%); med (10%); coarse (5%); silt (<5%); well sorted; subround; semi-cemented compared to 17-18; fragmented (sub-angular) in sample; possible FBG (<1%)		
20		SP				SAND: very dark grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
21–22		SC-SM				SAND, silty, clayey: dark yellowish brown (quartz); fine (90%); med (5%); silt/clay (<5%); well sorted; subround; unconsolidated		
23–25		SP	20 - 30	90		SAND: yellowish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
26–27		SM				SAND, silty: pale brown (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist;		
28–29		SP						
30–35								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB15

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP	30 - 40	80		FBG (<1%); contains well cemented silt (siltstone); very dark brown pebbles SAND: light brownish grey (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
37								
38								
39								
40						SAND: grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%); relatively thin (<0.25 inch) clay lenses		
41								
42								
43		CH				CLAY: greenish grey; fine (40%); med (30%); coarse (30%); fat; does not react with HCL; sand stringers and lenses		
44								
45								
46								
47								
48								
49		SC				SAND, clayey: greenish grey; fine (40%); med (30%); coarse (30%); does not react with HCL		
50								
51		SC				SAND, clayey: greenish grey; fine (40%); med (30%); coarse (30%); does not react with HCL		
52								
53								
54								
55		SC				SAND, clayey: fine (40%); med (40%); coarse (20%); fossiliferous; calcareous; does react with HCl		
56								
57								
58								
59		CH				CLAY: dark greenish grey; fat; does not react with HCl		
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB16

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/4/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	140.28 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
4–5		SM	0 - 10	60		SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silty (<5%); well sorted; subround; unconsolidated; moist; organic material (roots)		
5–6		SP						
6–7		SM				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
7–8		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
8–9		SM				SAND, silty: dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
9–10		SP				SAND, silty: (quartz); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist		
10–12		SM				SAND: dark yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
12–14		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
14–15		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
15–19		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
19–35		SM				SAND, silty: dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SP				SAND: dark yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40–55		SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
55–68		SP				SAND: pale brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
68–70		SP				SAND: grayish brown (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
70–73		SC				SAND, clayey: dark grayish green; fine (75%); med (20%); coarse (5%), fat		
73–75						CLAY, sandy: dark grayish green; fine grained; fossiliferous (shell fragments); does react with HCl		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB16

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/4/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		CL						
77		CHALK				CHALK: white; dry		
78								
79		SM				SAND, silty: light grayish green (quartz); fine grained; reacts with HCl		
80		CH				CLAY: dark grey; fat; mottled		
81								
82		CL				CLAY: grayish green; lean; gravel size fragments		
83		CH				CLAY: fine grained; fat; sand runners		
84								
85								
86		CH				CLAY: dark green; fat		
87								
88								
89								
90						BORING TERMINATED AT 90 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB17

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	102.66 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
4–5		SP	0 - 10	60		SAND: very dark grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
5–6		SM				SAND, silty: grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
6–10		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; moist		
10–12		SM	10 - 20	80		SAND, silty: very dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
12–17		SM				SAND, silty: very dark brown (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; contained abundant well consolidated nodules of silty sands: dark yellowish brown; fine (60%); med (20%); coarse (20%) dark yellowish brown		
17–18		SM						
18–19		SM						
19–20		SM						
20–21		SM	20 - 30	80		SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
21–22		SM						
22–23		SP				SAND, silty: grayish brown (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist		
23–24		SP						
24–25		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25–26		SP						
26–27		SC-SM				SAND: light brownish grey (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		
27–28		SC-SM						
28–29		SP				SAND, silty, clayey: grey (quartz); fine (80%); med (15%); silt/clay (<5%); well sorted; subround; unconsolidated; thin bands (< 2mm) of darker (very dark grayish brown) material; alternating bands; some composition as surrounding silt/clayey sand - only darker		
29–30		SP						
30–31		SP				SAND: light brownish grey (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
31–32		SP						
32–33		SP				SAND: grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG		
33–35		SP						

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PROJECT NUMBER 000180200804.00 **PROFESSIONAL** T. Hall

LOCATION Saint George, Georgia **DATE(S) DRILLED** 11/1/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP	30 - 40	70		(<1%) SAND: dark brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
37		SP						
38						SAND: light brownish grey (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
39								
40		SC				SAND: dark grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
41								
42						SAND, clayey: dark grey (quartz); fine (60%); med (30%); coarse (5%); clay (<5%); well sorted; subround; moist		
43		CH						
44						CLAY: dark greenish grey; fat; fine (40%); med (30%); coarse (30%); sand stringers and lenses		
45			40 - 50	80		SAND, clayey: dark greenish grey (quartz); fine (90%); med (5%); clay (<5%); well sorted; subround; moist; FBG (<1%)		
46		SC						
47								
48						CLAY: greenish grey/white; fat; calcareous; does react with HCl		
49		CH						
50						No Recovery		
51								
52						CLAY: greenish grey; fat; calcareous; reacts with HCl		
53		CH						
54								
55						CLAY: dark greenish grey; fat; intermittent layers of calcareous crumbly dark greenish grey and light grey material; does react with HCl		
56								
57		CH						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB18

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/30/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	148.45 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						Missing from sample		
4–7		SM	0 - 10	40		SAND, silty: very dark brown (quartz); fine (5%); med (40%); coarse (50%); silt (<5%); subround; well sorted; unconsolidated; moist		
7–9		SP				SAND: med brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
9–13		SM				SAND, silty: very dark brown (quartz); fine (70%); med (20%); coarse (10%); well sorted; subround; unconsolidated; wet		
13–19		SP	10 - 20	40		SAND: brown (quartz); fine (30%); med (70%); well sorted; unconsolidated; moist		
19–24		SM				SAND, silty: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; moist		
24–28		SM	20 - 30	80		SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted, subround, moist, well consolidated		
28–35		SP				SAND: dark brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB18

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/30/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36			30 - 40	60				
37						SAND: med brown (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist		
38								
39								
40		SP						
41								
42								
43		SC-SM				SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
44		CL						
45			40 - 50	80		CLAY, sandy: dark grey; med/fine; well sorted; subround; moist; FBG (<1%)		
46		SC-SM				SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
47		SM						
48						SAND, silty: light grey (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
49		SM						
50						SAND, silty: blackish grey; fine 95%, silt <5%, well sorted, subround, unconsolidated, FBG <1%		
51		SP						
52						SAND: (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
53						SAND, silty, clayey: dark grey (quartz); fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; clay nodules		
54		SC-SM						
55		SP	50 - 60	70		SAND: light grey (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; 6 large well consolidated fragments 1" to 3" found in interval - possible burrow - fragments collected - did not react with HCl		
56								
57		SC-SM						
58						SAND, silty, clayey: med brown; fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
59								
60		SM				SAND, silty: med brown (quartz); fine (70%); med (25%); silt (<5%); well sorted; subround; moist; FBG (<1%)		
61								
62						SAND, silty: yellowish brown (quartz); fine (95%); silt (<5%); well sorted; subround; moist; FBG (<1%)		
63								
64								
65		SM						
66								
67								
68								
69						SAND, silty: dark grey/green (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
70								
71								
72								
73								
74								
75								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING EB18

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/30/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
76		SM	70 - 80	40				
77								
78								
79								
80								
81								
82								
83								
84								
85		SP	80 - 90	80		SAND: (quartz); fine (10%); med (50%); coarse (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
86								
87		CH				CLAY: dark green mottled; fat; does not react with HCl		
88								
89		CH				CLAY: dark green and white; fat; calcareous; does react with HCl		
90								
91		CH				CLAY: very light greenish grey; fat; does react with HCl		
92								
93								
94		CH				CLAY: dark green; fat; does react with HCl		
95								
96		CH				CLAY: dark green and white; dry; crumbles		
97								
98		CH				CLAY: dark green; fat		
99								
100						BORING TERMINATED AT 100 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWA EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	171.62 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS On-site geologist noted the same recovery for soils encountered between 0-90 feet as soil boring OWA-1D

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No recovery		
4–5		SP	0 - 10	60		SAND: grey (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; organics (wood roots)		
6		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood)		
6–7		SM						
7–8		SP				SAND, silty: dark yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
8–9						SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist		
9–10		SM				SAND, silty: dark brown; fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
10–12								
12–14		SC-SM	10 - 20	100		SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay <5%, well sorted, subround, well consolidated, moist		
14–16								
16–17		SC-SM				SAND, silty, clayey: dark brown (quartz); fine (15%); med (40%); coarse (40%); silt (<5%); well sorted; subround; consolidated; moist		
17–18								
18–20						SAND, silty: brown (quartz); fine (40%); med (30%); coarse (25%); silt (<5%); well sorted; subround; unconsolidated; moist		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWA EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
21–28		SM	20 - 30	90				
28–30		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
30–31		SM				SAND, silty: dark brown; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
31–40		SP	30 - 40	100		SAND: dark yellowish brown (quartz); fine (30%); med (50%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40–42								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWA EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
43								
44		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
45			40 - 50	90		SAND: (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; increase in fine black grains (>1%)		
46								
47								
48								
49								
50								
51								
52								
53								
54								
55		SP	50 - 60	80				
56								
57								
58								
59								
60								
61								
62								
63								
64								
65			60 - 70	80		SAND, silty, clayey: dark brown; fine (80%); med (15%); silt (<5%); well sorted; subround;		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWA EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
66		SC-SM				semi-consolidated; moist		
67								
		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
68								
		CL				CLAY, sandy: dark brown; fine		
69								
70						SAND, silty, clayey: grayish brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
71								
72								
73		SC-SM						
74								
75			70 - 80	70				
76								
77						CLAY, sandy: dark grey; fine		
78								
79								
80								
81		CL						
82								
83								
84								
85								
86						CLAY: dark grey; fat		
87		CH						
88								
		SP				SAND: dark grey (quartz); fine (75%); med (25%);		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
89		CH				well sorted; subround; unconsolidated; moist; FBG (<1%) CLAY: dark grey; fat		
90						No Recovery		
91								
92								
93								
94								
95			90 - 100	0				
96								
97								
98								
99								
100								
101								
102								
103								
104								
105		SP	100 - 110	50		SAND: white/grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
106								
107								
108								
109								
110						SAND, clayey: dark grey; fine (75%); med (25%); moist; runners of coarse sand (<10%)		
111								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWA EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
112								
113								
114		SC						
115			110 - 120	100				
116								
117								
118						CLAY: dark grey green; fat; does react with HCL		
119		CH						
120						BORING TERMINATED AT 120 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWB EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/11/2018
DRILLING COMPANY	Betts	**GROUND ELEVATION**	172.69 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS Same as OWB-1D for 0-90 interval

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4						No Recovery		
2–5		SM	0 - 10	80		SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood/roots/shoots)		
5–15		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
15–18		SM	10 - 20	80		SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
18–24		SM				SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
24–25		SP	20 - 30	80		SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25–34		SM				SAND, silty: dark brown (quartz); fine (70%); med (20%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
34–35		SC-SM	30 - 40	70		SAND, silty, clayey: black (quartz); fine (95%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
35–45		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/11/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46–50			40 - 50	80				
50–58		SP	50 - 60	80		SAND: grayish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
58–63		SP				SAND: dark grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
63–67		CL	60 - 70	80		CLAY, sandy: grayish brown; fine; FBG (<1%)		
67–76		SC	70 - 80	60		SAND, clayey: light brownish grey (quartz); fine (95%); clay (5%); well sorted; subround; moist; FBG (<1%)		
76–83		SP				SAND: fine (60%) med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
83–85		SP	80 - 90	80		SAND: fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
85–87		SC-SM				SAND, silty, clayey: (quartz); fine (75%); med (20%); silty/clay (<5%); well sorted; subround; moist; FBG (<1%)		
87–90		SP				SAND: (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
90–96			90 - 100	0		No Recovery		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING OWB EB

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/11/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
97								
98								
99								
100								
101						SAND: grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
102								
103								
104								
105			100 - 110	80				
106								
107								
108								
109								
110		SP						
111								
112								
113								
114								
115			110 - 120	100				
116								
117								
118								
119								
120								
121		SP				SAND: dark grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated		
122								
123						CLAY: grayish green; fat		
124								
125		CH	120 - 130	80				
126								
127								
128								
129		CL				CLAY: grayish green; lean; dry		
130						BORING TERMINATED AT 130 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB05

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	147.33 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	
REMARKS	Alternate ID: SA-ADK-19-531		

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
3–5		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics		
5–14		SM				SAND, silty (quartz): dark greyish brown (10YR 4/2); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
14–16		SM	10 - 20	80		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16–20		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
20–27		SM	20 - 30	100				
27–28		SC-SM				SAND, silty, clayey (quartz): light gray (10YR 7/1); fine; wet; fine black grains (<1%)		
28–36		SC-SM	30 - 40	100		SAND, silty, clayey (quartz): grayish brown (10YR 5/2); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
36–37		SC-SM				SAND, silty, clayey (quartz): pale brown (10YR 6/3); fine; wet; fine black grains (<5%)		
37–45		SC-SM				SAND, silty, clayey (quartz): light gray (10YR 7/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB05

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46			40 - 50	90				
47								
48		CL				CLAY, sandy: gray (10YR 6/1); fine; med; well sorted; subround; wet; fine black grains (<1%)		
49								
50								
51						SAND, silty, clayey (quartz): light grayish brown (10YR 6/2); fine (60%); med (30%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
52								
53								
54								
55		SC-SM	50 - 60	50				
56								
57								
58								
59								
60						No Recovery		
61								
62								
63								
64								
65			60 - 70	0				
66								
67								
68								
69								
70						No Recovery		
71								
72								
73								
74								
75			70 - 80	0				
76								
77								
78								
79								
80								
81						SAND, silty, clayey (quartz): greenish grey (GLEY 1 5/10Y); fine (60%); med (30%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; does not react with HCl		
82								
83								
84		SC-SM						
85			80 - 90	80				
86						CLAY: greenish gray (GLEY 1 5/5GY); fat; moist; does not react with HCl		
87		CH						
88								
89		CL				CLAY: light greenish grey (GLEY 1 7/10Y); lean; chalky; dry; does react with HCl		
90						BORING TERMINATED AT 90 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB06

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	140.18 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3		SM	0 - 10	90		No Recovery SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
3–12		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13		SP				SAND (quartz): yellowish brown (10YR 5/6); fine (50%); med (45%); coarse (5%); well sorted; subround; fine black grains (<1%); wet		
14–15		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16–17		SM				SAND, silty (quartz): gray (10YR 5/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18–23		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
23–30		CL	20 - 30	90		CLAY, silty and sandy: yellowish brown (10YR 5/4); fine grained; well compacted; fine black grains (<1%); moist		
30–35		SM	30 - 40	70		SAND, silty (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
36–45		SC-SM				SAND, silty and clayey (quartz): gray (10YR 6/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB06

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46			40 - 50	80				
47						SAND, silty and clayey (quartz): gray (GLEY 1 5/N); fine (50%); med (40%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
48								
49								
50								
51								
52								
53								
54								
55		SC-SM	50 - 60	80				
56								
57								
58								
59								
60								
61								
62								
63								
64						CLAY: fat; does not react with HCL; moist		
65		CH	60 - 70	100				
66		SC-SM				SAND, silty and clayey (quartz): greenish gray (GLEY 5/10GY); fine (50%); med (40%); coarse (5%); silt/clay: (<5%); well sorted; subround; unconsolidated; does not react with HCL; wet		
67		CH						
68								
69		CL				CLAY: greenish gray (GLEY 5/10GY); fat; reacts with HCL; moist		
70						CLAY: light gray (GLEY 7/N); lean; chalky; odor when broken; reacts with HCL		
						BORING TERMINATED AT 70 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB07

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	173.50 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1			0 - 10	80		No Recovery		
2		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material		
3								
4		SM						
5						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
6								
7		SM						
8						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9								
10								
11			10 - 20	100		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
12		SM						
13								
14								
15								
16								
17								
18		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
19								
20								
21						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
22								
23								
24								
25			20 - 30	100				
26								
27								
28		SM						
29								
30								
31								
32								
33								
34								
35			30 - 40	90				
36		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
37								
38		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
39								
40								
41		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
42								
43								
44		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%);		
45						*Continued Next Page*		

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46–50			40 - 50	100		med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
46–50		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
50–65		SM	50 - 60	90		SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
60–65		SM	60 - 70	100				
65–70		CL				CLAY, sandy: gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
70–80		CL	70 - 80	50		CLAY, sandy: gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
80–90		CL	80 - 90	70		CLAY, sandy: gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
90–96		SC-SM	90 - 100	50		SAND, silty and clayey (quartz): gray (10YR 6/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB07

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/1/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
97								
98								
99								
100						No Recovery		
101								
102								
103								
104								
105			100 - 110	0				
106								
107								
108								
109								
110		CL				CLAY, sandy: greenish gray (Gley 1 6/10Y); med-course; does not react with HCL; wet		
111								
112								
113		CH				CLAY, fat: greenish gray (Gley 1 6/5GY); does not react with HCL		
114								
115			110 - 120	100				
116						CLAY, fat: light greenish gray (Gley 7/10GY); reacts with HCL		
117		CH						
118								
119								
120						BORING TERMINATED AT 120 FEET.		

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LOG OF BORING PB08

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	171.03 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–3						No Recovery		
4–5		SM	0 - 10	60		SAND, silty: gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5–10						SAND, silty: very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10–15		SM	10 - 20	100				
15–16								
16–17		SM				SAND, silty: black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
17–18								
18–20		SM				SAND, silty: dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
20–21		SM						
21–22						SAND, silty: black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
22–23		SP						
23–24								
24–25		SM	20 - 30	90		SAND: light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25–26								
26–27		SM				SAND, silty: black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
27–28								
28–29								
29–30						SAND, silty: very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
30–35								
35–40		SM	30 - 40	90		SAND, silty: dark yellowish brown (10YR 4/4); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
40–45								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB08

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46–49			40 - 50	90				
50–53		SP	50 - 60	100		SAND: pale brown (10YR 6/3); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
54–55		SM				SAND, silty: gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
56–58		SM				SAND, silty: very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
59–60		CL				CLAY, sandy: brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
61–64		SC-SM	60 - 70	100		SAND, silty and clayey: dark yellowish brown (10YR 4/4); fine grained; well sorted; subround; unconsolidated; fine black grains (<1%); wet		
65		CL				CLAY, sandy: brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
66–70		SC-SM				SAND, silty and clayey: grayish brown (10YR 5/2); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
71–75			70 - 80	50		No Recovery		
76–80		SM				SAND< silty: gray (10YR 6/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
81–85			80 - 90	50		No Recovery		
86–90		SC-SM				SAND, silty and clayey: gray (10YR 5/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
91–95			90 - 100	50		No Recovery		
96						SAND, silty: gray (10YR 6/1); fine (50%); med		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB08

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	6/27/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
97–99		SM				(40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
100–114		SM	100 - 110	90		SAND, silty: gray (10YR 6/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
114–115		CH	110 - 120	100		CLAY: greenish gray (GLEY 1 5/10GY); fat; does not react with HCL; moist		
116		CL				CLAY: light gray (GLEY 1 7/N); lean; chalky; reacts with HCL; odor when broken; dry		
117–119		CH				CLAY: greenish gray (GLEY 1 5/5GY); fat		
120						BORING TERMINATED AT 120 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB09

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	173.25 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–10			0 - 10	80		No Recovery		
1–5		SM				SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5–7		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7–10		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; subround; semi-consolidated; wet		
10–15		SM	10 - 20	100		SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
15–20		SM	10 - 20	100		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20–30		SM	20 - 30	100		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30–40		SM	30 - 40	100		SAND, silty (quartz): yellowish brown (10YR 5/6); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
40–45		SM						

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PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/2/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46			40 - 50	90				
47								
48								
49		SM				SAND, silty (quartz): brown (10YR 4/3); fine (50%); med (35%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
50						SAND, silty (quartz): yellowish brown (10YR 5/6); fine (50%); med (35%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
51								
52								
53								
54								
55			50 - 60	100				
56								
57								
58								
59								
60								
61								
62								
63		SC-SM				SAND, silty and clayey (quartz): brown (10YR 4/3); fine grained; well sorted; subround; fine black grains (<1%); wet		
64		SC-SM						
65			60 - 70	90				
66		CL				SAND, silty and clayey (quartz): gray (10YR 6/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
67								
68		SC-SM				CLAY, sandy: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
69								
70						SAND, silty and clayey (quartz): gray (10YR 6/1); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; fine black grains (1%); wet		
71								
72						SAND, silty and clayey (quartz); gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
73								
74								
75		SC-SM	70 - 80	80				
76								
77								
78								
79								
80								
81								
82						CLAY, silty and sandy: gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
83		CL						
84								
85			80 - 90	90		SAND, silty and clayey (quartz): gray (10YR 6/1); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
86		SC-SM						
87								
88						SAND, silty and clayey (quartz); gray (10YR 5/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
89		SC-SM						
90						No Recovery		
91								
92								
93								
94								
95			90 - 100	0				
96								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB09

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/2/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
97								
98								
99								
100						No Recovery		
101								
102								
103								
104								
105			100 - 110	0				
106								
107								
108								
109								
110						CLAY: greenish gray; fat; does not react with HCL; moist		
111								
112								
113								
114								
115		CL	110 - 121	91				
116								
117								
118								
119								
120						CLAY: light greenish gray; lean; chalky; dry		
121		CL				BORING TERMINATED AT 121 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB10

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/2/2019
DRILLING COMPANY	Twin Pines	**GROUND ELEVATION**	126.87 Ft. AMSL
DRILLER	A. Blackwood	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–10						No Recovery		
1–4		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics (wood); moist		
5–9		SM				SAND, silty (quartz); dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; organics (wood); wet		
10–11		SM	10 - 20	100		SAND, silty (quartz); Brown (10YR 4/31); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated		
12–13		SM				SAND, silty (quartz); very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
14–15		SM				SAND, silty (quartz); light gray (10YR 7/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16–17		SC-SM				SAND, silty and clayey (quartz): dark gray (10YR 4/1); fine grained; well sorted; subround; fine black grains (<1%); wet		
18–20		SC-SM				SAND, silty and clayey (quartz); brown (10YR 5/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
21–22		CL	20 - 30	80		w/thin clay lenses (<1/8 inch)		
23–24		SP				CLAY, sandy: gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
25–26		CL				SAND (quartz); ligt gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27–29		SP				CLAY, sandy: gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
30–31		SP				SAND (quartz); light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
32–36		SC-SM	30 - 40	100		SAND, silty and clayey (quartz); gray (10YR 6/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
40–45						SAND, silty and clayey (quartz); light brownish gray (10YR 6/2); fine (50%); med (40%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING PB10

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	7/2/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
46			40 - 50	90				
47								
48								
49								
50		SC-SM						
51								
52								
53								
54								
55			50 - 60	80				
56								
57								
58								
59								
60						SAND, silty and clayey (quartz); dark gray (GLEY 1 4/N); fine (50%); med (40%); course (5%); silt/clay (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
61		SC-SM						
62								
63								
64		CH				CLAY: dark gray (GLEY 1 4/N); fat; does not react with HCL; moist		
65			60 - 70	100				
66								
67						CLAY: light green gray (GLEY 1 7/10Y); lean; chalky; reacts with HCL; moist		
68		CL						
69								
70						BORING TERMINATED AT 70 FEET.		

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This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.

APPENDIX D

TTL UNDISTURBED BORING DATA

Attached Documents:
Table D1: Boring Location Database Summary
Table D2: Well Construction Summary
Boring Logs

APPENDIX D
TABLES

Table D1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]	TOC[4] Elevation (ft. AMSL)
UD10	PIEZOMETER	90	131.70	02/13/19	Betts	C. Pendarvis	A. Patton	Sonic	208093.313	666408.7486	131.88
UD126	PIEZOMETER	90	140.22	02/11/19	Betts	C. Pendarvis	A. Patton	Sonic	202917.1019	666640.3662	140.51
UD128	PIEZOMETER	90	150.52	02/08/19	Betts	C. Pendarvis	T. Hall	Sonic	199193.141	667712.682	150.80
UD179	PIEZOMETER	120	166.08	02/14/19	Betts	C. Pendarvis	A. Patton	Sonic	207884.9971	670857.1818	166.44
UD231	PIEZOMETER	110	167.53	02/07/19	Betts	C. Pendarvis	T. Hall	Sonic	196158.739	669687.5038	167.87
UD238	PIEZOMETER	120	168.31	12/18/18	Betts	C. Golden	T. Hall	Sonic	192951.6716	674171.9393	168.45
UD25	PIEZOMETER	110	165.49	02/06/19	Betts	C. Pendarvis	T. Hall	Sonic	190488.7166	668975.1185	165.63
UD338	BORING	60	173.56	02/05/19	Betts	C. Pendarvis	T. Hall	Sonic	191127.731	672504.659	--
UD34	BORING	55	170.29	12/20/19	Betts	C. Pendarvis	L. Woodall	Sonic	200408.223	671582.272	--
UD43	PIEZOMETER	100	148.55	03/06/19	Betts	C. Pendarvis	T. Hall	Sonic	190542.5306	678135.613	148.81
UD51	PIEZOMETER	110	165.00	02/01/19	Betts	C. Pendarvis	T. Hall	Sonic	197063.9778	674175.5567	165.23
UD65	PIEZOMETER	130	166.76	03/06/19	Betts	C. Pendarvis	T. Hall	Sonic	202093.9328	675684.2974	166.84
UD67	PIEZOMETER	130	172.06	03/05/19	Betts	C. Pendarvis	T. Hall	Sonic	203551.9396	672306.1274	172.14
UD93	PIEZOMETER	110	150.25	02/14/19	Betts	C. Pendarvis	A. Patton	Sonic	211493.331	668617.5144	150.51

[1] ft. bgs = below ground surface

[2] ft. AMSL = feet above mean sea level

[3] State Plane Coordinates - Georgia East NAD83

[4] TOC = Top of casing

Table D2. Well Construction Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Piezometer I.D.	Date Started	Screened Interval (feet bgs[1])	Natural Fill Sand Pack (feet bgs)	Bentonite Plug (feet bgs)	Portland Cement Grout (feet bgs)	Construction Depth of Piezometer (feet bgs)	Total Boring Depth (feet bgs)
Undisturbed Borings[3]							
UD10	2/13/2019	80-70	90-0	---	---	80	90
UD126	2/11/2019	80-70	90-0	---	---	80	90
UD128	2/8/2019	70-60	90-0	---	---	70	90
UD179	2/14/2019	110-100	120-0	---	---	110	120
UD231	2/7/2019	100-90	110-0	---	---	100	110
UD238	12/18/2018	110-100	120-0	---	---	110	120
UD25	2/6/2019	100-90	110-0	---	---	100	110
UD43	3/6/2019	85-75	100-0	---	---	85	100
UD51	2/1/2019	100-90	110-0	---	---	100	110
UD65	3/6/2019	115-105	130-0	---	---	115	130
UD67	3/5/2019	120-110	130-0	---	---	120	130
UD93	2/14/2019	90-100	110-0	---	---	100	110

[1] Below ground surface

[2] Not applicable or missing data

[3] Undisturbed sample borings converted to piezometers for downhole geophysical survey

APPENDIX D
BORING LOGS

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD10 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/13/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	131.88 Ft. AMSL
REMARKS		**GROUND ELEVATION**	131.70 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
0		SP				SAND: pale yellow brown to grayish-brown (quartz); fine (80%); med (20%); well sorted; subround; unconsolidated; moist		
5		SM				SAND: dusky yellowish-brown to grayish-black (quartz); fine (80%); med (20%); well sorted; subround; unconsolidated; saturated		
		SM				SAND, silty: black (quartz); fine (80%); med (20%); silt (40%); well sorted; subround; semi-consolidated to consolidated; saturated		
10		SM				SAND, silty: grayish black to black (quartz); fine (70%); silt (20%); well sorted; subround; unconsolidated; saturated		
15		SP				SAND: pale brown with mottled pale orange (quartz); medium (95%); silt (5%); well sorted; subround; unconsolidated; saturated		
20		SP				SAND: pale brown with mottled pale orange (quartz); fine (10%); medium (90%); well sorted; subround; unconsolidated; saturated		
25		SC				SAND, clayey: medium gray (quartz); fine (70%); medium (30%); well sorted; subround; unconsolidated; saturated		
30		SP				SAND: very pale orange (quartz); fine (40%); medium (60%); well sorted; subround; unconsolidated; saturated		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD10 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/13/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: moderate yellow brown (quartz); fine (20%); medium (80%); well sorted; subround; unconsolidated; saturated		Natural Pack
45		SP				SAND: light olive gray (quartz); fine (95%); medium (5%); well sorted; subround; unconsolidated; saturated		
50		SP				SAND: medium light gray (quartz); well sorted; subround; unconsolidated; saturated		
55								
60								
65		SP				SAND: medium gray (quartz); well sorted; subround; unconsolidated; saturated		
70		SP						

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD10 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/13/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		CH				CLAY: bluish gray; fat; does not react with HCl		Screened Interval (0.01-inch PVC)
		CH				CLAY with gravel: medium light gray; fat; calcareous; does not react with HCl		
80		CH				CLAY: medium bluish gray; fat; calcareous; does not react with HCl		
		CH				CLAY: medium bluish gray; fat; gravel size fragments; calcareous; does not react with HCl		2.0-inch PVC
85		CL				CLAY: dry; crumbly; gravel size fragments; does react with HCl		
90						BORING TERMINATED AT 90 FEET.		Well Tip

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD126 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/11/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	140.51 Ft. AMSL
REMARKS		**GROUND ELEVATION**	140.22 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND: brownish gray (quartz); med (60%); fine (40%); well sorted; subround; unconsolidated; moist		
5		SP				SAND: grayish black to black (quartz); med (10%); fine (90%); well sorted; subround; semi-consolidated; moist		
10		SP				SAND: grayish black to black (quartz); med (80%); fine (20%); well sorted; subround; consolidated; saturated		
15		SP				SAND: grayish black to black (quartz); med (80%); fine (20%); well sorted; subround; consolidated; saturated		
20		SM				SAND, silty: black (quartz); medium (15%); fine (85%); well sorted; subround; semi-consolidated; saturated; organics (silt)		
25		SP				SAND: mottled very pale orange and dark yellowish-brown (quartz); med (60%); fine (40%); poorly sorted; subround; unconsolidated; saturated		
30		SC				SAND, clayey: dark yellowish-brown to pale brown (quartz); med (25%); fine (75%); clay (40%); poorly sorted; subround; unconsolidated; saturated		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD126 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/11/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: yellowish gray to pale brown (quartz); med (10%); fine (90%); well sorted; subround; unconsolidated; saturated		Natural Pack
45		SC				SAND, clayey: yellowish gray (quartz); clay (50%); fat clay, high plasticity, poorly sorted; subround; unconsolidated; saturated		
50		SC				SAND, clayey: yellowish gray (quartz); clay (50%); fat clay, low plasticity, poorly sorted; subround; unconsolidated; saturated		
55		SC				SAND, clayey: medium dark gray (quartz); med (90%); clays/fines (10%); poorly sorted; subround; unconsolidated; saturated		
60		SP				SAND: medium light gray (quartz); medium (95%); fine (5%); well sorted; subround; unconsolidated; saturated		
65								
70								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD126 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/11/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND: medium light gray (quartz); medium (95%); fine (5%); well sorted; subround; unconsolidated; saturated		Screened Interval (0.01-inch PVC)
80		CH				CLAY: light gray; fat; highly calcareous; moderate reaction with HCl		
85		CH				CLAY: medium light gray; fat; highly calcareous; does not react with HCl		2.0-inch PVC
		CH				CLAY, with gravel: medium light gray; fat; gravel (30%); highly calcareous; does not react with HCl		
		CH				CLAY: medium bluish-gray; fat; highly calcareous; moderate reaction with HCl		
90						BORING TERMINATED AT 90 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD128 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/8/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	150.80 Ft. AMSL
REMARKS		**GROUND ELEVATION**	150.52 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	50		NO RECOVERY		
5		SM				SAND; silty; Gray; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, wet		
		SM				SAND; silty; Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
10		SM	10-20	50		SAND; silty; Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet		
15		SM				SAND; silty; Very Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet		
		SM				SAND; silty; Gray; fine (50%), med. (40%), coarse (<5%), silt (<1%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
20		SM	20-30	90		SAND; silty; Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist		
25		SM				SAND; silty; Very Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, semi-consolidated, moist		
		SM				SAND; silty; Light Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist		
30		SM	30-40	90				Natural Pack
		SP				SAND; Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SM				SAND; silty; Dark Brown; fine (75%), med. (20%), silt (<5%);		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD128 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/8/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SM				well sorted, subround, unconsolidated, moist SAND; silty; Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, moist SAND; silty; Dark Yellowish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist		
		SM	40-50	90				
		SP				SAND; Light Brown; fine (75%), med. (25%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
45		SC-SM				SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
		SP				SAND; Light Grayish Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
50		SC	50-60	90		SAND; clayey, Light Grayish Brown; fine (75%), med. (20%), clay (5%), well sorted subround, moist, <1% fine black grains		
55		SC-SM				SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
60			60-70	90				
65		SM				SAND; silty; Gray; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		Screened Interval (0.01-inch PVC)
70		CL	70-80	100		CLAY; sandy, Dark Gray, does not react with HCL		
		CH				CLAY; fat, Dark Grayish Green, does not react w/ HCL		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD128 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/8/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
						CLAY; lean, Grayish Green, does react w/ HCL		
		CL						
		CH				CLAY; fat, Dark Grayish Green, does not react w/ HCL		
						CLAY; lean, Light Green, does react w/ HCL, moist		
80			80-90	100				2.0-inch PVC
		CL						
85								
		CL				CLAY; crumbly, dry, Light Greenish White, odor, does react w/ HCL		Well Tip
90						BORING TERMINATED AT 90 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD179 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	166.44 Ft. AMSL
REMARKS		**GROUND ELEVATION**	166.08 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SM				SAND, silty: dusky brown (quartz); fine to medium grained sand; silt (25%); well sorted; subround; unconsolidated; moist; organics (roots)		
		SM				SAND, silty: light gray (quartz); fine to medium grained sand; silt (25%); well sorted; subround; unconsolidated; moist		
		SM				SAND, silty: light brown (quartz); fine to medium grained sand; silt (15%); well sorted; subround; unconsolidated; moist		
5		SM				SAND, silty: brownish-black to black (quartz); fine (60%); silt (40%); well sorted; subround; semi-consolidated; saturated		
10		SM				SAND, silty: dark yellowish-brown (quartz); med. (85%); silt (15%); fairly well sorted; subround; semi-consolidated; saturated		
15		SM				SAND, silty: moderate brown (quartz); med. (85%); silt (15%); fairly well sorted; subround; semi-consolidated; saturated		
		SP				SAND: black (quartz); fine (15%); med (85%); fairly well sorted; subround; semi-consolidated; saturated		
20		SP				SAND: brownish-black (quartz); fine (15%); med (85%); fairly well sorted; subround; unconsolidated; saturated		
25		SP				SAND: moderate brown to light brown (quartz); med (40%); coarse (60%); fairly well sorted; subround; unconsolidated; saturated		
30						SAND: light brown to grayish-brown (quartz); med (40%); coarse (60%); fairly well sorted; subround; unconsolidated; saturated		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TTL

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD179 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: moderate yellowish-brown (quartz); med (5%); coarse (95%); well sorted; subround; unconsolidated; saturated		
45		SP				SAND: dark yellowish-brown (quartz); med (30%); coarse (70%); well sorted; subround; unconsolidated; saturated		
50		SP				SAND: very pale orange to grayish orange (quartz); med (20%); coarse (80%); well sorted; subround; unconsolidated; saturated		← Natural Pack
55		SP				SAND: very pale orange to grayish orange (quartz); med (20%); coarse (80%); well sorted; subround; unconsolidated; saturated		
60		SM				SAND, silty: moderate brown (quartz); fine (60%); silt (40%); well sorted; subround; unconsolidated; saturated		
65		SM				SAND, silty: dusky yellowish-brown (quartz); fine (50%); silt (50%); well sorted; subround; unconsolidated; saturated		
70		SC				SAND, clayey, silty: light brown (quartz); fine (40%); silt (30%); clay (30%); well sorted; subround; semi-consolidated; saturated		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD179 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
80		SC				SAND, clayey: light brown (quartz); med (60%); clay (40%); well sorted; subround; semi-consolidated; saturated		
85		SC				SAND, clayey: very pale orange (quartz); fine (70%); clay (30%); well sorted; subround; unconsolidated; wet		
90		SP				SAND, clayey: very pale orange (quartz); fine (10%); med (90%); well sorted; subround; unconsolidated; wet		
95		SP						
100		SP				SAND, clayey: very pale orange (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; wet		
105		SP						Screened Interval (0.01-inch PVC)
110						No recovery		

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2.0-inch PVC

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD179 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
120						BORING TERMINATED AT 120 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD231 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/7/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	167.87 Ft. AMSL
REMARKS		**GROUND ELEVATION**	167.53 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	0		NO RECOVERY		
10		SM	10-20	90		SAND; silty; Dark Grayish Black; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist		
15		SM				SAND; silty; Dark Yellowish Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, moist		
20		SM	20-30	90		SAND; silty; Black; fine (75%), med. (20%), silt (<5%); well sorted, subround, consolidated, moist		
		SM				SAND; silty; Dark Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, semi-consolidated, moist		
25						SAND; silty; Dark Brown; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist		
30		SM	30-40	90				

