

FIGURES

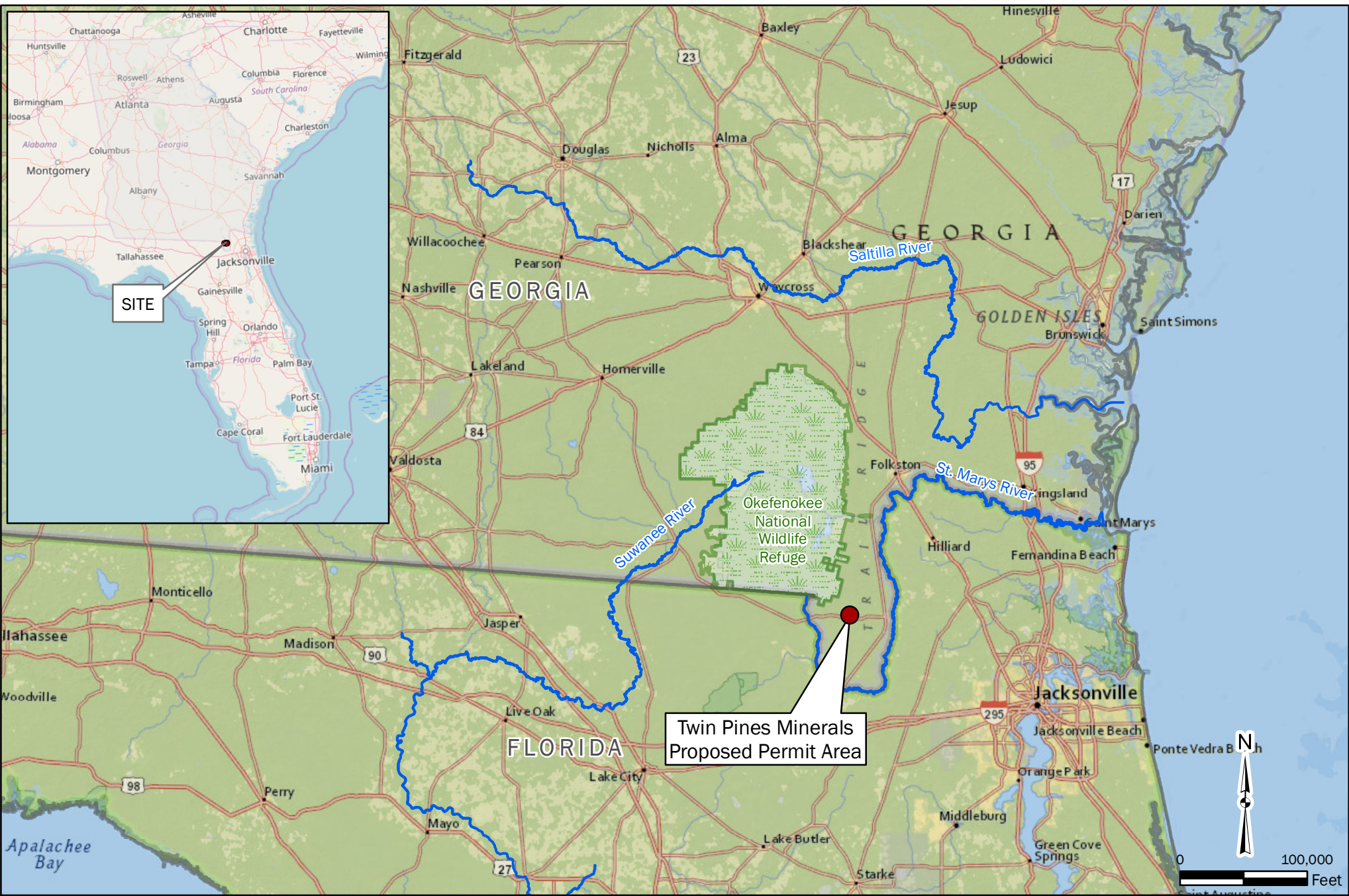


FIGURE 1: LOCATION OF THE PROPOSED TWIN PINES MINE
TWIN PINES MINERALS

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

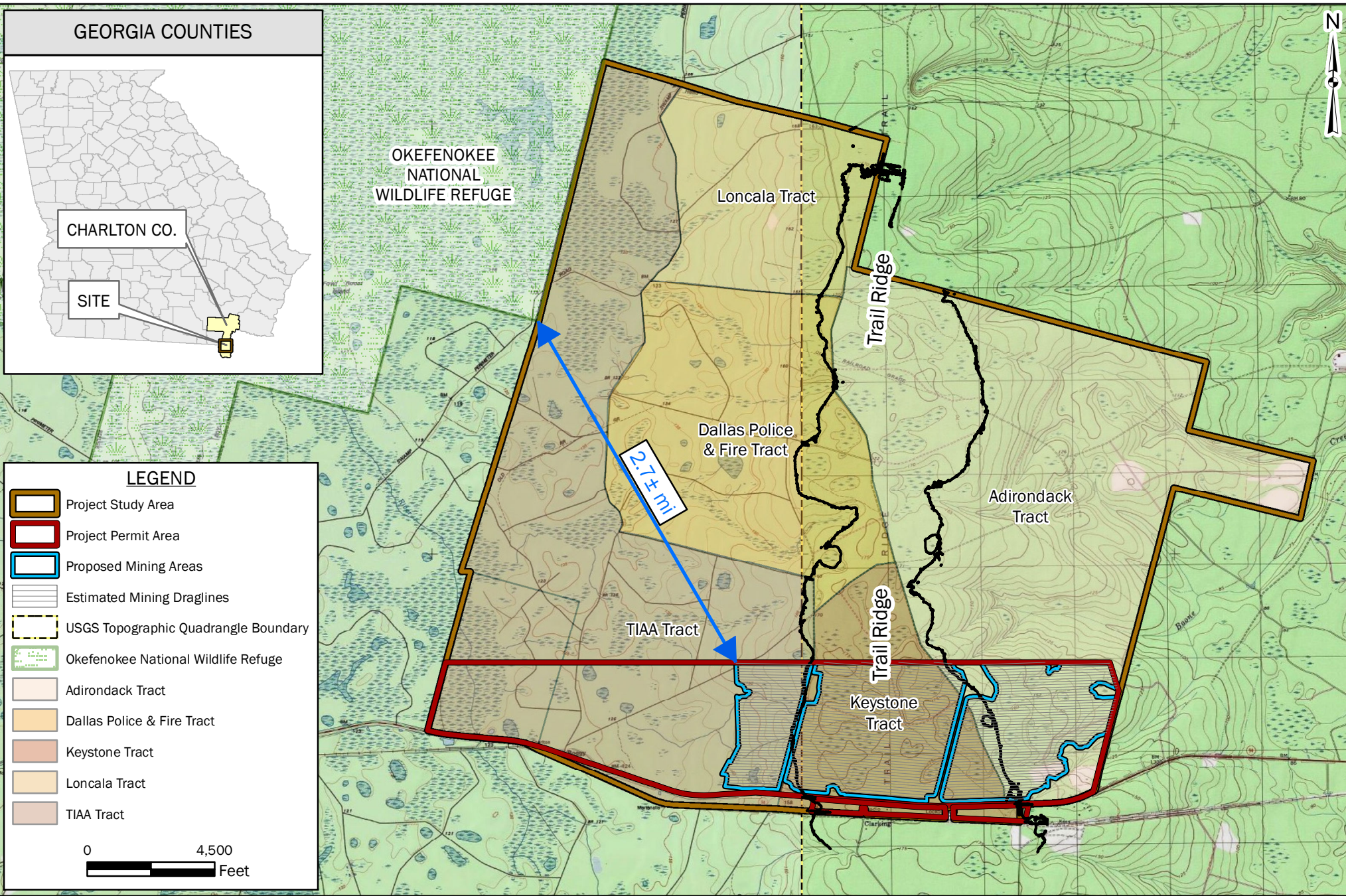


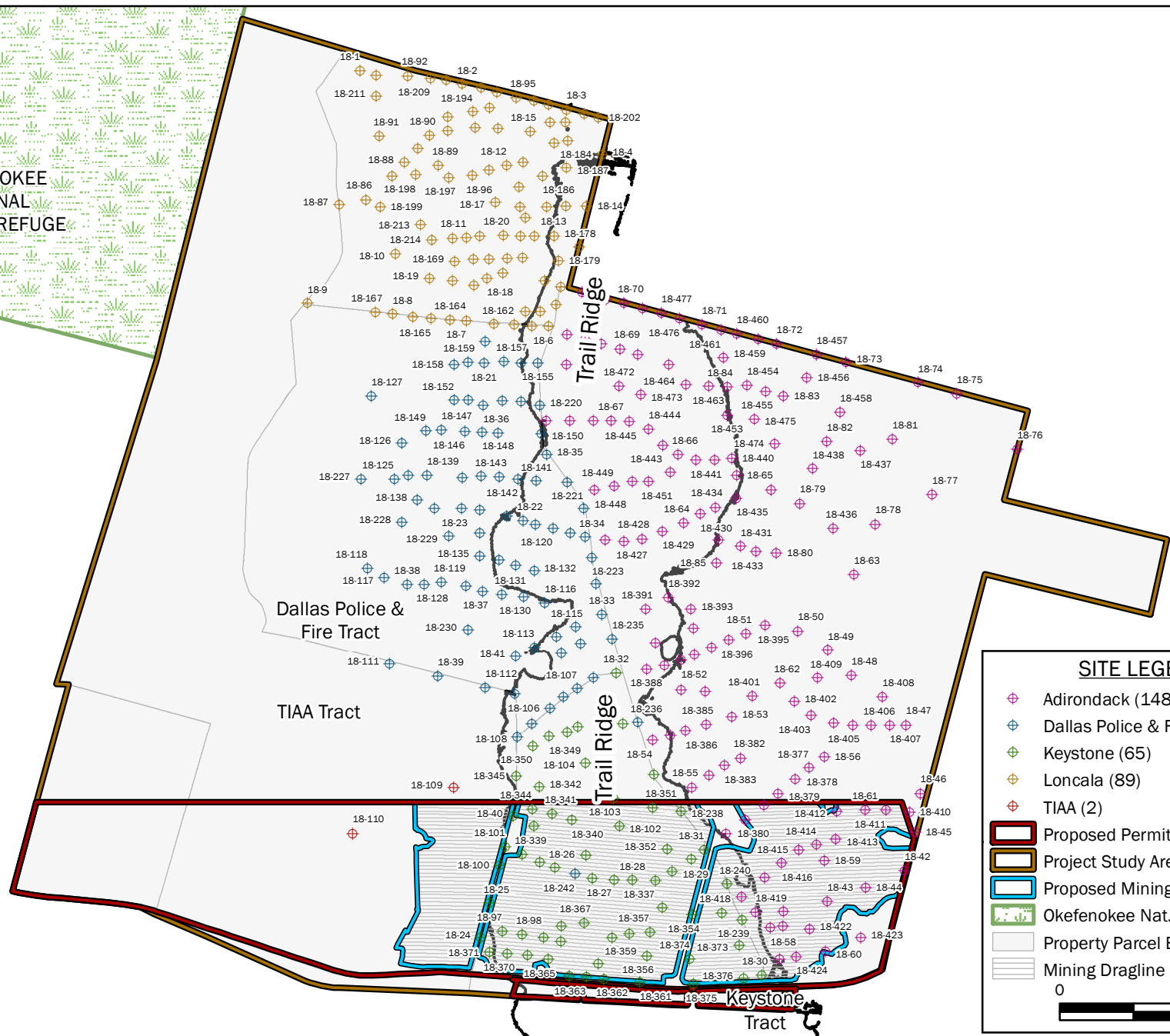
FIGURE 2: PROJECT STUDY & PROPOSED PERMIT AREA
TWIN PINES MINERALS
 ST. GEORGE, CHARLTON COUNTY, GEORGIA

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

DRAWN BY: DEK
CHECKED BY: JMT
DRAWING DATE: 10/28/2019
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE: 1 in = 4,500 ft



OKEFENOKEE
NATIONAL
WILDLIFE REFUGE



SITE LEGEND

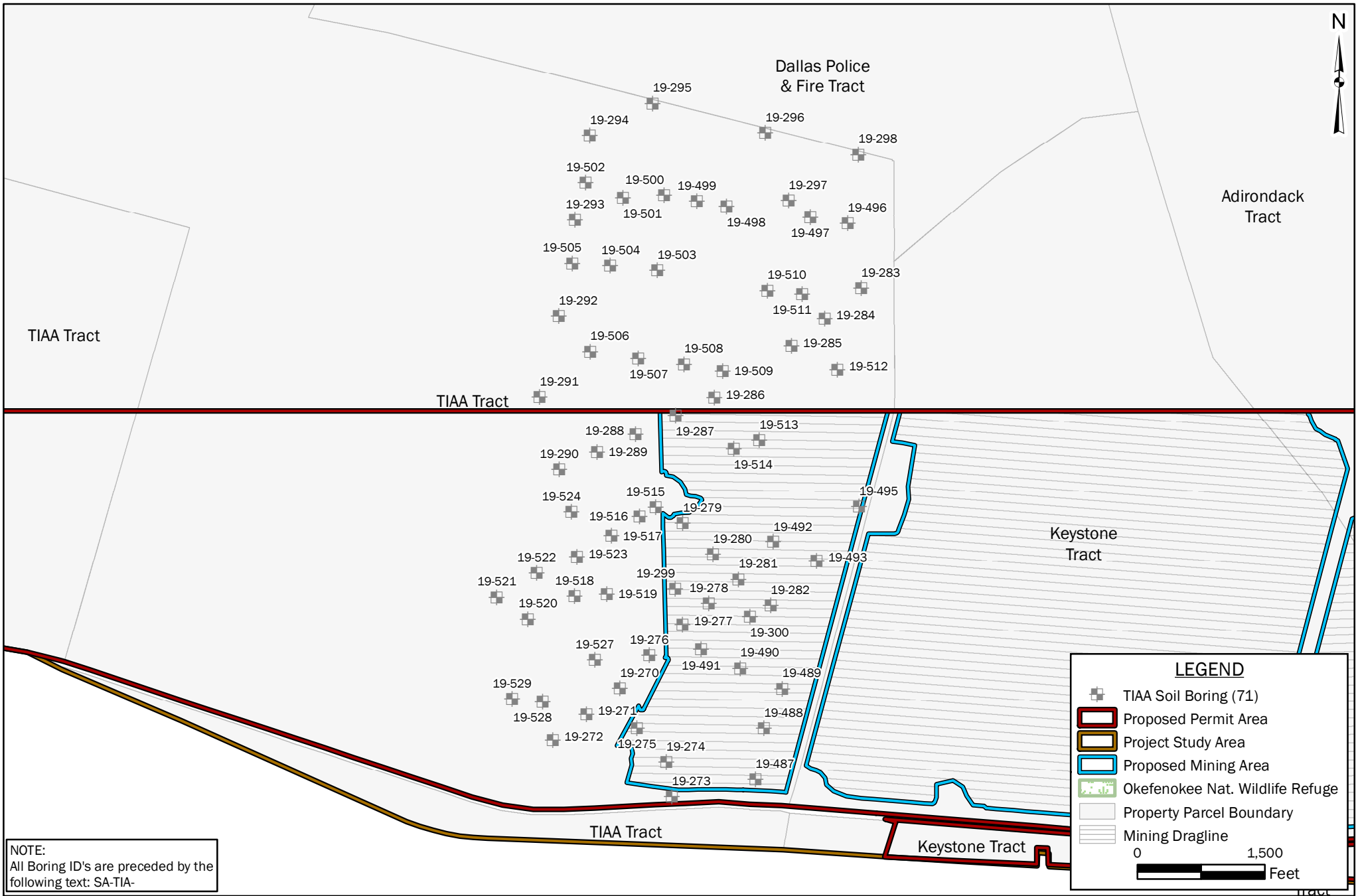
- Adirondack (148)
- Dallas Police & Fire (83)
- Keystone (65)
- Loncala (89)
- TIAA (2)
- Proposed Permit Area
- Project Study Area
- Proposed Mining Area
- Okefenokee Nat. Wildlife Refuge
- Property Parcel Boundary
- Mining Dragline

0 4,000
Feet



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
APPROX. SCALE: 1 in = 4,000 ft



NOTE:
 All Boring ID's are preceded by the following text: SA-TIA-



FIGURE 4: TIAA 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
APPROX. SCALE: 1 in = 1,500 ft