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD231 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/7/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP	40-50	80		SAND; Light Yellowish Brown; fine (50%), med. (50%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SM				SAND; silty; Very Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, moist		
		SP				SAND; Gray; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
45		SM				SAND; silty; Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist		Natural Pack
50		SM	50-60	80				
55		SM				SAND; silty; Very Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, moist		
		SM				SAND; silty; Very Yellowish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, moist		
60		SP	60-70	90		SAND; Light Gray; fine (75%), med. (20%), coarse (5%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SC-SM				SAND; clayey, silty; Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
65		SP				SAND; Gray; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
70		SP	70-80	90				
		SC				SAND; clayey, Gray, fine (60%), med. (35%), clay (<5%), well sorted, subround, moist, <1% fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD231 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/7/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SC				SAND; clayey, Light Grayish Brown, fine (60%), med. (35%), clay (<5%), well sorted, subround, moist, <1% fine black grains		
80		SC-SM	80-90	100		SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
85						SAND; Gray; fine (50%), med. (50%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
90		SP	90-100	100				
95								Screened Interval (0.01-inch PVC)
100		CH	100-110	100		CLAY; fat, Dark Grayish Green, does not react w/ HCL		
105		CL				CLAY; lean, Light Green, crumbly, does react w/ HCL		2.0-inch PVC
110						BORING TERMINATED AT 110 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD238 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/18/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	168.45 Ft. AMSL
REMARKS		**GROUND ELEVATION**	168.31 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
						No Recovery		
5		SM				SAND, silty: grayish brown (quartz); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (roots/grass)		
		SM						
		SP				SAND, silty: yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
10		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
15		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silty/clay (<5%); well sorted; subround; well consolidated; moist		
		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
20		SC-SM				SAND, silty, clayey: very dark grayish brown (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist		
25		SM				SAND, silty: dark brown; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30		SP				SAND: brown (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD238 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: light grayish brown (quartz); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						SAND: dark yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
45		SP						
50						SAND: dark yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Natural Pack
55		SP						
60		SM				SAND, silty: dark brown (quartz); fine (95%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
						SAND, silty: light grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%); clay lenses are not noted through the entire interval only at 62'		
65		SM						
70		SC				SAND, clayey: dark grey; fine (75%); med (25%)		
		SP				SAND: grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						CLAY, sandy: light grayish brown; fine; FBG (<1%)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD238 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		CL						
		SC-SM				SAND, silty, clayey: light grayish brown (quartz); fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%);		
80						SAND: grayish brown (quartz); fine (75%); med (20%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SP						
85								
						SAND: grey (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
90		SP						
						SAND: greenish grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SP						
95								
						SAND: dark greenish grey (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; FBG (<5%)		
100								
		SP						
105								Screened Interval (0.01-inch PVC)
110								
		CH				CLAY: dark green; fat; does not react with HCl		
		CL				CLAY, sandy: dark green; fine; does not react with HCl		
		CH				CLAY: dark green; fat; does not react with HCl		2.0-inch PVC

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD238 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/18/2018

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		CL				CLAY, sandy: dark green; fine; does not react with HCl		
		CH				CLAY: dark green; fat; does not react with HCl		
		CL				CLAY: dry; crumbly; gravel size fragments; does react with HCl		
120						BORING TERMINATED AT 120 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD25 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/6/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	165.63 Ft. AMSL
REMARKS		**GROUND ELEVATION**	165.49 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	90		NO RECOVERY		
		SM				SAND; silty; Gray; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics, <1% fine black grains		
		SM				SAND; silty; Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics		
5		SM				SAND; silty; Dark Grayish Brown; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics		
		SC-SM				SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, semi-consolidated, wet, <1% fine black grains		
		SM				SAND; silty; Very Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet		
		SM				SAND; silty; Gray; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics		
10		SM	10-20	90		SAND; silty; Dark Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet		
		SM				SAND; silty; Very Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, semi-consolidated, wet		
15		SM				SAND; silty; Black; fine (75%), med. (20%), silt (<5%); well sorted, subround, well consolidated, moist		
		SM				SAND; silty; Very Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist		
20		SP	20-30	90		SAND; Yellowish Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, wet, <5% fine black grains		
25								
30			30-40	90				

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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD25 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SM	40-50	90		SAND; silty; Dark Grayish Brown; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
45		SP				SAND; Gray; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		Natural Pack
		SC-SM				SAND; clayey, silty, Grayish Brown; fine (75%), med. (20%), clay/silt (<5%); well sorted, subround, semi-consolidated, wet		
50		SP				SAND; Light Gray; fine (50%), med. (50%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SC	50-60	90		SAND; clayey; Brown; fine (60%), med. (35%), clay (<5%); well sorted, subround, moist, <1% fine black grains		
55		SC				SAND; clayey; Light Yellowish Brown; fine (75%), med. (20%), clay (<5%); well sorted, subround, moist, <1% fine black grains		
		SC				Same as above but higher clay content		
60		SP	60-70	90		SAND; Light Grayish Brown; fine (75%), med. (25%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
65		SP				SAND; Grayish Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SP				SAND; Dark Gray; fine (50%), med. (50%); well sorted, subround, unconsolidated, w/ clay nodules, moist, <1% fine black grains		
70		SC	70-80	50		SAND; clayey; Dark Gray; fine (75%), med. (20%), clay (<5%); well sorted, subround, moist, <1% fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD25 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
80								
		SP	80-90	90		SAND; Gray; fine (60%), med. (35%), coarse (5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
85								
90			90-100	0		NO RECOVERY		
95								Screened Interval (0.01-inch PVC)
100		CH	100-110	100		CLAY; fat, Dark Greenish Gray, does not react w/ HCl		
105		CH				Does react w/ HCL		2.0-inch PVC
		CH				CLAY; fat, Dark Greenish Gray, does react w/ HCL		
		CH				does react w/ HCL		Well Tip
110						BORING TERMINATED AT 110 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD43 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/6/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	148.81 Ft. AMSL
REMARKS		**GROUND ELEVATION**	148.55 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	50		Missing from sample		
5		SM				SAND, silty: very dark brown (quartz); fine (5%); med (40%); coarse (50%); silt (<5%); subround; well sorted; unconsolidated; moist		
		SP				SAND: med brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
10		SM	10-20	80		SAND, silty: very dark brown (quartz); fine (70%); med (20%); coarse (10%); well sorted; subround; unconsolidated; wet		
15		SP				SAND: brown (quartz); fine (30%); med (70%); well sorted; unconsolidated; moist		
20		SM	20-30	80		SAND, silty: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; moist		
25		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted, subround, moist, well consolidated		
30		SP	30-40	70		SAND: dark brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD43 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP	40-50	60		SAND: med brown (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist		Natural Pack
		SC-SM				SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
		CL				CLAY, sandy: dark grey; med/fine; well sorted; subround; moist; FBG (<1%)		
45		SC-SM				SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
		SM				SAND, silty: light grey (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
		SM				SAND, silty: blackish grey; fine 95%, silt <5%, well sorted, subround, unconsolidated, FBG <1%		
50		SP	50-60	70		SAND: (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SC-SM				SAND, silty, clayey: dark grey (quartz); fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; clay nodules		
55		SP				SAND: light grey (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; 6 large well consolidated fragments 1" to 3" found in interval - possible burrow - fragments collected - did not react with HCl		
		SC-SM				SAND, silty, clayey: med brown; fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
60		SM	60-70	90		SAND, silty: med brown (quartz); fine (70%); med (25%); silt (<5%); well sorted; subround; moist; FBG (<1%)		
65		SM				SAND, silty: yellowish brown (quartz); fine (95%); silt (<5%); well sorted; subround; moist; FBG (<1%)		
70			70-80	90		SAND, silty: dark grey/green (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD43 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
80		SM	80-90	80				Screened Interval (0.01-inch PVC)
85		SP				SAND: (quartz); fine (10%); med (50%); coarse (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		CH				CLAY: dark green mottled; fat; does not react with HCl		
		CH				CLAY: dark green and white; fat; calcareous; does react with HCl		
90		CH	90-100	100		CLAY: very light greenish grey; fat; does react with HCl		2.0-inch PVC
		CH				CLAY: dark green; fat; does react with HCl		
95		CH				CLAY: dark green and white; dry; crumbles		
		CH				CLAY: dark green; fat		
100						BORING TERMINATED AT 100 FEET.		Well Tip

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD51 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/1/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	165.23 Ft. AMSL
REMARKS		**GROUND ELEVATION**	165.00 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND: grey (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%); organic material		
		SM				SAND, silty: dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SP				SAND: light brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
5		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%0; silt (<5%0; well sorted; subround; unconsolidated; moist; FBG (<1%)		
10								
15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; less consolidated; moist		
		SM				SAND, silty: dark brown (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated		
20		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
25		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
30		SP				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist;FBG (>1%-<5%)		

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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD51 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/1/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: dark yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
45		SP				SAND: light brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (>1%-<5%)		Natural Pack
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SP				SAND: yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
50		SP				SAND: dark brown (quartz); fine (75%); med (20%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		CL				CLAY, sandy: dark grayish brown; fine		
55		SC-SM				SAND, silty, clayey: light grayish brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		CL				CLAY, sandy: grayish brown; fine		
60		SC-SM				SAND, silty, clayey: yellowish brown (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
65		CL				CLAY, sandy: grayish brown; fine; moist; FBG (<1%)		
		SM				SAND, silty: light grayish brown (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (>1%-<5%)		
70								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD51 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/1/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SC-SM				SAND, silty, clayey: grayish brown (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; moist/wet		
		SC				SAND, clayey: light grayish brown (quartz); fine (50%); med (45%); silt/clay (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
80								
85		SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
90						No Recovery		
95								Screened Interval (0.01-inch PVC)
		SP				SAND: grayish green (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
100		CL				CLAY: grayish green; lean; highly calcareous; does react with HCL		
		CH				CLAY: dark green; fat; calcareous material		
		CL				CLAY: grayish green; lean; highly calcareous; does react with HCL		
105		GW				CHALKY: gravel; dry; crumbly; matrix material		2.0-inch PVC
		CH				CLAY: dark green; fat; calcareous bands; reacts with HCL		
		CH				CLAY: light grayish green; fat; does react		
		GW				CHALKY: gravel; dry; crumbly; matrix material		Well Tip
110						BORING TERMINATED AT 110 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD65 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/6/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	166.84 Ft. AMSL
REMARKS		**GROUND ELEVATION**	166.76 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	70		NO RECOVERY		
		SM				SAND; silty; Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, w/organics, wet		
5		SM				SAND; silty; Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, consolidated, wet		
10		SM	10-20	90		SAND; silty; Dark Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated; <1% fine black grains, wet		
15		SM				SAND; silty; Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated; wet		
20		SM	20-30	100		SAND; silty; Black; fine (75%), med. (20%), silt (<5%); well sorted, subround, well consolidated; wet		
25		SM				SAND; silty; Dark Yellowish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated; wet ----w/ 3-inch consolidated black sand from about 38.0 to 38.3 ft bgs ----		
30		SM	30-40	90		*Continued Next Page*		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD65 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER 000180200804.00 **PROFESSIONAL** T. Hall

LOCATION Saint George, Georgia **DATE(S) DRILLED** 3/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40			40-50	100				
		SC-SM				SAND; clayey, silty; Dark Yellowish Brown; fine (75%), med. (20%), silt (<5%); well consolidated; wet		
45		SP				SAND; Light Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated; moist; <1% fine black grains		
50			50-60	80		SAND; silty; Dark Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated; wet		Natural Pack
55								
60		SM	60-70	80				
65								
70			70-80	100				
						SAND; Light Brown; fine (75%), med. (25%); well sorted,		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD65 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				subround, unconsolidated; moist; <1% fine black grains		
		SM				SAND; silty; Grayish Brown; fine (75%), med. (20%), silt (<5%); unconsolidated; wet		
80		CH	80-90	100		CLAY; Dark Gray, Fat, does not react w/HCL, wet		
85		CL				CLAY; Dark Gray, sandy, does not react w/HCL, wet		
90		SP	90-100	70		SAND; Grayish Brown, fine (50%), med. (50%); unconsolidated; wet, <1% fine black grains		
95		SP				SAND; Grayish Brown, fine (50%), med. (25%), coarse (25%); wet, <1% fine black grains		
		SP				SAND; Grayish Brown, fine (50%), med. (50%); unconsolidated; wet, <1% fine black grains		
100			100-110	0		NO RECOVERY		
105								
110		SP	110-120	80		SAND; White, fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated; wet, <1% fine black grains		Screened Interval (0.01-inch PVC)
						SAND; Gray, fine (50%), med. (25%), coarse (25%); well		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD65 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/6/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				sorted, subround, unconsolidated; wet, <1% fine black grains		
120		CH	120-130	100		CLAY; Light Green, fat; does react w/ HCL		
		CL				CLAY; Light Green; w/ gravel, lean, does react w/ HCL		2.0-inch PVC
		CL				CLAY; Light Green; lean, w/ weathered rock fragments; crumbly, does react w/ HCL		
125		CH				CLAY; Dark Green; fat, does react w/ HCL		
		CL				CLAY; Grayish Green; w/ gravel, lean, does react w/ HCL		
		CH				CLAY; Dark Green; fat, does react w/ HCL		
130						BORING TERMINATED AT 130 FEET.		Well Tip

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD67 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/5/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.14 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.06 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	80		NO RECOVERY		
		SM				SAND; silty; Grayish Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, w/organics, wet		
5		SM				SAND; silty; Yellowish Brown; fine (60%), med. (30%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, wet		
		SM	10-20	100		SAND; silty; Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet		
10								
15		SM				SAND; silty; Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet		
20		SP	20-30	100		SAND; Light Grayish Brown; fine (50%), med. (40%), coarse (10%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
		SP				SAND; Light Grayish Brown; fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
25		SP				SAND; Yellowish Brown; fine (50%), med. (40%), coarse (10%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
30			30-40	100		SAND; Brown; fine (50%), med. (50%); well sorted, subround, unconsolidated, wet, <1% fine black grains		

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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD67 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/5/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40			40-50	90				
45		SP						
50			50-60	90				
55								Natural Pack
60			60-70	90		SAND; silty, Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet, w/ organics (roots), <1% fine black grains		
65		SM						
		SC-SM				SAND; clayey, silty, Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, semi-consolidated, moist		
		SM				SAND; silty, Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist		
70		SM	70-80	100		SAND; silty, Grayish Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
		SC-SM				SAND; clayey, silty, Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, <1% fine black grains		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD67 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/5/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		CL				CLAY; sandy, Gray, fine grained, wet; <1% fine black grains		
		SC-SM				SAND; clayey, silty, Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, <1% fine black grains		
		CL				CLAY; sandy, Gray, fine grained, wet; <1% fine black grains		
		SC-SM				SAND; clayey, silty, Light Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, <1% fine black grains		
		CL				CLAY; sandy, Gray, fine grained, wet; <1% fine black grains		
80		SP	80-90	90		SAND; Light Grayish Brown; fine (50%), med. (50%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
85		SC-SM				SAND; clayey, silty, Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, wet		
						Same as above but less clay content		
90		SC-SM	90-100	90				
95		SP				SAND; Light Grayish Brown; fine (50%), med. (50%), coarse (10%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
100		SP	100-110	80		SAND; Light Grayish Brown; fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated, wet,		
105		SP				SAND; Grayish Brown; fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated, wet,		
110			110-120	80				
						SAND; clayey, silty, Dark Gray; fine (50%), med. (40%), clay (5%), silt (5%); well sorted, subround, unconsolidated, wet		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD67 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	3/5/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SC-SM						Screened Interval (0.01-inch PVC)
						CLAY: Dark Gray, fat, does not react w/ HCL		
120		CH	120-130	100				
						CLAY; Dark Gray; crumbly, dry, does react w/ HCL		2.0-inch PVC
125		CL						
		CH				CLAY; Dark Green, moist, does react w/ HCL		Well Tip
130						BORING TERMINATED AT 130 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD93 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	150.51 Ft. AMSL
REMARKS		**GROUND ELEVATION**	150.25 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
						No Recovery		
5		SM				SAND, silty: yellowish brown (quartz); med (75%); silt (25%); well sorted; subround; unconsolidated; moist; organics (roots/grass)		
10		SP				SAND: dusky brown (quartz); med (75%); silt (25%); well sorted; subround; unconsolidated; saturated		
15		SP				SAND: black (quartz); well sorted; subround; unconsolidated to very consolidated; saturated		
20		SP				SAND: black and dark yellowish-brown (quartz); med (70%); fine (30%); well sorted; subround; unconsolidated; saturated		
25		SP				SAND: black and dark yellowish-brown (quartz); med (70%); fine (30%); well sorted; subround; unconsolidated; saturated		
30		SP				SAND: black (quartz); med (20%); fine (80%); well sorted; subround; unconsolidated; saturated		
		SP				SAND: black to moderate yellowish-brown (quartz); coarse (60%), med (40%); well sorted; subround; unconsolidated; saturated		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD93 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: moderate yellowish-brown (quartz); coarse (60%), med (40%); well sorted; subround; unconsolidated; saturated		
45		SP				SAND: moderate yellowish-brown (quartz); med (5%), fine (95%); well sorted; subround; unconsolidated; saturated		Natural Pack
50		SP				SAND: very pale orange (quartz); med (80%), fine (20%); well sorted; subround; unconsolidated; saturated		
55		SP						
60		SP						
65		SC				SAND, clayey: very pale orange (quartz); med (50%), fine (50%); clay (<5%); well sorted; subround; slightly consolidated; saturated		
70		SC				SAND, clayey: very pale orange (quartz); med (50%), fine (50%); clay (<5%); well sorted; subround; unconsolidated; saturated		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER UD93 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/14/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
80		SC				SAND, clayey: very pale orange (quartz); med (50%), fine (50%); clay (<5%); well sorted; subround; unconsolidated; saturated		
		SP				SAND: moderate yellowish-brown (quartz); med (50%), fine (50%); well sorted; subround; unconsolidated; saturated		
		SP				SAND: yellowish-gray (quartz); med (10%), fine (90%); well sorted; subround; unconsolidated; saturated		
85		SP				SAND: medium gray (quartz); medium (90%), fine (10%); well sorted; subround; unconsolidated; saturated		
90		SP				SAND: medium gray (quartz); coarse (90%), fine (10%); well sorted; subround; unconsolidated; saturated		
95		SC				SAND, clayey: medium gray (quartz); coarse (90%), fine (10%); well sorted; subround; unconsolidated; saturated		Screened Interval (0.01-inch PVC)
100		CL				CLAY, sandy: bluish gray; lean; calcareous; moderate reaction with HCL		
		CH				CLAY: bluish gray; fat; highly calcareous poorly sorted gravel; does react with HCL		
105		CH				CLAY: bluish gray; fat; highly calcareous poorly sorted gravel; does react with HCL		2.0-inch PVC
110						BORING TERMINATED AT 110 FEET.		Well Tip

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING UD338

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/5/2019
DRILLING COMPANY	Betts	**GROUND ELEVATION**	173.56 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1						NO RECOVERY		
2						SAND, silty: Very Dark Brown (quartz); fine (60%); med (30%); coars (5%), silt (<5%); subround; well sorted; semi-consolidated; moist, w/ organics		
3								
4								
5		SM	0 - 10	80				
6								
7								
8		SM				SAND, silty: Black (quartz); fine (75%); med (20%); silt (<5%); subround; well sorted; well consolidated; moist		
9								
10		SM				SAND, silty: Very Dark Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet		
11								
12						SAND, clayey, silty: Dark Grayish Brown (quartz); fine (50%); med (45%); silt/clay (<5%); subround; well sorted; semi-consolidated; moist		
13								
14								
15		SC-SM	10 - 20	90				
16								
17								
18								
19						SAND: Grayish Brown (quartz); fine (50%); med (50%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
20								
21								
22								
23								
24								
25		SP	20 - 30	80				
26								
27								
28								
29								
30								
31						SAND: Dark Yellowish Brown (quartz); fine (60%); med (40%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
32								
33								
34								
35								

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING UD338

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	2/5/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36		SP	30 - 40	100				
37								
38								
39								
40								
41								
42						SAND: Yellowish Brown (quartz); fine (50%); med (50%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
43								
44								
45			40 - 50	90				
46								
47								
48								
49								
50								
51		SP						
52								
53								
54								
55			50 - 60	90				
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF BORING UD34

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	L. Woodall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/20/2019
DRILLING COMPANY	Betts	**GROUND ELEVATION**	170.29 Ft. AMSL
DRILLER	C. Pendarvis	**DEPTH TO WATER**	
DRILLING METHOD	Sonic	**WATER ELEVATION**	

REMARKS

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
1–4		SM				SAND, silty: Dark Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; moist, w/ organics		
5–9		SM				SAND, silty: Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet		
10–11		SM				SAND, silty: Dark Grayish Brown (quartz); fine (75%); med (20%); silt (<5%); subround; well sorted; semi-consolidated; wet		
12–14		SM				SAND, silty: Black (quartz); fine (75%); med (20%); silt (<5%); subround; well sorted; well consolidated; wet		
15–19		SM				SAND, silty: Grayish Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
20–22		SM				SAND, silty: Gray (quartz); fine (50%); med (40%); coars (5%), silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
23–29		SM				SAND, silty: Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
30–35		SP				SAND: Grayish Brown (quartz); fine (60%); med (40%); subround; well sorted; unconsolidated; wet, <1% fine black grains		

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SAINT GEORGE, GEORGIA

LOG OF BORING UD34

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	L. Woodall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/20/2019

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DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
36–40		SM				SAND, silty: Dark Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; moist		
40–43		SP				SAND: Grayish Brown (quartz); fine (60%); med (35%), coarse (5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
43–46		SC-SM				SAND, clayey, silty: Dark Grayish Brown (quartz); fine (75%); med (20%), clay/silt (5%); subround; well sorted; semi-consolidated; moist		
46–50		SM				SAND, silty: Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; moist		
50–53		SP				SAND: Light Grayish Brown (quartz); fine (60%); med (40%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
53–55		SP				SAND: Grayish Brown (quartz); fine (50%); med (50%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
55						BORING TERMINATED AT 55 FEET.		

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APPENDIX E

TTL PIEZOMETER DATA

Attached Documents:
Table E1: Boring Location Database Summary
Table E2: Well Construction Summary
Boring Logs

APPENDIX E
TABLES

Table E1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]	TOC[4] Elevation (ft. AMSL)
PZ01D	PIEZOMETER	50	123.09	11/19/18	Betts	C. Pendarvis	T. Hall	Sonic	213150.6852	664800.7444	123.10
PZ01S	PIEZOMETER	20	122.98	08/22/18	Walker Hill	F. Harrington	T. Hall	Sonic	213145.7250	664792.9515	123.04
PZ02	PIEZOMETER	20	126.02	08/22/18	Walker Hill	F. Harrington	T. Hall	Sonic	209988.5659	664881.4667	126.03
PZ03D	PIEZOMETER	50	123.50	11/19/18	Betts	C. Pendarvis	T. Hall	Sonic	208027.2407	665032.2313	123.56
PZ03S	PIEZOMETER	20	123.77	08/23/18	Walker Hill	F. Harrington	T. Hall	Sonic	208020.1141	665029.0251	123.80
PZ04	PIEZOMETER	20	123.94	08/27/18	Walker Hill	F. Harrington	T. Hall	Sonic	205447.0841	663720.3298	123.89
PZ05	PIEZOMETER	20	124.62	08/27/18	Walker Hill	F. Harrington	T. Hall	Sonic	202705.7568	662571.7449	124.37
PZ06	PIEZOMETER	20	124.39	08/27/18	Walker Hill	F. Harrington	T. Hall	Sonic	201256.8347	662436.2138	124.26
PZ07	PIEZOMETER	20	123.08	08/28/18	Walker Hill	F. Harrington	T. Hall	Sonic	199410.2734	662371.7196	123.41
PZ08	PIEZOMETER	20	130.19	08/28/18	Walker Hill	F. Harrington	T. Hall	Sonic	197508.9048	664403.2655	130.08
PZ09	PIEZOMETER	30	135.39	08/21/18	Walker Hill	F. Harrington	T. Hall	Sonic	210549.7044	666674.5353	135.06
PZ10	PIEZOMETER	30	145.72	08/23/18	Walker Hill	F. Harrington	T. Hall	Sonic	206292.4778	667689.3258	145.97
PZ11	PIEZOMETER	20	147.48	09/11/18	Walker Hill	F. Harrington	T. Hall	Sonic	201281.0529	667407.6724	148.10
PZ12D	PIEZOMETER	55	137.52	11/01/18	Betts	C. Pendarvis	T. Hall	Sonic	199125.8047	666484.2013	138.18
PZ12S	PIEZOMETER	20	138.16	09/11/18	Walker Hill	F. Harrington	T. Hall	Sonic	199119.7966	666484.6179	138.00
PZ13	PIEZOMETER	30	157.47	08/29/18	Walker Hill	F. Harrington	T. Hall	Sonic	196413.6877	668652.4560	157.63
PZ14	PIEZOMETER	30	167.32	08/29/18	Walker Hill	F. Harrington	T. Hall	Sonic	193936.6051	669743.4272	167.66
PZ15	PIEZOMETER	30	166.95	08/29/18	Walker Hill	F. Harrington	T. Hall	Sonic	192000.6802	669433.9007	166.84
PZ16D	PIEZOMETER	50	160.43	11/21/18	Betts	Chris Pendarvis	T. Hall	Sonic	189193.4656	668689.3844	160.41
PZ16S	PIEZOMETER	20	160.60	08/31/18	Walker Hill	F. Harrington	T. Hall	Sonic	189192.1062	668683.7808	160.42
PZ17D	PIEZOMETER	45	160.89	08/21/18	Walker Hill	F. Harrington	T. Hall	Sonic	212015.6518	670005.1448	161.01
PZ17S	PIEZOMETER	10	161.58	11/19/18	Betts	C. Pendarvis	T. Hall	Sonic	212018.9084	669994.2076	161.75
PZ18	PIEZOMETER	20	164.38	09/10/18	Walker Hill	F. Harrington	T. Hall	Sonic	210112.6384	670419.4050	164.26
PZ19	PIEZOMETER	20	169.57	09/10/18	Walker Hill	F. Harrington	T. Hall	Sonic	207234.6924	670845.9142	169.87
PZ20D	PIEZOMETER	40	168.43	09/07/18	Walker Hill	F. Harrington	T. Hall	Sonic	205134.8784	670360.6665	168.46
PZ20S	PIEZOMETER	10	168.18	11/20/18	Betts	C. Pendarvis	T. Hall	Sonic	205140.4640	670362.1990	168.33
PZ21	PIEZOMETER	20	164.61	09/07/18	Walker Hill	F. Harrington	T. Hall	Sonic	203215.0202	670383.6651	164.90
PZ22D	PIEZOMETER	40	170.54	09/07/18	Walker Hill	F. Harrington	T. Hall	Sonic	200357.7075	671700.7149	170.48
PZ22S	PIEZOMETER	10	170.17	11/20/18	Betts	C. Pendarvis	T. Hall	Sonic	200359.9896	671694.6840	170.18
PZ23	PIEZOMETER	15	169.31	11/20/18	Betts	C. Pendarvis	T. Hall	Sonic	198353.0813	672071.4617	169.44
PZ24	PIEZOMETER	20	169.44	09/06/18	Walker Hill	F. Harrington	T. Hall	Sonic	196807.9532	672562.2118	169.54
PZ25D	PIEZOMETER	55	169.68	12/17/18	Betts	C. Pendarvis	T. Hall	Sonic	194070.0069	673381.4148	169.65
PZ25S	PIEZOMETER	20	169.99	09/06/18	Walker Hill	F. Harrington	T. Hall	Sonic	194061.9564	673383.9824	169.61
PZ26	PIEZOMETER	20	168.99	09/05/18	Walker Hill	F. Harrington	T. Hall	Sonic	190199.0854	675725.3696	169.22
PZ27D	PIEZOMETER	30	168.01	09/05/18	Walker Hill	F. Harrington	T. Hall	Sonic	188607.9571	676394.0349	168.06
PZ27S	PIEZOMETER	10	168.02	12/13/18	Betts	Chris Golden	T. Hall	Sonic	188607.1176	676385.2376	168.18
PZ28D	PIEZOMETER	30	174.13	08/30/18	Walker Hill	F. Harrington	T. Hall	Sonic	191101.7018	672470.6111	173.99
PZ28S	PIEZOMETER	10	173.70	12/06/18	Betts	Chris Pendarvis	T. Hall	Sonic	191103.4804	672457.8838	173.92

Continued on Next Page

Table E1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]	TOC[4] Elevation (ft. AMSL)
PZ29D	PIEZOMETER	50	153.95	04/30/19	Betts	C. Pendarvis	W. White	Sonic	193584.1783	667976.3949	153.88
PZ29S	PIEZOMETER	20	153.98	04/30/19	Betts	C. Pendarvis	W. White	Sonic	193588.7986	667981.8218	154.04
PZ30D	PIEZOMETER	50	137.97	04/30/19	Betts	C. Pendarvis	W. White	Sonic	189999.1411	666485.7096	138.02
PZ30S	PIEZOMETER	10	137.80	04/30/19	Betts	C. Pendarvis	W. White	Sonic	190003.9590	666490.5901	137.65
PZ31D	PIEZOMETER	70	135.90	05/01/19	Betts	C. Pendarvis	W. White	Sonic	192380.6325	665328.1184	135.90
PZ31S	PIEZOMETER	12	135.76	05/01/19	Betts	C. Pendarvis	W. White	Sonic	192375.7463	665331.2438	135.92
PZ32D	PIEZOMETER	50	139.79	05/06/19	Betts	C. Pendarvis	W. White	Sonic	195456.4215	666039.5426	139.68
PZ32S	PIEZOMETER	13	139.85	05/06/19	Betts	C. Pendarvis	W. White	Sonic	195456.5519	666034.4581	139.94
PZ33D	PIEZOMETER	60	123.63	05/01/19	Betts	C. Pendarvis	W. White	Sonic	192704.3676	661250.7016	123.91
PZ33S	PIEZOMETER	12	123.40	05/01/19	Betts	C. Pendarvis	W. White	Sonic	192703.1100	661257.2218	123.73
PZ34D	PIEZOMETER	50	124.19	05/03/19	Betts	C. Pendarvis	W. White	Sonic	196728.9345	662454.0647	124.48
PZ34S	PIEZOMETER	15	124.19	05/03/19	Betts	C. Pendarvis	W. White	Sonic	196727.7956	662451.0040	124.39
PZ35D	PIEZOMETER	50	118.99	05/02/19	Betts	C. Pendarvis	W. White	Sonic	197877.5722	658754.8806	119.17
PZ35S	PIEZOMETER	10	118.93	05/02/19	Betts	C. Pendarvis	W. White	Sonic	197876.8198	658750.6567	119.17
PZ36D	PIEZOMETER	50	119.20	05/02/19	Betts	C. Pendarvis	W. White	Sonic	200011.2104	658943.3970	119.18
PZ36S	PIEZOMETER	8	118.81	05/02/19	Betts	C. Pendarvis	W. White	Sonic	200011.8629	658939.5260	118.83
PZ37D	PIEZOMETER	40	118.26	05/09/19	Betts	C. Pendarvis	W. White	Sonic	188680.8011	660254.6737	118.40
PZ37S	PIEZOMETER	10	118.00	05/09/19	Betts	C. Pendarvis	W. White	Sonic	188684.5396	660253.0143	118.26
PZ38	PIEZOMETER	15	171.69	11/14/18	Betts	C. Pendarvis	T. Hall	Sonic	205467.2108	672734.7122	171.93
PZ39/0WA3D	PIEZOMETER	90	171.84	11/08/18	Betts	C. Pendarvis	T. Hall	Sonic	203579.2608	672985.6825	171.81
PZ39S/0WA3S	PIEZOMETER	35	171.76	11/08/18	Betts	C. Pendarvis	T. Hall	Sonic	203576.2324	672993.8948	171.94
PZ40	PIEZOMETER	15	169.48	12/07/18	Betts	Chris Golden	T. Hall	Sonic	200660.5583	673966.9078	169.70
PZ41	PIEZOMETER	15	161.04	12/04/18	Betts	Chris Golden	T. Hall	Sonic	197293.3643	674605.3516	161.19
PZ42	PIEZOMETER	15	147.36	12/17/18	Betts	C. Pendarvis	T. Hall	Sonic	194351.8655	675527.4483	147.46
PZ43	PIEZOMETER	15	161.68	12/13/18	Betts	Chris Golden	T. Hall	Sonic	191206.1308	676493.9937	161.88
PZ44	PIEZOMETER	15	154.24	12/13/18	Betts	Chris Golden	T. Hall	Sonic	189175.0361	678021.3317	154.07
PZ45D	PIEZOMETER	50	166.58	11/06/18	Betts	C. Pendarvis	T. Hall	Sonic	202715.5700	675525.2030	166.67
PZ45S	PIEZOMETER	15	166.64	11/05/18	Betts	C. Pendarvis	T. Hall	Sonic	202723.2096	675524.3128	166.72
PZ46	PIEZOMETER	15	139.98	12/04/18	Betts	C. Pendarvis	T. Hall	Sonic	198343.7772	677166.5936	139.99
PZ47	PIEZOMETER	15	138.30	12/13/18	Betts	Chris Golden	T. Hall	Sonic	193012.6975	678365.3361	138.47
PZ48D	PIEZOMETER	50	132.95	10/31/18	Betts	C. Pendarvis	T. Hall	Sonic	191310.9390	680202.8388	132.78
PZ48S	PIEZOMETER	10	133.04	10/31/18	Betts	C. Pendarvis	T. Hall	Sonic	191305.7477	680199.1634	133.20
PZ49	PIEZOMETER	15	142.97	11/07/18	Betts	C. Pendarvis	T. Hall	Sonic	205324.4574	677820.5368	143.01
PZ50	PIEZOMETER	15	127.64	11/05/18	Betts	C. Pendarvis	T. Hall	Sonic	202797.9514	678800.9975	127.87
PZ51D	PIEZOMETER	50	115.56	10/31/18	Betts	C. Pendarvis	T. Hall	Sonic	195571.6636	680184.1086	115.73
PZ51S	PIEZOMETER	10	115.78	10/31/18	Betts	C. Pendarvis	T. Hall	Sonic	195570.9997	680176.5664	115.84
PZ52	PIEZOMETER	15	111.27	11/02/18	Betts	C. Pendarvis	T. Hall	Sonic	201953.0060	681598.5839	111.44
PZ53	PIEZOMETER	15	111.31	12/13/18	Betts	Chris Golden	T. Hall	Sonic	199168.3109	681563.2307	111.51

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Table E1. Boring Location Database Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Point ID	Boring Type	Termination Depth of Boring (ft. bgs[1])	Ground Surface Elevation (ft. AMSL[2])	Date Started	Drilling Company	Driller	Geologist	Drilling Method	Northing[3]	Easting[3]	TOC[4] Elevation (ft. AMSL)
PZ54D	PIEZOMETER	50	124.90	05/10/19	Betts	C. Pendarvis	W. White	Sonic	187428.5813	663504.6988	125.13
PZ54S	PIEZOMETER	10	125.03	05/10/19	Betts	C. Pendarvis	W. White	Sonic	187431.7231	663507.0730	125.10
PZ55D	PIEZOMETER	50	174.69	04/29/19	Betts	C. Pendarvis	W. White	Sonic	188479.2448	671856.4725	174.92
PZ55S	PIEZOMETER	20	174.74	04/29/19	Betts	C. Pendarvis	W. White	Sonic	188475.6036	671858.3517	174.83
PZ56D	PIEZOMETER	50	171.42	05/07/19	Betts	C. Pendarvis	W. White	Sonic	195754.4210	670661.0392	171.58
PZ56S	PIEZOMETER	10	171.26	05/07/19	Betts	C. Pendarvis	W. White	Sonic	195749.4737	670660.2256	171.50
PZ57D	PIEZOMETER	50	165.62	05/09/19	Betts	C. Pendarvis	W. White	Sonic	192314.5030	675315.4839	165.89
PZ57S	PIEZOMETER	15	165.57	05/09/19	Betts	C. Pendarvis	W. White	Sonic	192311.1446	675312.2756	165.68
PZ58D	PIEZOMETER	50	139.55	05/07/19	Betts	C. Pendarvis	W. White	Sonic	196490.4671	676850.3236	139.98
PZ58S	PIEZOMETER	15	139.67	05/07/19	Betts	C. Pendarvis	W. White	Sonic	196494.4807	676849.6803	140.02

[1] ft. bgs = below ground surface

[2] ft. AMSL = feet above mean sea level

[3] State Plane Coordinates - Georgia East NAD83

[4] TOC = Top of casing

Table E2. Well Construction Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Piezometer I.D.	Date Started	Screened Interval (feet bgs[1])	Natural Fill Sand Pack (feet bgs)	Bentonite Plug (feet bgs)	Portland Cement Grout (feet bgs)	Construction Depth of Piezometer (feet bgs)	Total Boring Depth (feet bgs)
PZ01S	8/22/2018	14-4	14-2	2-1	1-0.5	14	20
PZ01D	11/19/2018	50-40	50-36	36-34	34-0.5	50	50
PZ02	8/22/2018	14-4	14-2	2-1	1-0.5	14	20
PZ03S	8/23/2018	14-4	14-2	2-1	1-0.5	14	20
PZ03D	11/19/2018	50-40	50-36	36-34	34-0.5	50	50
PZ04	8/24/2018	14-4	14-2	2-1	1-0.5	14	20
PZ05	8/24/2018	14-4	14-2	2-1	1-0.5	14	20
PZ06	8/24/2018	14-4	14-2	2-1	1-0.5	14	20
PZ07	8/28/2018	14-4	14-2	2-1	1-0.5	14	20
PZ08	8/28/2018	14-4	14-2	2-1	1-0.5	14	20
PZ09	8/21/2018	25-15	25-13	13-11	11-0.5	25	30
PZ10	8/23/2018	25-15	25-13	13-11	11-0.5	25	30
PZ11	9/11/2018	20-10	20-8	8-6	6-0.5	20	20
PZ12S	9/11/2018	20-10	20-8	8-6	6-0.5	20	20
PZ12D	11/20/2018	50-40	50-38	38-36	36-0.5	50	55
PZ13	8/29/2018	30-20	30-18	18-16	16-0.5	30	30
PZ14	8/29/2018	30-20	30-18	18-16	16-0.5	30	30
PZ15	8/29/2018	30-20	30-18	18-16	16-0.5	30	30
PZ16S	8/31/2018	20-10	20-8	8-6	6-0.5	20	20
PZ16D	11/21/2018	50-40	50-37	37-35	35-0.5	50	50
PZ17S	11/19/2018	9-4	9-3	3-1	1-0.0	9	10
PZ17D	8/21/2018	45-35	45-33	33-31	31-0.5	45	45
PZ18	9/10/2018	20-10	20-8	8-6	6-0.5	20	20
PZ19	9/10/2018	20-10	20-8	8-6	6-0.5	20	20
PZ20S	11/20/2018	9-4	9-3	3-1	1-0.5	9	10
PZ20D	9/7/2018	40-30	40-28	28-26	26-0.5	40	40
PZ21	9/7/2018	20-10	20-8	8-6	6-0.5	20	20
PZ22S	11/20/2018	9-4	9-3	3-1	1-0.5	9	10
PZ22D	9/7/2018	40-30	40-28	28-26	26-0.5	40	40
PZ23	11/20/2018	14-4	14-3	3-1	1-0.5	14	15
PZ24	9/6/2018	20-10	20-8	8-6	6-0.5	20	20
PZ25S	9/5/2018	20-10	20-8	8-6	6-0.5	20	20