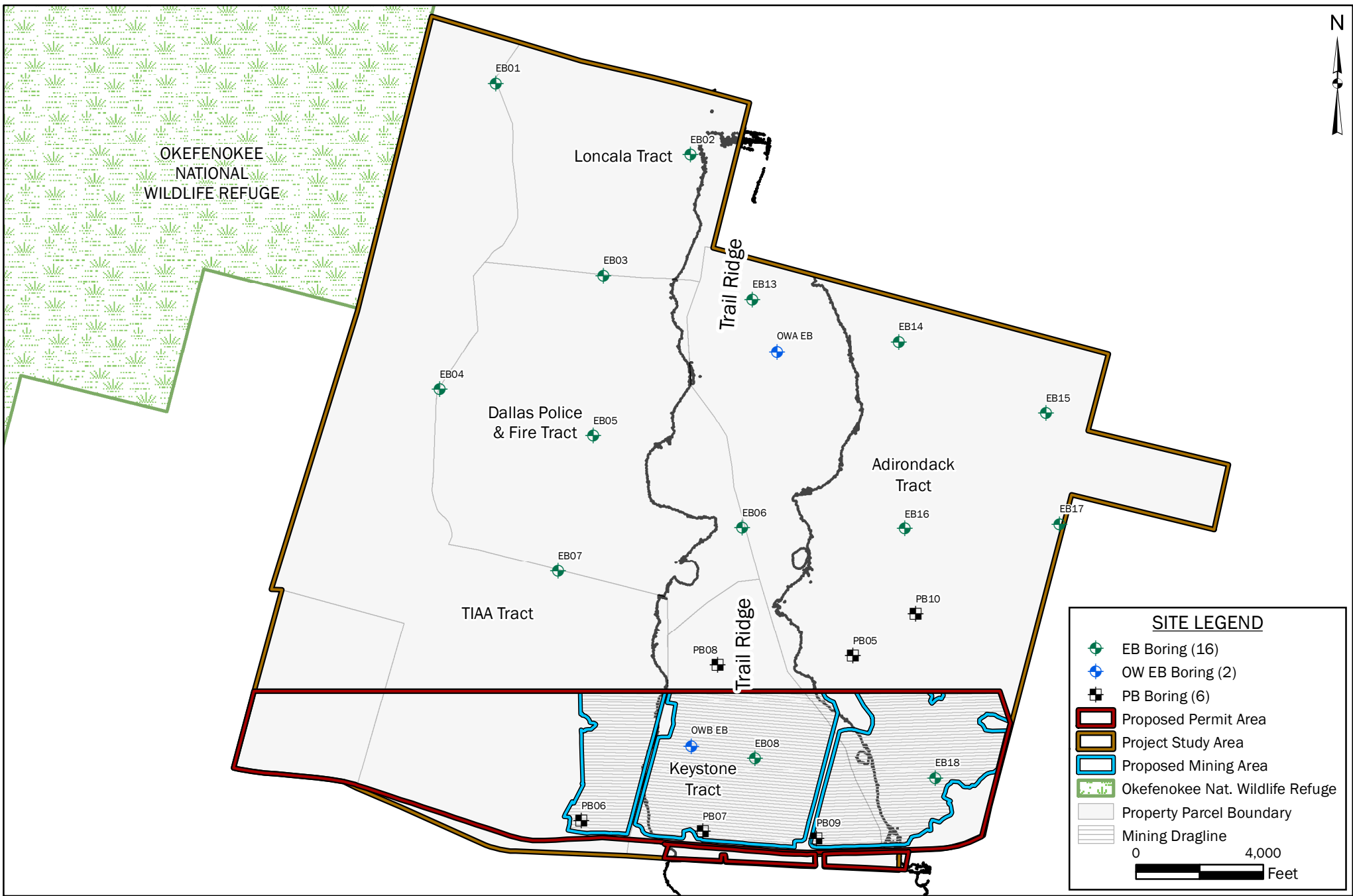


FIGURE 5: EXPLORATORY BORING LOCATION MAP
TWIN PINES MINERALS
 ST. GEORGE, CHARLTON COUNTY, GEORGIA

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

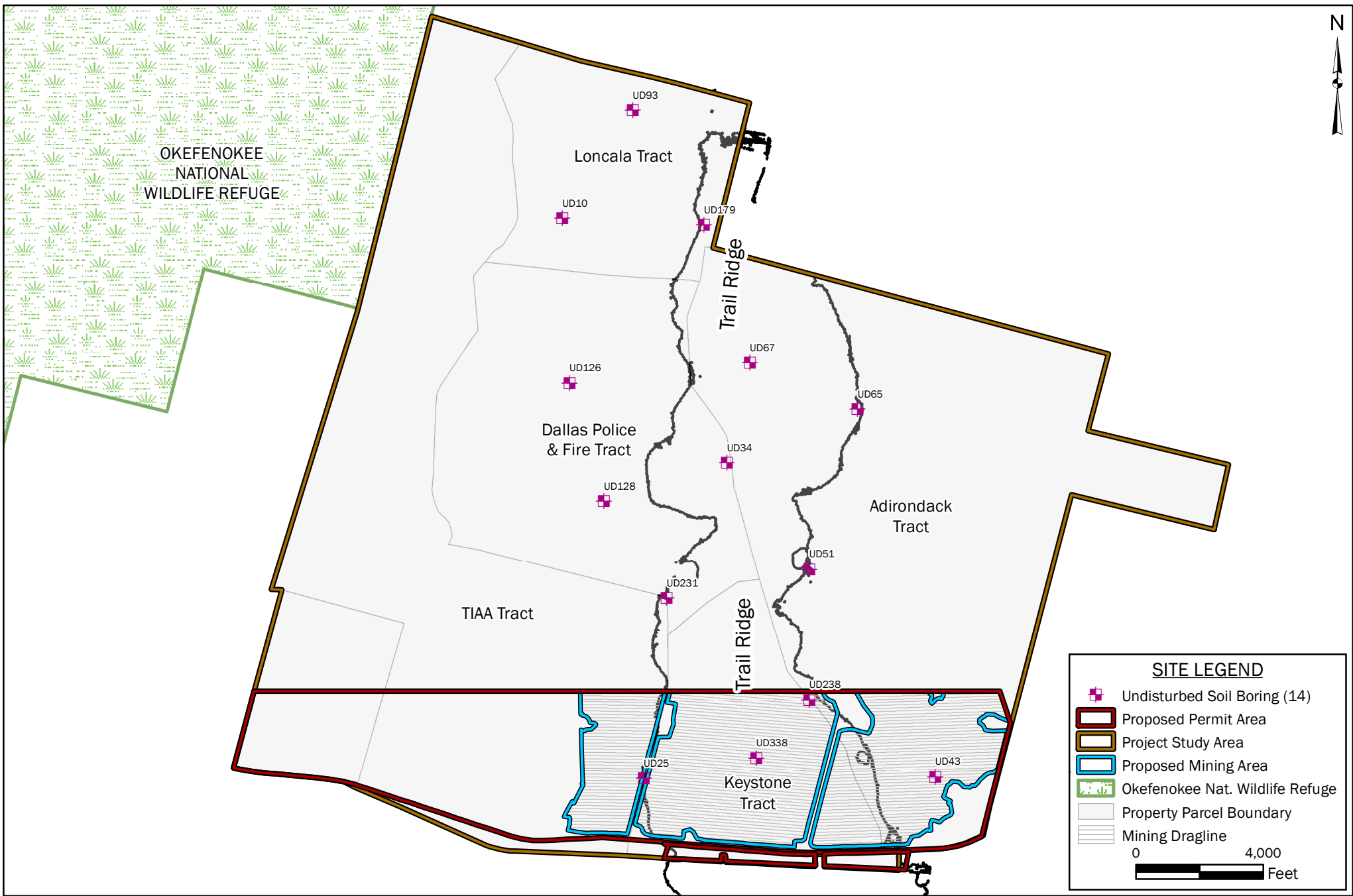


FIGURE 6: UNDISTURBED (UD) SOIL BORING LOCATION MAP
TWIN PINES MINERALS
 ST. GEORGE, CHARLTON COUNTY, GEORGIA



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

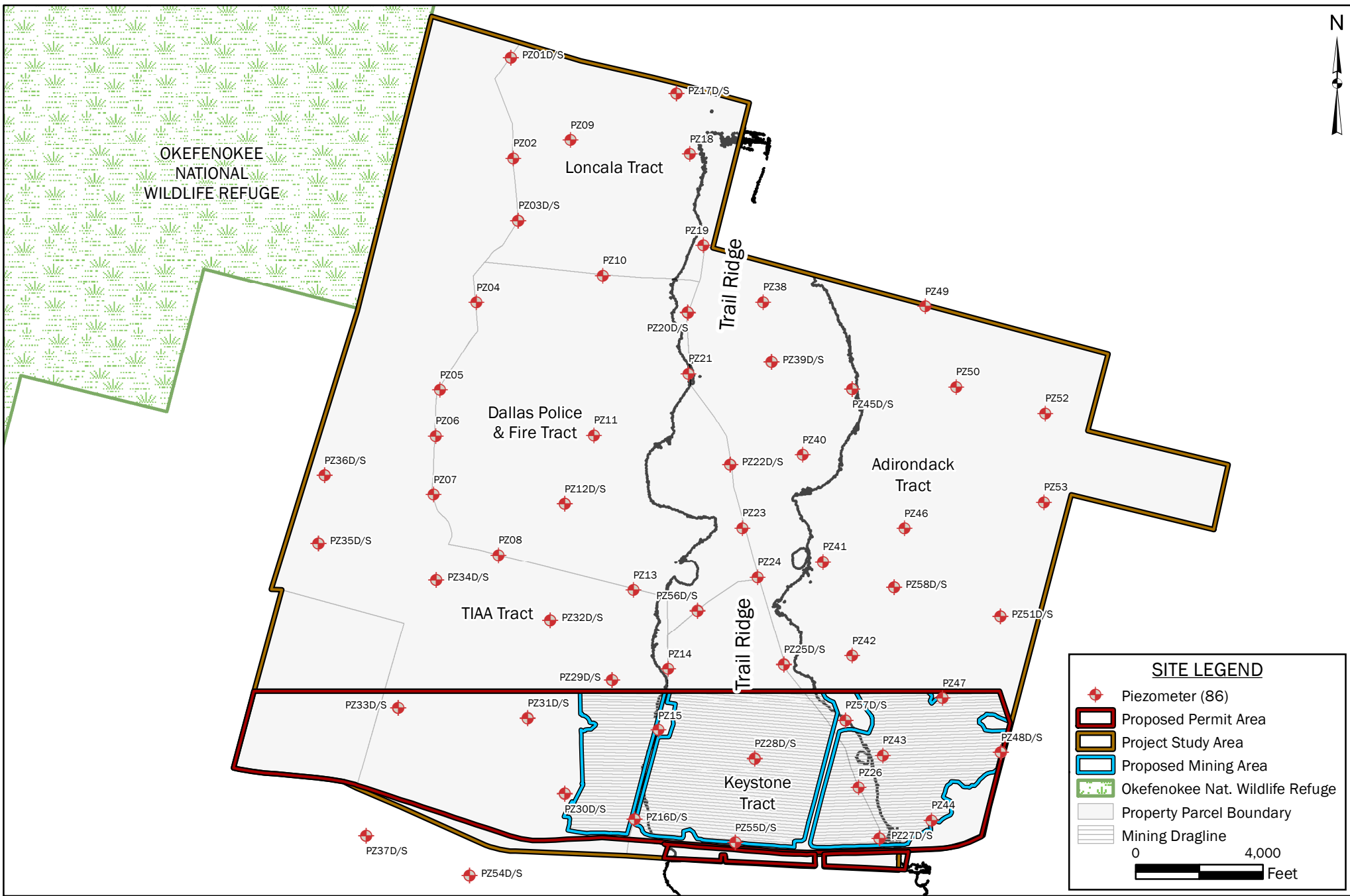


FIGURE 7: PIEZOMETER LOCATION MAP
TWIN PINES MINERALS
 ST. GEORGE, CHARLTON COUNTY, GEORGIA

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

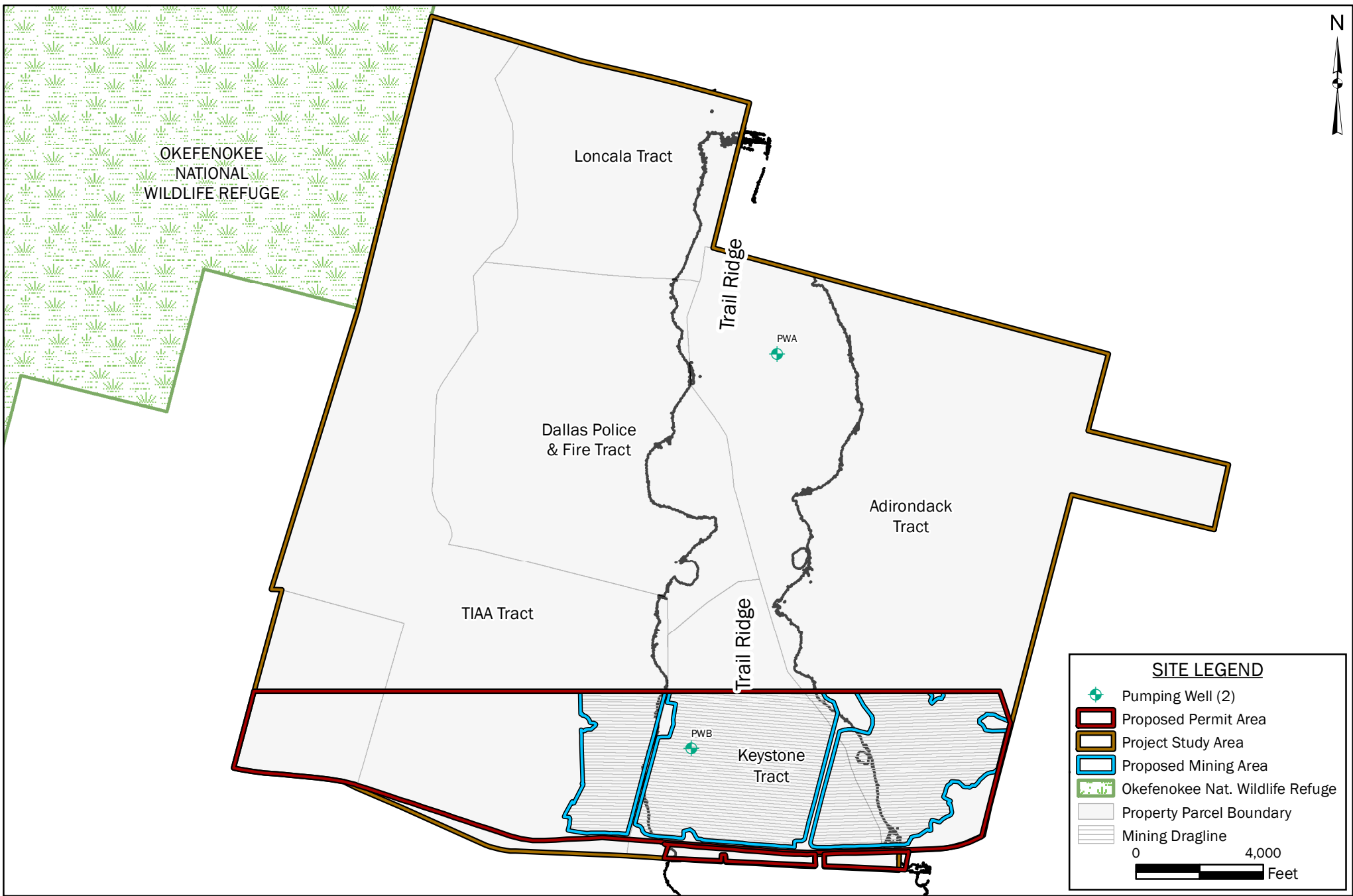
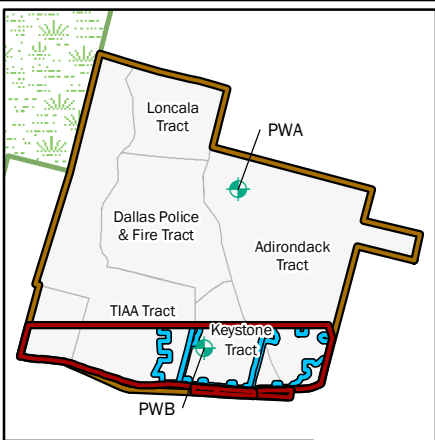


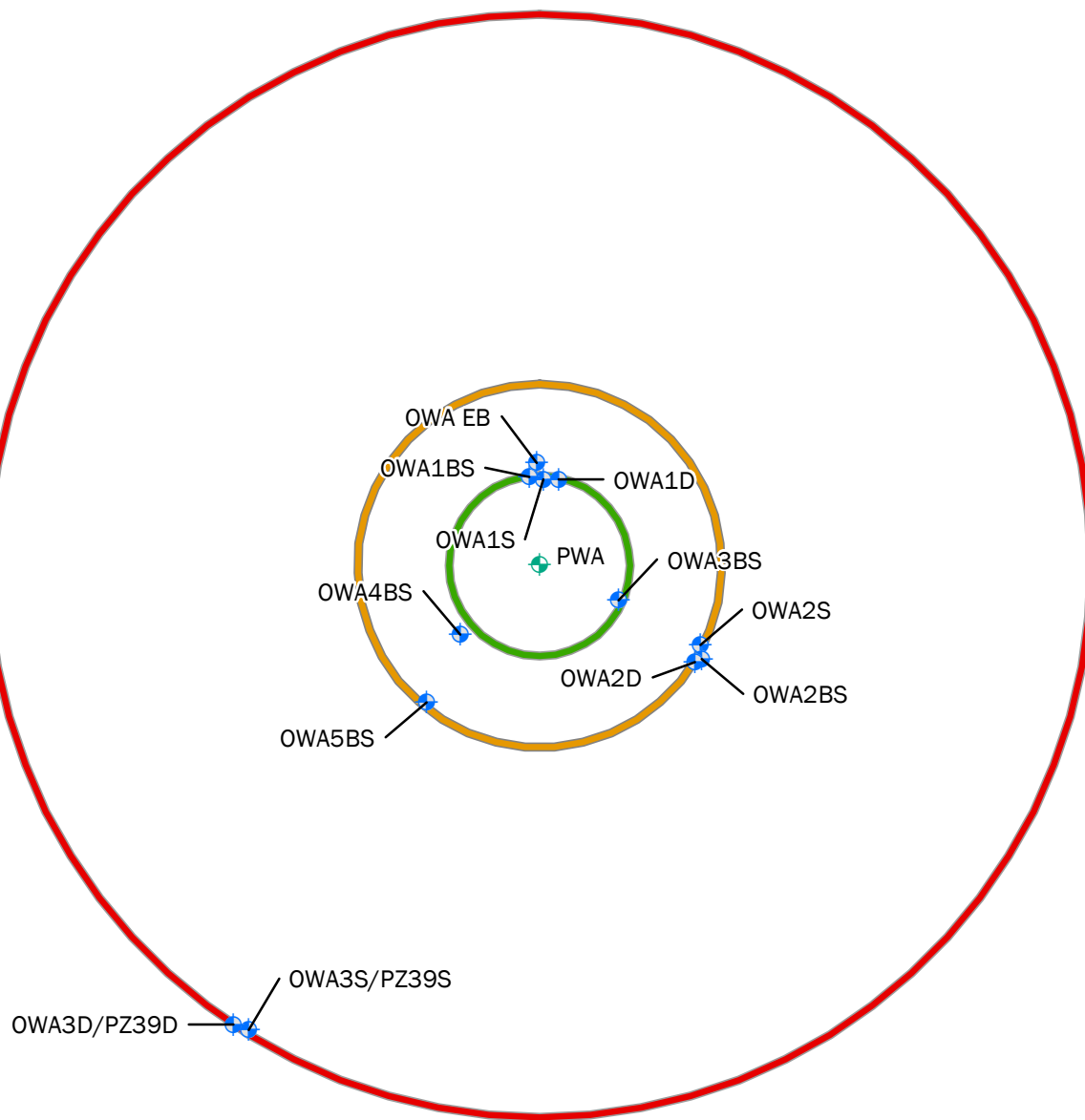
FIGURE 8: PUMPING WELL LOCATION MAP
TWIN PINES MINERALS
 ST. GEORGE, CHARLTON COUNTY, GEORGIA

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



SITE LEGEND






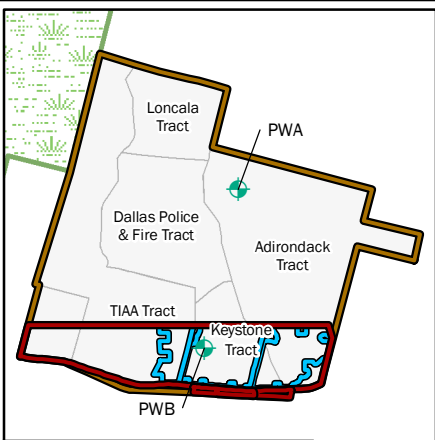
-  Pumping Well "A"
 -  Observation Well
 -  50 ft Radius
 -  100 ft Radius
 -  300 ft Radius
- 0 100
Feet



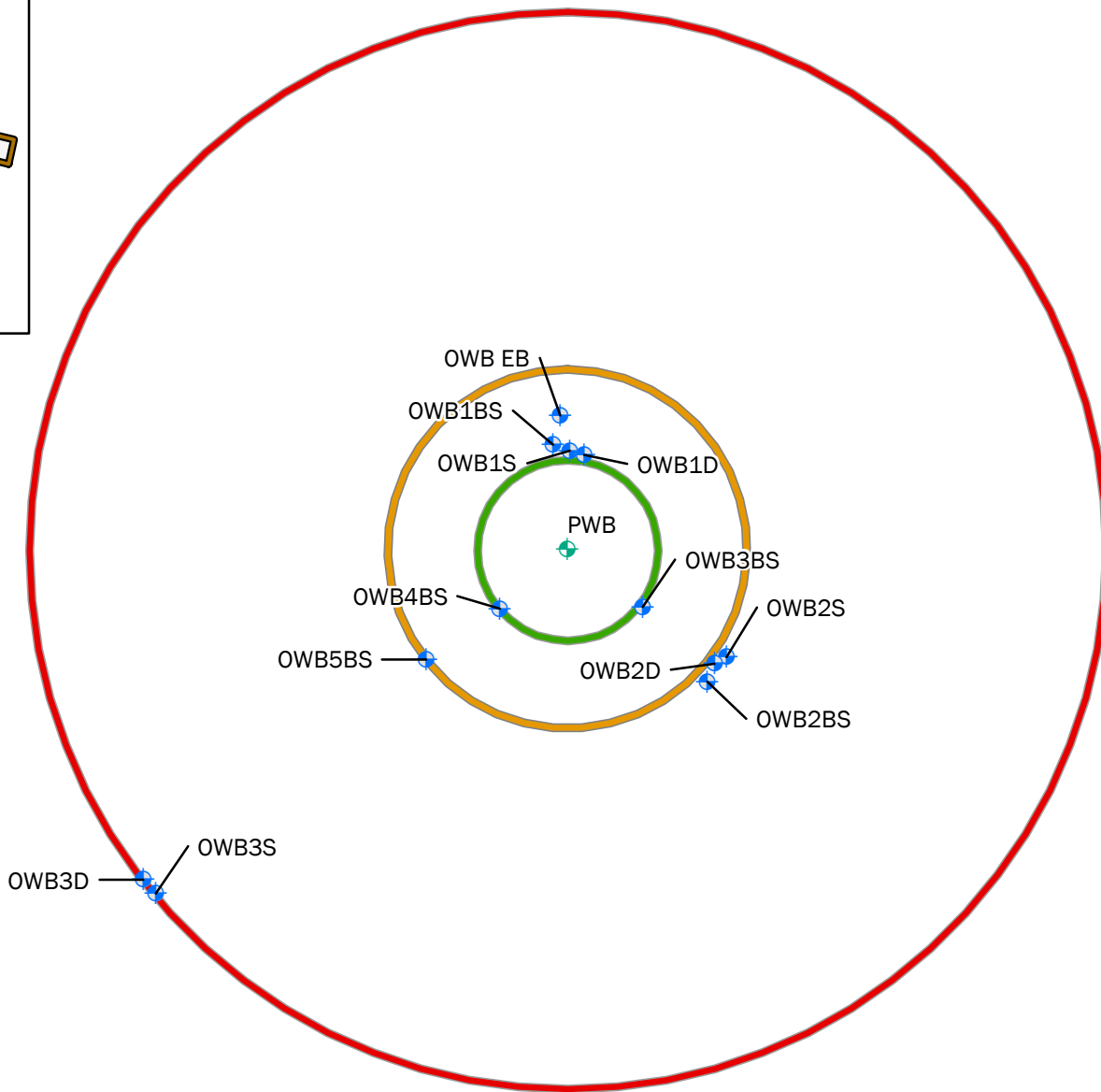
FIGURE 9: PUMPING WELL "A" LOCATION MAP
TWIN PINES MINERALS
ST. GEORGE, CHARLTON COUNTY, GEORGIA

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



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
APPROX. SCALE: 1 in = 100 ft

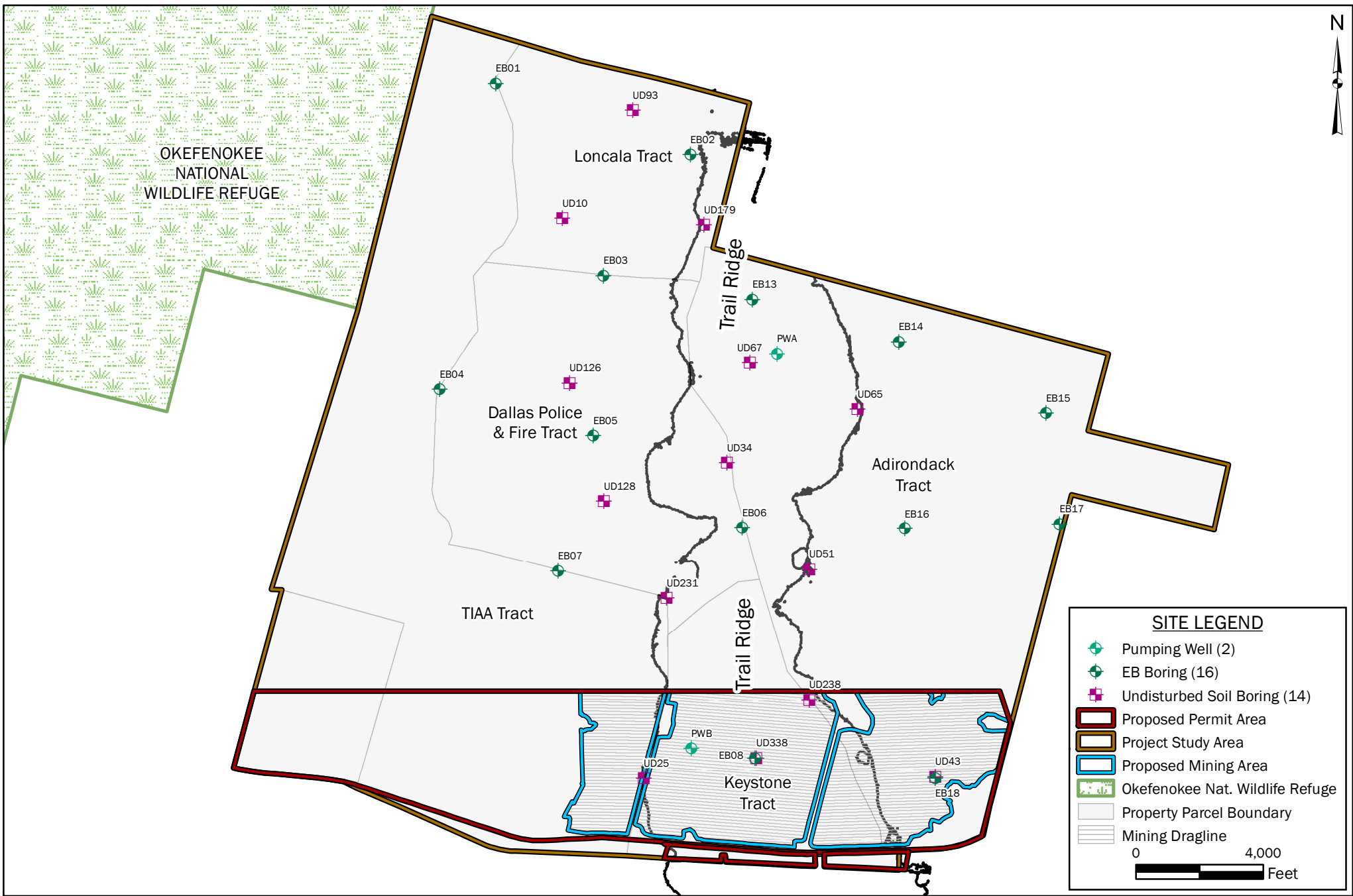


FIGURE 11: GEOPHYSICAL LOG LOCATION MAP
TWIN PINES MINERALS
 ST. GEORGE, CHARLTON COUNTY, GEORGIA

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

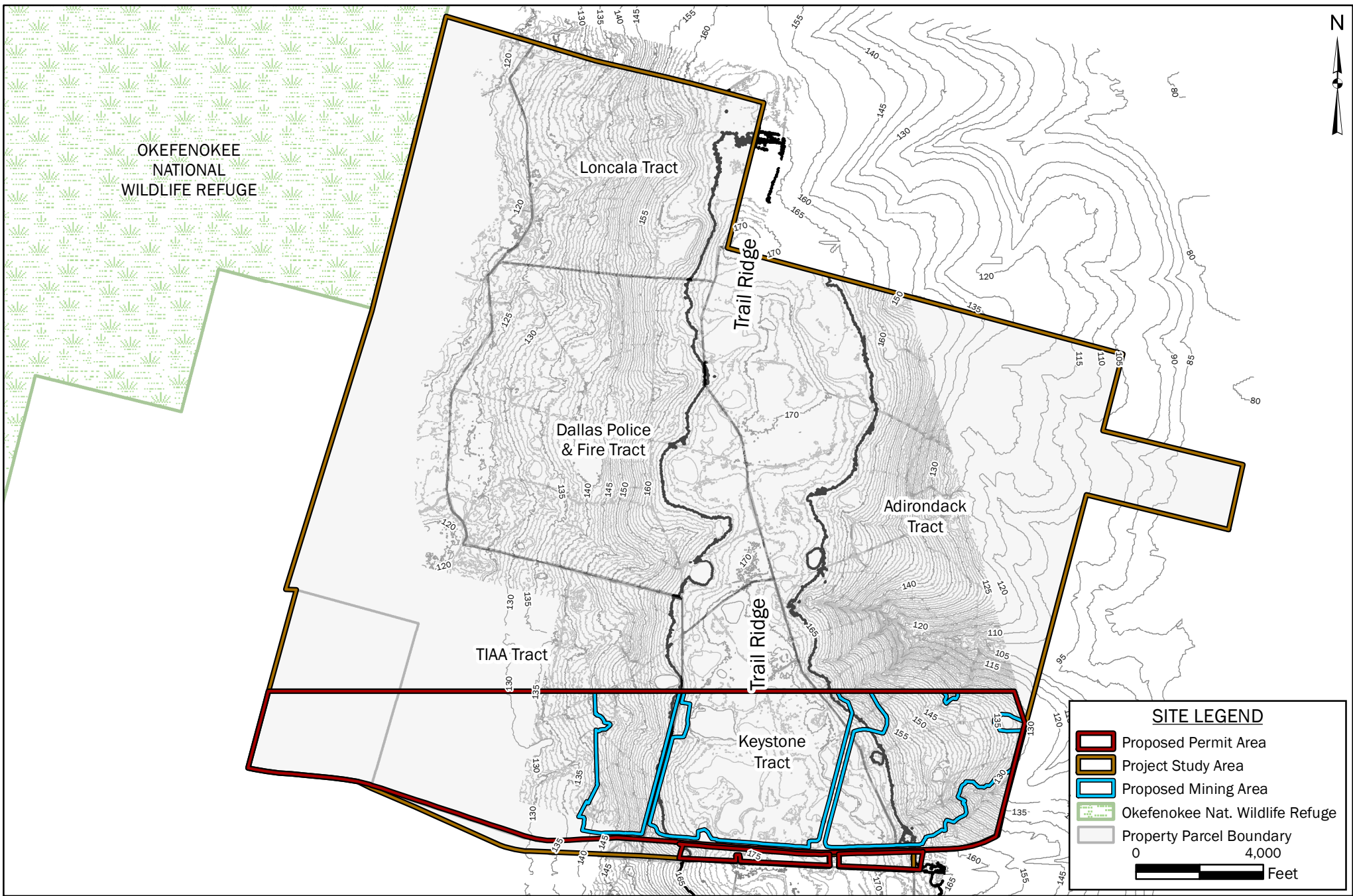


FIGURE 12: LIDAR TOPOGRAPHIC MAP (1-FT CONTOUR)
TWIN PINES MINERALS
ST. GEORGE, CHARLTON COUNTY, GEORGIA

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

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-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**



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-42

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	40		SAND: brown; fine; humate; heavy minerals (1.5%)		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11	SP	10 - 20	60		SAND: tan; heavy minerals (>3.0%)			
12								
13								
14								
15								
16								
17	SP	20 - 30	100		SAND: brown			
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-42