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Table E2. Well Construction Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Piezometer I.D.	Date Started	Screened Interval (feet bgs[1])	Natural Fill Sand Pack (feet bgs)	Bentonite Plug (feet bgs)	Portland Cement Grout (feet bgs)	Construction Depth of Piezometer (feet bgs)	Total Boring Depth (feet bgs)
PZ-25D	12/17/2018	55-45	55-41	41-39	39-0.5	55	55
PZ26	9/5/2018	20-10	20-8	8-6	6-0.5	20	20
PZ27D	9/5/2018	30-20	30-18	18-16	16-0.5	30	30
PZ27S	12/13/2018	10-5	10-3	3-1	1-0.0	10	10
PZ28S	12/6/2018	10-5	10-3	3-1	1-0.0	10	10
PZ28D	8/30/2018	30-20	30-18	18-16	16-0.5	30	30
PZ29S	4/30/2019	19-9	19-7	7-5	5-1	19	20
PZ29D	4/30/2019	50-40	50-38	38-36	36-1	50	50
PZ30S	4/30/2019	10-5	10-3	3-2	2-1	10	10
PZ30D	4/30/2019	50-40	50-38	38-36	36-1	50	50
PZ31S	5/1/2019	12-7	12-5	5-3	3-1	12	12
PZ31D	5/1/2019	50-40	50-38	38-36	36-1	50	70
PZ32S	5/6/2019	13-8	13-6	6-4	4-1	13	13
PZ32D	5/6/2019	50-40	50-38	38-36	36-1	50	50
PZ33S	5/1/2019	12-7	12-5	5-3	3-1	12	12
PZ33D	5/1/2019	51-41	51-39	39-37	37-1	51	60
PZ34S	5/3/2019	15-10	15-8	8-6	6-1	15	15
PZ34D	5/3/2019	50-40	50-38	38-36	36-1	50	50
PZ35S	5/2/2019	10-5	10-3	3-1	---[2]	10	10
PZ35D	5/2/2019	40-30	40-28	28-26	26-1	40	50
PZ36S	5/2/2019	8-3	8-2	2-1	---	8	8
PZ36D	5/2/2019	40-30	40-28	28-26	26-1	40	50
PZ37S	5/9/2019	10-5	10-3	3-1	0.5-1	10	10
PZ37D	5/9/2019	40-30	40-28	28-26	26-1	40	40
PZ38	11/14/2018	14-4	14-3	3-2	2-0.5	14	15
PZ39S/OWA3S	11/8/2018	35-25	35-21	21-19	19-1	35	35
PZ39D/OWA3D	11/8/2018	90-80	80-76	76-74	74-1	90	90
PZ40	12/7/2018	14-4	14-2	2-0	NA	14	15
PZ41	12/4/2018	14-4	14-3	3-1	1-0.5	14	15
PZ42	12/17/2018	14-4	14-3	3-1	1-0.5	14	15
PZ43	12/17/2018	14-4	14-2	2-0	---	14	15

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Table E2. Well Construction Summary Table; Geologic Characterization At Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Piezometer I.D.	Date Started	Screened Interval (feet bgs[1])	Natural Fill Sand Pack (feet bgs)	Bentonite Plug (feet bgs)	Portland Cement Grout (feet bgs)	Construction Depth of Piezometer (feet bgs)	Total Boring Depth (feet bgs)
PZ44	12/13/2018	15-5	15-2	2-0	---	15	15
PZ45S	11/5/2018	14-4	14-3	3-0.5	---	14	15
PZ45D	11/6/2018	49-39	49-34	34-32	32-0.5	49	50
PZ46	12/4/2018	15-5	15-4	4-2	2-0.0	15	15
PZ47	12/13/2018	15-5	15-3	3-1	1-0	15	15
PZ48S	10/31/2018	9-4	9-2.5	2.5-0.5	---	9	10
PZ48D	10/31/2018	50-40	50-38	38-36	36-1	50	50
PZ49	11/7/2018	14-4	14-2	2-0.5	0.5-0.0	14	15
PZ50	11/5/2018	14-4	14-3	3-0.5	0.5-0.0	14	15
PZ51S	10/31/2018	9-4	9-3	3-0.5	NA	9	10
PZ51D	10/31/2018	50-40	50-37	37-35	35-0.5	50	50
PZ52	11/2/2018	14-4	14-3	3-1	1-0.5	14	15
PZ53	12/13/2018	15-5	15-2	2-0	---	15	15
PZ54S	5/10/2019	10-5	10-3	3-1	---	10	10
PZ54D	5/10/2019	50-40	50-38	38-36	36-1	50	50
PZ55S	4/29/2019	19-14	19-12	12-10	10-1	20	20
PZ55D	4/29/2019	49-39	49-37	37-35	35-1	49	50
PZ56S	5/7/2019	10-5	10-3	3-1	---	10	10
PZ56D	5/7/2019	50-40	50-38	38-36	36-1	50	50
PZ57S	5/9/2019	14-9	14-7	7-5	5-1	14	15
PZ57D	5/9/2019	49-39	49-37	37-35	35-1	49	50
PZ58S	5/7/2019	15-10	15-8	8-6	6-1	15	15
PZ58D	5/7/2019	50-40	50-38	38-36	36-1	50	50

[1] Below ground surface

[2] Not applicable or missing data

APPENDIX E
BORING LOGS

TWIN PINES MINERALS

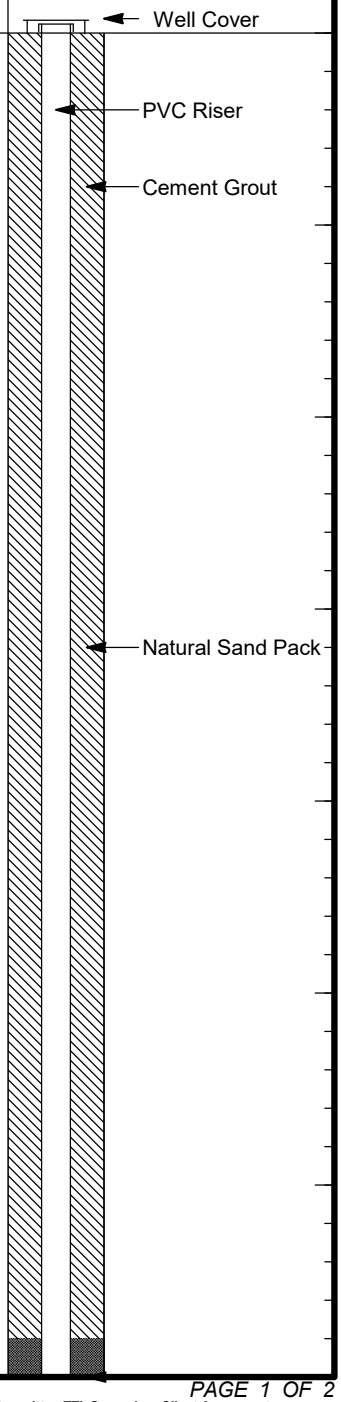
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ01D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.10 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.09 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SM				SAND, silty: brown (quartz); fine (35%); med (60%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (roots/grass)	
		CL				CLAY, sandy: grey; fine; well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
10			10-20	80			
		SM				SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)	
		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
15							
20			20-30	80			
25		SP				SAND: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
30		SP	30-40	70		SAND: grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
						SAND, clayey: grey (quartz); fine (75%); med (20%); clay	

PIEZOMETER DIAGRAM



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This well log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this well logor the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.

9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ01D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SC	40-50	70		(<5%); well sorted; subround; moist		Bentonite Seal
45		SC				SAND, clayey: dark grey (quartz); fine (60%); med (30%); coarse (5%); clay (<5%); well sorted; subround		0.010-in Slotted Screen
		CL				CLAY, sandy: dark grey; fine		
50						BORING TERMINATED AT 50 FEET.		Well tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

This well log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this well logor the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.

TWIN PINES MINERALS

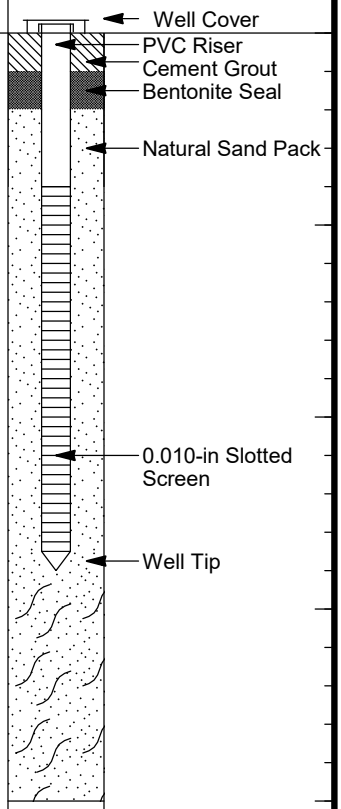
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ01S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/22/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.04 Ft. AMSL
REMARKS		**GROUND ELEVATION**	122.98 Ft. AMSL
		DEPTH TO WATER	1.98 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/3 (Brown); med (60%); fine (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		CL				CLAY, sandy: 10yr 6/1 (Gray); fine (20%); well saturated; subround; moist	
10		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (60%); med (30%); silt (10%); well saturated; subround; unconsolidated; saturated	
		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well saturated; sub round; consolidated 10yr 5/3 (Brown)	
15		SP				SAND: 10yr 6/3 (Pale Brown); fine (75%); med (25%); well saturated; subround; unconsolidated; saturated	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

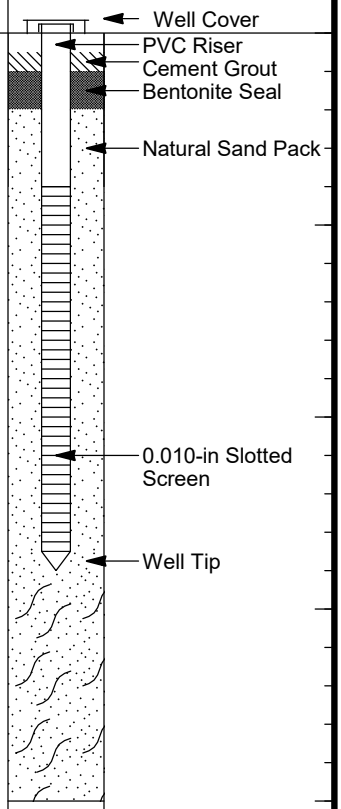
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ02 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/22/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	126.03 Ft. AMSL
REMARKS		**GROUND ELEVATION**	126.02 Ft. AMSL
		DEPTH TO WATER	2.01 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/3 (Brown); fine (70%); med (20%); silt (<10%); well sorted; subround; unconsolidated; small and large wood material; saturated	
5		SP				SAND: fine (50%); med (50%); well sorted; subround; consolidated; moist 10yr 2/1 (Black)	
10							
15		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (20%); med (75%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
20		SM				SAND, silty: 10yr 4/3 (Brown); fine (20%); med (75%); silt (<5%); well sorted; subround; less consolidated; wet	
						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

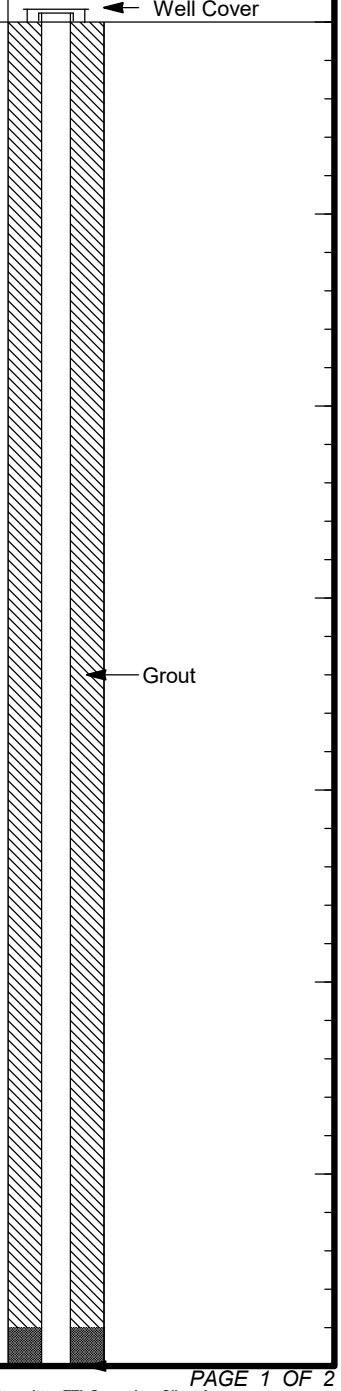
LOG OF PIEZOMETER PZ03D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.56 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.50 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: dark brown (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; wet; organic material (wood)	
5							
		SP				SAND: very dark brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist	
10			10-20	80			
		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
15							
		SM				SAND, silty: yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
20							
		SP				SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
25							
		SC-SM				SAND, silty, clayey: grey (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
30							

Continued Next Page

PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ03D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: dark grayish brown (quartz); fine (75%); med (25%); well sorted subround; unconsolidated; moist; FBG (<1%)		Bentonite Seal Natural Sand Pack Screened Interval (0.01-inch PVC) Well Tip
45								
50						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

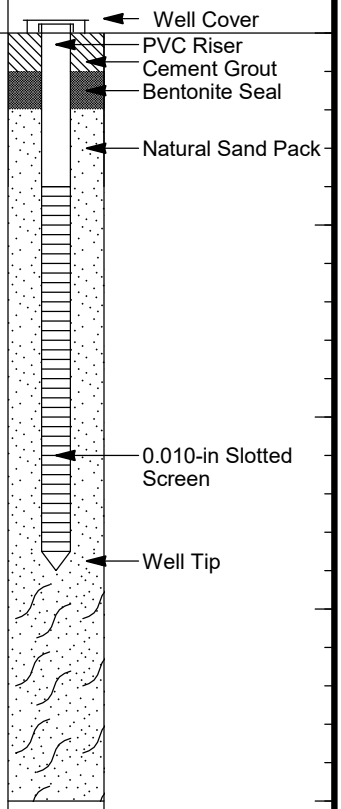
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ03S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/23/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.80 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.77 Ft. AMSL
		DEPTH TO WATER	2.4 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						Hand augered before mech. issue; water came in up to 1.5 logs	
5		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (90%); silt (<10%); well sorted; subround; saturated; organic (wood)	
10		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
15		SP				SAND: 10yr 4/3 (Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
20		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) Fine black grains; (<1%) Fine black grains	
						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

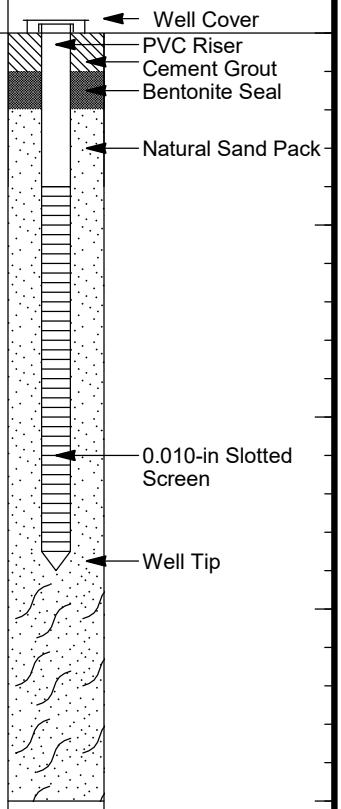
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ04 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/27/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.89 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.94 Ft. AMSL
		DEPTH TO WATER	3.24 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0–5		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
5–10		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet	
10–15		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); clay (<5%); well sorted; subround; semi-consolidated; wet	
15–20		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; wet; (<1%) fine black grained	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

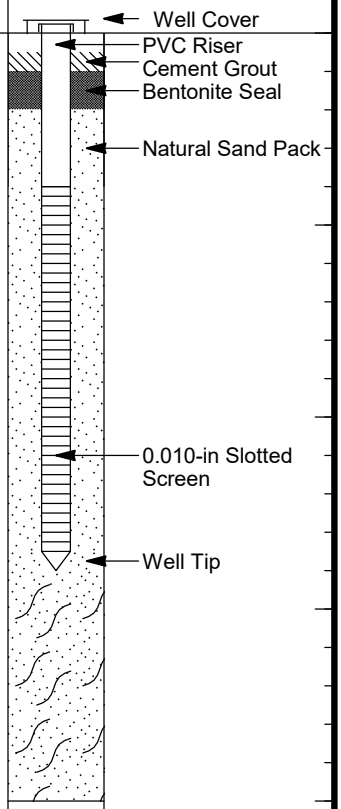
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ05 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/27/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	124.37 Ft. AMSL
REMARKS		**GROUND ELEVATION**	124.62 Ft. AMSL
		DEPTH TO WATER	3.14 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SC				SAND, clayey: 10yr 5/2 (Grayish Brown); fine (75%); med (20%); clay (<5-10%); well sorted; subround; semi-consolidated; wet	
10		SM				SAND, silty: 10yr 6/2; fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
15		SP				SAND: 10yr 5/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

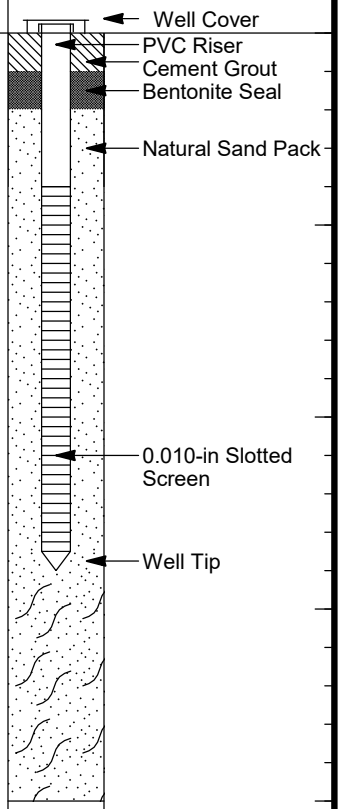
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ06 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/27/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	124.26 Ft. AMSL
REMARKS		**GROUND ELEVATION**	124.39 Ft. AMSL
		DEPTH TO WATER	2.44 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; organic material	
5		SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) black fine grains	
		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet	
10		SP				SAND: 10yr 4/2 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
15		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (60%); med (30%); clay (<10%); well sorted; subround; light consolidated; wet	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

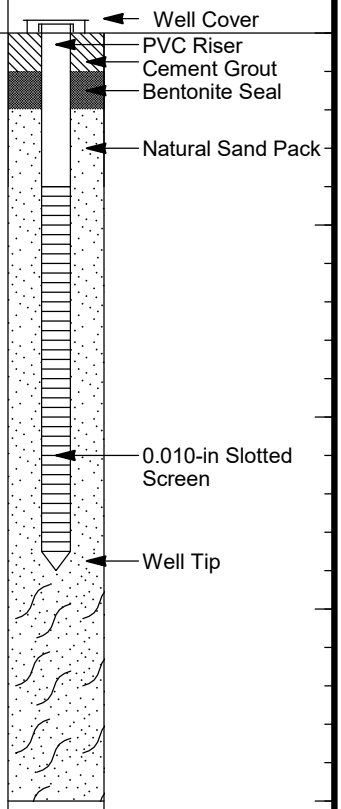
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ07 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/28/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.41 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.08 Ft. AMSL
		DEPTH TO WATER	1.73 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty: 10yr 5/2 (Grayish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; semi-consolidated; wet	
10		SP				SAND: 10 yr 5/2 (Grayish-Brown); fine (60%); med (40%); well sorted; subround; saturated	
15							
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

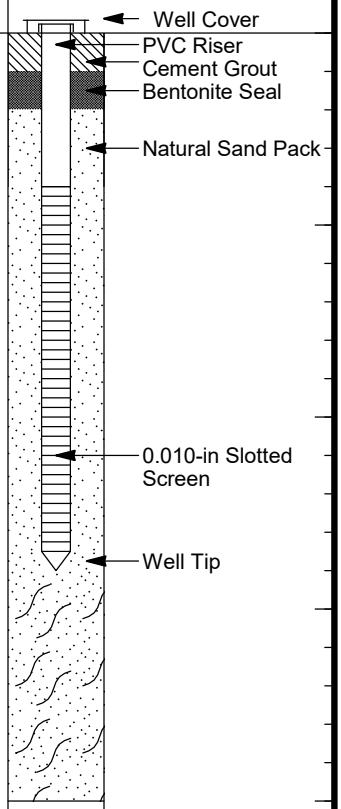
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ08 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/28/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	130.08 Ft. AMSL
REMARKS		**GROUND ELEVATION**	130.19 Ft. AMSL
		DEPTH TO WATER	2.68 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; organic material	
5		SP				SAND: 10yr 5/2 (Grayish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
10		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet	
15		SM				SAND, silty: 10yr 4/4 (Dark Yellowish-Brown); fine (60%); med (35%); silt (25%); well sorted; subround; wet; (<1%) black fine grains	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

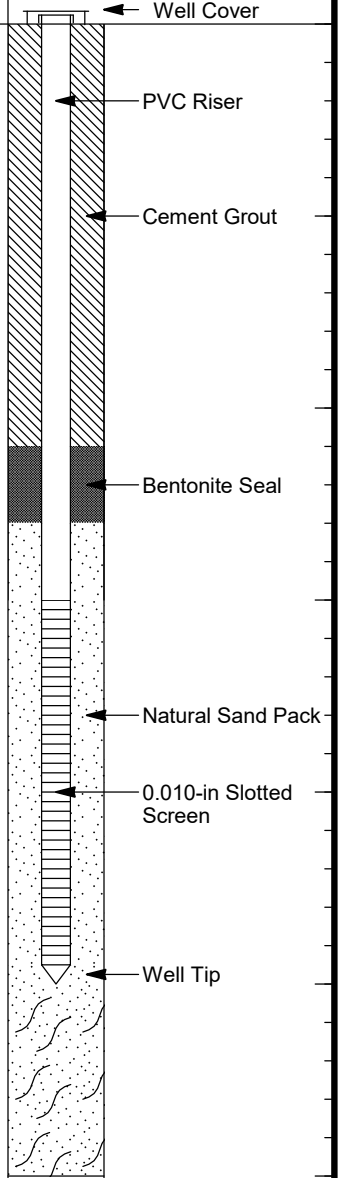
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ09 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/21/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	135.06 Ft. AMSL
REMARKS		**GROUND ELEVATION**	135.39 Ft. AMSL
		DEPTH TO WATER	2.2 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (95%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SM				SAND, silty: 10yr 2/1 (Black); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; moist	
10		SP				SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; saturated	
15		SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
20		SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; saturated	
		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; unconsolidated	
25		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated	
		SP				SAND: fine (50%); med (50%); well sorted; subround; unconsolidated; saturated	
30						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

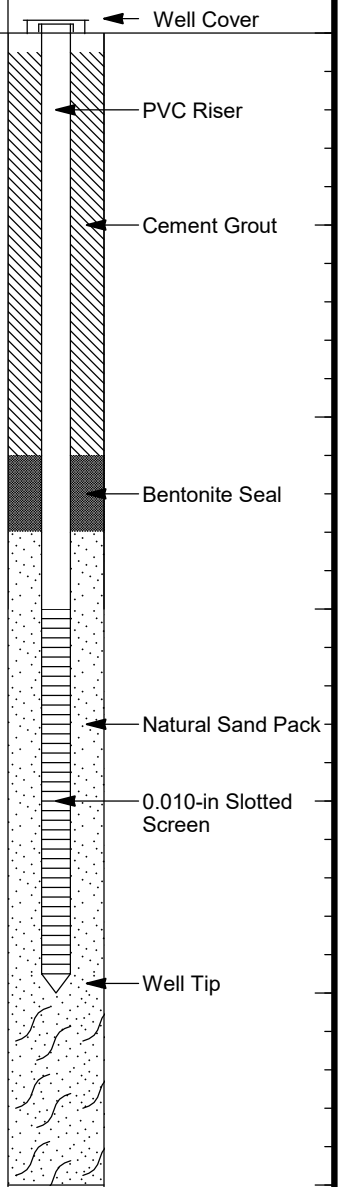
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ10 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/23/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	145.97 Ft. AMSL
REMARKS		**GROUND ELEVATION**	145.72 Ft. AMSL
		DEPTH TO WATER	2.86 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND; silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
10		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; semi-consolidated; wet	
15		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet	
20		SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet	
25		SP				SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
30		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet	
						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

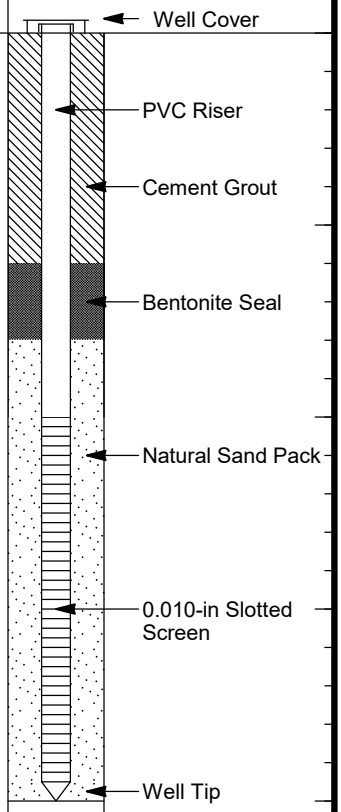
LOG OF PIEZOMETER PZ11 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/11/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	148.10 Ft. AMSL
REMARKS		**GROUND ELEVATION**	147.48 Ft. AMSL
		DEPTH TO WATER	3.03 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION
		SP				SAND: 10yr 8/1 (white); fine (75%); med (25%); well sorted; subround; unconsolidated; dry; (<1%) fine black grains
		SP				SAND: 10yr 4/1 (Dark Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; (<1%) fine black grains
5		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet
10		SM				SAND: silty; fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; 10yr 2/1 (Black)
15		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med(20%); silt (<5%); well sorted; subround; semi-consolidated
20		SP				SAND: 10yr 5/1 (Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains
						BORING TERMINATED AT 20 FEET.

WATER LEVEL & DATE

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ12D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	138.18 Ft. AMSL
REMARKS		**GROUND ELEVATION**	137.52 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						No Recovery	
		SM				SAND, silty: (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; moist; unconsolidated; organic material (wood/roots)	
5		SM				SAND, silty: dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist	
15							
20		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SC				SAND, clayey: grayish brown (quartz); fine (75%); med (20%); clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
25							
30		SP				SAND: light grayish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)	

PIEZOMETER DIAGRAM

Well Cover

Grout

Continued Next Page

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9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ12D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/1/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40						No Recovery		Bentonite Seal; Natural Sand Pack
45								Screened Interval (0.01-inch PVC)
50						No Recovery		Well Tip
55						BORING TERMINATED AT 55 FEET.		

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TWIN PINES MINERALS

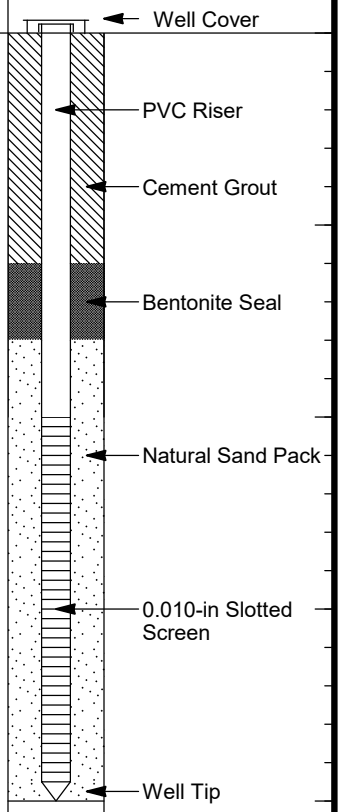
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ12S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/11/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	138.00 Ft. AMSL
REMARKS		**GROUND ELEVATION**	138.16 Ft. AMSL
		DEPTH TO WATER	1.52 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 4/1 (Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; organics (Roots)	
5		SM				SAND, silty: 10yr 4/4 (Dark Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
10		SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet	
15							
20		SM				SAND, silty: 10yr 4/1 (Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

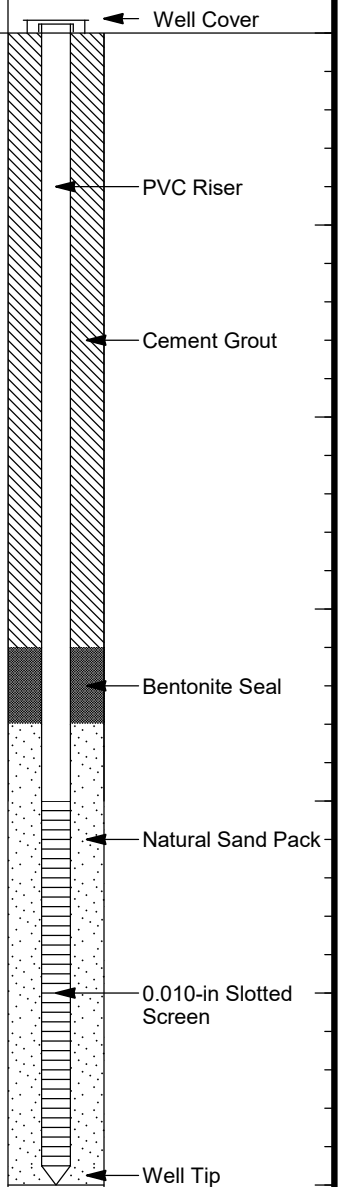
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ13 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/29/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	157.63 Ft. AMSL
REMARKS		**GROUND ELEVATION**	157.47 Ft. AMSL
		DEPTH TO WATER	2.55 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet	
20		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
25		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SP				SAND: 10yr 4/1 (Dark Gray); med (60%); coarse (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
30						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

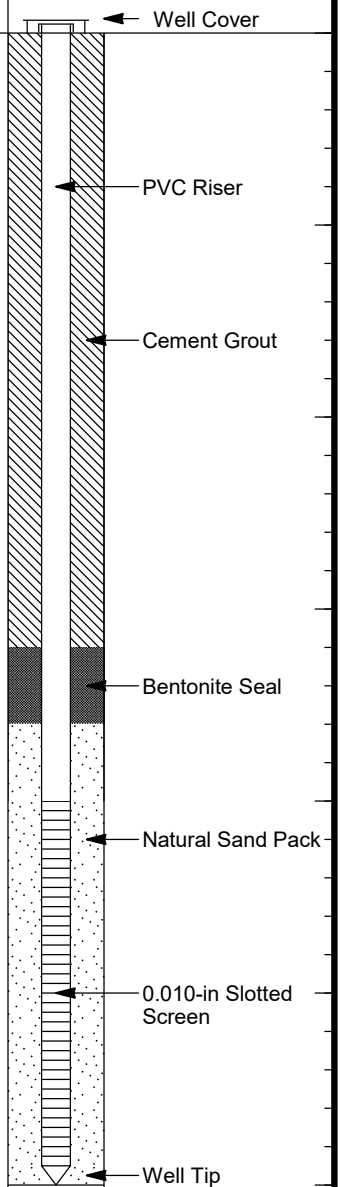
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ14 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/29/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	167.66 Ft. AMSL
REMARKS		**GROUND ELEVATION**	167.32 Ft. AMSL
		DEPTH TO WATER	2.36 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (60%); med (40%)	
5		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
10		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist	
15		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist	
20		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet	
25		SP				SAND: 10yr 3/3 (Dark Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
		SP				SAND: 10yr 3/1 (Very Dark Gray); fine (60%); med (40%); well sorted; subrounded; unconsolidated; wet	
		SP				SAND: 10yr 2/2 (Very Dark Brown); fine (60%); med (30%); coarse (10%); saturated	
30						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

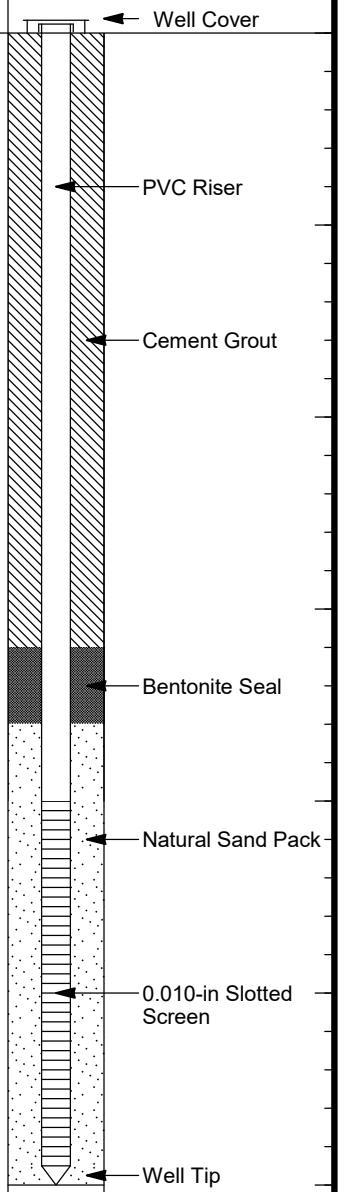
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ15 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/29/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	166.84 Ft. AMSL
REMARKS		**GROUND ELEVATION**	166.95 Ft. AMSL
		DEPTH TO WATER	2.47 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (60%); med (40%); well sorted; subround; wet; unconsolidated	
		SM				SAND, silty: 10yr 3/2 (Very Dark Gray Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (40%); silt (<5%); well consolidated; wet	
		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); unconsolidated; wet	
15							
20		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); well consolidated; wet	
25		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (35%); med (60%); silt (<5%); well sorted; subround; semi-consolidated; wet	
		SP				SAND: 10yr 4/2 (Dark Yellowish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
		SP				SAND: 10yr 5/3 (Brown); fine (40%); med (60%); unconsolidated; (<1%) fine black grains	
30		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (60%); med (25%); silty (<5%) coarse (10%); well sorted; subround; semi-consolidated; wet/saturated	
						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ16D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/21/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	160.41 Ft. AMSL
REMARKS		**GROUND ELEVATION**	160.43 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics	
5		SP				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
10		SM				SAND, silty: very dark brown (quartz); fine (35%); med (60%); silt (<5%); well sorted; subround; semi-consolidated; moist	
15							
20		SP				SAND: dark brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
25		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist	
		SP				SAND: dark brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SP				SAND: dark yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
30		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	

PIEZOMETER DIAGRAM: Well Cover; Grout

Continued Next Page

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ16D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND: dark grey (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Bentonite Seal Natural Sand Pack
		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
		SM				SAND, silty: brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
45		CL				CLAY, sandy: brown; fine; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
		SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
50						BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

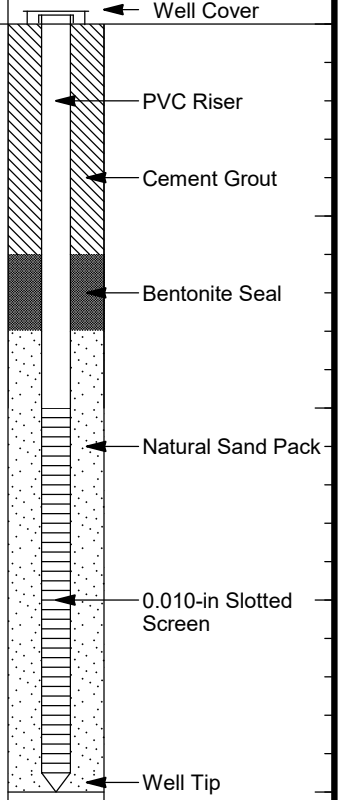
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ16S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/31/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	160.42 Ft. AMSL
REMARKS		**GROUND ELEVATION**	160.60 Ft. AMSL
		DEPTH TO WATER	3.01 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 5/2 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
10		SM				SAND, silty: 10yr 2/1 (Black); fine (35%); med (60%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SP				SAND: 10yr 3/3 (Dark brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

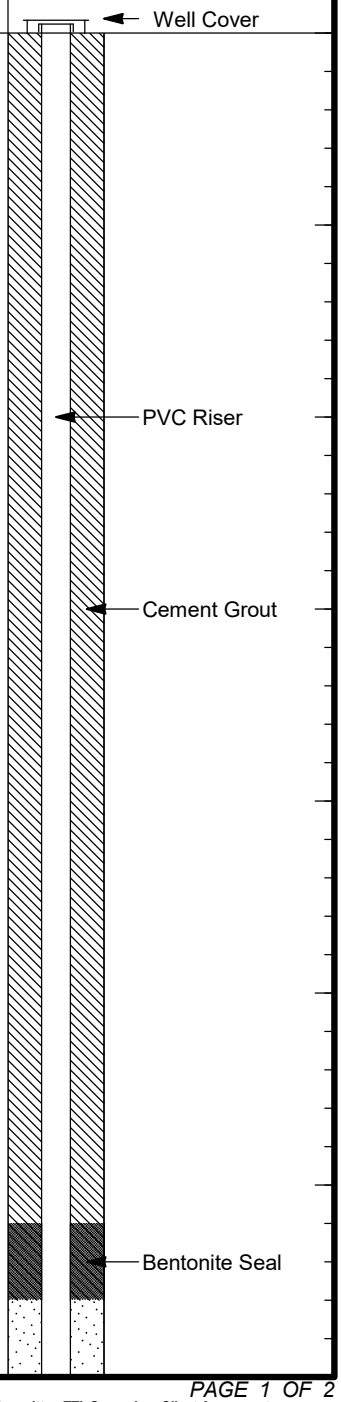
LOG OF PIEZOMETER PZ17D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/21/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	161.01 Ft. AMSL
REMARKS		**GROUND ELEVATION**	160.89 Ft. AMSL
		DEPTH TO WATER	4.01 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM				SAND, silty	
		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (20%); med (80%); well sorted; subround; wet	
5							
		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated; moist	
10							
		SC				SAND, clayey(seam): 10yr 2/1 (Black); fine (40%); med (50%); clay (10%); well sorted; subround; unconsolidated; moist	
		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated; moist	
15							
		SC				SAND, clayey: 10yr 3/6 (Dark Yellowish-Brown); fine (40%); med (50%); clay (10%); well sorted; subround	
20		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated; moist	
		SP				SAND: fine (50%); med (50%); well sorted; subround; less consolidated; moist	
25						No Recovery	
		SP				SAND: 10yr 3/3 (Dark Brown); fine (25%); med (75%); well sorted; subround; unconsolidated; moist	
		SP				SAND: 10yr 3/3 (Dark Brown); fine (25%); med (75%); well sorted; subround; well consolidated; moist	
30						SAND, silty: 10yr 3/4 (Dark Yellowish Brown); fine (10%); med (50%); silt (<5%); well sorted; subround; wet; (10%) fine black grains	
		SM					

Continued Next Page

PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ17D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/21/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
						No Recovery		
		SC				SAND, clayey: coarse (60%); med (40%); well sorted; subround; unconsolidated; (<1%) fine black grains; saturated @ 39'		
40		SP				SAND: med (90%); coarse (10%); wells sorted; subround; unconsolidated		Natural Sand Pack; 0.010-in Slotted Screen
		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (20%); med (75%); silt (<5%); well sorted; subround; consolidated		
45						BORING TERMINATED AT 45 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