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ
 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-43

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-43

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-44

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5			0 - 10	40				
6								
7								
8								
9								
10								
11		SP				SAND: dark brown; humate		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP				SAND: dark brown; heavy minerals (3%)		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31						SAND: brown to dark brown; heavy minerals (3%)		
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-44

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		SP						SAND: light brown to brown; heavy minerals (>10%)
42								
43								
44								
45								
46								
47								
48								
49								
50	SP	SAND: light tan; coarse						
51								
52	SP		SAND: dark brown; unconsolidated; soft					
53								
54	SC			SAND, clay: light tan; soft				
55					50 - 60	20		
56								
57								
58								
59								
60								
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-45

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	40		SAND: tan to grey		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SP	10 - 20	70		SAND: dark brown; heavy minerals (1%)		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP				SAND: dark brown; heavy minerals (2%)		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31		SP				SAND: dark brown; fine organics		
32								
33								
34						SAND: brown; coarse; some heavy minerals		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-45

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan to orange		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48		SP						
49								
50								
51								
52								
53								
54								
55								
56								
57		SC				SAND, clayey; light tan; heavy minerals (<0.5%)		
58								
59								
60						SAND, clayey: light tan; heavy minerals (<0.5%)		
61		SC						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-46

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS							
			INTERVAL (feet)	% RECOVERY	PID (ppm)										
1		SP	0 - 10	40		SAND: dark gray to black									
2						3			4	5	6	7	8	9	
12			SP	10 - 20	100				SAND: dark brown; fine humate						
13									14			15	16	17	18
15									SAND: brown			SAND: light gray	SAND: dark brown		
19									20			21	22	23	24
28			SP						SAND: white						
29									30			31	32	33	34
30			SP						SAND: dark brown; hard						
31									SAND: tan; trace minerals						
32	SP														
34					SAND: dark grey										

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-46

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40		SP				SAND: gray; coarse; heavy minerals (1%)		
41								
42								
43								
44								
45								
46								
47								
48								
49								
50		SC				SAND, clayey: dark gray/green		
51								
52		CH				CLAY: light gray; hard; fat		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-47

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1	SP		0 - 10	40		SAND: dark brown		
2								
3								
4								
5								
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								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-47

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND, clayey: greenish grey; heavy minerals (0.5%)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SC				CLAY: dark greenish grey		
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-48

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5			0 - 10	20				
6								
7								
8								
9								
10								
11		SP	10 - 20	55		SAND: dark brown		
12								
13								
14								
15								
16		ML				SILT: tan		
17								
18								
19								
20								
21		ML/CH	20 - 30	100		SILT, clayey: some minerals		
22								
23								
24								
25								
26								
27						CLAY: dark gray; fat		
28								
29								
30								
31		SP				SAND: light tan; some heavy minerals (1-1.5%)		
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-48

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: grey; heavy minerals (1-1.5%)		
37								
38								
39		SC				SAND, clayey: grey; heavy minerals (1-1.5%)		
40								
41								
42								
43								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-49

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	43		SAND: brown dark		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SC	10 - 20	100		SAND, trace clay: dark brown; hard; consolidated		
12								
13								
14								
15								
16								
17		SP	20 - 30	100		SAND: dark brown; unconsolidated		
18								
19								
20								
21		SP				SAND: light brown/ tan		
22								
23								
24								
25								
26								
27								
28								
29		ML				SILT: light tan/brown; fine		
30								
31		SP				SAND: brown		
32								
33		ML				SILT: tan brown to orange		
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-49

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		CH	40 - 50	100		CLAY: grey; fat		
37								
38		SP				SAND: light grey		
39								
40								
41								
42								
43								
44								
45		SP				SAND: grey		
46								
47		CH				SAND, clay: grey; very little heavy minerals		
48								
49								
50						heavy minerals (1%)		
51								
52								
53								
54								
55								
56								
57								
58								
59								
60						heavy minerals (<0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-50

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS					
			INTERVAL (feet)	% RECOVERY	PID (ppm)								
1		SP	0 - 10	40		SAND: dark brown and grey							
2													
3													
4													
5													
6													
7													
8													
9													
10													
11		SP	10 - 20	100		SAND: dark brown; hard							
12													
13													
14													
15													
16													
17													
18													
19													
20													
21		SP				SAND: brown; some minerals							
22													
23													
24													
25													
26													
27													
28													
29													
30													
31		SP				SAND: dark brown; consolidated; trace humate							
32													
33													
34													
35													
33							CH				SAND: dark brown; fat		
34													
35													

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-50

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-51

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	45		SAND: tan and brown		
2								
3								
4								
5								
6								
7								
8								
9								
10		SP	10 - 20	100		SAND: brown		
11								
12	SP				SAND: dark brown; consolidated			
13								
14	SP				SAND: dark brown			
15								
16	SP				SAND: dark brown			
17								
18								
19								
20								
21								
22								
23								
24								
25					SP			
26								
27	SP				SAND: brown			
28								
29	SP				SAND: brown/orange			
30								
31	SP				SAND: brown/orange			
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-51

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		SM						
42						SAND, silty: light tan/ grey		
43								
44								
45								
46								
47								
48								
49								
50								
51		CH						
52						CLAY: grey; hard; fat		
53								
54								
55		SP						
56								
57						SAND: grey; fine		
58								
59								
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-52

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	40		SAND: light gray/tan		
2						SAND: dark brown; unconsolidated		
3								
4								
5		SP	0 - 10	40		SAND: dark brown; unconsolidated		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27		SP	0 - 10	40		SAND: light tan		
28						SAND: dark brown		
29								
30						SAND: brown/tan		
31								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-52

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown; unconsolidated		
37								
38								
39								
40								
41								
42								
43								
44								
45				SM				SAND: tan
46								
47								
48								
49								
50								
51								
52								
53								
54								
55						SAND, silty: light tan; trace minerals		
56								
57								
58								
59								
60							BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-53

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	70		SAND: grey; minerals		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SP				SAND: dark brown; hard consolidated		
12								
13								
14		SP				SAND: brown		
15								
16								
17								
18								
19								
20		CH				CLAY: dark grey; fat		
21								
22		ML				SILT: light tan; fine		
23								
24								
25								
26						SAND: light grey; fine; heavy minerals		
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-53

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43									
44				ML				SILT: light grey; heavy minerals	
45									
46				SM				SAND, silty: light grey; heavy minerals (<1%)	
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-54

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				SAND: white; road materials		
2						SAND: dark brown		
3								
4								
5			0 - 10	55				
6								
7		SP						
8								
9								
10								
11								
12								
13								
14								
15						SAND: brown to dark brown; hard; unconsolidated		
16		SP						
17								
18								
19								
20						SAND: dark brown; unconsolidated		
21								
22								
23								
24								
25		SP						
26								
27								
28								
29								
30								
31								
32								
33								
34						SAND: brown/brownish orange		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-54

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-55

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-55

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown		
37								
38								
39		SP				SAND: dark brown; humate; material		
40								
41		SP				SAND: brown		
42								
43		CH				CLAY: light tan; fat		
44								
45								
46		SM				SAND, silty: grey; fine		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-56

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-56

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SC				SAND, clayey: greenish-gray			
37						SAND, clayey: greenish-gray			
38		SC							
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-57

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-57

SAINT GEORGE, GEORGIA

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-57

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-58

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-58

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38						SAND: dark brown		
39								
40								
41								
42		SP						
43								
44								
45								
46					SAND: brown			
47	SP							
48								
49	SP				SAND: white			
50					SAND: tan			
51	SP							
52					CLAY, silty: light tan			
53								
54		CL-ML						
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-59

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-59

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-60

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	70		SAND: brown/dark grey		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SP				SAND: brown, coarse		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP				SAND: dark brown; coarse		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31		SP				SAND: dark brown; hard; consolidated		
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-60

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-61

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	70		SAND: tan		
2						SAND: dark brown		
3						SAND: brown		
4								
5								
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			SC-SM				SAND, silty, clayey: dark brown	
31								
32		SP				SAND: coarse		
33		CH				CLAY: tan; fat		
34						CLAY: grey; fat		
35		CH						

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-61

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37		SP				SAND: tan; coarse; heavy minerals		
38								
39								
40		CH				CLAY: tan; fat		
41								
42								
43		SC				CLAY, sandy: tan; fat		
44								
45								
46						SAND, clayey: tan; coarse; trace heavy minerals		
47								
48								
49								
50								
51								
52								
53		SC						
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-62

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-62

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		CL-ML				CLAY, silty: grey/tan		
37						CLAY: grey; fat		
38		CH						
39								
40						SAND: grey; coarse		
41		SP						
42								
43						SAND, clayey: tan; heavy minerals		
44								
45		SC						
46								
47								
48								
49								
50						SAND, clayey: greenish grey; heavy minerals (<1%)		
51								
52								
53								
54		SC						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-63

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS								
			INTERVAL (feet)	% RECOVERY	PID (ppm)											
1		SP	0 - 10	90		SAND: brown										
2						3										
4		SP				SAND: grey										
5		6				SAND: dark brown; heavy minerals (1-10%)										
7		SP														
8											CLAY, silty: tan					
9																
10																
11																
12																
13																
14																
15																
16																
17	CL-ML															
18					CLAY: grey; fat; soft; heavy minerals (>1.5%)											
19	SC-SM					SAND, silty, clayey: tan/grey; fine										
20							CLAY: dark grey; soft; fat									
21	CH															
22																
23																
24																
25	CH															
26												CLAY: dark grey; soft; fat				
27	CH															
28					CLAY: dark grey; soft; fat											
29	CH															
30					CLAY: dark grey; soft; fat											
31	CH															
32					CLAY: dark grey; soft; fat											
33	CH															
34					CLAY: dark grey; soft; fat											
35	CH															

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-63

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND, clayey; dark grey; fine to med		
37						SAND, silty, clayey; dark grey/brown; heavy minerals (>1%)		
38								
39								
40								
41								
42								
43		SC-SM						
44								
45								
46								
47								
48								
49								
50								
51						SAND: grey; very coarse; heavy minerals (1.0%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-64

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1		SP	0 - 10	55		SAND: dark brown					
2											
3											
4											
5											
6											
7											
8											
9											
10											
11		SP				SAND: brown					
12											
13											
14											
15		SP				SAND: dark brown; hard; consolidated; heavy minerals (2.5%)					
16											
17											
18											
19											
20											
21											
22											
23											
24											
25		SP				SAND: dark reddish brown; heavy minerals (1.5%)					
26											
27											
28											
29											
30											
31		SP				SAND: tan to reddish; heavy minerals (2%)					
32											
33											
34											
35											

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-64

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		SP				SAND: tan		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-65

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				SAND: tan to white; road material		
2						SAND: dark brown; heavy minerals (1%)		
3								
4								
5			0 - 10	80				
6								
7		SP						
8								
9								
10								
11								
12								
13						SAND: tan		
14								
15		SP						
16								
17								
18						SAND: brown		
19								
20		SP						
21								
22						SAND: dark brown		
23								
24		SP						
25								
26		SP				SAND: dark brown		
27						SAND: brown; heavy minerals (1%)		
28								
29		SP						
30						SAND: reddish brown; very coarse; heavy minerals (1.5%)		
31								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-65

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND: brown		
47		SP				SAND: tan to grey; heavy minerals (1.5%)		
48								
49								
50						SAND: dark brown; heavy minerals (1.1%)		
51								
52								
53								
54								
55								
56								
57		SP						
58								
59								
60								
61								
62								
63								
64								
65		SC-SM				SAND, silty, clayey: brown		
66		SP				SAND: tan; fine		
67								
68								
69		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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-66

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-66

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-67

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1								
2								
3								
4								
5			0 - 10	60				
6								
7								
8								
9								
10								
11		SP				SAND: dark brown		
12								
13								
14		SP				SAND: grey		
15								
16		SP				SAND: brown		
17								
18		SP				SAND: dark brown; heavy minerals (<0.5%)		
19								
20								
21						SAND: light brown to brown; heavy minerals (<0.05%)		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-67

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
36		SP								
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
61								SAND: dark reddish brown		
62										
63										
64										
65										
66				SC				SAND, clayey: brown; hard		
67										
68				SP				SAND: brown; coarse; heavy minerals (<0.5%)		
69										
70								BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-68

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)\10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Road material		
2						SAND: brown to tan		
3								
4		SP						
5			0 - 10	70				
6						SAND: dark brown; heavy minerals (1-1.5%)		
7								
8								
9								
10								
11		SP						
12								
13								
14								
15								
16								
17		SP				SAND: dark brown; hard; consolidated		
18								
19		SP				SAND: dark brown		
20								
21		SP				SAND: brown; heavy material (2%)		
22								
23								
24								
25		SP						
26								
27								
28								
29								
30						SAND: brown to tan; heavy material (20%)		
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-68