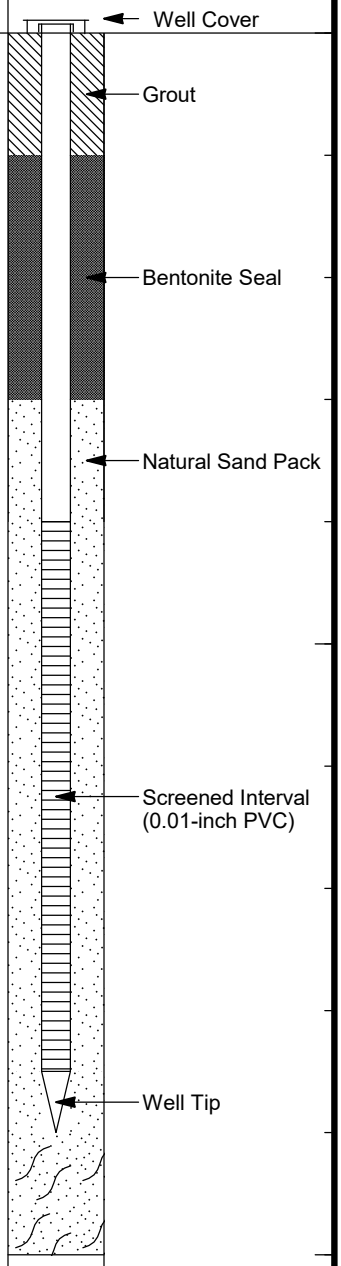
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ17S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/19/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	161.75 Ft. AMSL
REMARKS		**GROUND ELEVATION**	161.58 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						No Recovery	
		SP				SAND: dark grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; wet; organic material (grass/roots)	
		SP				SAND: light grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; wet; FBG (<1%)	
		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

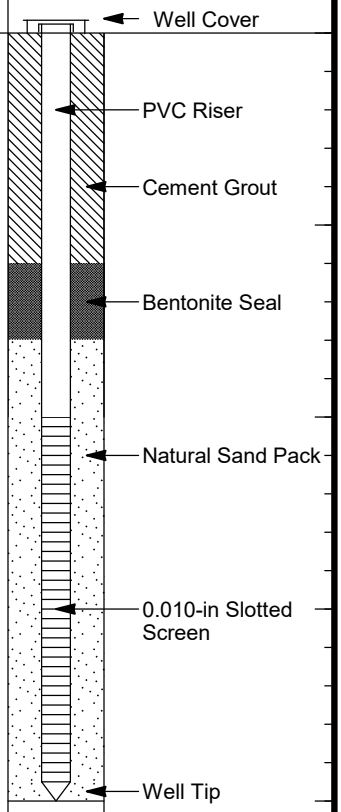
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ18 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/10/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	164.26 Ft. AMSL
REMARKS		**GROUND ELEVATION**	164.38 Ft. AMSL
		DEPTH TO WATER	2.05 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 3/4 (Dark Yellowish-Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains; abundant organics (wood & roots)	
5		SP				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains; 10yr 6/3 (Pale Brown)	
		SP					
		SM				SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
10		SP				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains SAND: 10yr 5/2 (Grayish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
15		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
20		SM				SAND: 10yr 2/1 (Black); fine (90%); med (5%); silt (<5%); well sorted; subround; well consolidated; wet BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

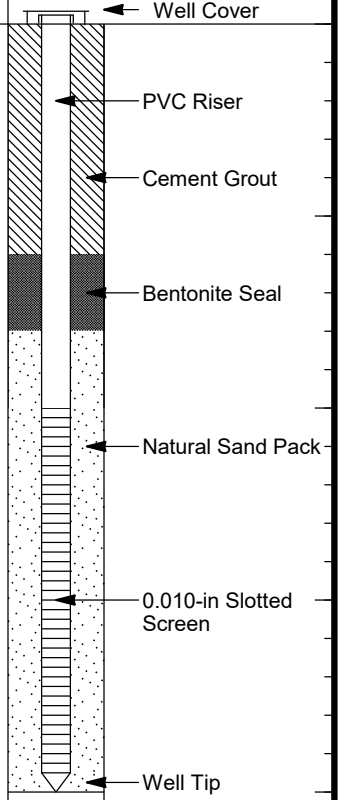
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ19 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/10/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.87 Ft. AMSL
REMARKS		**GROUND ELEVATION**	169.57 Ft. AMSL
		DEPTH TO WATER	2.46 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP				SAND: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
5		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ20D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/7/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	168.46 Ft. AMSL
REMARKS		**GROUND ELEVATION**	168.43 Ft. AMSL
		DEPTH TO WATER	3.02 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 6/1 (Gray); fine (60%); med (35%); well sorted; subround; unconsolidated; moist; (<1%) fine black grains	
5		SP				SAND: 10yr 5/4 (Yellowish Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
10		SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SM				SAND, silty: 10yr 6/3 (Pale Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
20		SM				SAND, silty: 10yr (Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty: 10yr 2/2 (Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet	
25		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet	
30						SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (50%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	

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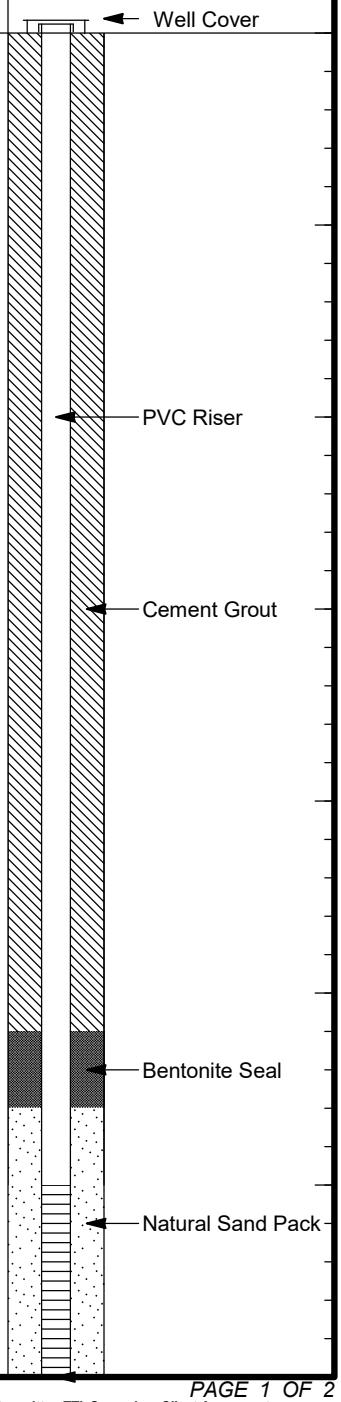
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ20D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP						0.010-in Slotted Screen
40						BORING TERMINATED AT 40 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

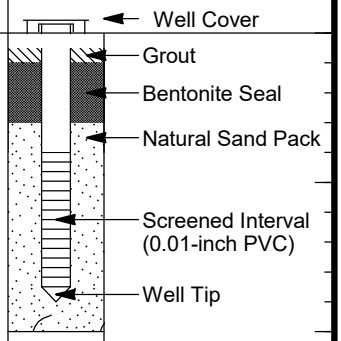
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ20S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/20/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	168.33 Ft. AMSL
REMARKS		**GROUND ELEVATION**	168.18 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						No Recovery	
5		SP				SAND: yellowish brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SP				SAND: light brownish grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; FBG (<1%)	
		SM				SAND, silty: black (quartz); fine (70%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

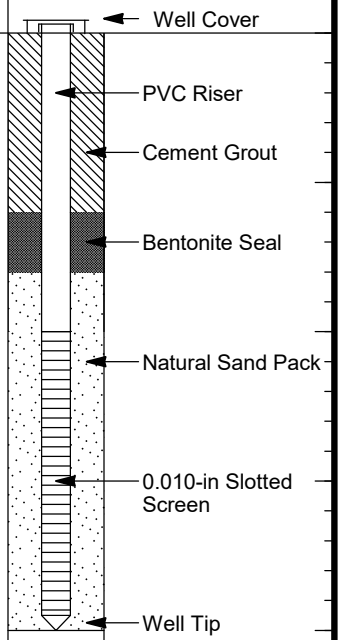
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ21 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/7/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	164.90 Ft. AMSL
REMARKS		**GROUND ELEVATION**	164.61 Ft. AMSL
		DEPTH TO WATER	1.6 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM				SAND, silty: 10yr 5/1 (Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics	
		SM				SAND, silty: 10yr 4/4 (Dark Yellowish Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics	
5		SM				SAND, silty: 10yr 4/2 (Dark Grayish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty: 10yr 2/1 (Black); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; wet	
10							
15							
		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; wet	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

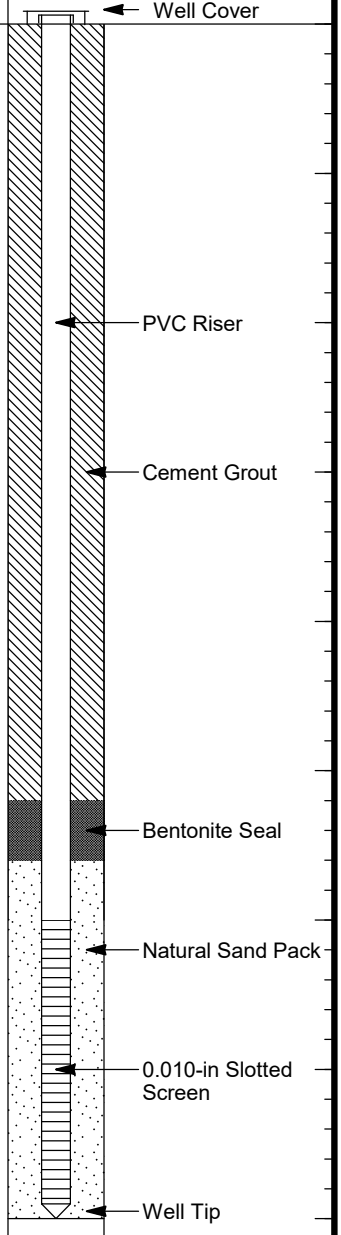
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ22D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/7/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	170.48 Ft. AMSL
REMARKS		**GROUND ELEVATION**	170.54 Ft. AMSL
		DEPTH TO WATER	2.55 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics	
5		SM				SAND, silty: 10yr 54 (Yellowish-Brown), fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (45%); silt (<5%); well sorted; subround; well consolidated; wet	
15		SP				SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
20		SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; sub round; wet; well consolidated	
25		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet	
30		SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
35		SP				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; wet	
40						BORING TERMINATED AT 40 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

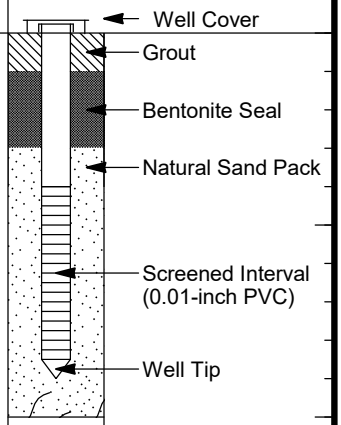
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ22S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/20/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	170.18 Ft. AMSL
REMARKS		**GROUND ELEVATION**	170.17 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						No Recovery	
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)	
5		SM				SAND, silty: yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: very dark grey (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

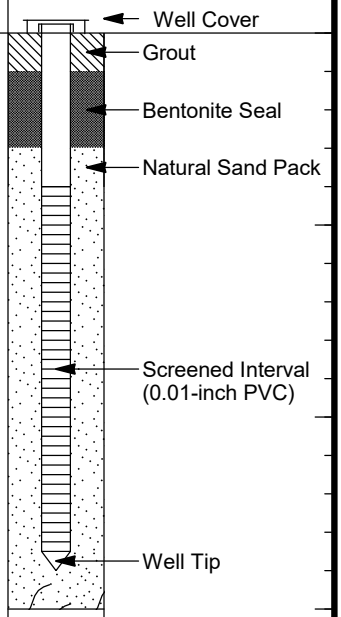
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ23 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/20/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.44 Ft. AMSL
REMARKS		**GROUND ELEVATION**	169.31 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: dark grey (quartz); fine (75%); med (30%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (roots/grass)	
		SM				SAND, silty: brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
5		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; semi-consolidated	
		SM				SAND, silty: yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
10		SM	10-15	200		SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
		SP				SAND: grey (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; moist	
15		SM				SAND, silty; very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist	
						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

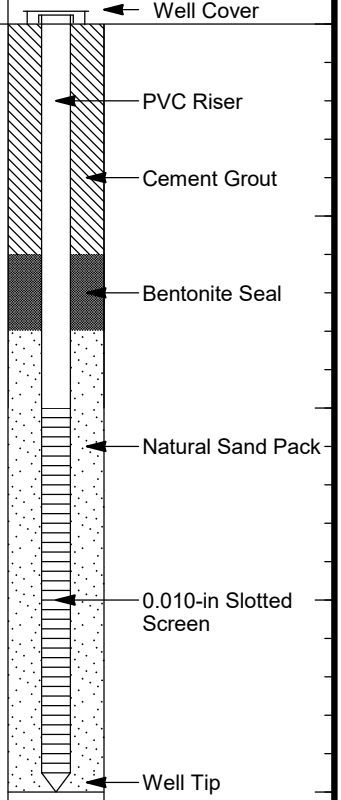
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ24 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/6/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.54 Ft. AMSL
REMARKS		**GROUND ELEVATION**	169.44 Ft. AMSL
		DEPTH TO WATER	1.8 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM				SAND, silty: 10yr 5/1 (Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics	
5		SM				SAND, silty: 10yr 3/1 (Very Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty: 10yr 5/3 (Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet	
10		SM	11-20	89		SAND, silty: 10yr 3/1 (very Dark Brown); fine (75%); med (20%); silt (5%); well sorted; subround; unconsolidated; wet	
15		SM					
		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ25D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/17/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.65 Ft. AMSL
REMARKS		**GROUND ELEVATION**	169.68 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	80		No Recovery		Well Cover
		SM				SAND, silty: grey (quartz); fine (50%); med (40%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)		
		SM				SAND, silty: dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots)		
5		SM				SAND, silty: yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
10		SM				SAND, silty: grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
			10-20	90				
		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
15								
20			20-30	80				Grout
25		SP				SAND: yellowish brown (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; moist FBG (<1%)		
		SM				SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
		SP				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; FBG (<1%)		
		SM				SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
		SP				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; FBG (<1%)		
		SM				SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
30						SAND: dark brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ25D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/17/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP						Bentonite Seal
		SP				SAND: yellowish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Natural Sand Pack
45		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
		SP				SAND: yellowish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
50		SP				SAND: grayish brown (quartz); fine (50%); med (45%); coarse (5%); well sorted subround; unconsolidated; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
55						BORING TERMINATED AT 55 FEET.		Well Tip

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TWIN PINES MINERALS

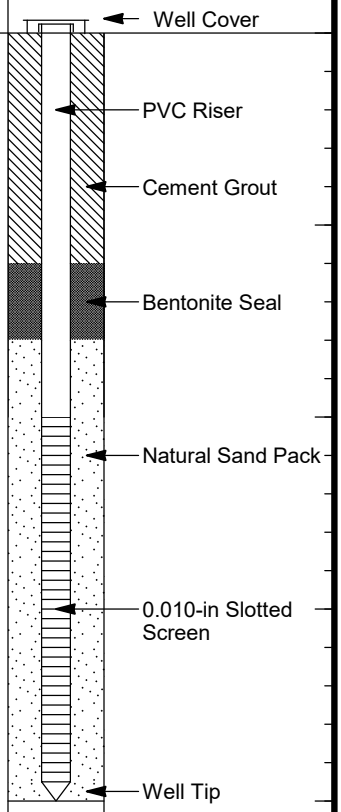
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ25S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/6/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.61 Ft. AMSL
REMARKS		**GROUND ELEVATION**	169.99 Ft. AMSL
		DEPTH TO WATER	2.06 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM				SAND, silty: 10yr 5/1 (Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; (<1%) fine black grains; organics	
		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; organics	
5		SP				SAND: 10yr 5/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SM	10-20	80		SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silty (<5%); well sorted; subround; unconsolidated; wet	
10		SP				SAND: 10yr 4/1 (Dark Gray); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
		SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet	
15							
		SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

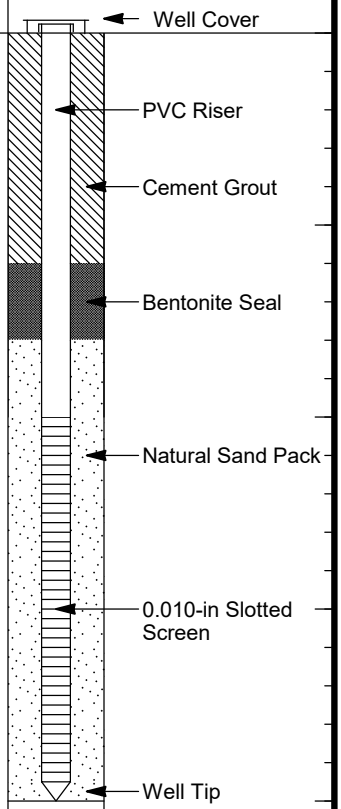
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ26 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/5/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.22 Ft. AMSL
REMARKS		**GROUND ELEVATION**	168.99 Ft. AMSL
		DEPTH TO WATER	2.58 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP				SAND: 10yr 5/3 (Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; organic material (roots)	
5		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (50%); med (50%); well sorted; subround; unconsolidated; wet organics (Roots)	
10		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organic material (Roots)	
15		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (5%); well sorted; subround; well consolidated	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

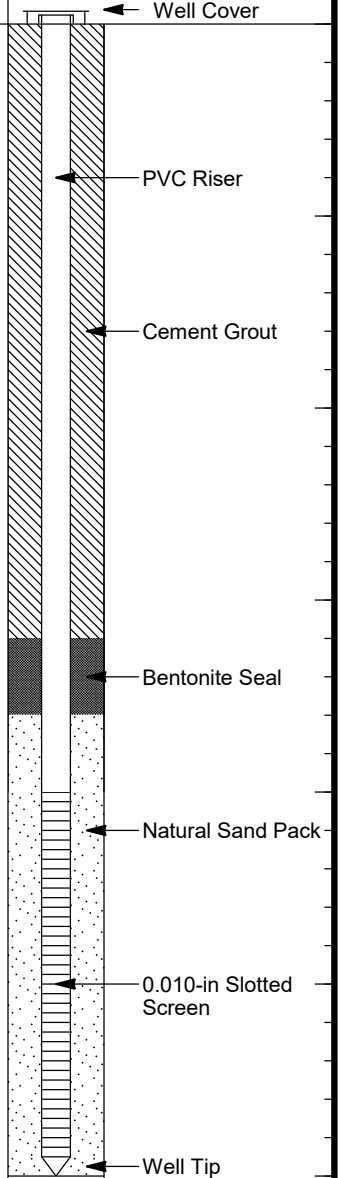
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ27D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	9/5/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	168.06 Ft. AMSL
REMARKS		**GROUND ELEVATION**	168.01 Ft. AMSL
		DEPTH TO WATER	2.73 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP				SAND: 10yr 5/1 (Gray); fine (50%); med (50%); well sorted; subround; unconsolidated; wet	
5		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty: 10yr 5/2 (Grayish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	11-20	78		SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet	
15		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (45%); silt (5%); well sorted; subround; unconsolidated; wet	
20		SP	21-30	89		SAND: 10yr 3/3 (Dark Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
25		SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; wet	
30						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

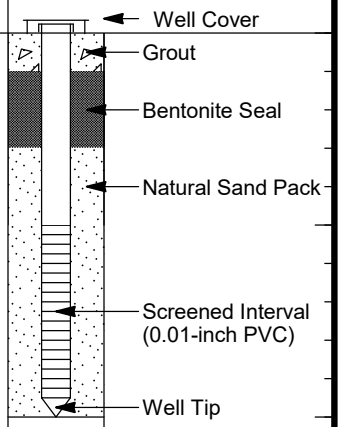
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ27S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/13/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	168.17 Ft. AMSL
REMARKS		**GROUND ELEVATION**	168.02 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0						SAND: 10yr 5/1 (Gray); med (50%); fine (50%); well sorted; sub round; unconsolidated; wet	
5		SP					
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

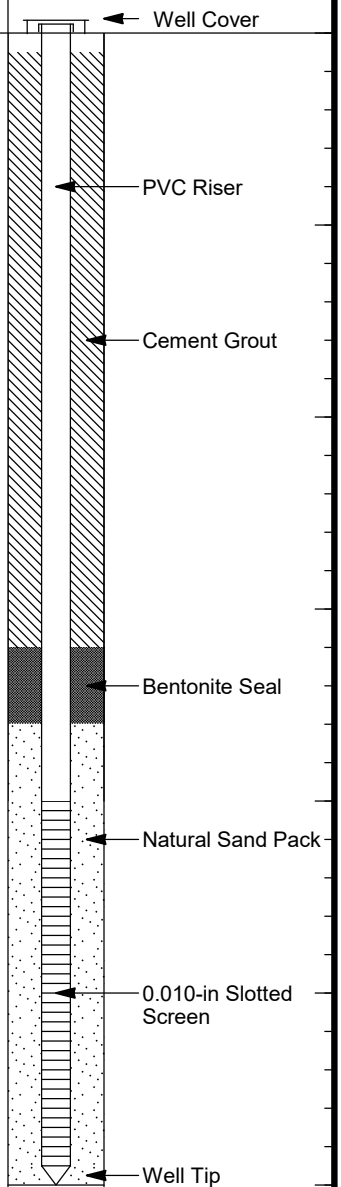
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ28D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	8/30/2018
DRILLING COMPANY	Walker Hill	**CASING DIA./TYPE**	2" PVC
DRILLER	F. Harrington	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	173.99 Ft. AMSL
REMARKS		**GROUND ELEVATION**	174.13 Ft. AMSL
		DEPTH TO WATER	2.89 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM	0-10	40		SAND, silty: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; abundant wood material	
10		SM	11-20	89		SAND, silty: 10yr 3/4 (Dark Yellowish Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet	
20		SM	21-30	89		SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (35%); med (60%); silt (<5%); well sorted; subround; unconsolidated; wet	
30		SP				SAND: 10yr 5/3 (Brown); fine (10%); med (60%); coarse (30%); well sorted; subround; unconsolidated; saturated	
						BORING TERMINATED AT 30 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

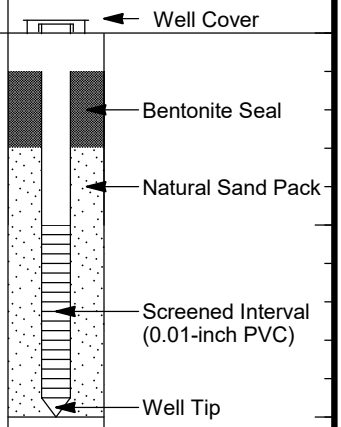
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ28S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/6/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	173.92 Ft. AMSL
REMARKS		**GROUND ELEVATION**	173.70 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0						SAND: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; sub round; wet; abundant wood material	
5		SP					
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ29D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	153.88 Ft. AMSL
REMARKS		**GROUND ELEVATION**	153.95 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SP				SAND (quartz): greyish brown (10 YR 5/2); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
5		SP				SAND (quartz): light brownish grey (10 YR 6/2); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
15		SP				SAND (quartz): grey (10 YR 5/1); fine (70%); med (30%); well sorted; subround; unconsolidated; wet	
20		SM	20-30	100		SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		ML				SILT: black (10 YR 2/1); silt (100%); hard; moist	
		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
25		SP				SAND (quartz): brown (10 YR 5/3); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
30		SP	30-40	100		SAND (quartz): brown (10 YR 5/3); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (70%), med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	

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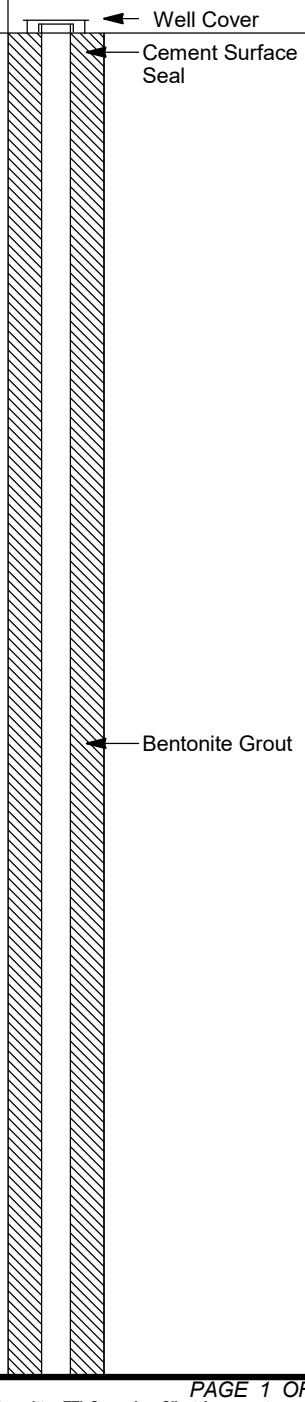
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ29D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND (quartz): light yellowish brown (10 YR 6/4); dark greyish brown (10 YR 4/2); mottled; fine (60%); med (40%); well sorted; subround; unconsolidated; wet		Bentonite Seal Natural Sand Pack
40		SP	40-50	100		SAND (quartz): light yellowish brown (10 YR 6/4); dark greyish brown (10 YR 4/2); mottled; fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
		SC				SAND, clayey (quartz): dark greyish brown (10 YR 4/2); fine (80%), med (10%); clay (5-10%); poorly sorted; subround; semi-consolidated; firm to hard; moist		
45		SM				SAND, silty (quartz): light gray (10 YR 7/2); fine (75%), med (20%), silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		Screened interval (0.01-inch PVC)
50						BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

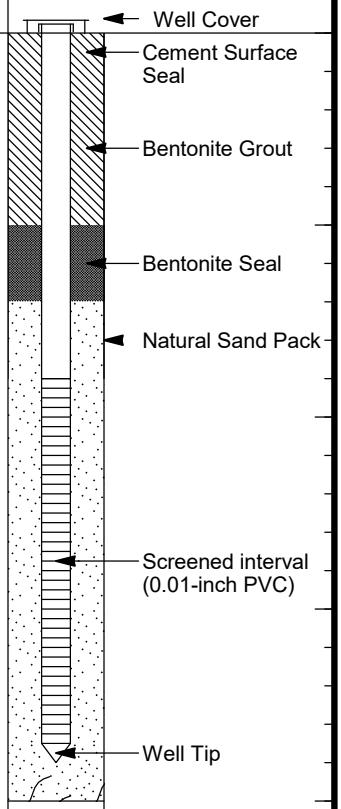
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ29S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	154.04 Ft. AMSL
REMARKS		**GROUND ELEVATION**	153.98 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SP				SAND (quartz): greyish brown (10 YR 5/2); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
5		SP				SAND (quartz): light brownish grey (10 YR 6/2); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet	
10		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
15		SP				SAND (quartz): grey (10 YR 5/1); fine (70%); med (30%); well sorted; subround; unconsolidated; wet	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ30D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	138.02 Ft. AMSL
REMARKS		**GROUND ELEVATION**	137.97 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	90		No Recovery	
		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark yellowish brown (10 YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; subround; semi-consolidated; wet	
		SM				SAND, silty (quartz): brown (10 YR 4/3); very pale brown (10 YR 7/3); mottled; fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): dark brown (10 YR 3/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SP				SAND (quartz): brown (10 YR 4/3); fine (70%); med (30%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): brown (10 YR 4/3); white (10 YR 8/1); fine black grains (<1%); mottled; fine (70%); med (30%); well sorted; subround; unconsolidated; wet	
20		SP	20-30	100		SAND (quartz): brown (10 YR 5/3); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silt (quartz): dull yellowish brown (10 YR 4/6); fine (70%); med (25%); silt (<5%); well sorted; subround; semi-consolidated; wet	
25		SP				SAND (quartz): dark yellowish brown (10 YR 4/6); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
30		SP	30-40	100		SAND (quartz): light grey (10 YR 7/2); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
						SAND, clayey (quartz): light grey (10 YR 7/2); fine (70%); med	

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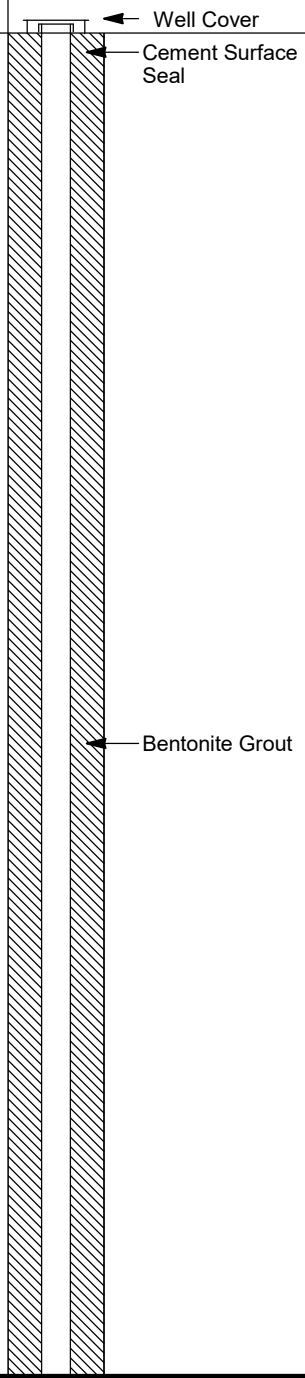
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ30D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SC				(25%); clay (<5%); fine black grains (<1%); well sorted; subround; semiconsolidated; wet		Bentonite Seal
		SP				SAND (quartz): light gray (10 YR 7/2); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		Natural Sand Pack
40			40-50			SAND (quartz): light gray (10 YR 7/2); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
45		SP						Screened interval (0.01-inch PVC)
50						BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

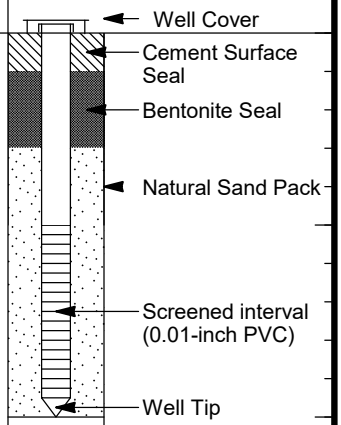
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ30S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	137.50 Ft. AMSL
REMARKS		**GROUND ELEVATION**	137.65 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	100		Shelby Tube Sample	
		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark yellowish brown (10 YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; subround; semi-consolidated; wet	
		SM				SAND, silty (quartz): brown (10 YR 4/3); very pale brown (10 YR 7/3); mottled; fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ31D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	135.90 Ft. AMSL
REMARKS		**GROUND ELEVATION**	135.90 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	80		No Recovery		Well Cover; Cement Surface Seal
		SP				SAND (quartz): dark grey (10 YR 4/1); fine (65%); med (35%); silt traces; well sorted; subround; unconsolidated; moist		
5		SM				SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
10		SM	10-20	100		SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
		SP				SAND (quartz): yellowish brown (10 YR 5/4); fine (70%); med (30%); fine black grain (<1%); well sorted; subround; unconsolidated, wet		
		SM				SAND, silty (quartz): very dark grey (10 YR 3/1); fine (70%), med (25%), silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		
15		SM				SAND, silty (quartz): dark greyish brown (10 YR 4/2); light grey (10 YR 7/2); mottled; fine (70%); med (25%); silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		
		SM				SAND, silty (quartz): dark yellowish brown (10 YR 4/6); fine (65%); med (30%); silt (<5%); FBG (<1%); well sorted; subround; unconsolidated; wet		Bentonite Grout
20		SM	20-30	100		SAND, silty (quartz): dark yellowish brown (10 YR 4/6); fine (65%); med (30%); silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		
		SP				SAND (quartz): yellowish brown (10 YR 5/4); fine (70%); med (30%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		
25								
30		SC	30-40	100		SAND, silty, clayey (quartz): yellowish brown (10 YR 5/4); fine (80%); med (10%); clay/silt (10%); poorly sorted; subround; moist		
						SAND, silty (quartz): yellowish brown (10 YR 5/4); fine (75%); med (20%); silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ31D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SM						Bentonite Seal
			40-50	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		Natural Sand Pack
45		SP						Screened interval (0.01-inch PVC)
		CL				CLAY: dark greenish grey (GLEY 1 564/1); soft to firm; with 10% HCL; calcarious reacts with 10% HCL; moist		Well Tip
50		SC	50-60	90		SAND, clayey: dark grey (GLEY 1 4/n); fine (70%); med (25%); clay (5%); well sorted; subround; unconsolidated; wet; weak reaction with 10% HCL; calcarious		
55		CL				CLAY: greenish grey (GLEY 1 5/10Y); firm; moist		
60		CL	60-70	80		CLAY: dark greenish grey (GLEY 1 564/1); greenish grey (GLEY 1 6/10Y); very hard; reacts with 10% HCL; moist		Natural Backfill
65								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

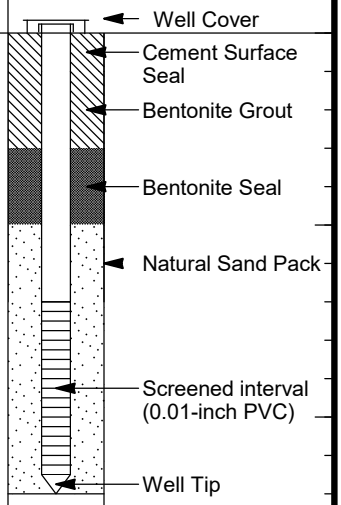
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ31S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	135.92 Ft. AMSL
REMARKS		**GROUND ELEVATION**	135.76 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-2	100		Shelby Tube Sample	
		SP	2-12	100		SAND (quartz): dark grey (10 YR 4/1); fine (65%); med (35%); silt traces; well sorted; subround; unconsolidated; moist	
5		SM				SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM				SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
						BORING TERMINATED AT 12 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ32D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/6/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	139.68 Ft. AMSL
REMARKS		**GROUND ELEVATION**	139.79 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP	0-10	100		SAND (quartz): greyish brown (10 YR 5/2); fine (60%); med (40%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
5							
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
15							
		SM				SAND, silty (quartz): dark yellowish brown (10 YR 3/4); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
20		SM	20-30	100		SAND, silty (quartz): dark yellowish brown (10 YR 3/4); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark brown (10 YR 3/3); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark yellowish brown (10 YR 3/6); fine (65%); med (30%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
25		SP				SAND (quartz): pale brown (10YR 6/5); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
30			30-40	100		SAND (quartz): greyish brown (10 YR 5/2); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	

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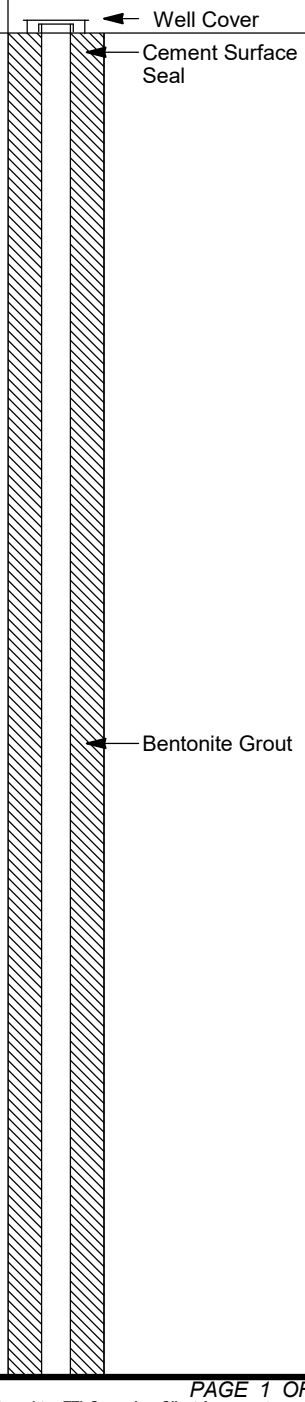
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ32D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/6/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP						
40			40-50	80		No Recovery		
		SP				SAND (quartz): light grey (10 YR 7/2); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
45		SP						
		SP				SAND (quartz): grey (10 YR 5/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
50						BORING TERMINATED AT 50 FEET.		

Bentonite Seal

Natural Sand Pack

Screened interval (0.01-inch PVC)

Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

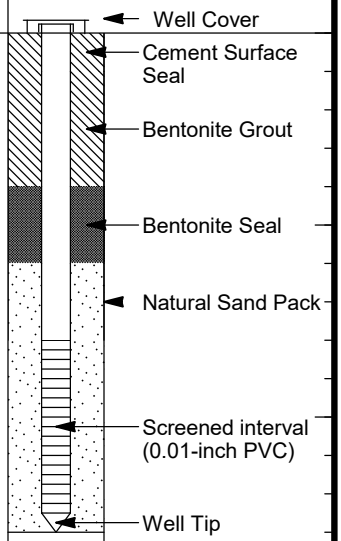
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ32S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/6/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	139.94 Ft. AMSL
REMARKS		**GROUND ELEVATION**	139.85 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP	0-10	100		SAND (quartz): grey (10 YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): brown (10 YR 5/3); fine (60%); med (40%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10			10-13	0		No Recovery	
						BORING TERMINATED AT 13 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ33D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	123.91 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.63 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	90		No Recovery	
		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty (quartz): dark brown (10 YR 3/3); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
5							
		SM				SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; fine black grain (<1%) wet	
		SM				SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10			10-20	70		No Recovery	
		SM				SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
15							
		SM				SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
20			20-30	100		SAND, silty (quartz): light grey (10 YR 7/2); fine (70%); med (25%); silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet	
		SM					
25							
30			30-40	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); fine black grain (<1%); well sorted; subround; unconsolidated; wet	

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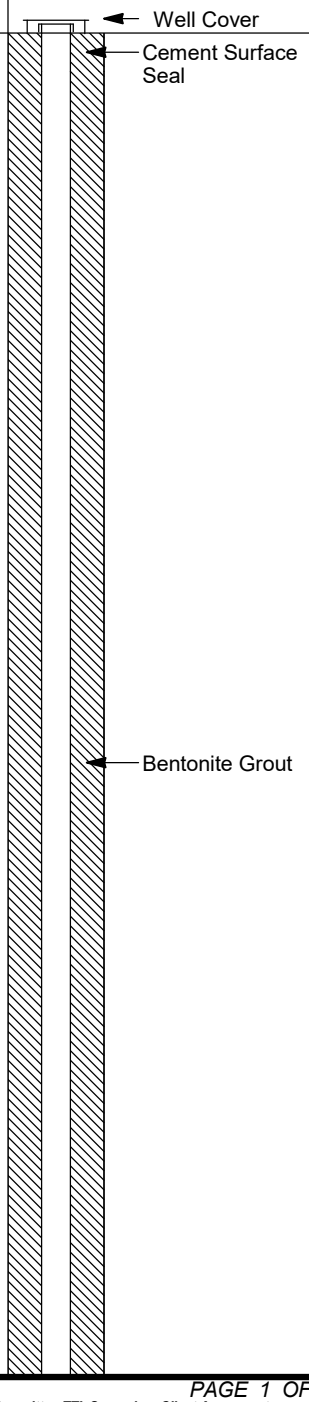
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

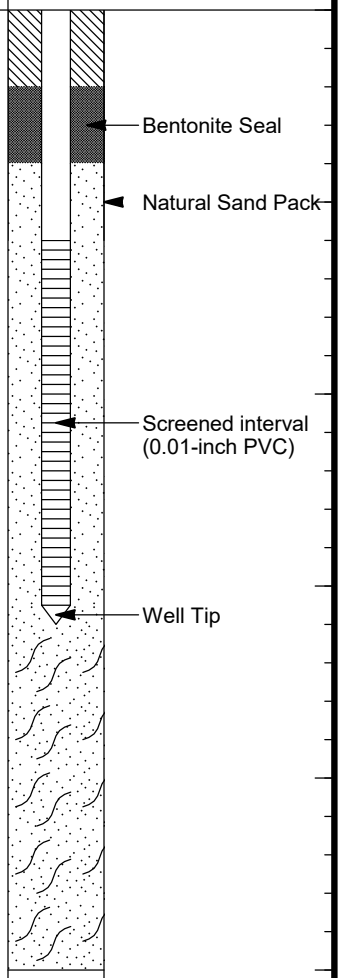
LOG OF PIEZOMETER PZ33D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP					
40		SP	40-50	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); fine black grain (<1%); well sorted; subround; unconsolidated; wet	
45		SC-SM				SAND, clayey, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); clay/silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; weak reaction with 10% HCL; wet	
		CL				CLAY: dark greenish grey (GLEY 1 4/10GY); hard to very hard; moist	
50		CL	50-60	100		CLAY: dark greenish grey (GLEY 1 4/10GY); hard to very hard; moist	
		GC				GRAVEL, clayey: grey (GLEY 1 5/n); .5" to .75" in size; clay (35-40%); poorly sorted; angular; semi-consolidated; strong reaction with 10% HCL; wet	
55		CL				CLAY: greenish grey (GLEY 1 565/1); hard, sporatic gravel in upper 5 feet; strong reaction with 10% HCL; moist	
60						BORING TERMINATED AT 60 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

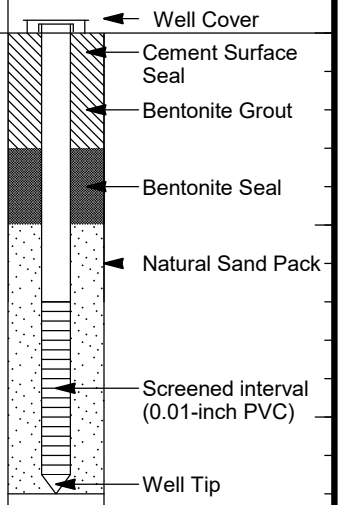
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ33S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/1/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	123.73 Ft. AMSL
REMARKS		**GROUND ELEVATION**	123.40 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-2	100		Shelby Tube Sample	
			2-12	50		No Recovery	
5		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark brown (10 YR 3/3); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM				SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); fine black particle (<1%); well sorted; subround; unconsolidated; wet	
						BORING TERMINATED AT 12 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ34D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/3/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	124.48 Ft. AMSL
REMARKS		**GROUND ELEVATION**	124.19 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); FBG (<1%); well sorted; subround; unconsolidated; wet	
10			10-20	0		No Recovery	
15							
20			20-30	80		No Recovery	
		SP				SAND (quartz): light grey (10 YR 7/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
25							
30			30-40	80		No Recovery	
						SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	

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PIEZOMETER DIAGRAM

Well Cover

Cement Surface Seal

Bentonite Grout

9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TTL

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ34D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/3/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP						Bentonite Seal
40		SP	40-50	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		Natural Sand Pack
45		SM				SAND, silty (quartz): grey (GLEY 1 5/n); fine (60%); med (35%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		Screened interval (0.01-inch PVC)
50		CL				CLAY: greenish gray (GLEY 1 SG 6/1); hard; moist BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

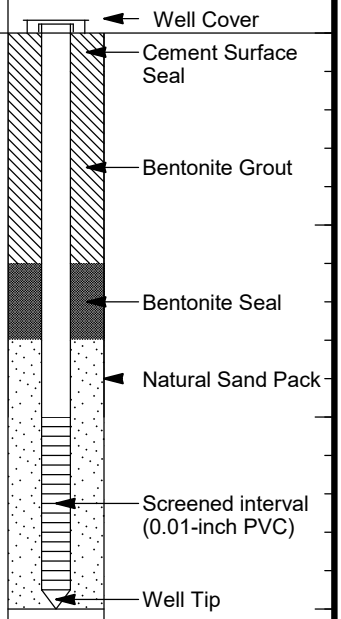
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ34S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/3/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	124.39 Ft. AMSL
REMARKS		**GROUND ELEVATION**	124.19 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	60		No Recovery	
5		SP				SAND (quartz): fine (65%); med (35%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SP	10-15	100		SAND (quartz): fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

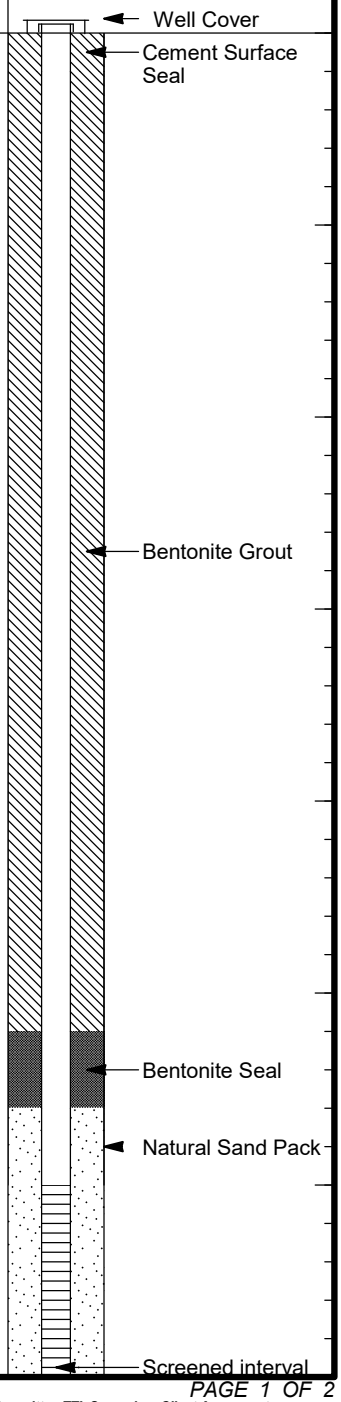
LOG OF PIEZOMETER PZ35D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	119.17 Ft. AMSL
REMARKS		**GROUND ELEVATION**	118.99 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): yellowish brown (10 YR 5/4); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): very dark brown (10 YR 2/2); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
		CL				CLAY, sandy: grey (10 YR 6/2); sand (20%); hard; moist	
10		SM	10-20	100		SAND, silty (quartz): yellowish brown (10 YR 5/4); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		CL				CLAY, sandy: grey (10 YR 6/2); sand (20%); hard; moist	
15		SM				SAND, silty (quartz): light grey (10 YR 7/2); fine (70%); med (25%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
20		SP	20-30	100		SAND (quartz): grey (10 YR 6/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
25		SP				SAND (quartz): dark grey (10 YR 4/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
30		SP	30-40	100		SAND (quartz): grey (10 YR 6/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
						SAND (quartz): dark grey (10 YR 4/1); fine (70%); med (30%);	

Continued Next Page

PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ35D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				fine black grains (<1%); well sorted; subround; unconsolidated; wet		(0.01-inch PVC)
40			40-50	100		CLAY: dark grey (GLEY 1 4/n) to greenish grey (GLEY 1 565/1); soft to firm; wet		Well Tip
45		CL						
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

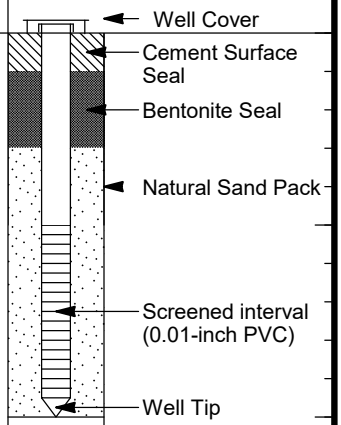
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ35S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	119.17 Ft. AMSL
REMARKS		**GROUND ELEVATION**	118.93 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): yellowish brown (10 YR 5/4); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): greyish brown (10 YR 5/2); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SC-SM				SAND, clayey, silty (quartz): gray (10 YR 6/2); fine (55%); med (25%); silt/clay (20%); well sorted; subround; semi-consolidated; wet	
						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ36D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	119.18 Ft. AMSL
REMARKS		**GROUND ELEVATION**	119.20 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	60		No Recovery	
5		SP				SAND (quartz): light brownish grey (10 YR 6/2); fine (70%); med (30%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark greyish brown (10 YR 4/2); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): light bownish grey (10YR 6/2); fine (70%); med (20%); silt (5-10%); well sorted; subround; semi-consolidated; iron stain bonding: brownish yellow (10YR 6/6); wet	
10		SM					
		SM	10-20	100		SAND, silty (quartz): greyish brown (10 YR 5/2); fine (70%); med (20%); silt (5-10%); well sorted; subround; semi-consolidated; wet	
						SAND, silty (quartz): greyish brown (10 YR 5/2); fine (70%); med (25%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
15		SM				SAND, silty (quartz): grey (10 YR 6/1); fine (70%); med (25%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
20		SP	20-30	100		SAND (quartz): grey (10 YR 6/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround: unconsolidated; wet	
		SP				SAND (quartz): grey (10 YR 6/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround: unconsolidated; wet	
25		SP				SAND (quartz): grey (10 YR 5/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround: unconsolidated; wet	
30		SP	30-40	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); very dark brown (10YR 3/1) 2" silt at 31.5; well sorted; subround: unconsolidated; wet	
						SAND, silty (quartz): dark grey (10 YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround: unconsolidated; wet	

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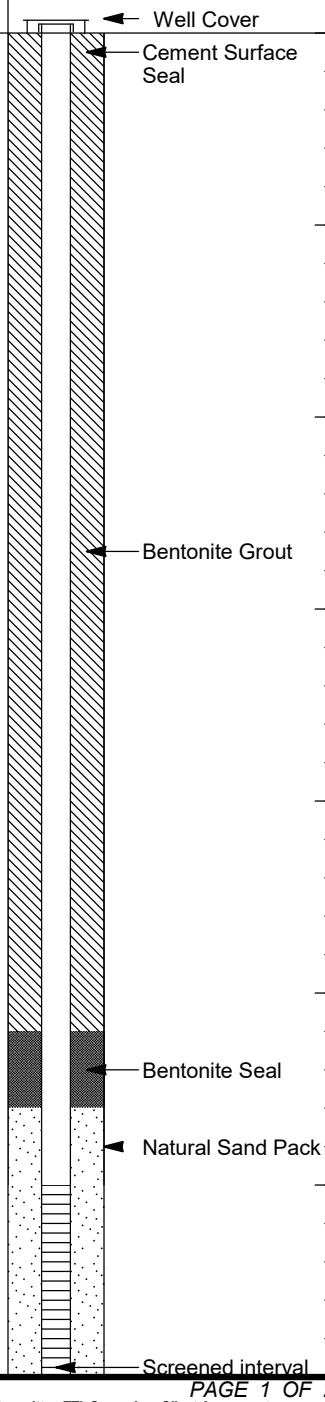
PIEZOMETER DIAGRAM



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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ36D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SM						(0.01-inch PVC)
40		CL	40-50	100		CLAY: grey (GLEY 1 5/n); fossiliferous shells; no 10% HCL reaction; strong 10% HCL reaction in shells; very soft; wet		Well Tip
		CL				CLAY: dark grey (GLEY 1 4/n); no fossiliferous shells; weak 10% HCL reaction; hard; moist		
		CL				CLAY: light grey (GLEY 1 7/n); fossiliferous shells; strong 10% HCL reaction; soft; wet		
45		CL				CLAY: dark grey (GLEY 1 4/n); no fossiliferous shells; strong 10% HCL reaction; hard; moist		
		CL				CLAY: light grey (GLEY 1 7/n); limestone; very hard; crumbling dry		
		CL				CLAY: very dark grey (GLEY 1 3/n); firm; multiple 1" shell layers; 1" shell layer; strong 10% HCL reaction; moist		
50		GP				CLAY, gravel: white (GLEY 1 8/n); strong 10% HCL reaction; hard; wet		

BORING TERMINATED AT 50 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

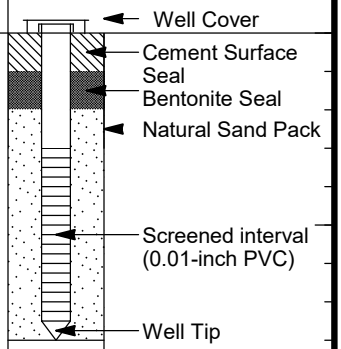
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ36S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/2/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	118.83 Ft. AMSL
REMARKS		**GROUND ELEVATION**	118.81 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-8	75		No Recovery	
		SM				SAND, silty (quartz): dark greyish brown (10 YR 4/2); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): greyish brown (10 YR 5/2); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; semi-consolidated at 7.5; wet	
						BORING TERMINATED AT 8 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ37D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	118.40 Ft. AMSL
REMARKS		**GROUND ELEVATION**	118.26 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		NO RECOVERY	
		SP				SAND (quartz): dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (65%); med (35%); well sorted; subround; unconsolidated; <1% FBG	
5		SC				SAND (quartz), clayey: yellowish brown (10 YR 5/6), dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (75%); med (15%); clay (10%); well sorted; subround; firm; wet	
10			10-20	60		NO RECOVERY	
15		SC				SAND (quartz), clayey: yellowish brown (10 YR 5/6), dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (75%); med (15%); clay (10%); well sorted; subround; firm; wet	
		SM				SAND (quartz): gray (10YR 6/1); fine (75%); med (20%), silt (<5%); well sorted; subround; unconsolidated; wet, <1% FBG	
20			20-30	60		NO RECOVERY	
25		SM				SAND (quartz): gray (10YR 6/1); fine (75%); med (20%), silt (<5%); well sorted; subround; unconsolidated; wet, <1% FBG	
30			30-40	80		NO RECOVERY; CLAY ON OUTSIDE OF TUBE	
		SC-SM				SAND (quartz): (gley 1 5/n gray) silty, clayey; very soft, weak reaction to HCL	
						CLAY: (gley 1 7/10Y light greenish gray); silty, fossiliferous;	

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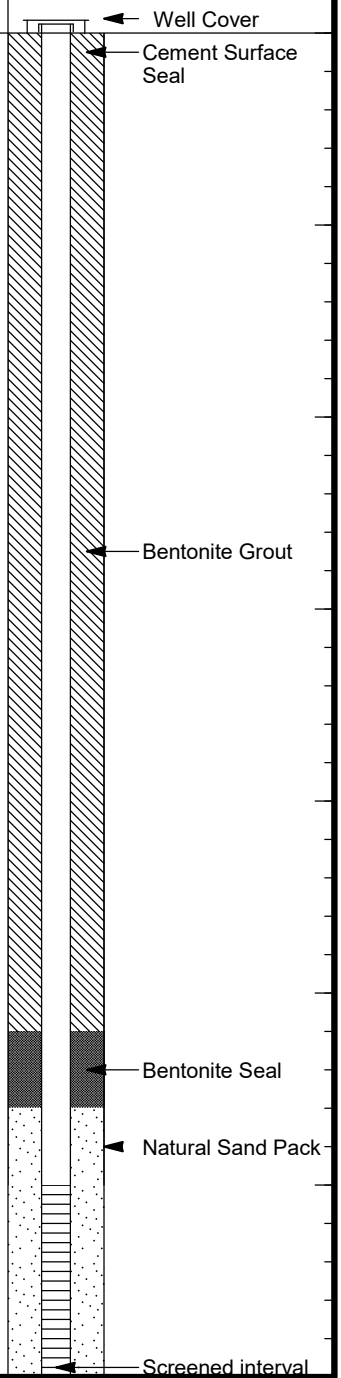
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ37D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		CL				soft to firm; strong reaction to HCL		(0.01-inch PVC)
		CL				CLAY: (gley 1 5/10Y greenish gray); silty, no fossils; soft to firm; strong reaction to HCL		
40		CL				CLAY: (gley 1 5/10Y greenish gray); silty, with limestone fragments; soft; strong reaction to HCL		Well Tip
						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

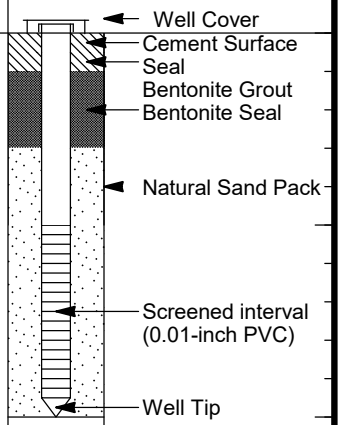
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ37S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	118.26 Ft. AMSL
REMARKS		**GROUND ELEVATION**	118.00 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		NO RECOVERY	
5		SP				SAND (quartz): dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (65%); med (35%); well sorted; subround; unconsolidated; <1% FBG	
		SM				SAND (quartz): yellow (10YR 7/8); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated;	
		SC				SAND (quartz), clayey: yellowish brown (10 YR 5/6), dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (75%); med (15%); clay (10%); well sorted; subround; firm; wet	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

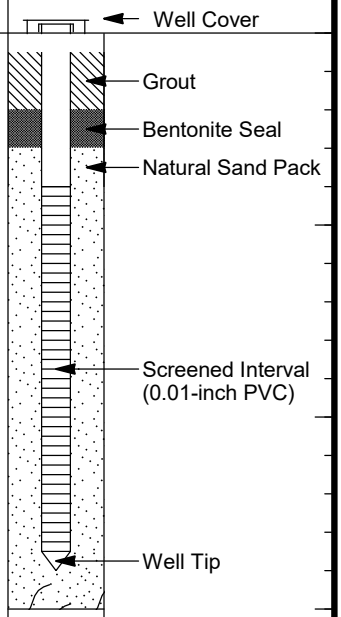
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ38 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	171.93 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.69 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	60		No Recovery	
5		SP				SAND: dark grey (quartz); fine (50%); med (25%); coarse (25%); well sorted, subround, unconsolidated, moist, organics (roots/wood/grass)	
		SP				SAND: light brownish grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; organics	
		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SP				SAND: light grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
10		SM	10-15	200		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (25%); coarse (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ39D/OWA3D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	171.81 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.84 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			0-10	50		No Recovery		Well Cover
5		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SP				SAND: light grey (quartz); fine (60%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
10			10-20	90				
15		SM						
		SM				SAND, silty: black (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; moist		
20			20-30	30		No Recovery		
25								
		SP				SAND: dark brown (quartz); fine (20%); med (60%); coarse (20%); well sorted; subround; unconsolidated; wet		
30			30-40	40		SAND: dark brown (quartz); fine (20%); med (60%); coarse (20%); well sorted; subround; unconsolidated; wet		
		SP						

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ39D/OWA3D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND: yellowish brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: very dark brown (quartz); fine (50%); med (40%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Grout
		SM				SAND, silty: dark grayish brown (quartz); fine (30%); med (60%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40			40-50	90		SAND: grayish brown (quartz); fine (20%); med (60%); coarse (20%); well sorted; subround; unconsolidated; moist; increase in amount of FBGs color variations through interval		
45								
50		SP	50-60	90				
55								
60			60-70	80				
		SC-SM				SAND, silty, clayey: dark brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist		
		SP				SAND: light brown grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
65		SC-SM				SAND, silty, clayey: dark brown (quartz); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; moist		
		SP				SAND: light brown (quartz); fine (70%); med (30%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
70		SP				SAND: brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SC-SM				SAND, silty, clayey: light brown (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
						CLAY, silty, clayey: grey; fine; FBG (<1%)		

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ39D/OWA3D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		CL						Bentonite Seal
		SP				SAND: white (quartz); fine (40%); med (30%); coarse (30%); well sorted; subround; unconsolidated; moist		Natural Sand Pack
		CL				CLAY, sandy: dark grey; fine		
80		SP	80-90	80		SAND: grayish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
85								
		SC-SM				SAND, silty, clayey: light grey (quartz); fine (15%); med (60%); coarse (20%); silt/clay (<5%); well sorted; subround; moist; FBG (<1%)		
90						BORING TERMINATED AT 90 FEET.		Well Tip

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TWIN PINES MINERALS

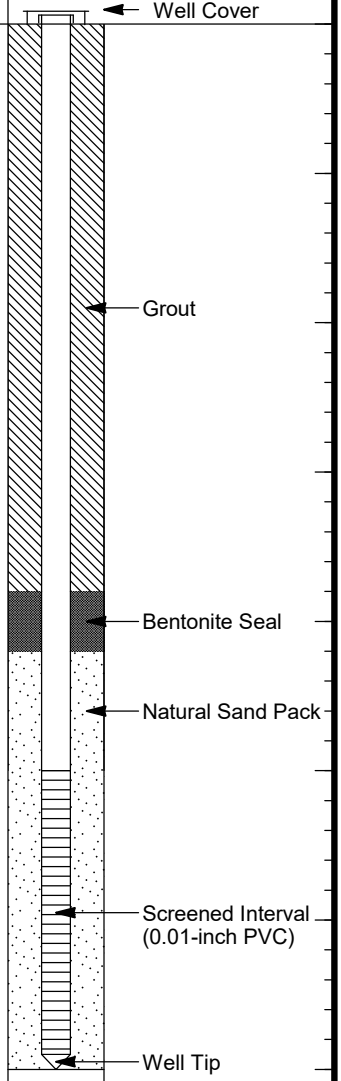
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ39S/OWA3S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/8/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	171.94 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.76 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	60		No recovery	
5		SP				SAND: dark grey (quartz); fine (20%); med (50%); coarse (30%); well sorted; subround; unconsolidated; dry; organics (roots)	
		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SP				SAND: light grey (quartz); fine (60%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
10			10-20	90		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
15		SM					
20		SM	20-30	70		SAND, silty: black (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; moist	
25		SP				SAND: dark brown (quartz); fine (20%); med (60%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SP				SAND: light grey (quartz); fine (40%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist	
30		SP	30-35	180		SAND: light grey (quartz); fine (40%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist	
35						BORING TERMINATED AT 35 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

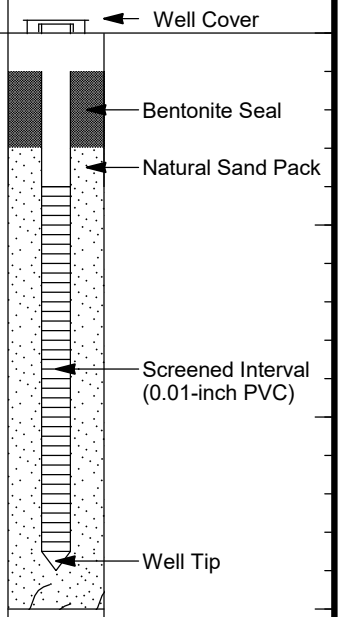
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ40 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/7/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	169.70 Ft. AMSL
REMARKS		**GROUND ELEVATION**	169.48 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood/roots	
		SM					
		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
5						SAND, silty: yellowish brown (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated	
10							
		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; moist; semi-consolidated	
		SM				SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

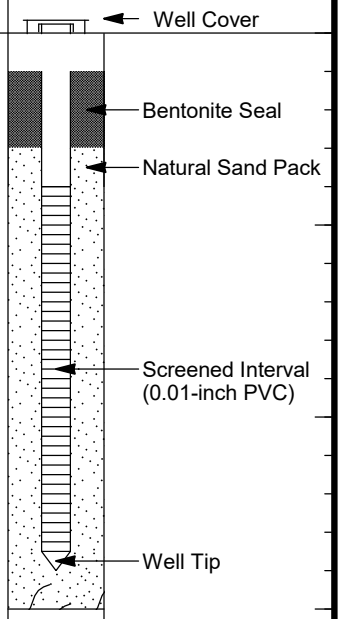
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ41 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/4/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	161.19 Ft. AMSL
REMARKS		**GROUND ELEVATION**	161.04 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	90		No Recovery	
		SM				SAND, silty: dark brown (quartz); fine (60%); med (33%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10		SM	10-15	100		SAND, silty: grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

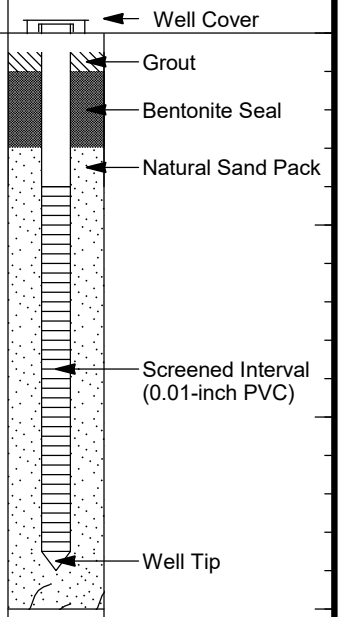
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ42 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/17/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	147.46 Ft. AMSL
REMARKS		**GROUND ELEVATION**	147.36 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	70		No Recovery	
		SP				SAND: grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; organics (roots)	
5		SM				SAND, silty: yellowish brown (quartz);fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)	
10			10-15	200			
		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

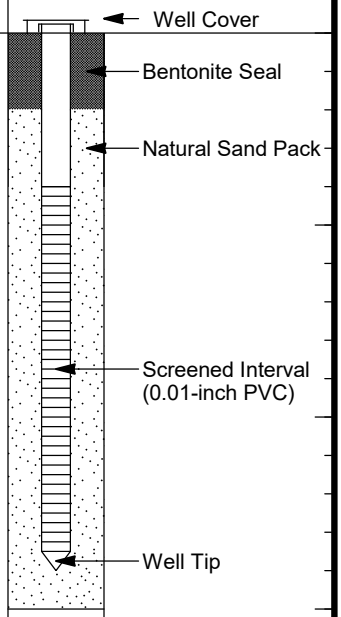
LOG OF PIEZOMETER PZ43 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/13/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	161.88 Ft. AMSL
REMARKS		**GROUND ELEVATION**	161.68 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION
			0-10	90		No Recovery
		SM				SAND, silty: grey (quartz); fine (50%); med (25%); coarse (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)
		SM				SAND, silty: dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist
5		SM				SAND, silty: yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist
10		SM	10-15	200		SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist
15		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist
						BORING TERMINATED AT 15 FEET.

WATER LEVEL & DATE

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

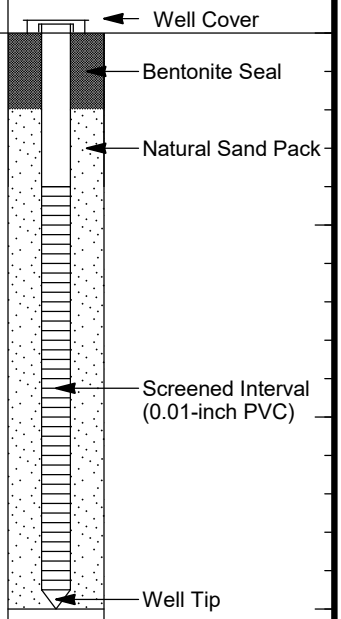
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ44 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/13/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	154.07 Ft. AMSL
REMARKS		**GROUND ELEVATION**	154.24 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: grey (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots)	
5		SM				SAND, silty: brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: grayish brown (quartz); fine (50%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
10		SM	10-15	200		SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ45D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	166.67 Ft. AMSL
REMARKS		**GROUND ELEVATION**	166.58 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SP				SAND: grey (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; organics (wood and roots)	
		SP				SAND: dark yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist	
		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10		SM	10-20	90		SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; less consolidated than 7-8; moist	
15		SP				SAND: dark grayish brown (quartz); fine (50%); med (30%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
20		SM	20-30	100		SAND, silty: very dark grey (quartz); fine (70%); med (20%); coarse (5%); silt (<5%); well sorted; subround; semi-consolidated; moist	
25		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
		SC-SM				SAND, silty, clayey: (quartz); fine (60%); med(35%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist; relatively small (<0.25 inch); well consolidated fragments which appear to be same material	
30		SP	30-40	80		SAND: dark brown (quartz); fine (60%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
						SAND: brown (quartz); fine (70%); med (20%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	

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PIEZOMETER DIAGRAM

Well Cover

Grout

Bentonite Seal

9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ45D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/6/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP	40-50	90				Natural Sand Pack
						SAND: dark yellowish brown; fine (70%); med (20%); coarse (10%); well sorted; subround; unconsolidated; moist; possibly less coarse material		
45		SP						Screened Interval (0.01-inch PVC)
		SC-SM				SAND, silty, clayey: very dark brown (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; contains relatively large (>1-inch) highly consolidated subangular pieces - comprised of med/fine subangular grains (target materials)		Well Tip
50		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
						BORING TERMINATED AT 50 FEET.		

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TWIN PINES MINERALS

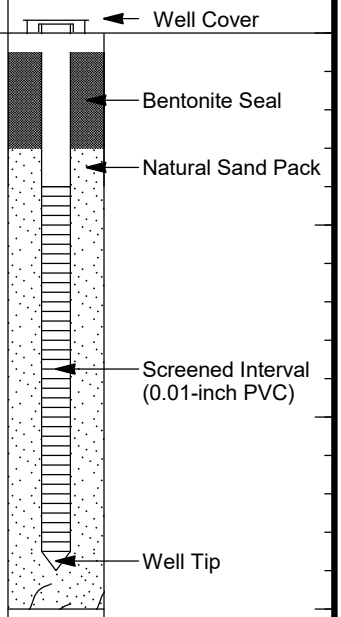
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ45S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	166.72 Ft. AMSL
REMARKS		**GROUND ELEVATION**	166.64 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SP				SAND: (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; organic material (wood and roots)	
		SP				SAND: dark yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist	
		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silty (<5%); less consolidated	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

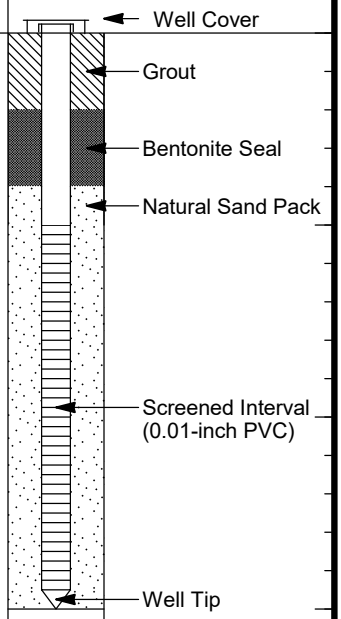
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ46 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/4/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	139.99 Ft. AMSL
REMARKS		**GROUND ELEVATION**	139.98 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	60		No Recovery	
5		SM				SAND, silty: dark grayish brown; fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)	
		SP				SAND: (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: brown (quartz); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist	
10		SP				SAND: dark yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
15		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist	
						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

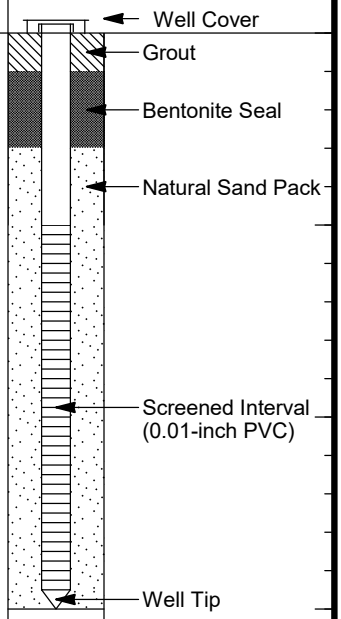
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ47 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/13/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	138.47 Ft. AMSL
REMARKS		**GROUND ELEVATION**	138.30 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SP				SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)	
		SM				SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SM				SAND, silty: grayish brown (quartz); fine (50%; med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
10			10-15	200			
		SM				SAND, silty: dark grayish brown (quartz); fine (50%): med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist	
		SM				SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ48D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	132.78 Ft. AMSL
REMARKS		**GROUND ELEVATION**	132.95 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	40		No Recovery	
5		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; organics	
10		SM	10-20	70		SAND, silty: dark brown (quartz); fine (90%); med (5%); silt (<5%); unconsolidated	
		SM				SAND, silty: grayish brown; fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
15		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet/moist	
20		SM	20-30	70		SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; moist	
25		SM				SAND, silty: dark brown (quartz); fine (30%); med (60%); silt (<5%); coarse (5%); well sorted; subround; semi-consolidated; moist	
		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; less consolidated; moist	
30		SP	30-40	70		SAND: med brown (quartz); fine (20%); med (50%); coarse (30%); well sorted; subround; unconsolidated; moist	

Continued Next Page

PIEZOMETER DIAGRAM

Well Cover

Grout

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9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ48D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND: med brown (quartz); fine (30%); med (60%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Bentonite Seal
		SP				SAND: light/pale brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist		Natural Sand Pack
40		SP	40-50	90				
		SP				SAND: (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: (quartz); fine (35%); med (60%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
45		SP				SAND: light brown (quartz); fine (10%); med (60%); coarse (30%); well sorted; subround; unconsolidated; FBG (>1%-<5%)		
		SC				SAND, clayey: fine (80%); med (10%); coarse (10%); well sorted; subround; unconsolidated; moist; small (<0.5 inch) clay nodules, majority (>75%) of material is med-fine black (target material) grains		
		SC						
		SC				SAND, clayey: (quartz); med (40%); coarse (60%); well sorted; subround; unconsolidated; moist; thin (<0.25-inch) clay layers; FBG (<1%)		
		SC						
50						SAND, clayey: fine (30%); med (60%); coarse (10%); well sorted; subround; unconsolidated; moist; thin (<0.25-inch) clay lenses, majority of material is med-fine (target material) grains		Well Tip
						SAND, clayey: (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist; thin (<0.5-inch) clay lenses; FBG (<1%)		
						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ48S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	133.20 Ft. AMSL
REMARKS		**GROUND ELEVATION**	133.04 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
0								Well Cover
			0-10	20		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; organics		Grout
								Bentonite Seal
								Natural Sand Pack
5		SM						
								Screened Interval (0.01-inch PVC)
								Well Tip
10						BORING TERMINATED AT 10 FEET.		