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-69

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Road material, topsoil		
2								
3								
4						SAND: dark brown		
5			0 - 10	70				
6								
7								
8								
9								
10		SP						
11								
12								
13								
14								
15								
16								
17		SP				SAND: reddish brown		
18		SP				SAND: tan		
19		SP				SAND: tan to white		
20								
21						SAND: dark brown to reddish orange; heavy minerals (2%)		
22								
23								
24								
25								
26								
27		SP						
28								
29								
30								
31								
32								
33								
34								
35		SP				SAND: reddish tan		

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-69

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan reddish		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
								SAND: tan; heavy material (<10%)
						SAND, silty: brown		
						SAND: medium brown		
						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING SA-ADK-18-70

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1						Road material			
2		SP				SAND: tan to brown			
3						SAND: dark brown			
4									
5		SP	0 - 10	90					
6									
7									
8									
9									
10									
11							SAND: tan to orange; coarse; heavy material (<1.5%)		
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									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-70

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48						SAND: dark reddish brown; humate; roots; good heavy material		
49			SP					
50								
51								
52								
53						SAND: tan		
54								
55			SP					
56								
57								
58						SAND: reddish brown		
59								
60			SP					
61								
62						SAND: tan; coarse		
63			SP					
64								
65						SAND, clay: tan; fine		
66								
67			SC					
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-71

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-71

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41			SP				SAND: tan; coarse; heavy minerals (1%)		
42									
43									
44			SP				SAND: tan to brown; coarse; heavy minerals (<12%)		
45									
46									
47						SAND: reddish brown; coarse			
48									
49									
50									
51									
52									
53									
54		SP							
55									
56									
57									
58									
59									
60									
61									
62									
63		SC-SM				SAND, clayey, silty: tan			
64									
65									
66		CH				CLAY: dark grey; fat			
67									
68									
69		SC				SAND, clayey: tan; heavy minerals (<12%)			
70									
						BORING TERMINATED AT 70 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-72

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-72

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown		
37						SAND: light tan; coarse; heavy minerals (1%)		
38		SP						
39								
40								
41						SAND: grey; coarse		
42		SP						
43								
44								
45						SAND: brown to tan; coarse		
46	SP							
47					CLAY: light grey; fat			
48	CH							
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-73

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Road material		
2						SAND: tan to brown		
3								
4								
5		SP	0 - 10	40				
6								
7								
8								
9		SP					SAND: dark brown	
10							SAND: tan	
11		SP						
12								
13								
14		SP					SAND: dark brown; semi-consolidated; heavy minerals (1.5%)	
15								
16		SP						
17								
18		SP					SAND: tan to grey	
19								
20		SP						
21								
22		SP					SAND: dark brown; consolidated	
23								
24		SP					SAND: dark brown	
25								
26		SP						
27								
28		SP					SAND: light tan; coarse; heavy minerals (0.5%)	
29								
30								
31								
32		SP						
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-73

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-74

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-74

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-75

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-75

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-76

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-76

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-77

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-77

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-78

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				Road material		
2								
3		SP				SAND: light grey to dark grey; roots		
4		SP				SAND: dark brown		
5		SP				SAND: reddish tan		
6		SP				SAND: tan		
7		SP				SAND: reddish brown		
8		SP				SAND: tan/brown with white streaks		
9		SP				Hardpan		
10		SP				SAND: tan; heavy minerals		
11		SP						
12		SP						
13		SP						
14		SP						
15		SP						
16		SP						
17		SP						
18			SC				SAND, clayey: tan; fine	
19								
20		CH				CLAY: grey; fat; heavy minerals (1.5%)		
21								
22								
23								
24								
25								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-78

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-79

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	80		SAND: light tan/grey		
2						SAND: brown		
3						SAND: dark brown; heavy minerals (0.5-1%)		
4								
5								
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								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-79

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown; hard; brittle; humate		
37		SC				SAND, clayey: light grey, fine, heavy minerals (<0.5%)		
38								
39								
40								
41		SC				SAND, clayey: light tan, fine; heavy minerals (1%)		
42								
43								
44								
45		SC				SAND, clayey: greenish grey; heavy minerals (<0.5%)		
46								
47								
48								
49		SC						
50								
						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-80

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1		SP	0 - 10	90		SAND: grey; coarse; heavy minerals (<0.5%)					
2											
3											
4											
5											
6											
7											
8											
9											
10											
11		SP				SAND: dark brown; heavy minerals (<0.5%)					
12											
13		SP				SAND: brown					
14											
15											
16											
17		SP				SAND: dark brown					
18											
19		SP				SAND: tan to reddish tan; heavy minerals (0.5%)					
20											
21											
22											
23		SP				SAND: dark brown					
24											
25		SP				SAND: light tan					
26											
27											
28											
29		SP				SAND: reddish brown; heavy minerals (1%)					
30											
31		SP				SAND: reddish brown					
32											
33											
34											
35											

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-80

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: reddish tan		
37						SAND: light tan; coarse; heavy minerals (0-3%)		
38		SP						
39						SAND: dark brown; heavy minerals (1.5-2%)		
40								
41		SP						
42						SAND: dark brown; hard; humate		
43						CLAY: grey; fat		
44			CH					
45								
46					CLAY, sandy: light tan; fine			
47								
48								
49	SC							
50								
51								
52								
53					CLAY: dark grey; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-81

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	95		SAND: grey		
2						SAND: reddish brown; heavy minerals (<3%)		
3								
4								
5								
6								
7								
8								
9								
10								
11	SP					SAND: light brown, heavy minerals (1-1.5%)		
16								
17								
18								
19								
20								
21	SP					SAND: dark brown		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31	SP					SAND: dark reddish brown; heavy minerals (<0.5%)		
32								
33								
34								
35						SAND: tan; heavy minerals (1.5%)		

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-81

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		CH				CLAY: grey; fat		
42		SP				SAND: grey; coarse		
43		CH				CLAY: grey; fat		
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-82

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	70		SAND: grey to light grey; mottled		
2						SAND: dark brown; heavy minerals at 13' (2%)		
3								
4								
5								
6								
7								
8								
9								
10								
11		SP	0 - 10	70				
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP	0 - 10	70				
22								
23								
24								
25								
26								
27								
28								
29								
30								
31		CH	0 - 10	70		CLAY: dark brown		
32		SC				SAND, clayey: tan; fine		
33						SAND, clayey: light grey; fine		
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-82

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-83

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	90		SAND: grey		
2						SAND: brown		
3								
4								
5		SP	0 - 10	90		SAND: dark brown; heavy minerals (1.5-2.0%)		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15		SP	0 - 10	90		SAND: tan; heavy minerals (2%)		
16								
17								
18								
19								
20								
21								
22								
23		SP	0 - 10	90		SAND: reddish tan; coarse; heavy minerals (2%)		
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-83

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43			SP				SAND: tan		
44									
45									
46									
47									
48		CL				CLAY: dark grey to black; hard; mottled			
49									
50									
51		SM				SAND, silty: tan to grey; fine; heavy minerals (1.5%)			
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									
63									
64		SC				SAND, clayey: tan			
65									
66		CL				CLAY: dark grey; hard			
67									
68									
69									
70								BORING TERMINATED AT 70 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-84

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-84

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-85

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-85

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown SAND: orange to tan; heavy minerals (<0.5-3%)		
37								
38								
39								
40								
41								
42								
43		SP						
44								
45								
46								
47								
48								
49								
50								
51						SAND: dark brown; heavy minerals (3%)		
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-377

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-377

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-378

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2								
3		SP				SAND: brown; med		
4		SP				SAND: tan; med		
5		SP				SAND: brown; med		
6								
7							SAND: dark brown; med; heavy minerals (0.5-1.0%)	
8								
9								
10		SP						
11								
12								
13								
14	SP					SAND: brown; med		
15								
16	SP					SAND: tan; med to coarse; heavy minerals (2-2.5%)		
17								
18						SAND: brown; med; heavy minerals (0.5%)		
19								
20	SP							
21								
22								
23	SP					SAND: tan; med to fine		
24								
25		SC-SM				SAND, silty, clayey: grayish brown; fine; heavy minerals (0.5%)		
26								
27						SAND, clayey: tan to light brown; fine; heavy minerals (0.5%)		
28								
29								
30		SC						
31								
32								
33	SP					SAND: white; fine		
34		CL				CLAY: grey; rustic		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-378

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: white; heavy minerals (~1%) 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-379

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-379

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-380

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2						SAND: dark brown; med		
3						SAND: grey; med; heavy minerals (0.5-1.0%)		
4						SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
5						SAND: brown; med; heavy minerals (0.5%)		
6						SAND: orangish brown; med to coarse; heavy minerals (0.5-1.5%)		
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								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-380

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-381

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-381

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-382

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-383

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-383

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-384

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-384

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43									
44				SP				SAND: light tan to white; med to coarse; heavy minerals (1.5%)	
45									
46									
47				SC				SAND, clayey: dark brown; fine; heavy minerals (0.5%)	
48									
49									
50									
51		SC				SAND, trace clay: light tan; fine; heavy minerals (0.5%)			
52									
53									
54		SC							
55									
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-385

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-385

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SC				SAND, clayey: grey; fine		
47								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-386

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-386

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SC						
39								
40		SP				SAND, clayey: dark brown; fine; heavy minerals (<0.5%)		
41							SAND: orangish brown; med; heavy minerals (0.5-1.0%)	
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		SC-SM						
49								
50								BORING TERMINATED AT 50 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-387

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-387

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
49						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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-388

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-388

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45			SP				SAND: dark brown; hard pan	
46						SAND: tan; med to fine; heavy minerals (1.0-1.5%)		
47								
48		SP						
49								
50						SAND: brown; med to fine		
51		SC						
52								
53						SAND, trace clay: dark brown, fine; heavy minerals (0.5%)		
54		SC						
55						SAND, trace clay: light brown; fine; heavy minerals (<0.5%)		
56								
57								
58		SC						
59								
60							BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-389

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				Road fill		
2						SAND: grey; med		
3		SP						
4		SP				SAND: brown; med		
5		SP				SAND: grey; med		
6						SAND: dark brown; med; heavy minerals (0.5-1.0%)		
7								
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		SP				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								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-389

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43									
44		SC					SAND: orangeish brown; med; heavy minerals (0.5-2.0%)		
45									
46									
47									
48									
49									
50	SC					SAND, clayey: dark brown; med to fine; heavy minerals (0.5%)			
51									
52									
53							SAND, trace clay: light brown; med		
54									
55							SAND, clayey: tan; fine; heavy minerals (<0.5%)		
56									
57									
58	SC					SAND, trace clay: light brown; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-390

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-390

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43							SAND: orangish brown; coarse; heavy minerals (0.5-1.0%)	
44			SP					
45								
46	SP				SAND: dark grey; med to fine; heavy minerals (1.0-1.5%)			
47					SAND: tan; med			
48	SP							
49								
50	SP				SAND: dark brown; fine; hard; heavy minerals (2.0%)			
51		SC				SAND, clay: dark brown; fine		
52								
53								
54							SAND tan, fine, trace to some clay	
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 8-71804-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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-391

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-391

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: orangish brown; med; heavy minerals (0.5-2.0%)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND: tan; brown; med to fine; heavy minerals (1.0%)		
47								
48								
49								
50		SP				SAND: dark brown; fine; heavy minerals (0.5-1.0%)		
51								
52								
53								
54								
55								
56						SAND: brown; fine		
57						SAND, trace clay: orangish; fine; heavy minerals (0.5-1.0%)		
58		SC				SAND, clay: tan; fine; heavy minerals (~0%)		
59								
60								
61								
62		SC				SAND, trace/some clay: grayish tan; fine; heavy minerals (0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-392

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2						SAND: light brown/tan; med			
3		SP							
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									
33		SP							
34									
35									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-392

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-393

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-393

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-394

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-394

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP						
37								
38								
39								
40								
41								
42								
43								
44	[Purple dotted pattern]	SP				SAND: orangish brown; med; heavy minerals (0.5-1%)		
45								
46	[Red diagonal hatched pattern]	SC				SAND, trace clay: dark brown; med to fine; heavy minerals (0.5-1%)		
47								
48								
49								
50								
51	[Purple dotted pattern]	SP				SAND: brown; med		
52								
53	[Red diagonal hatched pattern]	SC				SAND, clayey: dark brown; fine; heavy minerals (0.5-1%)		
54								
55								
56								
57	[Red diagonal hatched pattern]	SC				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
58								
59								
60								BORING TERMINATED AT 60 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-395