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TWIN PINES MINERALS

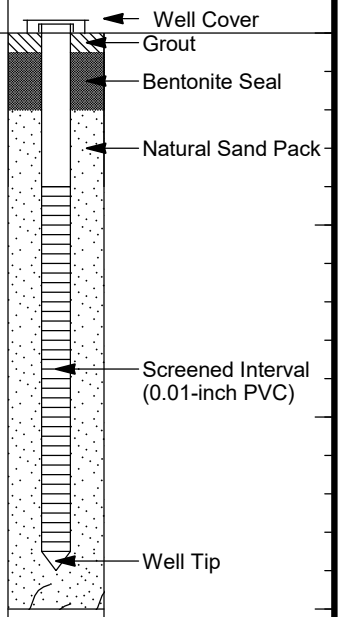
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ49 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/7/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	143.01 Ft. AMSL
REMARKS		**GROUND ELEVATION**	142.97 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SP				SAND: grayish brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; organics (wood and roots)	
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
10			10-15	200			
		SC-SM				SAND, silty, clayey: very dark brown and black mottled (quartz); fine (50%); med (45%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist	
		SM				SAND, silty: (quartz); fine (60%); med (20%); coarse (15%); silt (<5%); well sorted; subround; unconsolidated; moist	
15		SM				SAND, silty: (quartz); fine (60%); med (20%); coarse (15%); silt (<5%); well sorted; subround; unconsolidated; moist	
						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

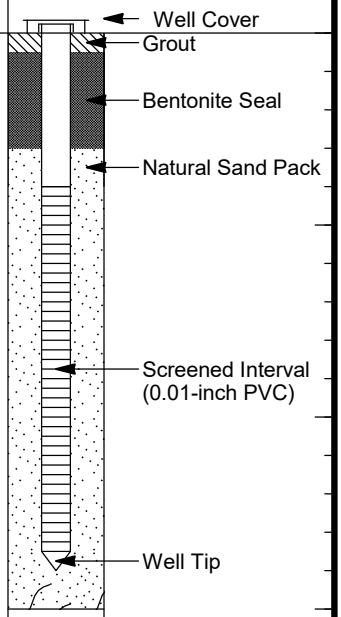
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ50 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/5/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	127.87 Ft. AMSL
REMARKS		**GROUND ELEVATION**	127.64 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	40		No Recovery	
5		SP				SAND: dark grey (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; organic (roots and wood)	
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10			10-15	200			
		SM				SAND, silty: dark brown (quartz); fine (60%); med (30%); coarse (5%); silty (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ51D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	115.73 Ft. AMSL
REMARKS		**GROUND ELEVATION**	115.56 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SM	0-10	80		SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organic matter		Well Cover
		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
5		SM				SAND, silty: black (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; well consolidated; moist		
10		SM	10-20	80		SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
15		SM				SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Grout
20		SM	20-30	60		SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
25		SM				SAND, silty: grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SM				SAND, silty: dark brown (quartz); fine (75%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30		SM	30-40	50				

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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ51D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND: (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Bentonite Seal
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		Natural Sand Pack
40		SM	40-50	80		SAND, silty: (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: (quartz); fine (60%); med (35%); silt (<5%)		
		SM				SAND, silty: (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
45		CL				CLAY, sandy: dark grey; med/fine		
		SC				SAND, clayey: yellowish brown (quartz); fine (25%); med (60%); coarse (10%); clay (<5%)		Well Tip
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

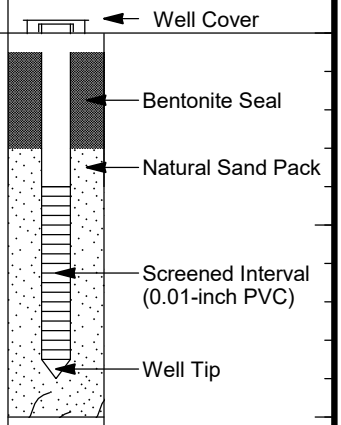
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ51S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	10/31/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	115.84 Ft. AMSL
REMARKS		**GROUND ELEVATION**	115.78 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM	0-10	10		SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organic matter	
		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty: black (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; well consolidated; moist	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



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TWIN PINES MINERALS

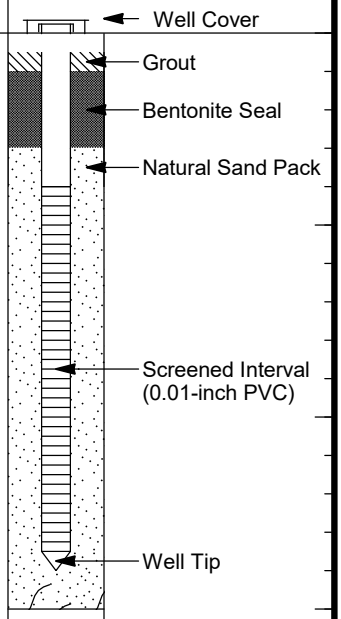
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ52 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/2/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	111.44 Ft. AMSL
REMARKS		**GROUND ELEVATION**	111.27 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SP				SAND: dark grey (quartz); silty; fine (20%); med (60%); coarse (20%); well sorted; subround; dry	
		SM				SAND, silty: (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10			10-15	0		No recovery - washout	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

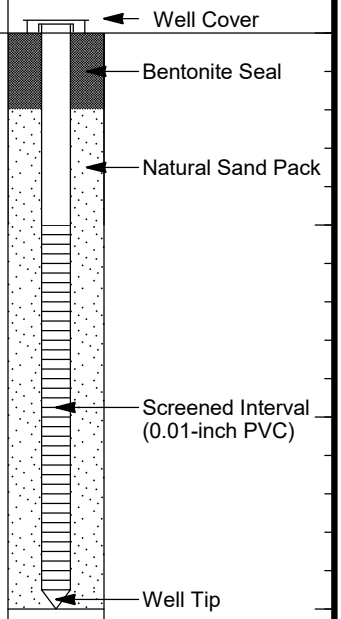
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ53 & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/13/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	Chris Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	111.51 Ft. AMSL
REMARKS		**GROUND ELEVATION**	111.31 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SC-SM	10-15	200		SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
10		SM				SAND, silty: dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ54D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	125.13 Ft. AMSL
REMARKS		**GROUND ELEVATION**	124.90 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
0		SM	0-10	100		SAND, silty (quartz): light gray (10YR 7/1); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet; <1%FBG		Well Cover
		SM				Same: dark gray (10YR 4/1)		Cement Surface Seal
		SM				Same: brown (10YR 5/3)		
		SM				Same: dark gray (10YR 4/1)		
		SM				Same: Brown (10YR 5/3)		
5		SM						
		SM				Same: very dark gray (10YR 9/1)		
		SM				Same: yellowish brown (10YR 5/4)		
10		SM	10-20	100		SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
15								
20		SM	20-30	100				Bentonite Grout
25								
30			30-40	100				

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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ54D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
40		SP				SAND, (quartz): light gray (10YR 7/2); fine (65%); med (35%); well sorted, subround; unconsolidated; <1% FBG; wet		Bentonite Seal Natural Sand Pack
			40-50	50		No Recovery		
45		SP				SAND, (quartz): light gray (10YR 7/2); fine (65%); med (35%); well sorted, subround; unconsolidated; <1% FBG; wet		Screened interval (0.01-inch PVC)
50						BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

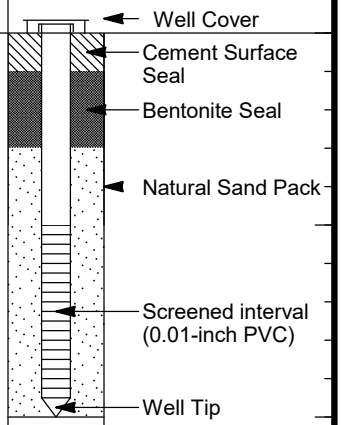
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ54S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/10/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	125.10 Ft. AMSL
REMARKS		**GROUND ELEVATION**	125.03 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	70		NO RECOVERY	
		SP				SAND, (quartz): dark gray (10YR 4/1); fine (65%); med (35%); well sorted; subround; unconsolidated; wet;	
5		SM				SAND, silty (quartz): light gray (10YR 7/1); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet; <1%FBG	
		SM				SAND, silty (quartz): brown (10YR 5/3); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet; <1%FBG	
10						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ55D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	174.92 Ft. AMSL
REMARKS		**GROUND ELEVATION**	174.69 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SP				SAND (quartz): greyish brown (10 YR 5/2); fine (50%); med (45%); coarse (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): grey (10 YR 5/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): very dark grey (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): very dark grey (10 YR 3/1); fine (65%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SM				SAND, silty (quartz): dark brown (10 YR 3/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
20		SM	20-30	100		SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
25		SM				SAND, silty (quartz): black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; subround; well consolidated; wet	
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted, subround; unconsolidated; wet	
30			30-40	90		No Recovery	
		SM				SAND, silty (quartz): dark yellowish brown (10 YR 3/4); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted, subround; unconsolidated; wet	
						SAND, silty (quartz): very dark grey (10 YR 3/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	

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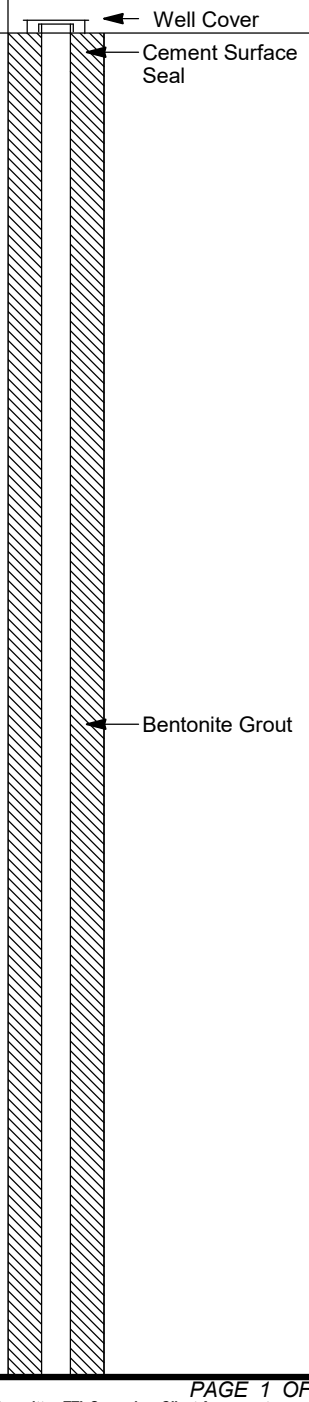
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ55D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SM						Bentonite Seal
		SM				SAND (quartz): dark yellowish brown (10 YR 3/4); fine (65%); med (40%); coarse (5%); fine black grains (<1%); well sorted, subround; unconsolidated; wet		Natural Sand Pack
40			40-50	100		SAND (quartz): dark yellowish brown (10 YR 3/4); fine (65%); med (30%); coarse (5%); fine black grains (<1%); well sorted, subround; unconsolidated; wet		
45		SM						Screened interval (0.01-inch PVC)
50						BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

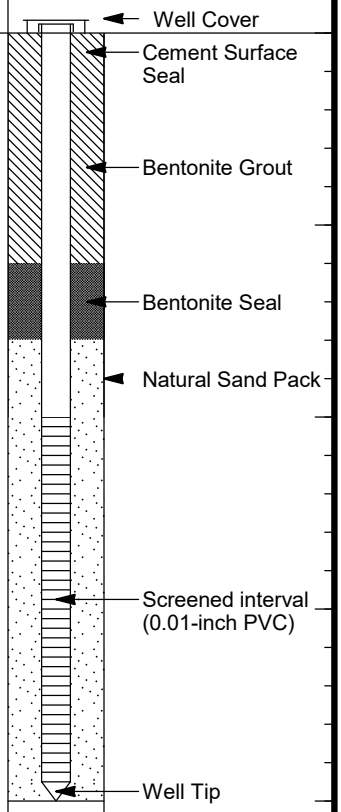
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ55S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	4/29/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	174.83 Ft. AMSL
REMARKS		**GROUND ELEVATION**	174.74 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SP				SAND (quartz): greyish brown (10 YR 5/2); fine (50%); med (45%); coarse (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): very dark brown (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet	
		SM				SAND, silty (quartz): very dark brown (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): very dark brown (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SM				SAND, silty (quartz): very dark brown (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet	
20						BORING TERMINATED AT 20 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ56D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/7/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	171.58 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.42 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	40		No Recovery	
5		SP				SAND (quartz): grey (10 YR 6/1); fine (65%); med (35%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): dark greyish brown (10 YR 4/2); fine (65%); med (35%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet	
15		SM				SAND, silty (quartz): brown (10 YR 4/3); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
20			20-30	80		No Recovery	
		SM				SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
25		SP				SAND (quartz): light brownish grey (10 YR 6/2); fine (70%); med (30%); FBG (<1%); well sorted; subround; unconsolidated; wet	
30		SP	30-40	100		SAND (quartz): light brownish grey (10 YR 6/2); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	

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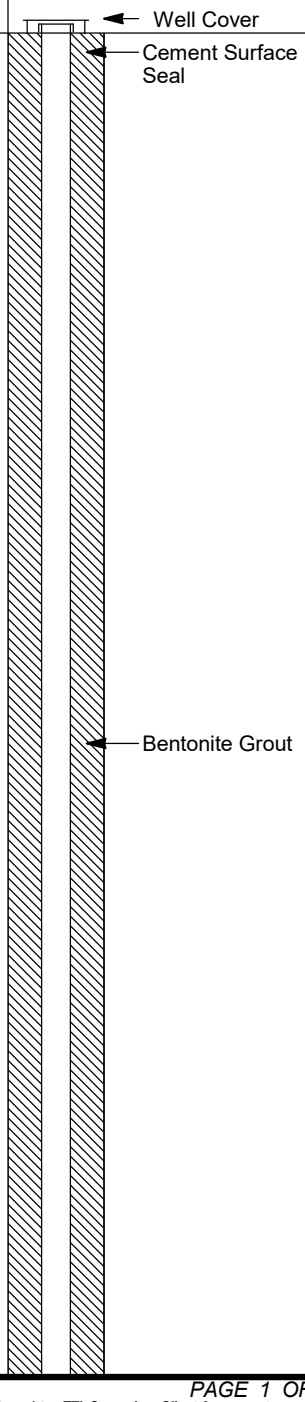
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ56D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/7/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND (quartz): brown (10 YR 4/3); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		Bentonite Seal
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		Natural Sand Pack
40			40-50	80		No Recovery		
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		Screened interval (0.01-inch PVC)
45		SP				SAND (quartz): fine (60%); med (40%); 1" silt seam; bray (10YR 5/1); 2" silty sand seam; black (10YR 2/1); fine black grains (1-2%); well sorted; subround; unconsolidated; wet		
50						BORING TERMINATED AT 50 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

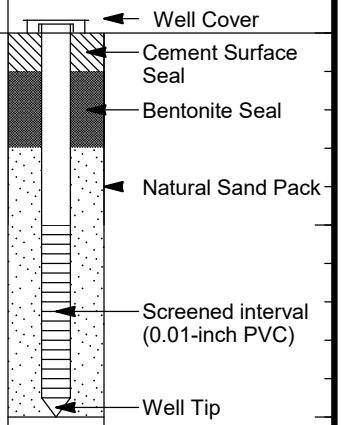
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ56S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/7/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	171.50 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.26 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	50		No Recovery	
5		SP				SAND (quartz): grey (10 YR 6/1); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): dark reddish brown (10 YR 3/4); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SP				SAND (quartz): white (10 YR 8/1); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
10		SM				SAND, silty (quartz): very dark grey (10 YR 3/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
						BORING TERMINATED AT 10 FEET.	

PIEZOMETER DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ57D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	165.89 Ft. AMSL
REMARKS		**GROUND ELEVATION**	165.62 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
0		SP	0-10	100		SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated		Well Cover
		SM				SAND (quartz): dark brown (10 YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		Cement Surface Seal
		SP				SAND (quartz): yellowish brown (10YR 5/4); fine (60%); med (40%); well sorted; subround; unconsolidated		
						SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated		
5		SM						
10			10-20	100		SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated		
15		SM						Bentonite Grout
		SM				SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; semi-consolidated; wet		
20		SM	20-30	100		SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; well consolidated; wet		
		SM				SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		
		SM				SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; well consolidated; wet		
25		SM				SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; well consolidated; wet		
		SM				SAND (quartz): very dark grayish brown (10YR 3/2); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		
30		SM	30-40	100		SAND (quartz): dark grayish brown (10YR 4/2); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ57D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SP				SAND (quartz): dark yellowish brown (10YR 4/6); fine (70%); med (30%); well sorted; subround; unconsolidated; <1% FBG		Bentonite Seal
						SAND (quartz): gary (10YR 6/1); fine (70%); med (30%); well sorted; subround; unconsolidated; 2-3% FBG		Natural Sand Pack
40			40-50	100				
		SP						Screened interval (0.01-inch PVC)
45								
		SM				SAND (quartz): gray (10YR 6/1); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		Well Tip
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS

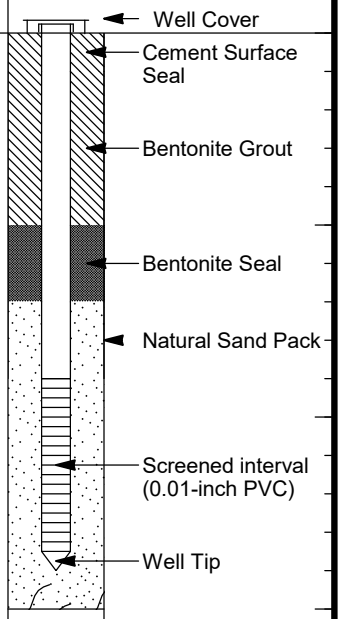
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ57S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/9/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	165.68 Ft. AMSL
REMARKS		**GROUND ELEVATION**	165.57 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP	0-10	100		SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated	
		SM				SAND (quartz): dark brown (10 YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated	
		SP				SAND (quartz): yellowish brown (10YR 5/4); fine (60%); med (40%); well sorted; subround; unconsolidated	
5		SM				SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated	
10		SM	10-14	100		SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ58D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/7/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	139.98 Ft. AMSL
REMARKS		**GROUND ELEVATION**	139.55 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP	0-10	100		SAND (quartz): grey (10 YR 5/1); fine (65%); med (35%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): yellowish brown (10 YR 5/6); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	10-20	100		SAND, silty (quartz): dark brown (10 YR 3/3); fine (65%); med (30%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
15							
20		SM	20-30	100		SAND, silty (quartz): dark yellow brown (10 YR 3/6); fine (70%); med (25%); silt (<5%); fine black grains (1-2%); well sorted; subround; unconsolidated; wet	
25		SP				SAND (quartz): dark brown (10 YR 3/3); fine (70%); med (30%); well sorted; subround; unconsolidated; wet	
		SM				SILT, sandy: very dark grey (10 YR 3/1); sand (~10%); firm to hard; moist	
30		SM	30-40	100		SAND, silty (quartz): light grey (10 YR 7/2); fine (90%); silt (5-10%); fine black grains (<1%); poorly sorted; subround; unconsolidated; wet	

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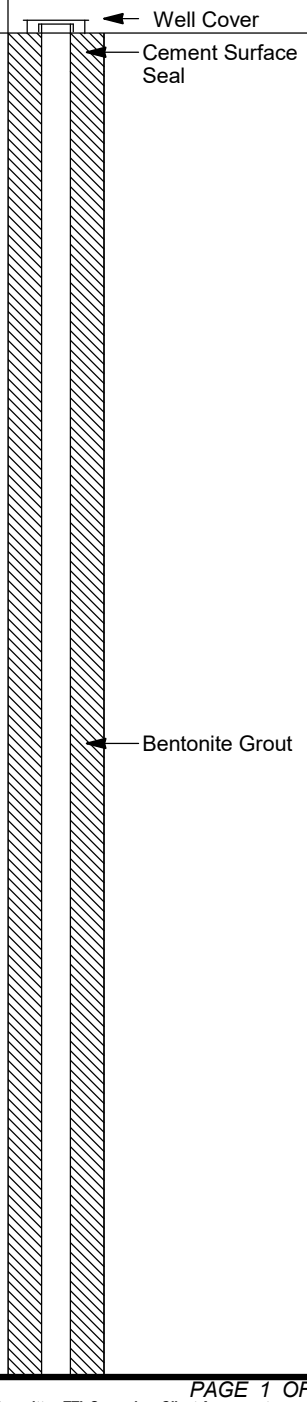
PIEZOMETER DIAGRAM



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9/16/19 Report:ENV LOG - WELL
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TWIN PINES MINERALS

SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ58D & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/7/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
		SM				SAND, silty (quartz): greyish brown (10 YR 5/2); fine (90%); silt (5-10%); fine black grains (<1%); poorly sorted; subround; unconsolidated; wet		Bentonite Seal
		SP				SAND (quartz): white (10 YR 8/1); fine (60%); med (40%); fine black grains (1-2%); well sorted; subround; unconsolidated; wet		
		CL				CLAY: grey (10 YR 5/1); hard; nonreactive; moist		Natural Sand Pack
40			40-50	100		SAND, silty (quartz): grey (10 YR 6/1); fine (80%); med (15%); silt (5%); fine black grains (<10%); poorly sorted; subround; unconsolidated; wet		
45		SM						Screened interval (0.01-inch PVC)
50						BORING TERMINATED AT 50 FEET.		Well Tip

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TWIN PINES MINERALS

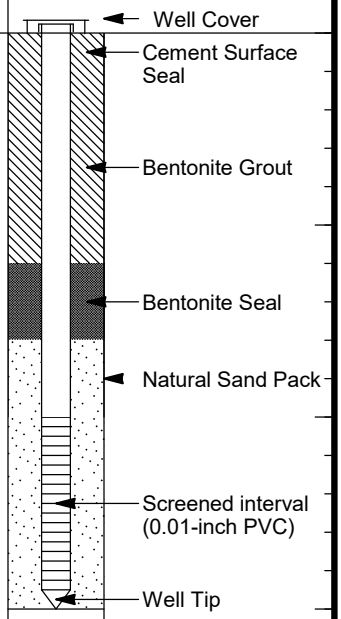
SAINT GEORGE, GEORGIA

LOG OF PIEZOMETER PZ58S & PIEZOMETER CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	W. White
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	5/7/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	140.02 Ft. AMSL
REMARKS		**GROUND ELEVATION**	139.67 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP	0-10	100		SAND (quartz): grey (10 YR 5/1); fine (65%); med (35%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
		SM				SAND, silty (quartz): yellowish brown (10 YR 5/6); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
5		SM				SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet	
10		SM	10-15	100		SAND, silty (quartz): dark brown (10 YR 3/3); fine (65%); med (30%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet	
15						BORING TERMINATED AT 15 FEET.	

PIEZOMETER DIAGRAM



9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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APPENDIX F

PUMPING AND OBSERVATION WELLS

Attached Documents:
Table E1: Boring Location Database Summary
Table E2: Well Construction Summary
Boring Logs

APPENDIX F
TABLES

Table F1. Summary of Observation Well Construction Depths and Distances from Pumping Wells PWA and PWB. Hydrologic Field Characterization at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Pumping Well PWA		
Observation Well	**Distance from PWA (feet)**	**Well Depth (ft bgs)**
OWA1BS	50	12
OWA1S	50	35
OWA1D	50	89
OWA3BS	50	12
OWA4BS	50	12
OWA2BS	100	12
OWA2S	100	34
OWA2D	100	90
OWA5BS	100	12
OWA3S/PZ39S	300	35
OWA3D/PZ39D	300	90
Pumping Well PWB		
Observation Well	**Distance from PWB (feet)**	**Well Depth (feet bgs)**
OWB1BS	50	12
OWB1S	50	35
OWB1D	50	90
OWB3BS	50	12
OWB4BS	50	12
OWB2BS	100	12
OWB2S	100	35
OWB2D	100	90
OWB5BS	100	12
OWB3S	300	35
OWB3D	300	90

Table A1. Well Construction Summary Table; Hydrologic Field Characteristics at Twin Pines Mine; Twin Pines Minerals, LLC; St. George, Charlton County, Georgia. TTL Project No. 000180200804.00

Well I.D.	Installation Start Date	Screened Interval (feet bgs[1])	Natural Fill Sand Pack (feet bgs)	Bentonite Plug (feet bgs)	Portland Cement Grout (feet bgs)	Construction Depth of Piezometer (feet bgs)	Total Boring Depth (feet bgs)
Pumping & Observation Wells							
OWA1S	11/9/2018	35-25	35-22	22-20	20-0.5	35	35
OWA1D	11/9/2018	90-80	90-76	76-74	74-0	89	90
OWA1BS	12/11/2018	12-2	12-1	1-0.5	--	12	12
OWA2S	11/14/2018	34-24	35-21	21-19	19-0.5	34	35
OWA2D	11/13/2018	90-80	90-76	76-74	74-0	90	90
OWA2BS	12/7/2018	12-2	12-4	4-2	2-0	12	12
OWA3BS	1/30/2019	12-7	12-0	--	--	12	12
OWA4BS	1/30/2019	12-7	12-0	--	--	12	12
OWA5BS	1/30/2019	12-7	12-0	--	--	12	12
PWA	12/20/2018	115-55	115-45	45-40	40-0	115	115
OWB1S	11/27/2018	35-25	35-22	22-20	20-0.5	35	35
OWB1D	11/27/2018	90-80	90-75	75-73	73-0	90	90
OWB1BS	12/7/2018	12-2	12-1	1-0.5	--	12	12
OWB2S	1130/18	35-25	35-22	22-20	20-0.5	35	35
OWB2D	11/28/2018	90-80	90-76	76-74	74-0	90	90
OWB2BS	12/7/2018	12-2	12-1	1-0.5	--	12	12
OWB3S	12/5/2018	35-25	35-22	22-20	20-0.5	35	35
OWB3D	12/5/2018	90-80	90-76	76-74	74-0	90	90
OWB3BS	1/30/2019	12-7	12-0	--	--	12	12
OWB4BS	1/30/2019	12-7	12-0	--	--	12	12
OWB5BS	1/30/2019	12-7	12-0	--	--	12	12
PWB	12/10/2018	115-55	115-45	45-40	40-0	115	115

[1] Below ground surface

[2] Not applicable or missing data

[3] Undisturbed sample borings converted to piezometers for downhole geophysical survey

APPENDIX F
BORING LOGS

PUMPING TEST AREA A

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PUMP WELL PW A & PUMP WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/20/2018
DRILLING COMPANY	Patridge Well Co.	**CASING DIA./TYPE**	6" PVC
DRILLER	Randy Baker	**SCREEN SLOT/TYPE**	0.020-inch
DRILLING METHOD	Rotary	**FILTER PACK TYPE**	16/30 Colorado silica
		TOP OF CASING	174.74 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.56 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
0						SAND: light brown to tan; med; subround		
5		SP						
10						SAND, silty: black (quartz); fine; argillaceous; hardpan		
15		SM						
20		SP				SAND: light brown, tan, yellowish grey; med; clean		Grout
25						SAND: dark brown, tan, yellowish grey; med		
30		SP						
35								
40						SAND: darker brown (5YR 3/2); fine; well sorted; subround		Bentonite Seal

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7/2/19 Report\ENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PUMP WELL PW A & PUMP WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
50		SP						Filter Pack Sand (16/30)
55								
60						SAND: darker brown (5YR 3/2); fine; well sorted; subround		
65		SP						
70								
		CL				CLAY, sandy: dark yellowish brown (10YR 4/2); fine to med; saturated		
75						SAND: well sorted		
80		SP						
85								Screened Interval (0.01-inch PVC)
90		CH				CLAY: dark green; fat		
95						CLAY, sandy: dark greenish grey; fat		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PUMP WELL PW A & PUMP WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/20/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
100								
105		CL						
110								
115						BORING TERMINATED AT 116 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 ReportENV LOG - WELL

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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

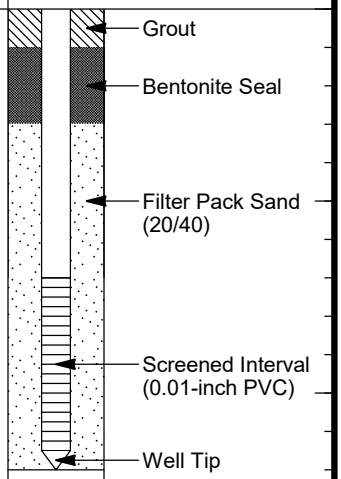
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA1BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/11/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.16 Ft. AMSL
REMARKS	Same as OWA-1S for 0-12	**GROUND ELEVATION**	171.78 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	60		No recovery	
5		SP				SAND: (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; dry; organic (wood and roots)	
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic (fibrous) material	
		SM				SAND, silty: dark yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SP				SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist	
10		SM				SAND, silty: dark brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)	
						BORING TERMINATED AT 12 FEET.	

OBSV. WELL DIAGRAM



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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA1D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/9/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.23 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.97 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			0-10	60		No recovery		
5		SP				SAND: grey (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; organics (wood roots)		
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood)		
		SM						
		SP				SAND, silty: dark yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
10		SM	10-20	100		SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist		
		SC-SM				SAND, silty: dark brown; fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
15		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay <5%, well sorted, subround, well consolidated, moist		
						SAND, silty, clayey: dark brown (quartz); fine (15%); med (40%); coarse (40%); silt (<5%); well sorted; subround; consolidated; moist		
20		SM	20-30	90		SAND, silty: brown (quartz); fine (40%); med (30%); coarse (25%); silt (<5%); well sorted; subround; unconsolidated; moist		
25		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
30		SM	30-40	100		SAND, silty: dark brown; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
						SAND: dark yellowish brown (quartz); fine (30%); med (50%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
35		SP						Grout
40			40-50	90				
		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%);		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

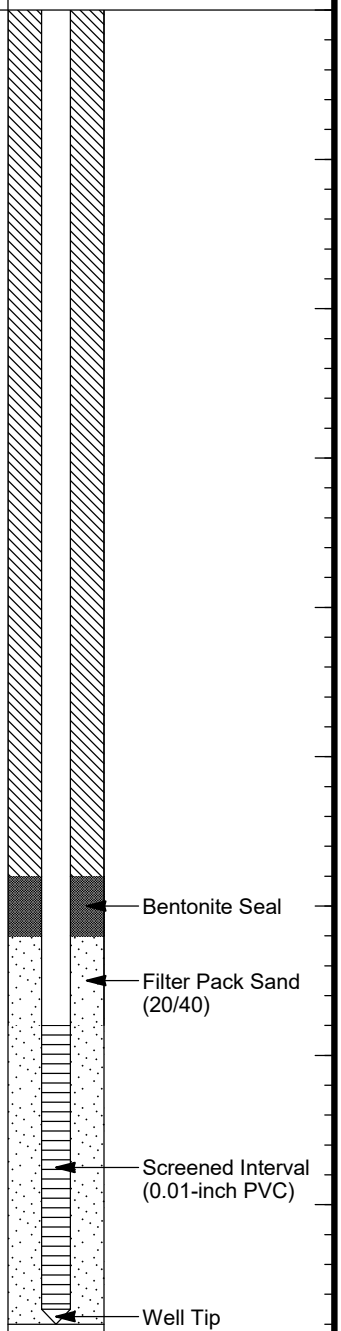
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA1D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						well sorted; subround; well consolidated; moist	
						SAND: (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; increase in fine black grains (>1%)	
50			50-60	80			
55		SP					
60			60-70	80			
65		SC-SM				SAND, silty, clayey: dark brown; fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; moist	
		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		CL				CLAY, sandy: dark brown; fine	
70			70-80	70		SAND, silty, clayey: grayish brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; FBG (<1%)	
75		SC-SM					
						CLAY, sandy: dark grey; fine	
80		CL					
85		CH				CLAY: dark grey; fat	
		SP				SAND: dark grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
90		CH				CLAY: dark grey; fat	
						BORING TERMINATED AT 90 FEET.	



OBSV. WELL DIAGRAM

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

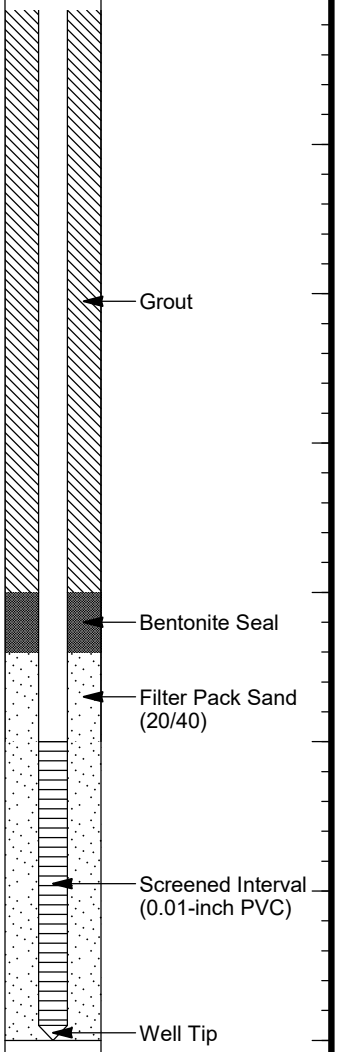
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA1S & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/9/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.12 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.93 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						No recovery	
5		SP				SAND: (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; dry; organic (wood and roots)	
		SM				SAND: very dark brown (quartz); silty; fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic (fibrous) material	
		SM					
		SP					
10		SM				SAND: dark yellowish brown (quartz); silty; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
						SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist	
		SC-SM				SAND: dark brown (quartz); silty; fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)	
15						SAND: black (quartz); silty; clayey; fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
		SC-SM				SAND: black (quartz); silty; clayey; fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; semi-consolidated; moist; strings dark brown	
20						SAND: brown (quartz); silty; fine (40%); med (30%); coarse (25%); silt (<5%); well sorted; subround; unconsolidated	
		SM					
25							
		SC-SM				SAND: black (quartz); silty; clayey; fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist	
30		SM				SAND: dark brown (quartz); silty; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SP				SAND: dark yellowish brown (quartz); fine (30%); med (50%); coarse (20%); well sorted; subround; unconsolidated; moist	
35						BORING TERMINATED AT 35 FEET.	

OBSV. WELL DIAGRAM



7/2/19 ReportENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA2BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/12/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.27 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.04 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			0-10	60		No Recovery		Grout
5		SP				SAND: grey (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; dry; FBG (<1%); organic material (roots)		Bentonite Seal
								Filter Pack Sand (20/40)
10		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		Screened Interval (0.01-inch PVC)
								Well Tip
						BORING TERMINATED AT 12 FEET.		

7/2/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA2D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.34 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.10 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			0-10	60		No Recovery		
5		SP				SAND grey (quartz), fine 50%, med 40%, coarse 10%, well sorted, subround, unconsolidated, dry, FBG (<1%), organics (roots)		
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
10			10-20	80				
15		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
		SM				SAND, silty: dark brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; moist		
20			20-30	80				
		SP				SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25		SP				SAND: (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist		
		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
30		SP	30-40	100		SAND: dark yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%)		

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7/2/19 ReportENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA2D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
40		SP	40-50	90		SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Grout
45		SP				SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%)		
50		SC-SM SP SC-SM	50-60	70		SAND, silty, clayey: very dark brown (quartz); fine (80%); med (15%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%) SAND, silty, clayey: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
55		SM				SAND, silty: (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
60		SM SC-SM	60-70	80		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated SAND, silty, clayey: dark brown (quartz); fine (95%); silt/clay (>5%); well sorted; subround; semi-consolidated		
		SP SC-SM				SAND: grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; FBG (<1%) SAND, silty, clayey: dark grayish brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist		
65		SP				SAND: light grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
70		SP				SAND: grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SC-SM				SAND, silty, clayey: light grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%); organic material (wood fragments)		

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M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 ReportENV LOG - WELL

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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA2D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/13/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
		SC-SM				SAND, silty, clayey: dark grayish brown (quartz); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		Bentonite Seal
		SP				SAND: white (quartz); fine (50%); med (50%); FBG (<1%)		Filter Pack Sand (20/40)
80		SC	80-90	70		SAND, clayey: dark grey (quartz); fine (50%); med (25%); coarse (20%); clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%); fat clay nodules		
85		CH				CLAY: dark grey; fat		Screened Interval (0.01-inch PVC)
		SP				SAND: dark grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Well Tip
90						BORING TERMINATED AT 90 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 ReportENV LOG - WELL

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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

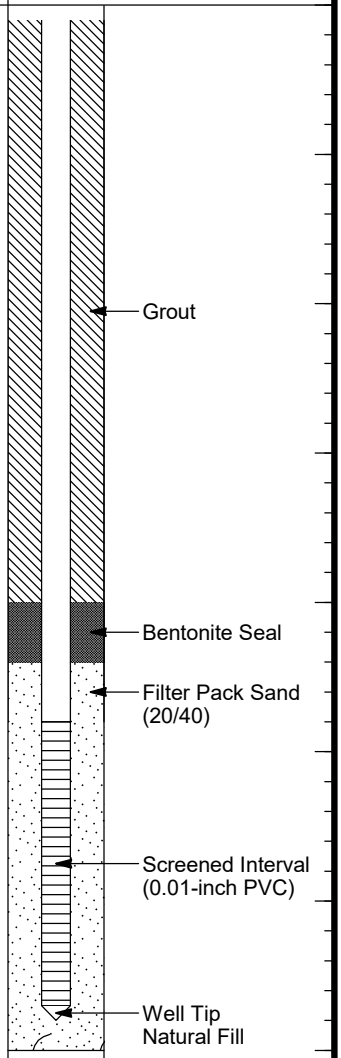
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA2S & OBSV. WELL CONSTRUCTION

PROJECT NUMBER		**GEOLOGIST**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/14/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
ENTERED BY:	BHG	**TOP OF CASING**	171.91
CHECKED BY:	SDS	**GROUND ELEVATION**	171.91 Ft. AMSL
REMARKS		**DEPTH TO WATER**	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	70		No Recovery	
5		SP				SAND: grey (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; dry; FBG (<1%); organic material (roots)	
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
10							
15		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
		SM				SAND, silty: dark brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; moist	
20							
		SP				SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
25		SP				SAND: (quartz); fine (60%); med (30%); coarse (10%); well sorted: subround: unconsolidated; moist; FBG (<1%)	
30		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
		SP				SAND: dark yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%)	
35						BORING TERMINATED AT 35 FEET.	

OBSV. WELL DIAGRAM



C:\WORK\TWIN PINES\GINT DATABASE EXCEL FILE\GINT DUMMY\NEW FOLDER\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 11/15/19 Report:ENV LOG - WELL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

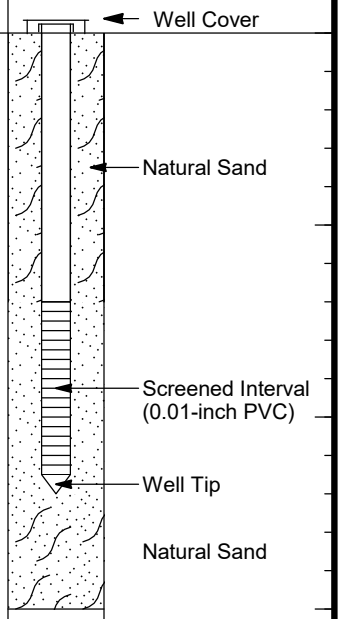
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA3BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER		**GEOLOGIST**	A. Wiggins
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	1/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2 " PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
ENTERED BY:	BHG	**TOP OF CASING**	172.11
CHECKED BY:		**GROUND ELEVATION**	172.11 Ft. AMSL
REMARKS		**DEPTH TO WATER**	1.03 Ft. BMP
		WATER ELEVATION	**171.32 Ft. AMSL**

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP	0-5	100		SAND: black (10YR 2/1); poorly graded; med; saturated	
5		SP	5-10	100		SAND: light reddish grey (2.5YR 7/1); med; saturated; organics (5.5-6)	
		SP				SAND: weak red (2.5YR 5/2); poorly graded; med; saturated	
		SP				SAND: very dark brown (2.5YR 2.5/2); poorly graded; med; saturated	
10		SP	10-15	100		SAND: very dark brown (2.5YR 2.5/2); poorly graded; med; saturated	
15						BORING TERMINATED AT 15 FEET.	

OBSV. WELL DIAGRAM



C:\WORK\TWIN PINES\GINT DATABASE EXCEL FILE\GINT DUMMY\NEW FOLDER\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 11/15/19 Report:ENV LOG - WELL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

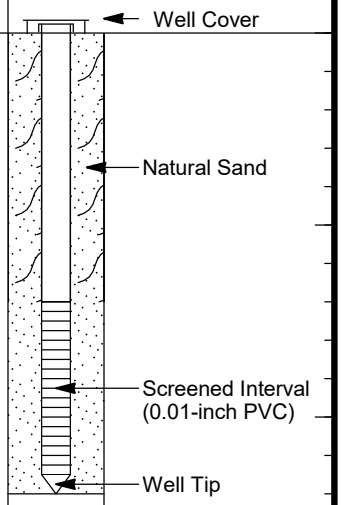
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA4BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Wiggins
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	1/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-inch.
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	172.44 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.16 Ft. AMSL
		DEPTH TO WATER	1.25 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
0		SP	0-5	100		SAND: black (10R 2/1); poorly graded; med; moist	
5		SP	5-10	100		SAND: reddish grey (2.5YR 7/1); poorly graded; med; moist	
		SP				SAND: weak red (2.5YR 5/2); poorly graded; med; moist; organics (5.5-6 feet)	
		SP				SAND: very dark brown (2.5YR 2.5/2); poorly graded; med; moist	
10		SP	10-15	100		SAND: black (10R 2/1); poorly graded; med; saturated	
15						BORING TERMINATED AT 15 FEET.	

OBSV. WELL DIAGRAM



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7/2/19 Report\ENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

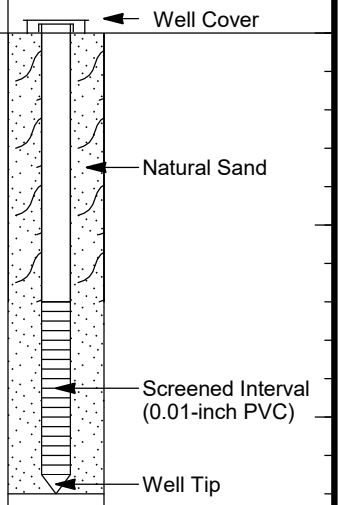
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWA5BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Wiggins
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	1/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in.
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	172.28 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.09 Ft. AMSL
		DEPTH TO WATER	0.7 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP	0-5	100		SAND: black (5YR 2.5/1); poorly graded; med	
5		SP	5-10	100		SAND: grey (5yr 6/1); poorly graded; med; organics	
		SP				SAND: dark yellowish brown (10YR 3/6) and brown (10YR 4/3); poorly graded	
		SP				SAND: very pale brown (10YR 7/3) and greyish brown (10YR 5/2); poorly graded	
10		SP	10-15	100		SAND: black (5YR 2.5/1); poorly graded; med; saturated	
15						BORING TERMINATED AT 15 FEET.	

OBSV. WELL DIAGRAM



7/2/19 Report\ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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PUMPING TEST AREA B

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PUMP WEL PW B & PUMP WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/10/2018 - 12/14/2018
DRILLING COMPANY	Patridge Well Co.	**CASING DIA./TYPE**	6" PVC
DRILLER	Randy Baker	**SCREEN SLOT/TYPE**	0.020-inch
DRILLING METHOD	Rotary	**FILTER PACK TYPE**	16/30 Colorado silica
		TOP OF CASING	174.41 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.46 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
0						SAND: light brown to black		
5		SP						
10						SAND, sandy: black; med to fine; consolidated; hardpan at 15'		
15		SM						
20						SAND: very dark brown to almost black; few organics		Grout
25								
30		SP						
35								
40						SAND, sandy: light brown to tan (yellowish brown); fine to med; well sorted; subround		Bentonite Seal

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7/2/19 Report:ENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PUMP WEL PW B & PUMP WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/10/2018 - 12/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
50		SM						Filter Pack Sand (16/30)
55								
60						SAND, clayey: medium bluish grey to medium dark grey; fine; well sorted; argillaceous		
65								
70		SC						
75								
80						SAND, clayey: black; no reaction		
85								Screened Interval (0.01-inch PVC)
90		SC						
95								

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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF PUMP WEL PW B & PUMP WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Patton
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/10/2018 - 12/14/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE: INTERVAL (feet)	SAMPLE: % RECOVERY	SAMPLE: PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
100						SAND: black		
105		SP						
110								
115						BORING TERMINATED AT 115 FEET.		Well Tip

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 ReportENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

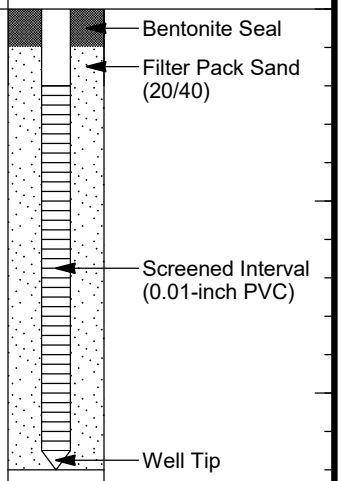
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB1BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/7/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.38 Ft. AMSL
REMARKS	Same as OWB-1S and OWB-1D for 0-12	**GROUND ELEVATION**	172.17 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (wood/roots)	
5		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist	
10						BORING TERMINATED AT 12 FEET.	

OBSV. WELL DIAGRAM



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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB1D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/27/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.49 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.36 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			0-10	80		No Recovery		
		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood/roots/shoots)		
5						SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
10		SM	10-20	80				
15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
		SM				SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
20		SM	20-30	80				
		SP				SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25		SM				SAND, silty: dark brown (quartz); fine (70%); med (20%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30			30-40	70				
		SC-SM				SAND, silty, clayey: black (quartz); fine (95%); silt/clay (<5%);		

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7/2/19 Report:ENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB1D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/27/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
						well sorted; subround; well consolidated; moist		Grout
40		SM	40-50	80		SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
45								
50		SP	50-60	80		SAND: grayish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
55								
60		SP	60-70	80		SAND: dark grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
65		CL				CLAY, sandy: grayish brown; fine; FBG (<1%)		
70		SC	70-80	60		SAND, clayey: light brownish grey (quartz); fine (95%); clay (5%); well sorted; subround; moist; FBG (<1%)		Bentonite Seal

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB1D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/27/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
80		SP	80-90	80		SAND: fine (60%) med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Filter Pack Sand (20/40)
		SP				SAND: fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
85		SC-SM				SAND, silty, clayey: (quartz); fine (75%); med (20%); silty/clay (<5%); well sorted; subround; moist; FBG (<1%)		
		SP				SAND: (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Well Tip
90						BORING TERMINATED AT 90 FEET.		

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

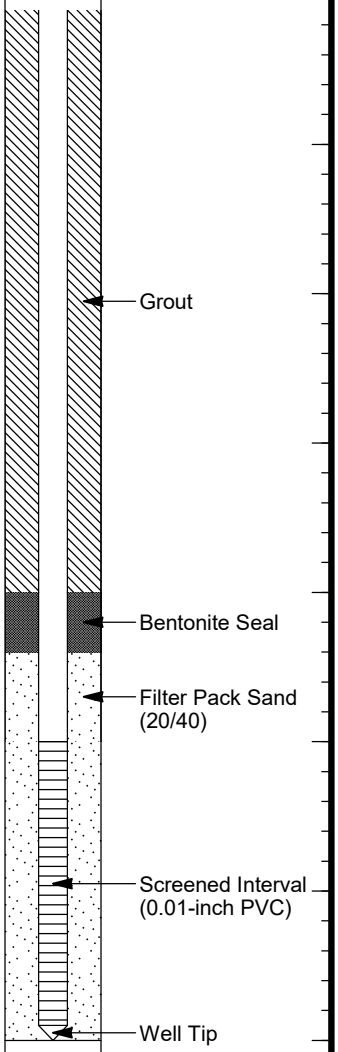
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB1S & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/27/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Golden	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.43 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.34 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (wood/roots)	
5		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist	
10		SM					
15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist	
20		SM				SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)	
25		SM				SAND, silty: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<!%)	
30		SM				SAND, silty: dark brown (quartz); fine (70%); med (20%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
35		SC-SM				SAND, silty, clayey: black (quartz); fine (95%); silt/clay (<5%); well sorted; subround; well consolidated; moist	
						BORING TERMINATED AT 35 FEET.	

OBSV. WELL DIAGRAM



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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

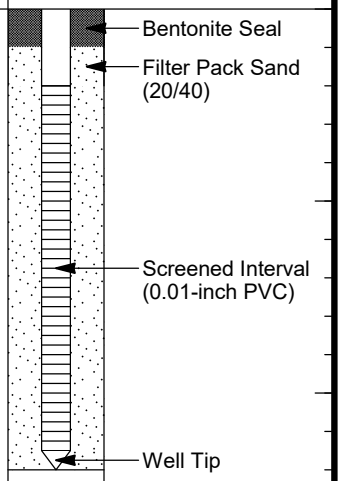
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB2BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/7/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.47 Ft. AMSL
REMARKS	Same as OWB-2S and OWB-2D for 0-12 interval	**GROUND ELEVATION**	172.59 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	80		No Recovery	
		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
5		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10		SM	10-20	80		SAND, silty: dark brown (quartz); fine (50%); med (40%); silt (<5%); well sorted; subround; unconsolidated; moist	
						BORING TERMINATED AT 12 FEET.	

OBSV. WELL DIAGRAM



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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB2D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/28/2018 - 11/29/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.76 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.75 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			0-10	80		No Recovery		
		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
5		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
10		SM	10-20	80		SAND, silty: dark brown (quartz); fine (50%); med (40%); silt (<5%); well sorted; subround; unconsolidated; moist		
15		SC-SM				SAND: silty; clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; semi-consolidated		
20		SP	20-30	80		SAND: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25								
30		SM	30-40	80		SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; moist		
35		SM				SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Grout
40			40-50	80		SAND: dark yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted subround; moist; FBG (<1%)		

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7/2/19 Report:ENV LOG - WELL M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

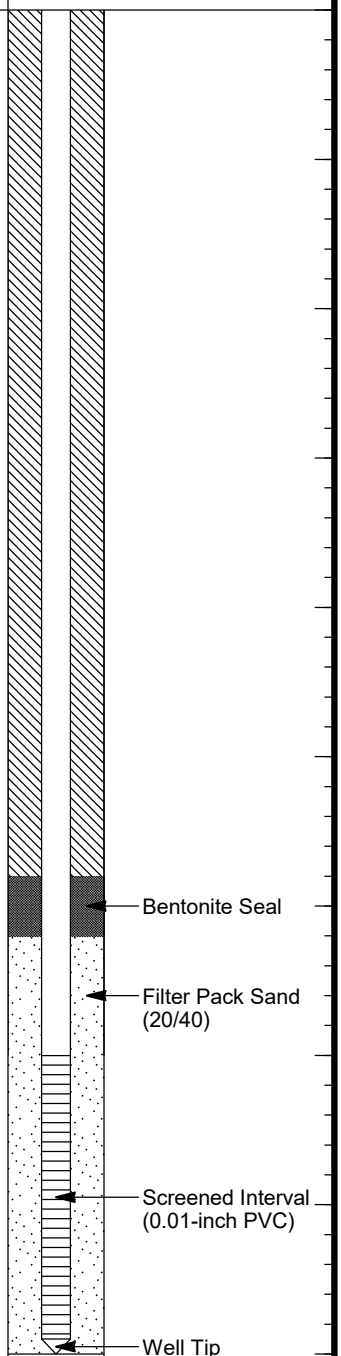
LOG OF OBSV. WELL OWB2D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/28/2018 - 11/29/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
50		SP	50-60	80			
55							
60			60-70	80			
		SM				SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)	
65		CL				CLAY: dark grayish brown; sandy; fine	
		SM				SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)	
70			70-80	0		No Recovery	
75							
80		SP	80-90	70		SAND: (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated FBG (<1%)	
85		SC-SM				SAND, silty, clayey: (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; moist; FBG (<1%)	
		SP				SAND: light grayish brown (quartz); find (75%); med (25%); well sorted; subround; unconsolidated; moist	
90						BORING TERMINATED AT 90 FEET.	

OBSV. WELL DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 ReportENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

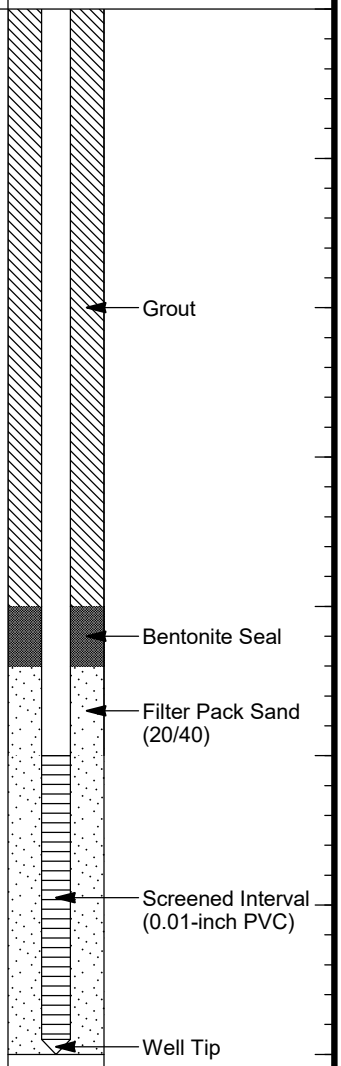
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB2S & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	11/30/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	172.79 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.86 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	70		No Recovery	
5		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
10		SM				SAND, silty: dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist	
15		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist	
20		SP				SAND: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
25							
30		SM				SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated	
35		SM				SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
						BORING TERMINATED AT 35 FEET.	

OBSV. WELL DIAGRAM



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7/2/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

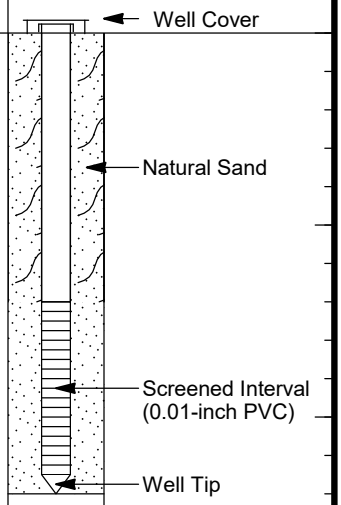
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB3BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Wiggins
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	1/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarcis	**SCREEN SLOT/TYPE**	0.010-in.
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	172.84 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.57 Ft. AMSL
		DEPTH TO WATER	0.3 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP	0-5	100		SAND: black (10R 2/1); poorly graded; med; saturated	
5		SP	5-10	100		SAND: grey (5YR 6/1); poorly graded; med; organics	
		SP				SAND: dark yellowish brown (10YR 3/6) and brown (10YR 4/3); poorly graded	
		SP				SAND: very pale brown (10YR 7/3) and greyish brown (10YR 5/2); poorly graded	
10		SP	10-15	100		SAND: black (5YR 2.5/1); poorly graded; med; saturated	
15						BORING TERMINATED AT 15 FEET.	

OBSV. WELL DIAGRAM



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 ReportENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

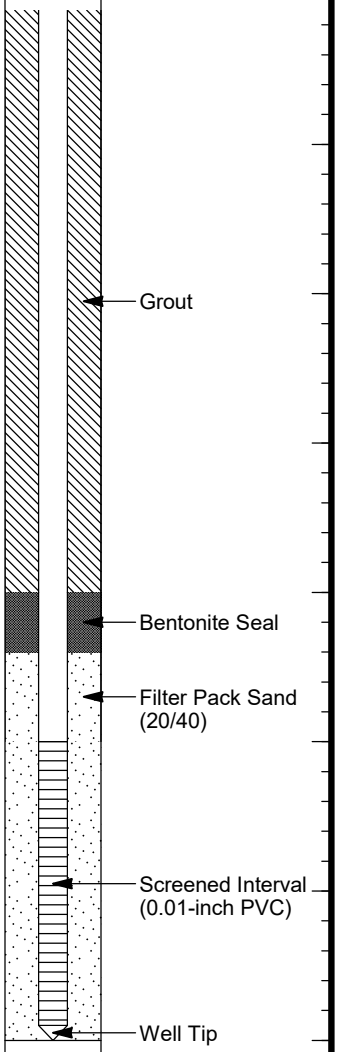
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB3S & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/5/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
		TOP OF CASING	171.76 Ft. AMSL
REMARKS		**GROUND ELEVATION**	171.69 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			0-10	70		No Recovery	
		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SP				SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
5		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); well sorted; subround; unconsolidated; moist	
						SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist	
10		SM	10-20	80			
15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist	
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist	
20						SAND, silty: dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist	
		SM	20-30	70			
25							
		SP				SAND: grayish brown (quartz); silty; fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
30			30-35	200			
		SM				SAND, silty: dark brown (quartz); fine (50%); med (40%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
		SP				SAND: dark yellowish brown (quartz); silty; fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)	
35						BORING TERMINATED AT 35 FEET.	

OBSV. WELL DIAGRAM



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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB3D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER		**GEOLOGIST**	T. Hall
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	12/5/2018
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	
ENTERED BY:	BHG	**TOP OF CASING**	172.09
CHECKED BY:	SDS	**GROUND ELEVATION**	172.09 Ft. AMSL
REMARKS		**DEPTH TO WATER**	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			0-10	80		No Recovery		
		SM				SAND, silty: light grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%); organics (roots/grass)		
		SM						
		SP						
		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
5						SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<!%)		
						SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SM				SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
10			10-20	80				
		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
15								
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
						SAND, silty: dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
20			20-30	60				
		SM						
25								
		SP				SAND: grayish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; FBG (<1%)		
30			30-40	80				
		SM				SAND, silty: dark brown (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%0		
						SAND: dark yellowish brown (quartz); fine (50%);		

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C:\WORK\TWIN PINES\GINT DATABASE EXCEL FILE\GINT DUMMY\NEW FOLDER\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 11/15/19 Report:ENV LOG - WELL

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB3D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER | **GEOLOGIST** T. Hall

LOCATION Saint George, Georgia | **DATE(S) DRILLED**

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
						med (40%); coarse (10%); well sorted; subround; moist; FBG (<1%)		Grout
40		SP	40-50	90				
45								
50			50-60	90				
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; well consolidated		
55		SP				SAND: dark yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; moist; FBG (<1%)		
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; well consolidated		
		SP				SAND: yellowish brown (quartz); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
60		CL	60-70	90		CLAY, sandy: grayish brown; fine; well sorted; subround; moist; FBG (<1%)		
65								
		SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
70			70-80	0		No Recovery		

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TTL

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB3D & OBSV. WELL CONSTRUCTION

PROJECT NUMBER _____ **GEOLOGIST** T. Hall

LOCATION Saint George, Georgia **DATE(S) DRILLED** _____

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
80								Bentonite Seal
								Filter Pack Sand (20/40)
		SP	80-90	80		SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
85								Screened Interval (0.01-inch PVC)
90						BORING TERMINATED AT 90 FEET.		Well Tip

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TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

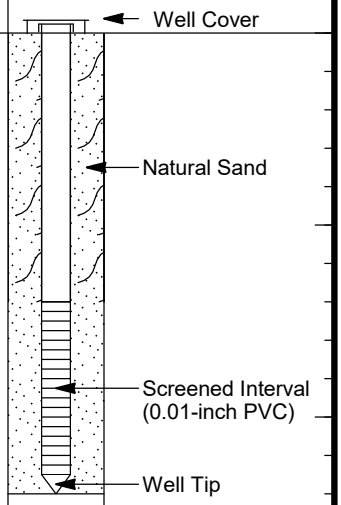
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB4BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Wiggins
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	1/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in.
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	172.68 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.40 Ft. AMSL
		DEPTH TO WATER	1 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP	0-5	100		SAND: black (10R 2/1); poorly graded; med; saturated	
5		SP	5-10	100		SAND: yellowish brown (10YR 3/6) and brown (10YR 4/3); poorly graded; med; moist	
10			10-15	0		No Recovery	
15						BORING TERMINATED AT 15 FEET.	

OBSV. WELL DIAGRAM



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7/2/19 ReportENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

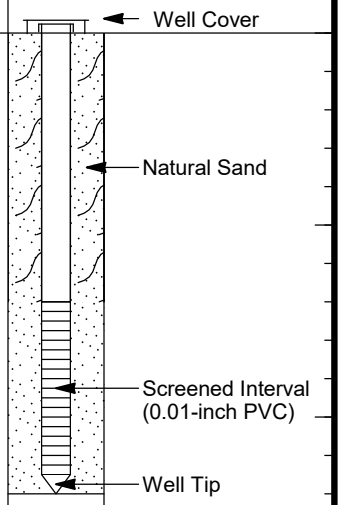
SAINT GEORGE, GEORGIA

LOG OF OBSV. WELL OWB5BS & OBSV. WELL CONSTRUCTION

PROJECT NUMBER	000180200804.00	**PROFESSIONAL**	A. Wiggins
LOCATION	Saint George, Georgia	**DATE(S) DRILLED**	1/30/2019
DRILLING COMPANY	Betts	**CASING DIA./TYPE**	2" PVC
DRILLER	C. Pendarvis	**SCREEN SLOT/TYPE**	0.010-in.
DRILLING METHOD	Sonic	**FILTER PACK TYPE**	Natural
		TOP OF CASING	172.80 Ft. AMSL
REMARKS		**GROUND ELEVATION**	172.56 Ft. AMSL
		DEPTH TO WATER	0.8 Ft. BMP
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SP	0-5	100		SAND: black (10YR 2/1); poorly graded; med; saturated	
5		SP	5-10	100		SAND: grey (5YR 6/1); poorly graded; med; organics	
		SP				SAND: dark yellowish brown (10YR 3/6) and brown (10YR 4/3); poorly graded	
		SP				SAND: very pale brown (10YR 7/3); and greyish brown (10YR 5/2); poorly graded	
10			10-15	0		No Recovery	
15						BORING TERMINATED AT 15 FEET.	

OBSV. WELL DIAGRAM



7/2/19 ReportEENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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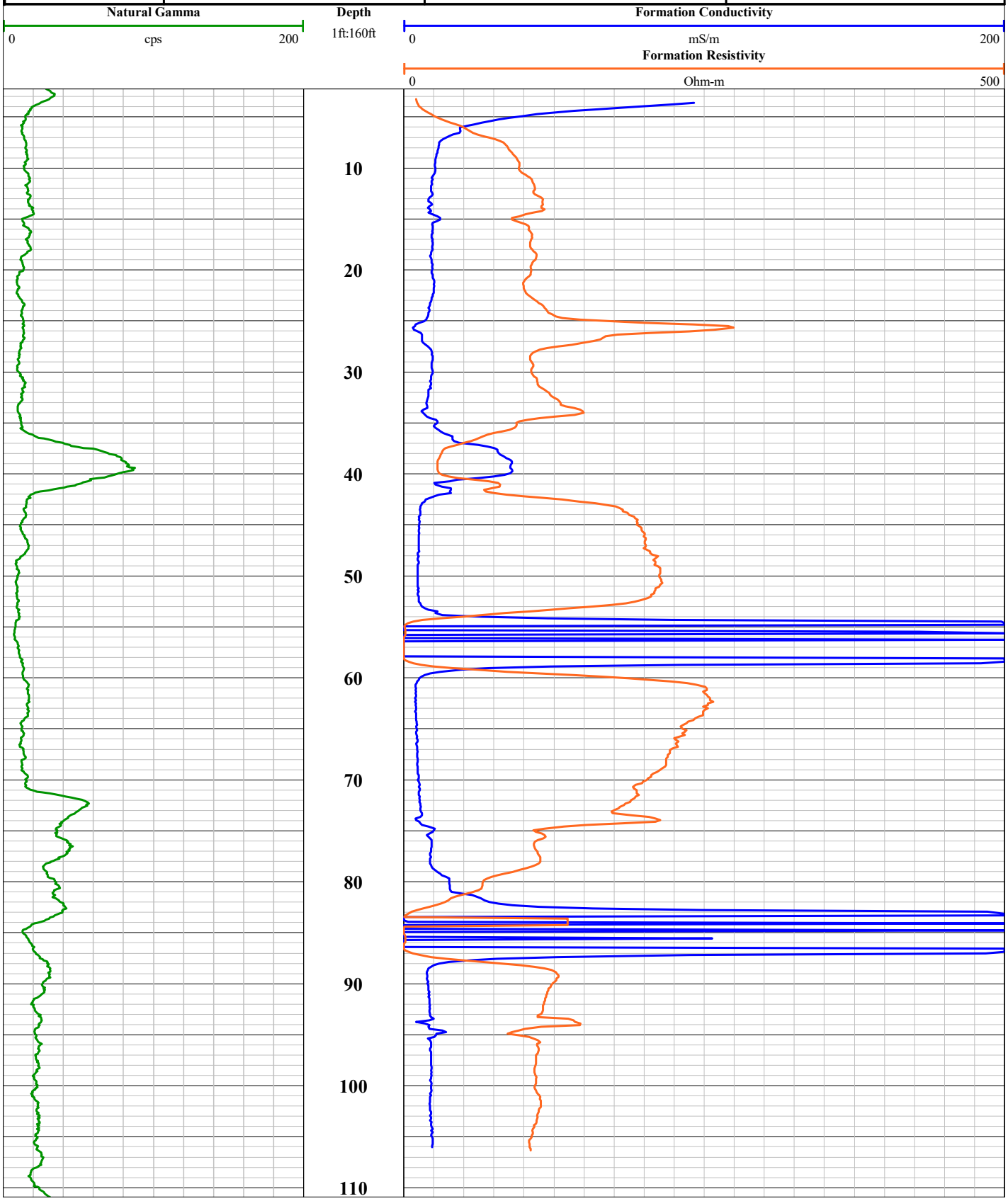
APPENDIX G
GEOPHYSICAL LOGS

Attached Documents:
Geophysical Logs

Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 21 March 2019	WELL: PW-A

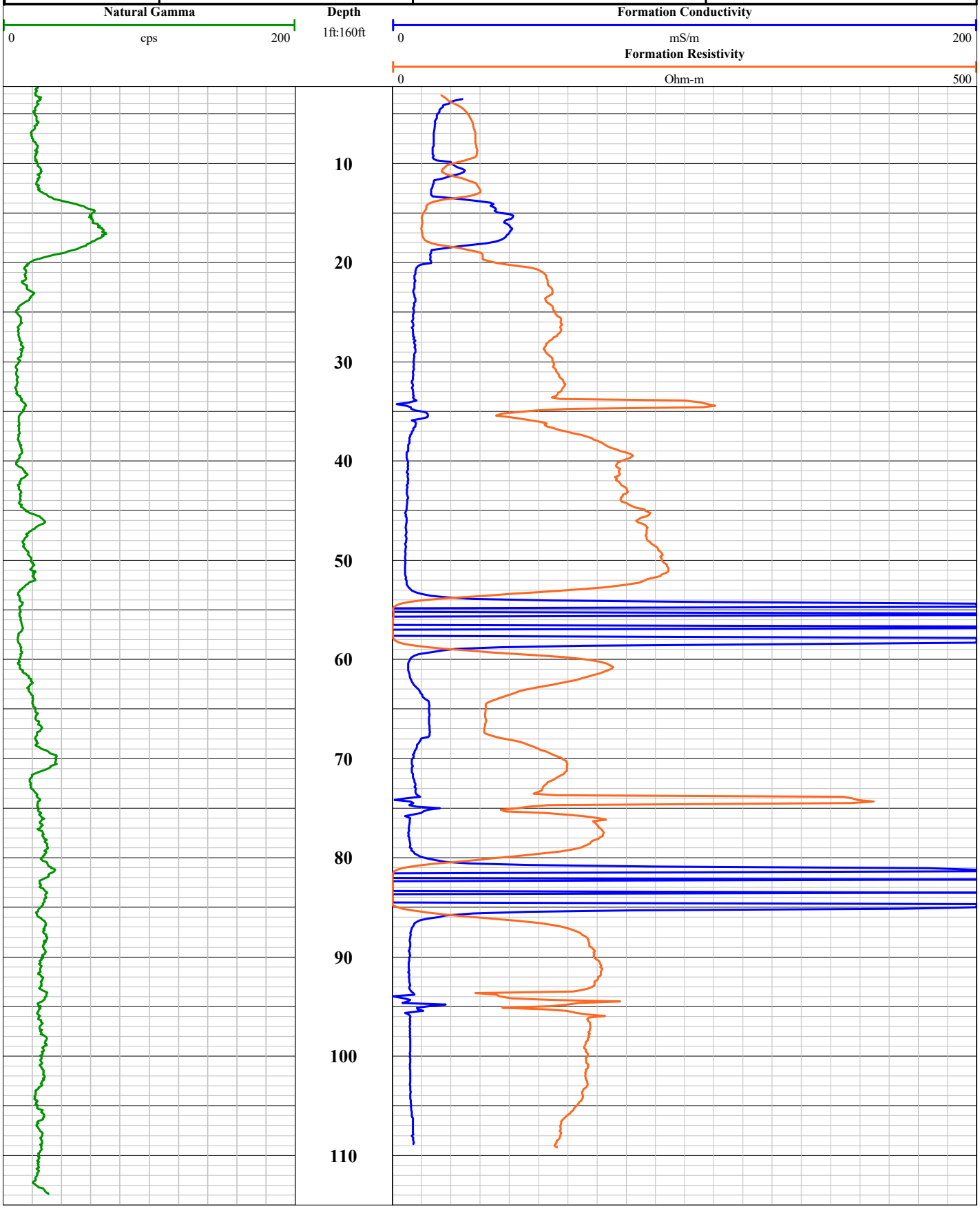
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 21 March 2019	WELL: PW-B

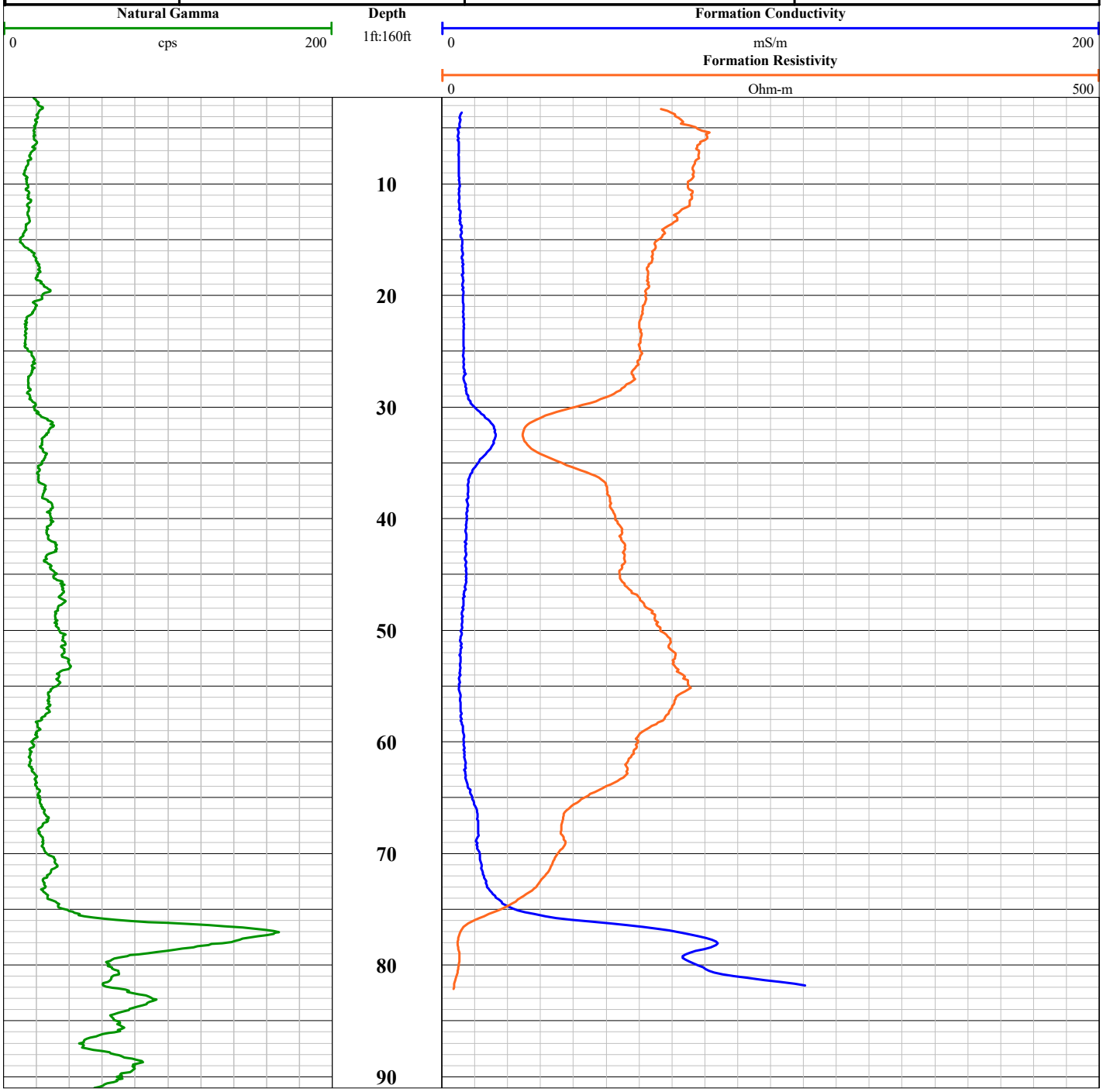
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 20 March 2019	WELL: UD-10

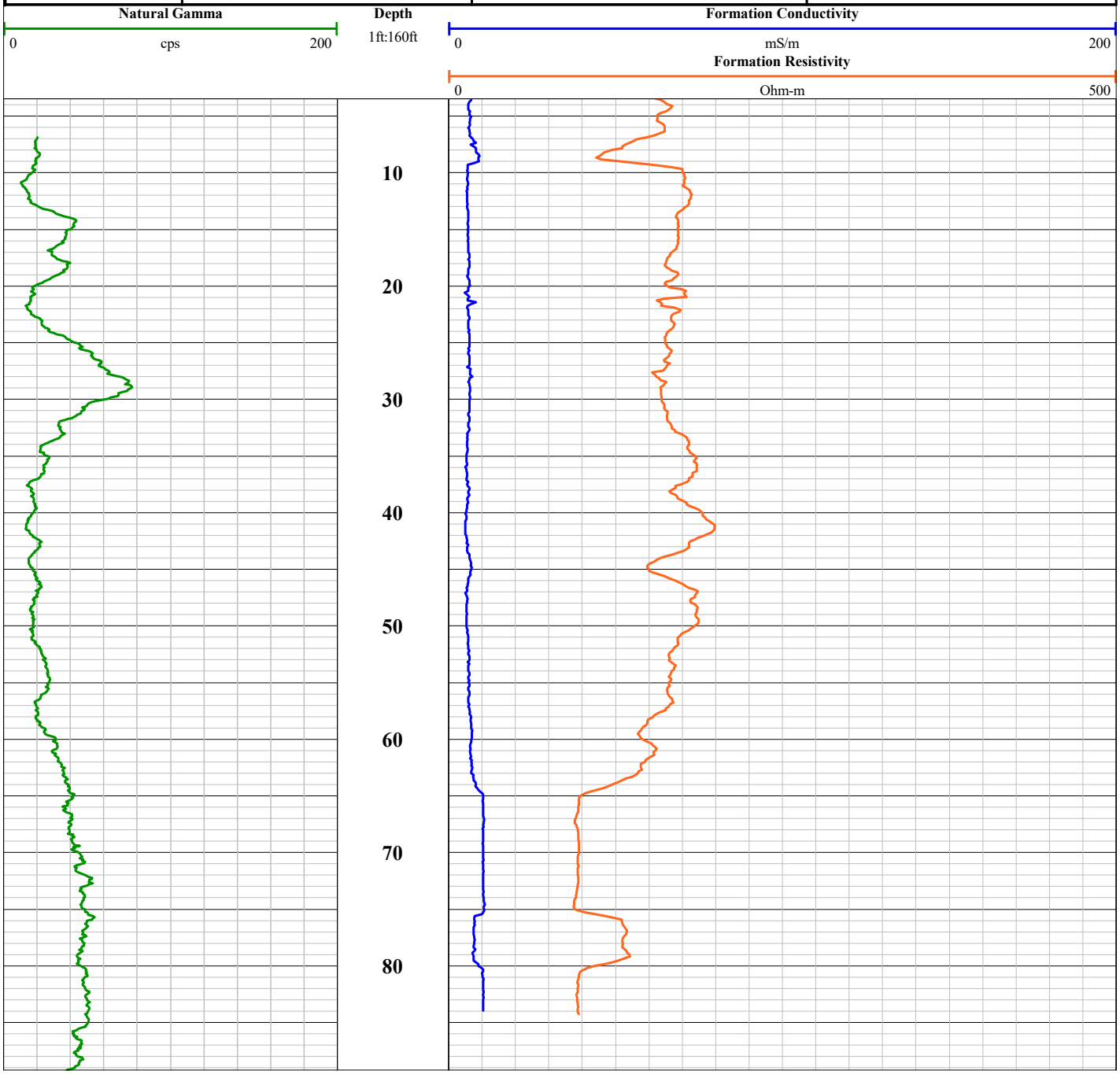
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 21 March 2019	WELL: UD-25

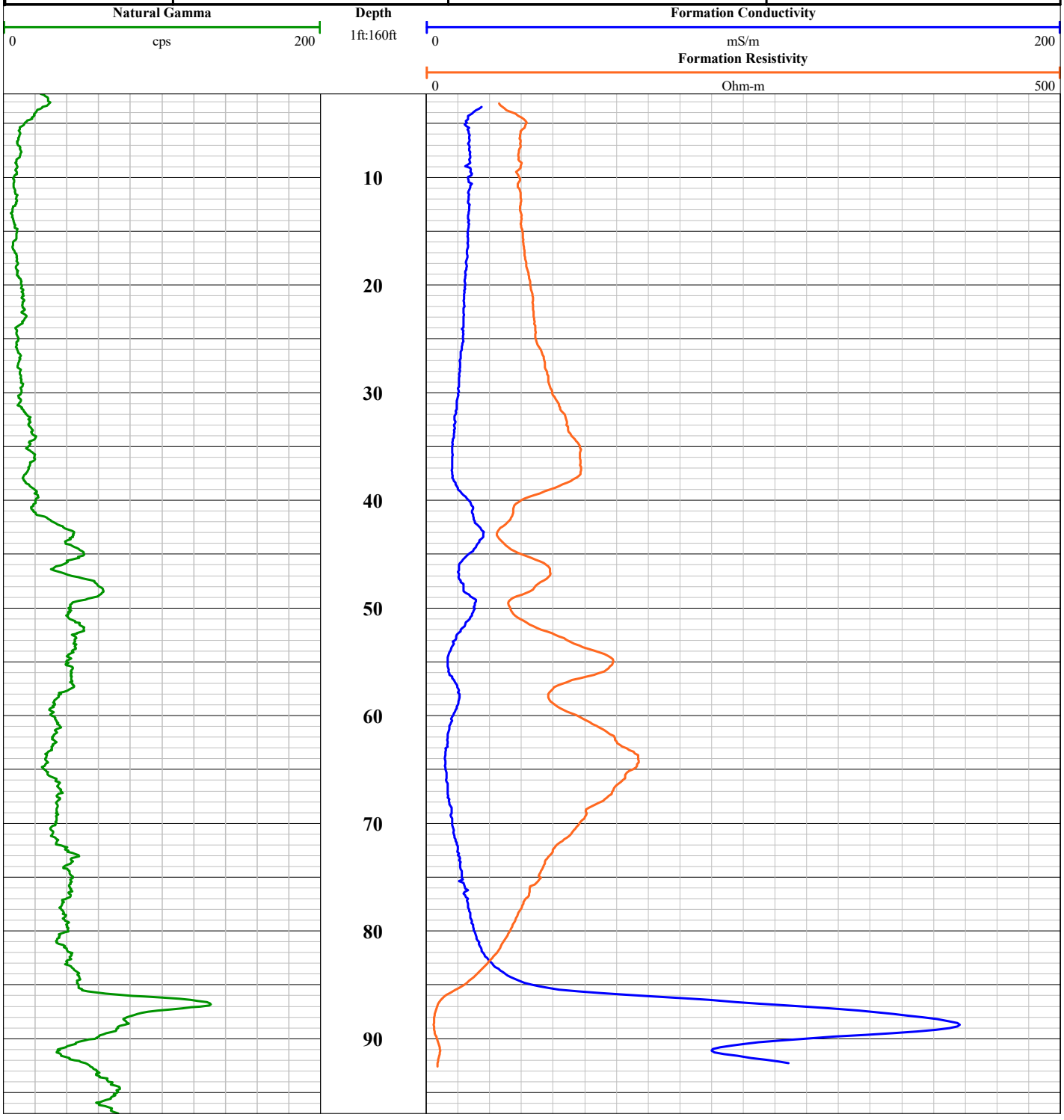
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 19 March 2019	WELL: UD-43