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-395

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				CLAY, sandy; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-396

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-396

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39		SC						
40								
41								
42								
43		SC				SAND, clayey: dark brown; fine; heavy minerals (<0.5%)		
44								
45								
46		SC				SAND, clayey: light tan; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-397

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-397

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-398

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-398

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-399

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39		SC						
40								
41								
42							SAND, trace clay: dark brown; fine; heavy minerals (0.5-1.5%)	
43		SC						
44								
45								
46		SC						
47							SAND, clayey: grayish tan; fine; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-400

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: white; med		
2		SP				SAND: brown; med		
3		SP				SAND: tan; med		
4		SP				SAND: grayish brown; med		
5								
6								
7								
8								
9								
10		SP				SAND: grey; med; heavy minerals (0.5-1.5%)		
11								
12		SP				SAND: dark brown; med; hard (11.5-15); heavy minerals (0.5%)		
13								
14								
15								
16								
17						SAND: brown; med; heavy minerals (0.5-1%)		
18		SP						
19								
20						SAND: reddish brown; med		
21		SP						
22								
23		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
24						SAND: reddish brown; med		
25		SP						
26								
27		SP				SAND: dark brown; med		
28						SAND: reddish brown; med; heavy minerals (0.5-2.5%)		
29		SP						
30						SAND: tan; med; heavy minerals (<0.5%)		
31		SP						
32						SAND: dark brown; med		
33		SP						
34		SP				SAND: orangish brown; med		
35		SP				SAND: grayish brown; med		

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-400

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ
 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-401

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-401

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37		SP				SAND: white; fine; heavy minerals (0.5-1%)		
38		SP				SAND: tan; fine; heavy minerals (0.5%)		
39		SC				CLAY, sandy: grey/greenish; fine; heavy minerals (0-<0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-402

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-402

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-403

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-404

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2									
3									
4									
5									
6		SP				SAND: dark brown; med; heavy minerals (0.5-1%)			
7									
8									
9							SAND, clayey: grayish tan; fine; heavy minerals (0.5%)		
10				SC					
11									
12		SC				SAND, clayey: tan; fine			
13									
14		SC				SAND, clayey: dark grayish tan; fine; heavy minerals (0.5%)			
15									
16		SP				SAND: tan; med			
17		SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (0%)			
18									
19									
20						No Recovery			
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
						BORING TERMINATED AT 30 FEET.			



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-405

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-405

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-406

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2						SAND: dark brown; med; heavy minerals (<0.5-0.5%)			
3									
4									
5									
6									
7									
8		SP							
9									
10									
11									
12									
13									
14							SAND: brown; med		
15		SP							
16									
17		SP					SAND: orangish brown; med; heavy minerals (0.5%)		
18							SAND: light tan/grey; med; heavy minerals (0.5-1.5%)		
19		SP							
20									
21									
22		SP					SAND: grey; med		
23									
24							SAND: tan; med; heavy minerals (1-3.5%)		
25									
26		SP							
27									
28									
29		SP					SAND: dark brown; med; heavy minerals (0.5-1%)		
30									
31							SAND: brown; med; heavy minerals (1%)		
32									
33		SP							
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-406

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: grayish brown; med; heavy minerals (1-1.5%)		
37						SAND: tan; med; heavy minerals (1.5-2%)		
38		SP				SAND, trace clay: grey; med		
39		SC				SAND, trace clay: greenish grey; coarse; heavy minerals (<0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-407

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-407

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37								
38								
39								
40								
41						SAND, clayey to trace clay: greenish grey; coarse; heavy minerals (<0.5-0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-408

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-408

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/22/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-409

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						SAND: white; fine		
2	[Purple dotted pattern]	SP				SAND: brown; med SAND: tan; med		
3								
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		SP						
14								
15								
16								
17		SP				SAND: brown; med; heavy minerals (1.5-2%)		
18						SAND: tan; med; heavy minerals (0.5-2%)		
19								
20		SP						
21								
22								
23								
24	[Red diagonal hatched pattern]	SC				SAND, trace clay: dark brown; med; heavy minerals (0.5-1%)		
25								
26		SC				SAND, clayey: dark grey; fine; heavy minerals (0.5-1%)		
27						SAND, clayey: tan; fine; heavy minerals (<0.5-1%)		
28								
29								
30		SC						
31								
32								
33		SC				SAND, clayey: dark grey; fine		
34		SC				SAND, clayey: tan; fine		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-409

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-410

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-410

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



geotechnical // analytical // materials // environmental

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-411

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-412

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-412

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		CL				CLAY: grey; plastic; heavy minerals (<0.5-1%)		
37								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-413

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-413

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-414

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-414

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SC						
42								
43		SC				CLAY, sandy: grey; fine		
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								
63		SC				SAND, trace clay: tan; med to fine; heavy minerals (0.5-1%)		
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-415

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-415

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-416

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-416

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
45		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)		
46						SAND, clayey: dark brown; med to fine		
47		SC						
48						SAND, clayey: tan; fine; heavy minerals (1-1.5%)		
49	SC							
50								
51					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.	

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 ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-417

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-417

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
36		SP								
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49				SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
50								SAND: tan; med; heavy minerals (1.5-2%)		
51										
52				SP						
53										
54				SP				SAND: light tan; med to coarse; heavy minerals (1-1.5%)		
55				SC				SAND, clayey: dark brown; med to fine		
56								SAND, clayey: tan; fine; heavy minerals (0.5%)		
57										
58				SC						
59										
60										
61								SAND, trace clay (some clay at 66-67.5); tan; fine; heavy minerals (0.5-1.5%)		
62										
63										
64										
65				SC						
66										
67										
68										
69										
70				SP				SAND: tan; coarse		
71								SAND, clayey: grey; fine; heavy minerals (0.5-1%)		
72										
73				SC						
74										
75										

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-417

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-418

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-419

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
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

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-419

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37		SP				SAND: brown; med; heavy minerals (1.5%)		
38		SP				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		SP				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								
56		SC				CLAY, sandy: dark grey		
57								
58								
59		SC				SAND, clayey: 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-420

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-420

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
42		SP						
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								
52	SP							
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-421

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-422

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-422

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-423

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-423

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-424

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-424

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-425

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-425

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark brown; med to fine; heavy minerals (<0.5%)			
37									
38									
39									
40							SAND: brown; med; heavy minerals (0.5%)		
41									
42									
43									
44							SAND: tan; coarse; heavy minerals (0.5%)		
45									
46									
47					SAND: dark brown; med to fine; organics; heavy minerals (0.5%)				
48									
49									
50									
51					SAND: tan/light brown; med to coarse; heavy minerals (0.5-1%)				
52									
53									
54									
55		SC				SAND, trace clay: brown; fine			
56		SC				SAND, clayey: grey; fine			
57		SC							
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-426

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-426

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42		SP				SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
43								
44								
45								
46		SP						
47								
48								
49								
50								
51		SP				SAND: brown; med; heavy minerals (3-4%)		
52								
53						SAND: light tan/white; med; heavy minerals (1.5-2%)		
54		SP						
55								
56								
57						SAND: dark brown; med to fine; heavy minerals (0.5%)		
58		SP						
59						SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
60		SC						
						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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-427

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-427

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				(0.5-1.5%); (3-4% @ 49.5)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54		SP				SAND: grayish brown; med; heavy minerals (0.5-1%)		
55		SP						
56		SP				SAND: white; med; heavy minerals (1-1.5%)		
57		SP				SAND: dark brown; med; heavy minerals (<0.5-2%)		
58		SP						
59		SP						
60		SP						
61		SP						
62		SP				SAND: reddish brown; med; heavy minerals (0.5-1%)		
63		SP						
64		SP						
65		SP						
66		SP				SAND: dark brown; fine; heavy minerals (<0.5%)		
67		SP				SAND, clayey: tan; fine; heavy minerals (<0.5%)		
68		SC						
69		SC						
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-428

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-428

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-429

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-429

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39						SAND: orangish brown; med; heavy minerals (0.5-3%)		
40								
41								
42								
43								
44								
45								
46		SP						
47								
48								
49								
50								
51								
52								
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								
57						SAND: dark brown; med to fine; heavy minerals (<0.5-1%)		
58								
59								
60	SP							
61								
62								
63								
64	SP					SAND: brown; fine; heavy minerals (<0.5%)		
65								
66						SILT, sandy: tan; fine; organics; heavy minerals (<0.5-1%)		
67								
68	SM							
69								
70								
						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-430

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-430

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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	SP							
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	SP							
65								
66					SAND: reddish brown; fine; heavy minerals (<0.5%)			
67	SP							
68								
69								
70					BORING TERMINATED AT 70 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-431

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-431

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-432

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-432

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-433

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-433

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-434

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-434

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-435

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-435

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46	SP					SAND: tan; med; heavy minerals (1-1.5%)		
47								
48	SP					SAND: brown; med; heavy minerals (1-1.5%)		
49								
50								
51	SP					SAND: tan/light brown; med to fine; heavy minerals (1-1.5%)		
52								
53	SC					SAND, trace clay: dark brown; fine; heavy minerals (<0.5%)		
54								
55	SP					SAND: tan/light brown; med to fine; heavy minerals (1-1.5%)		
56								
57	SP					No Recovery		
58								
59			60 - 70	0				
60								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-436

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-437

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-437

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC-SM	30 - 40	85				
37						SILT, sandy: tan; fine; heavy minerals (0.5%)		
38		SM						
39		SM						
40						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.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-438

SAINT GEORGE, GEORGIA

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)		

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2						SAND: dark brown; med		
3						SAND: grey; med; heavy minerals (0.5-1%)		
4						SAND: dark brown; med; consolidated (11-13 and 16-17.5); heavy minerals (0.5-1.5%)		
5						SAND: brown; med; heavy minerals (1.5-2%)		
6						SAND: orangish brown; med; heavy mineral banding; heavy minerals (1.5-2.5%)		
7						SAND: dark brown; med to fine; heavy minerals (3-4%)		
8						SAND, clayey: light brown; fine; heavy minerals (0.5-1%)		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-438

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-439

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: dark grey; med			
2						SAND: brown; med			
3		SP							
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									
21			SP				SAND: brown; coarse; heavy minerals (<0.5%)		
22							SAND: dark brown; coarse; lightly consolidated; heavy minerals (0.5%)		
23									
24			SP						
25									
26									
27							SAND: tan; med; heavy minerals (<0.5-0.5%)		
28									
29			SP						
30							SAND: brown; med; heavy minerals (0.5-1%)		
31									
32									
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-439

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: orangish brown; med to coarse; heavy minerals (0.5-2%)		
42								
43								
44								
45								
46			SP					
47								
48								
49								
50								
51						SAND: brown; med		
52			SP					
53								
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			SC			SAND, clayey: light brown; fine		
58								
59			SC-SM			SILT, sandy, trace clay: tan; fine; organics; heavy minerals (<0.5%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-440

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-440

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-441

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-441

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP				SAND: tan; med to coarse; heavy minerals (1.5-2%)		
37								
38	[Purple dotted pattern]	SP				SAND: brown; med to fine; heavy minerals (1.5-2%)		
39								
40	[Purple dotted pattern]	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	[Purple dotted pattern]	SP				SAND: brown; med; heavy minerals (0.5-2.5%)		
54								
55	[Purple dotted pattern]	SP				SAND: tan; med to coarse; heavy minerals (1-1.5%)		
56								
57	[Purple dotted pattern]	SP				SAND: orange/brown; med; heavy minerals (<0.5%)		
58								
59	[Purple dotted pattern]	SP				SAND: tan; med to fine		
60								
61	[Purple dotted pattern]	SP				SAND, trace clay: dark brown; fine		
62								
63	[Red diagonal hatched pattern]	SC				SAND, trace clay: tan; fine		
64								
65	[Red diagonal hatched pattern]	SC				SAND, clayey: grey; fine		
66								
67	[Red diagonal hatched pattern]	SC				SILT, sandy: tan; fine		
68								
69	[Blue vertical dotted pattern]	SM						
70								
						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-442

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-442

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42								
43		SP				SAND: tan; med; heavy minerals (1.5-2%)		
44								
45								
46								
47								
48		SP				SAND: orangish tan; med; heavy minerals (1%)		
49								
50								
51		SP				SAND: grey; med to fine; heavy minerals (1%)		
52								
53		SP				SAND: tan; med; heavy minerals (0.5-1%)		
54								
55								
56								
57								
58								
59								
60	SP				SAND: brown; med; heavy minerals (0.5-1.5%)			
61								
62								
63								
64								
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.		