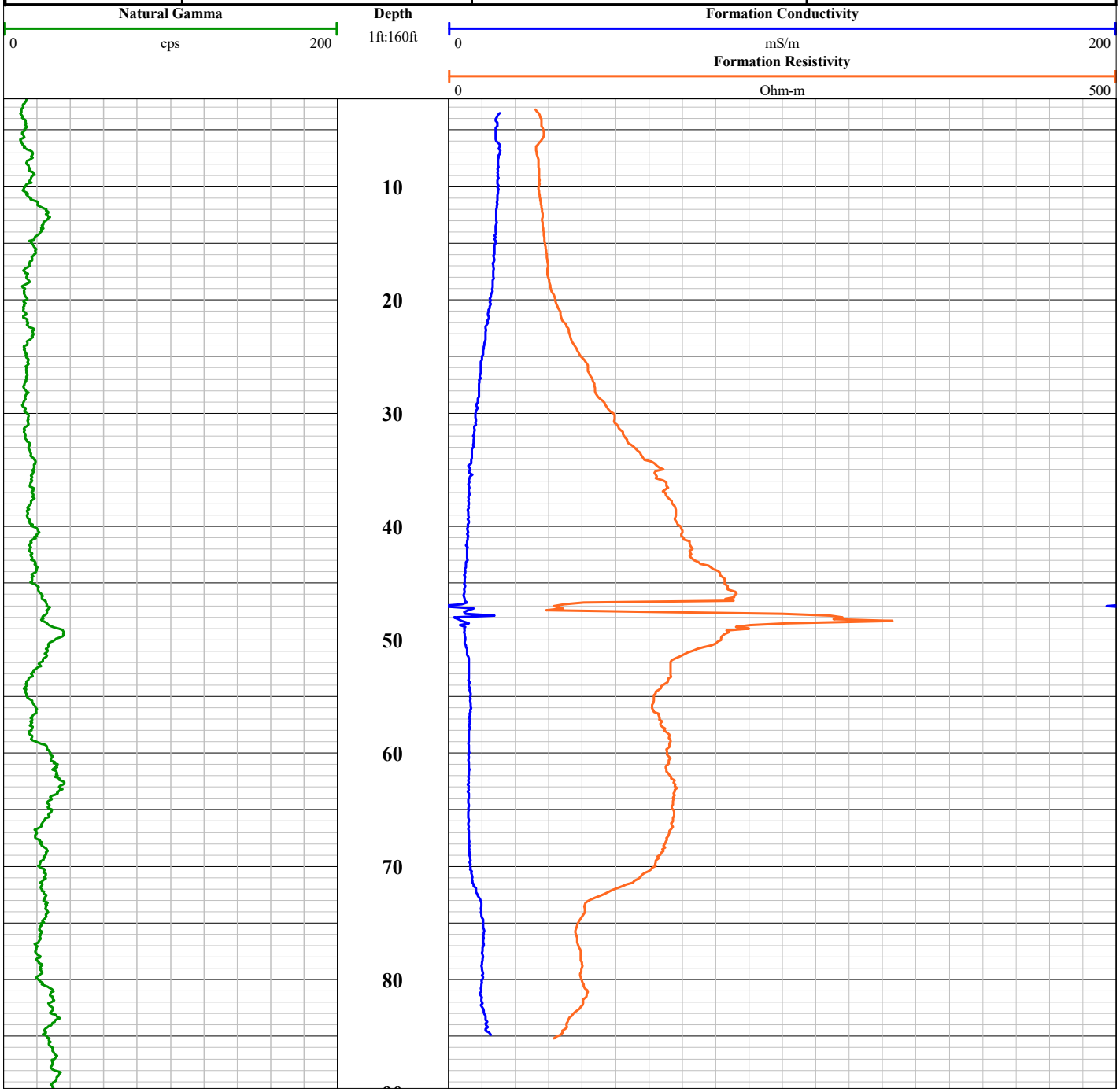
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 19 March 2019	WELL: UD-51

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 19 March 2019	WELL: UD-65

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
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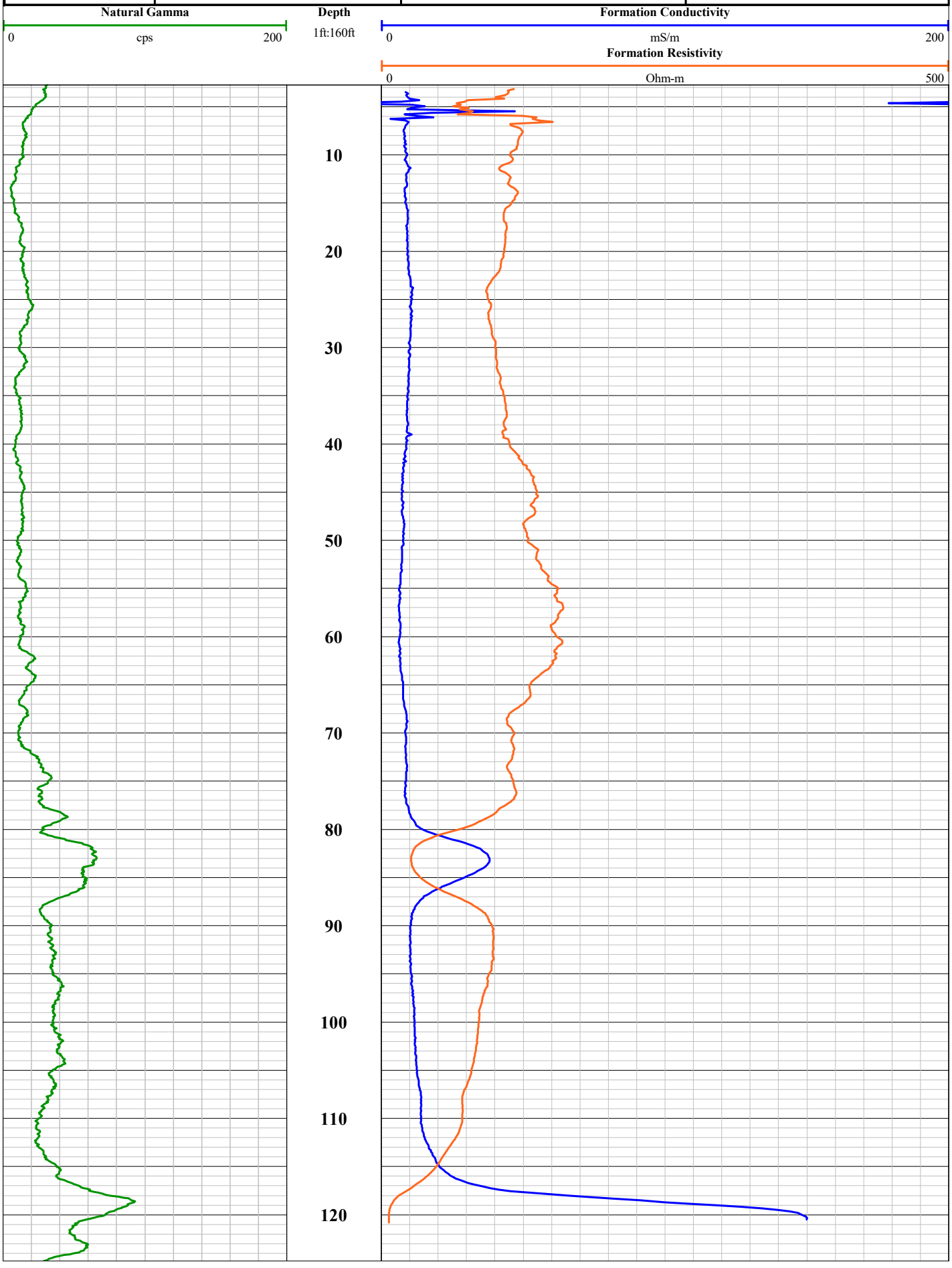

Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 20 March 2019	WELL: UD-67

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
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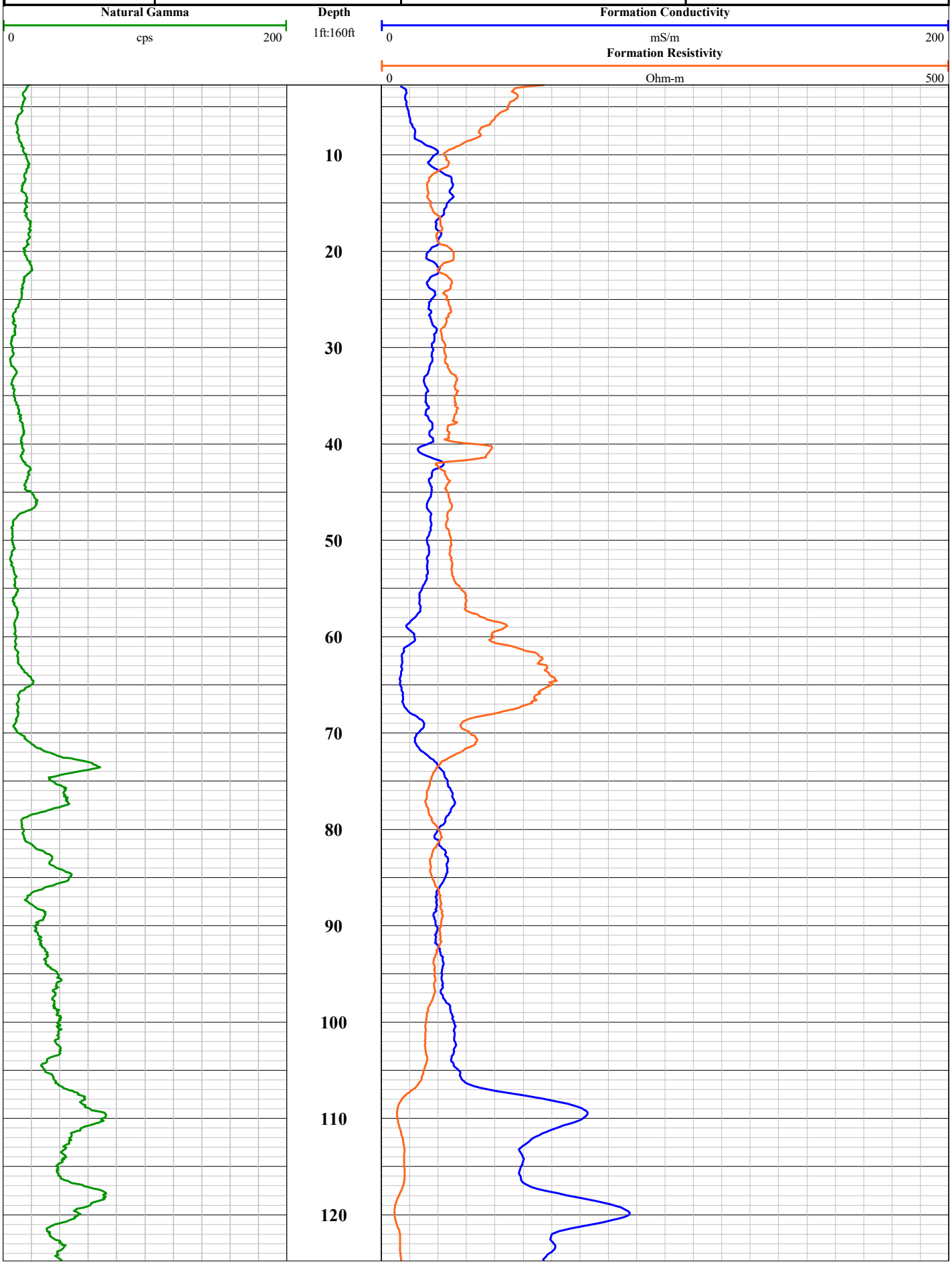

Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 20 March 2019	WELL: UD-93

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
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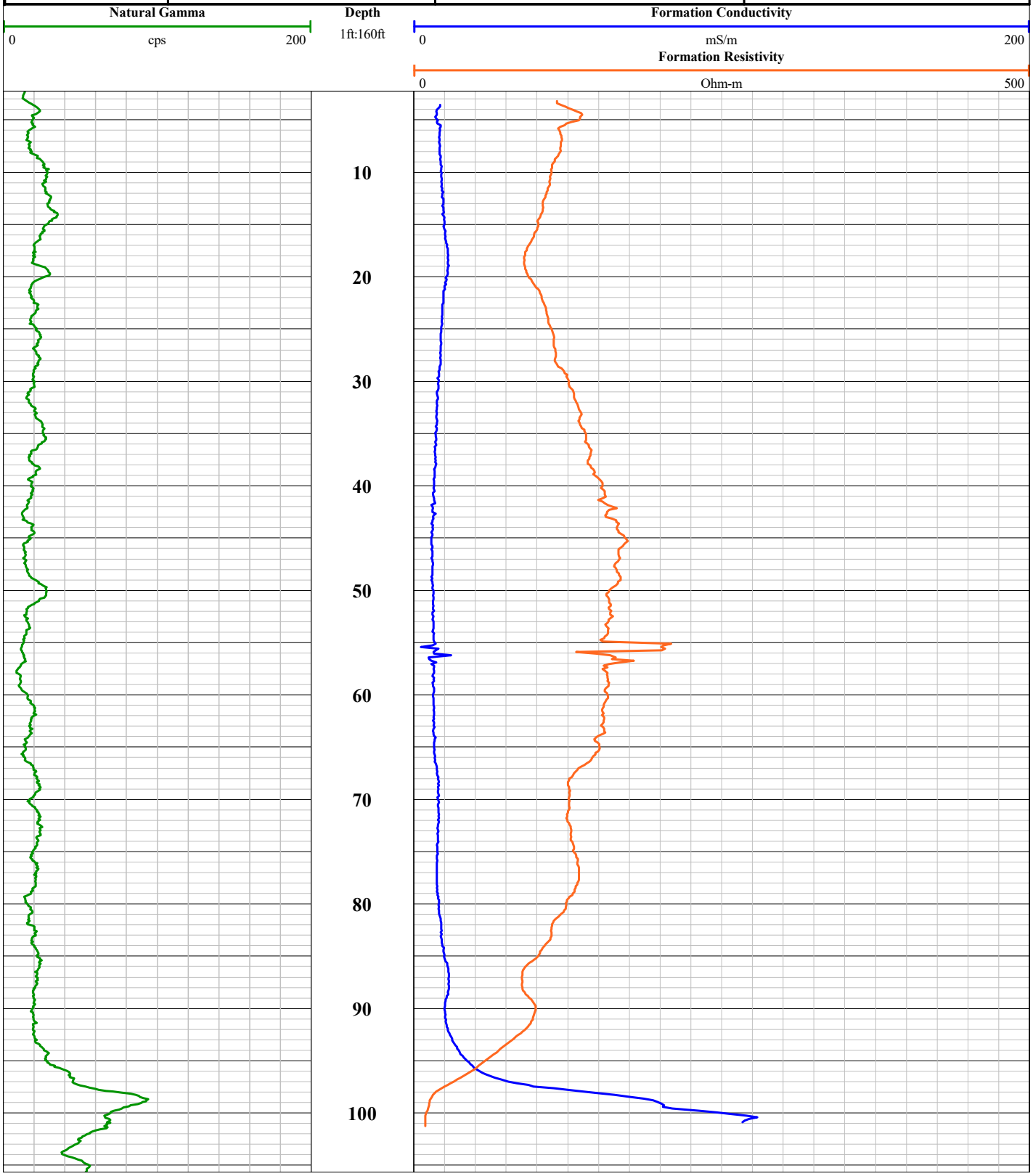
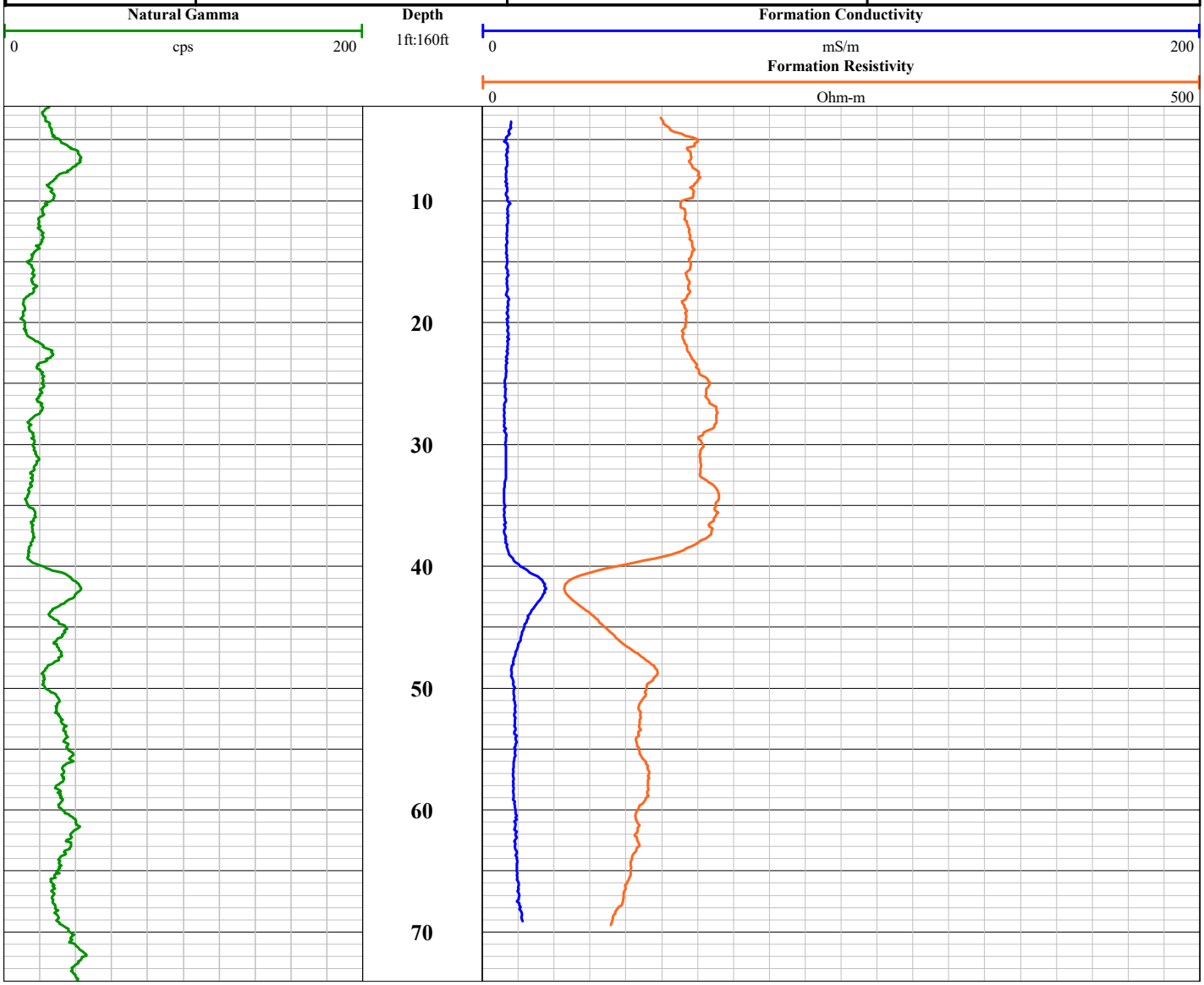


Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 20 March 2019	WELL: UD-126

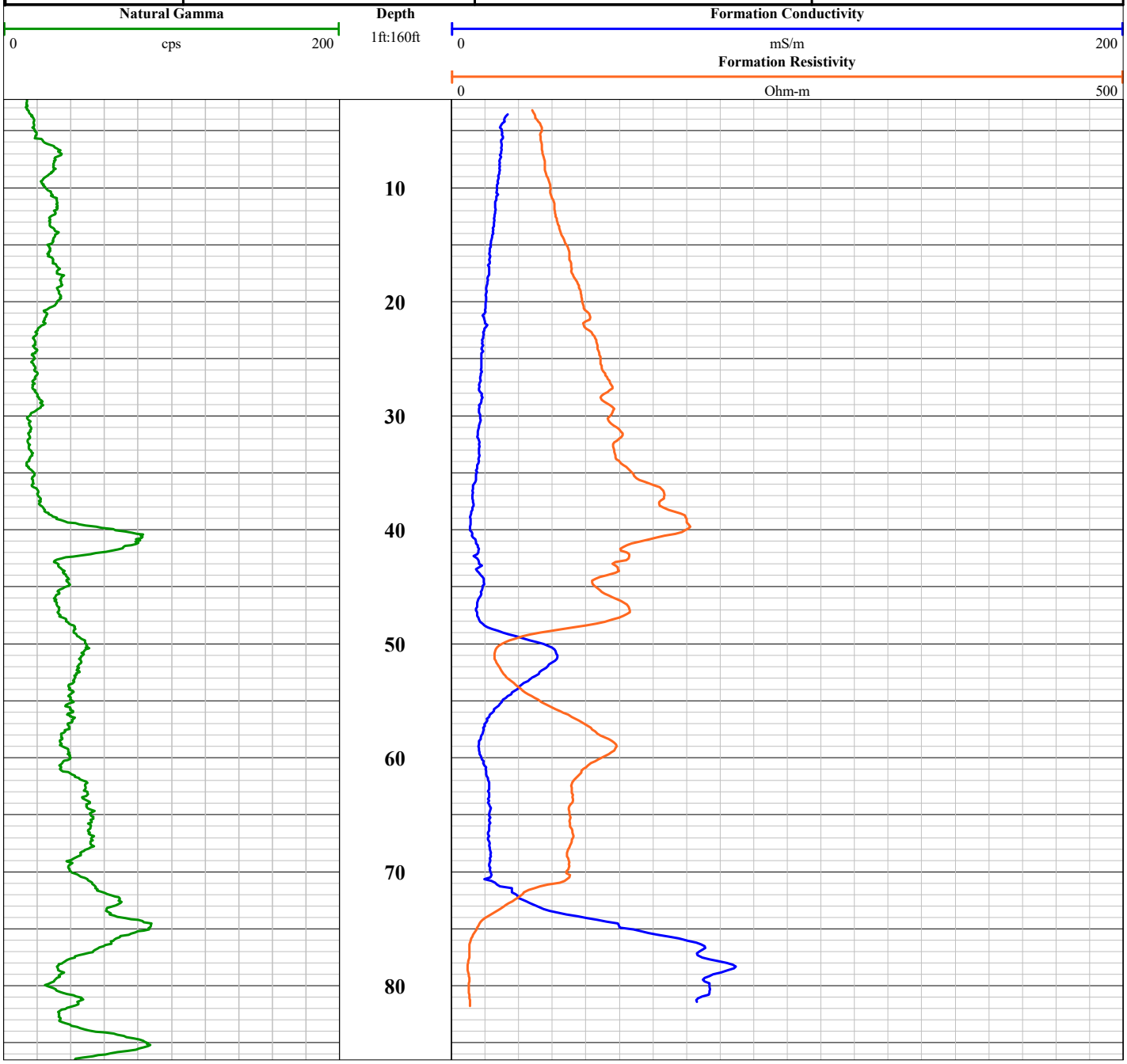
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 21 March 2019	WELL: UD-128

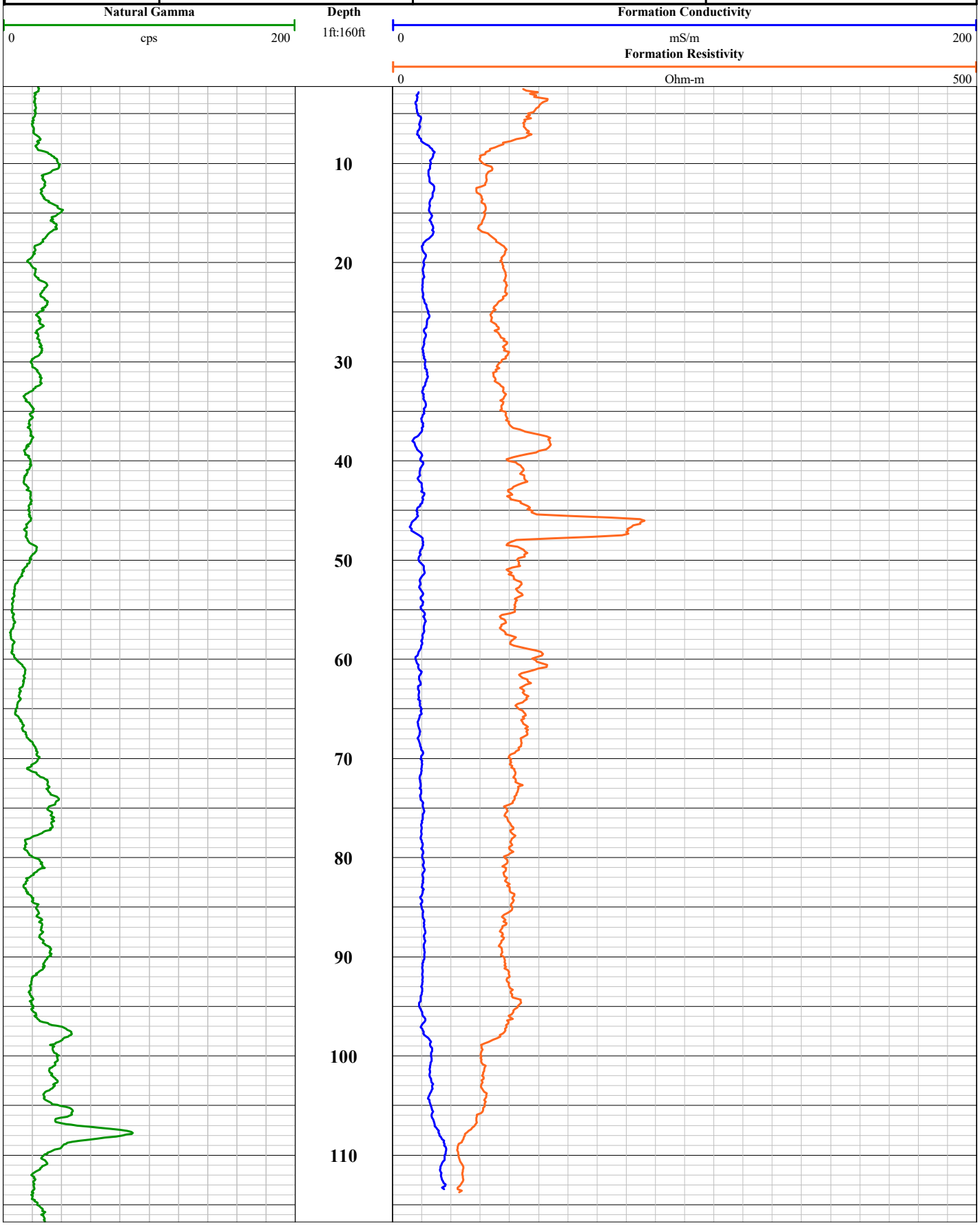
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 20 March 2019	WELL: UD-179

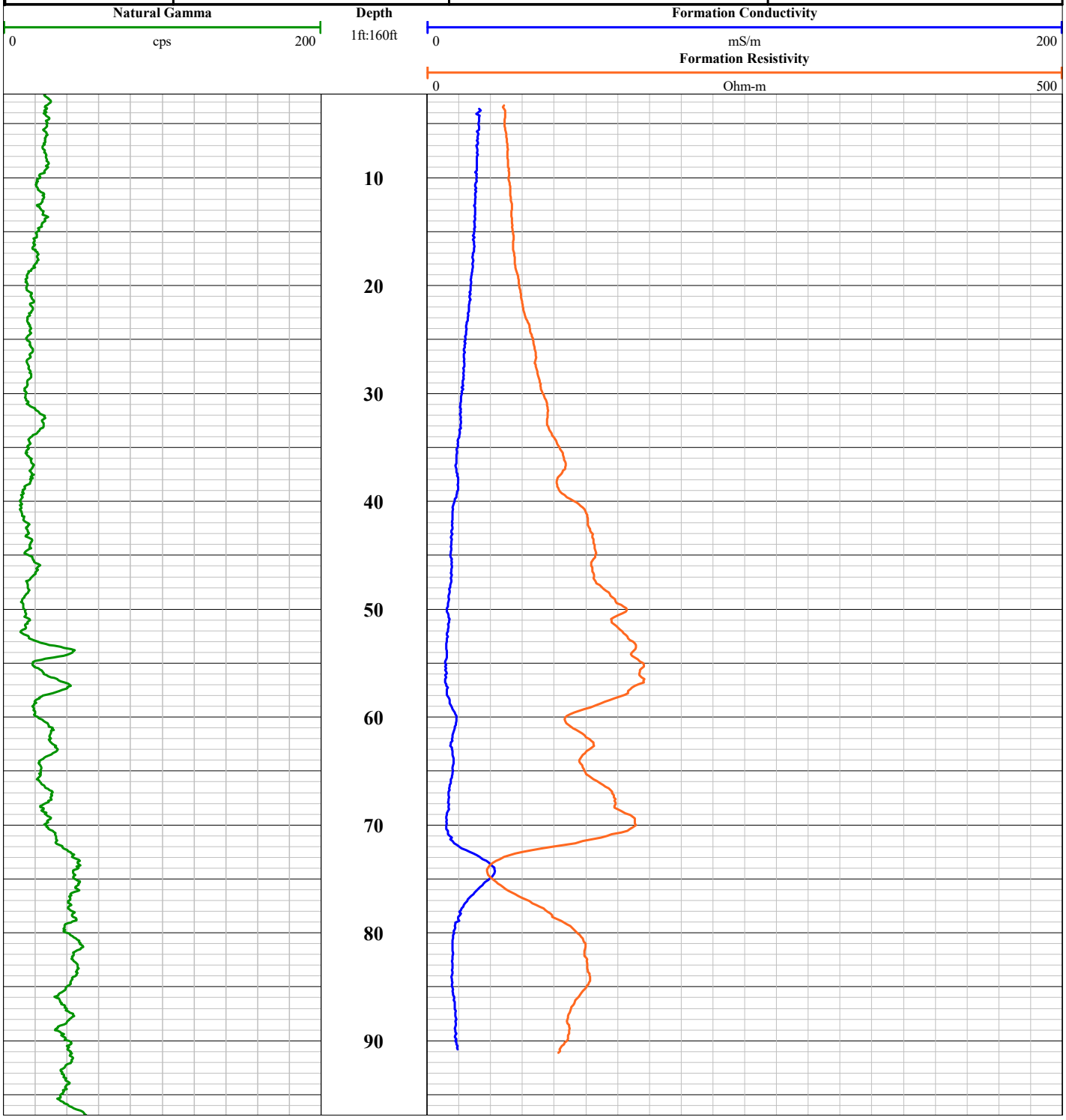
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 21 March 2019	WELL: UD-231

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com



Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 19 March 2019	WELL: UD-238

TTL USA
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Phone: (205) 345-0816
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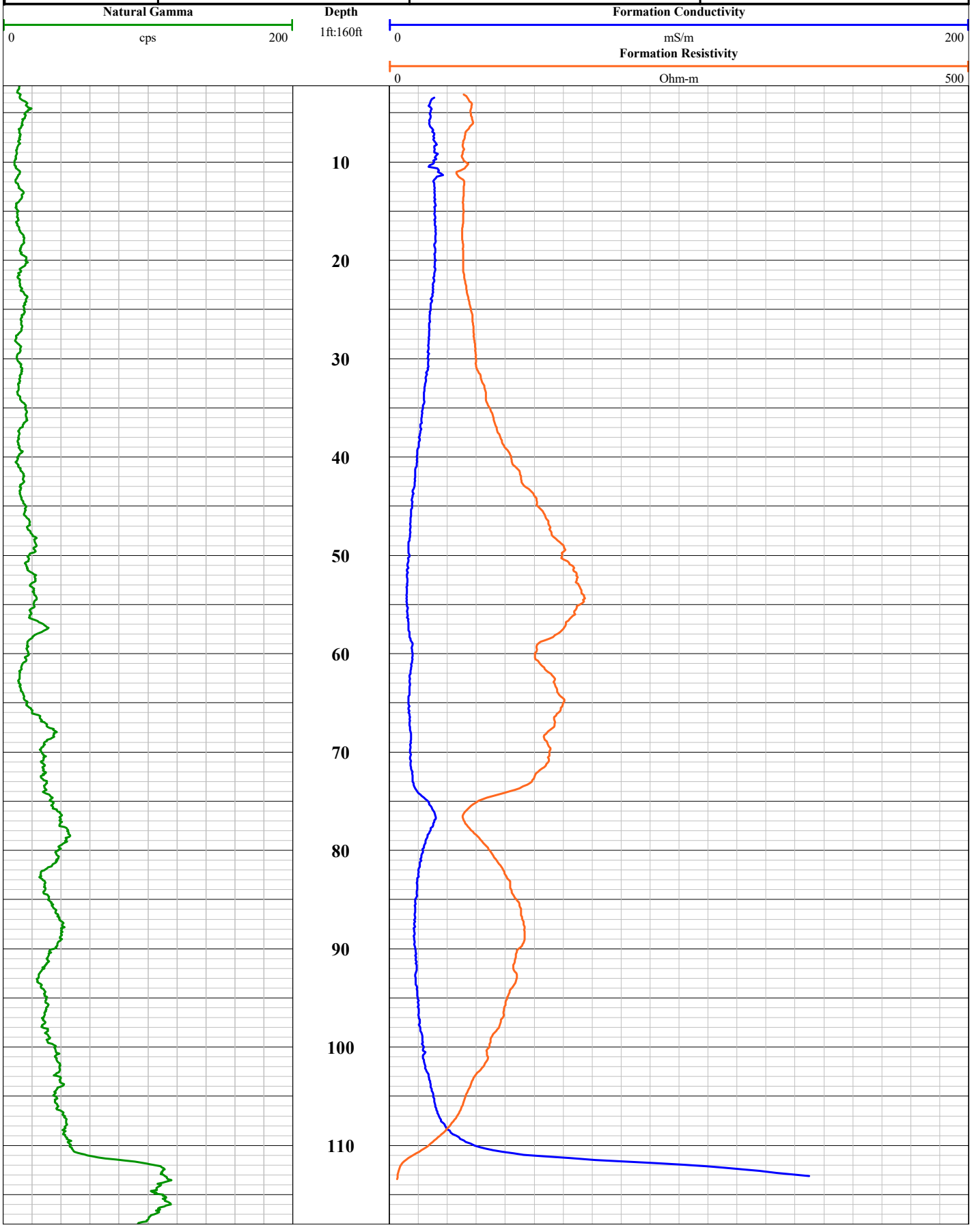
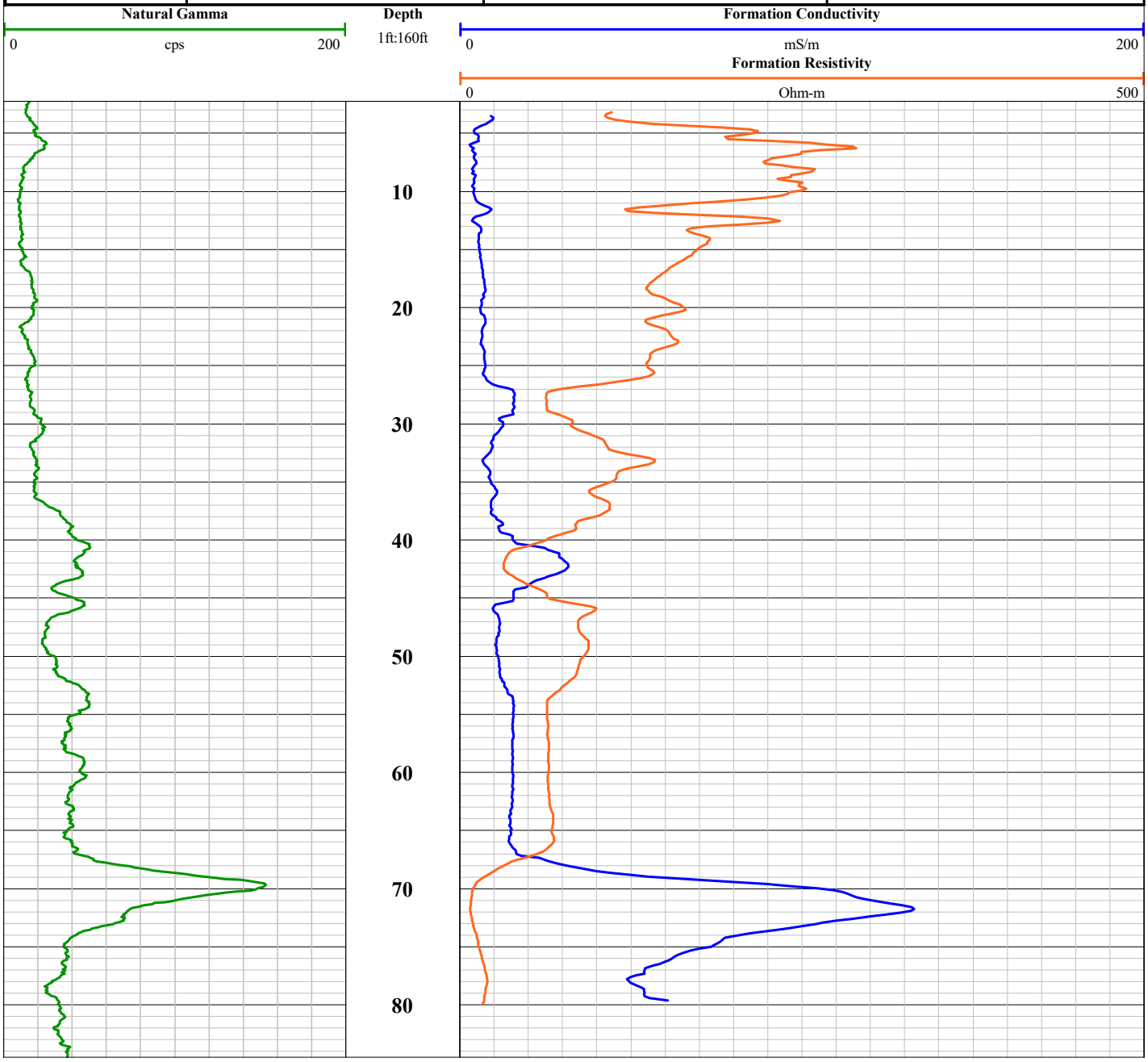


Geophysical Summary Plot

COMPANY: TTL, Inc.	PROJECT: Twin Pines - Phase IIA
DATE LOGGED: 22 March 2019	WELL: EB-16

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