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-443

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-443

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Dotted pattern]	SP				SAND: orangish brown; med; heavy minerals (1-2.5%)		
37								
38								
39								
40								
41	[Dotted pattern]	SP				SAND: brown; med to coarse; heavy minerals (0.5-2%)		
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53		SP				SAND: grayish tan; med; heavy minerals (0.5-1%)		
54		SP				SAND: tan; med; heavy minerals (1%)		
55								
56								
57						SAND: dark brown; med; heavy minerals (0.5%)		
58								
59								
60		SP						
61								
62								
63								
64								
65		SP				SAND: brown; med; heavy minerals (0.5%)		
66								
67		SP				SAND: light brown; fine; heavy minerals (0.5%)		
68								
69								
70						SAND: tan; fine; heavy mineral banding; heavy minerals (1-2%)		
71		SP						
72								
73								
74	[Diagonal hatching]	SC				SAND, clayey: tan; fine		
75								

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-443

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-444

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
31	SP					SAND: tan; med to coarse; heavy minerals (1%)		
32						SAND: brown; med to coarse; heavy minerals (1.5%)		
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-444

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: orangish brown; med to coarse; heavy minerals (1-2.5%)		
42								
43								
44								
45								
46								
47								
48								
49		SP						
50								
51								
52								
53								
54								
55								
56								
57								
58		SP				SAND: tan; med		
59		SP				SAND: dark brown; med to fine; consolidated; heavy minerals (0.5-1%)		
60						SAND: brown; fine to med; heavy minerals (0.5%)		
61								
62		SP						
63								
64		SP				SAND: dark brown; fine		
65								
66		SP				SAND: brown; fine to med		
67								
68		SP				SAND: tan; med to fine; heavy mineral banding; heavy minerals (~4%)		
69								
70		SP				SAND: dark brown/tan mixed; fine; organics; heavy minerals (1%)		
71								
72		SP				SAND: tan; med; heavy minerals (0.5-1%)		
73								
74		SC				SAND, trace clay: tan; fine		
75								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-444

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-445

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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									
21							SAND: brown to coarse; heavy minerals (1%)		
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									
31		SP					SAND: dark brown; med		
32		SP					SAND: light brown; med; heavy minerals (0.5-1%)		
33									
34							SAND: tan; med; heavy minerals (1-1.5%)		
35		SP							

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-445

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37		SP				SAND: dark brown; med		
38						SAND: orangish brown; med; heavy minerals (0.5%)		
39								
40		SP						
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								
63	SP							
64					SAND, trace clay: tan; fine; heavy minerals (0.5%)			
65								
66	SC							
67					SAND: light tan; fine; heavy minerals (0.5%)			
68								
69	SP							
70					BORING TERMINATED AT 70 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-446

SAINT GEORGE, GEORGIA

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 _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-446

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
36		SP								
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52								SAND: dark brown; med to fine		
53								SAND: brown; med; heavy minerals (1%)		
54										
55										
56										
57										
58										
59										
60										
61								SAND: dark brown; med to fine; heavy minerals (0.5%)		
62								SAND: brown; med to fine; heavy minerals (0.5-1.5%)		
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73								SAND, clayey: brown; fine		
74								SAND, trace clay: tan; fine; heavy minerals (<0.5%)		
75										

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-446

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-447

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-447

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
37						SAND: orangish brown; med; heavy minerals (0.5-1.5%)		
38								
39								
40		SP						
41								
42								
43								
44						SAND: brown; med; heavy minerals (0.5-4%; 5-6% on band)		
45								
46								
47		SP						
48								
49								
50								
51								
52						SAND: dark brown; med; heavy minerals (2-2.5%)		
53								
54	SP							
55								
56	SP					SAND: reddish brown; med		
57						Tree; heavy minerals (0.5%)		
58		SC				SAND, trace clay: dark brown; fine; heavy minerals (0.5%)		
59								
60						SAND: tan; fine		
61	SP							
62						SAND: dark brown; fine		
63								
64						SAND, silty, trace clay: light brown; fine; heavy minerals (<0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-448

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-448

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: tan; med to coarse; heavy minerals (1-2.5%)			
37									
38									
39									
40									
41								SAND: dark brown; med; heavy minerals (0.5%)	
42				SP					
43									
44									
45								SAND: reddish brown; med to coarse; heavy minerals (1-2.5%)	
46		SP							
47									
48									
49									
50						SAND: dark brown; med; heavy minerals (0.5%)			
51		SP							
52									
53									
54									
55		SP				SAND: brown; med; heavy minerals (0.5%)			
56									
57		SP				SAND: orangish brown; med to fine; heavy minerals (0.5%)			
58									
59									
60						SAND: dark brown; med to fine; heavy minerals (0.5-1%)			
61		SP							
62									
63									
64		SP				SAND: brown; fine; heavy minerals (0.5%)			
65									
66		SP				SAND: dark brown; fine; heavy minerals (0.5%)			
67									
68		SC				SAND, clayey: tan; fine			
69									
70		SP				SAND: tan; fine; heavy minerals (0.5-1%)			
						BORING TERMINATED AT 70 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-449

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-449

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: reddish brown; med; heavy minerals (<0.5-1.5%)			
37									
38									
39									
40									
41									
42									
43			SP				SAND: orangish brown; med; heavy minerals (0.5-2%)		
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62		SP				SAND: dark brown; fine			
63									
64		SC				SAND, trace clay: tan/light brown; fine; heavy minerals (<0.5%)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-450

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41							SAND: orangish brown; med; heavy minerals (1.5-2%)		
42									
43									
44									
45									
46									
47									
48									
49									
50									
51							SAND: orangish brown; coarse; heavy minerals (1-1.5%)		
52									
53									
54									
55									
56									
57							SAND: tan; coarse; heavy minerals (0.5%)		
58							SAND: dark brown; fine; consolidated		
59									
60							SAND: grey; fine; heavy minerals (1%)		
61							SAND: dark brown; fine; heavy minerals (<0.5%)		
62									
63									
64									
65							SAND: brown; fine; heavy minerals (<0.5%)		
66									
67									
68									
69							SAND, trace clay: light brown; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-451

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-451

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-452

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-452

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-453

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-453

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark grey/dark brown; med; heavy minerals (0.5%)			
37									
38									
39									
40									
41									
42							SAND: brown; med; heavy minerals (0.5%)		
43									
44							SAND: orangish brown; med; heavy minerals (0.5%)		
45									
46					SAND: dark brown; med; heavy minerals (0.5-1%)				
47									
48									
49					SAND: tan; med; heavy minerals (1-1.5%)				
50					SAND: dark brown; med; consolidated (49.5-50)				
51					SAND: brown; med				
52					SAND: tan; med to fine; heavy minerals (0.5-1%)				
53									
54									
55									
56		SC				SAND, clayey: dark brown/black; fine; heavy minerals (0.5%)			
57									
58							SAND, trace clay: tan; fine; heavy minerals (0.5-1%)		
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

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-454

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-454

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark brown; med; heavy minerals (0.5%)			
37						SAND: tan; med; heavy minerals (1.5-2%)			
38		SP							
39							SAND: dark brown; med; heavy minerals (0.5-1%)		
40									
41		SP							
42							SAND: brown; med; heavy minerals (1%)		
43		SP							
44							SAND: tan; med; heavy minerals (1-1.5%)		
45		SP							
46									
47							SAND: brown; med; heavy minerals (0.5%)		
48									
49									
50	SP								
51									
52									
53						SAND, trace clay: tan; fine; heavy minerals (0.5%)			
54		SC							
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-455

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2		SP				SAND: brown; med			
3						SAND: tan; med			
4		SP							
5									
6							SAND: brown; med; heavy minerals (0.5-1.5%)		
7									
8									
9									
10		SP							
11									
12									
13									
14									
15									
16									
17							SAND: dark brown; med; consolidated (18.5-20); heavy minerals (0.5-1.5%)		
18									
19		SP							
20									
21									
22									
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							SAND: brown; med to coarse; heavy minerals (0.5-1%)		
28									
29									
30									
31		SP							
32									
33									
34									
35									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-455

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: orangish brown; med to coarse; heavy minerals (0.5-1%)			
37									
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						SAND: dark brown; coarse; heavy minerals (0.5%)			
51									
52		SP							
53									
54									
55						SAND: dark brown; med			
56		SP							
57						SAND, trace clay: tan; fine; heavy minerals (0.5%)			
58		SC							
59							SAND, trace clay: light brown; fine; heavy minerals (0.5%)		
60		SC							
						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-456

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-456

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36	[Purple dotted pattern]	SP							
37									
38									
39									
40									
41									
42	[Purple dotted pattern]	SP				SAND: tan; med to fine; heavy minerals (<0.5%)			
43						SAND: brown; med to fine; heavy minerals (0.5-1%)			
44									
45	[Purple dotted pattern]	SP							
46									
47									
48	[Red diagonal lines]	SC				CLAY, sandy: tan; fine			
49	[Purple dotted pattern]	SP				SAND: white; fine; heavy minerals (1-1.5%)			
50									
51	[Red diagonal lines]	SC				SAND, trace clay: grayish tan; fine; heavy minerals (<0.5-1.5%)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-457

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-457

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: brown; fine; heavy minerals (0.5-1%)			
37									
38		SP				SAND: tan; fine; heavy minerals (0.5%)			
39		SP				SAND: brown; fine; heavy minerals (0.5%)			
40		SP				SAND: dark brown; fine			
41									
42							SAND: brown; fine; heavy minerals (0.5%)		
43									
44		SP							
45									
46						SAND: tan; fine; heavy minerals (<0.5-1%)			
47									
48									
49									
50		SP							
51									
52									
53									
54		SC				SAND, trace clay: grayish tan; fine; heavy minerals (0.5%)			
55									
56									
57						CLAY: bluish grey; plastic; heavy minerals (0%)			
58		CL							
59									
60						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-458

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-458

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP	40 - 50	85				SAND: light tan; fine; heavy minerals (0.5-1%)
37								
38								
39		SC	40 - 50	85				SAND, trace to some clay: tan; fine; heavy minerals (0.5%)
40								
41								
42								
43		SC-SM	40 - 50	85				SAND, silty; clayey: grey; fine
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-459

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2		SP				SAND: brown; med		
3		SP				SAND: dark brown; med; heavy minerals (0.5-1%)		
4		SP						
5		SP						
6		SP						
7		SP						
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					SAND: dark brown; med; heavy minerals (0.5-1%)	
25		SP						
26		SP						
27		SP						
28		SP					SAND: brown; blue staining (27-30); med; heavy minerals (0.5-1%)	
29		SP						
30		SP						
31		SP						
32		SP						
33		SP						
34		SP						
35		SP						

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-459

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-460

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-460

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-461

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-462

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-462

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

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

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-463

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2								
3							SAND: dark brown; med; heavy minerals (<0.5-2%)	
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: brown; med; heavy minerals (0.5%)		
30						SAND: tan; med		
31								
32						SAND: dark brown; med; heavy minerals (0.5%)		
33						SAND: brown; med; heavy minerals (0.5%)		
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-463

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-464

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-464

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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						SAND: brown; med		
48		SP				SAND: grayish tan; med; heavy minerals (1-1.5%)		
49								
50								
51						SAND: dark brown; med; heavy minerals (0.5-1%)		
52		SP						
53								
54								
55						SAND: orangish brown; med; heavy minerals (0.5-1%)		
56		SP						
57						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								
64		SP						
65								
66								
67								
68		SC				SAND, trace clay: orangish brown; fine; heavy minerals (<0.5%)		
69						SAND, clayey: tan; fine; organics; heavy minerals (<0.5%)		
70		SC						
						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-465

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-465

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SP						
50								
51								
52								
53						SAND: dark brown; med; heavy minerals (<0.5%)		
54		SP						
55								
56	SP				SAND: brown; med			
57					SAND: dark brown; med; heavy minerals (0.5%)			
58	SP							
59								
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-466

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-466

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-467

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-467

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41						SAND: brown; med; heavy minerals (0.5%)		
42								
43			SP					
44								
45								
46								
47			SP					
48						SAND: dark brown/black; med; consolidated; heavy minerals (0.5%)		
49						SAND: reddish brown; med to coarse; heavy minerals (0.5-1.5%)		
50								
51								
52								
53								
54								
55			SP					
56								
57								
58								
59								
60								
61								
62								
63								
64						SAND, clayey: dark brown; fine; organics; heavy minerals (0.5%)		
65			SP					
66								
67			SP			SAND: tan; fine		
68			SC			SAND, trace clay: dark brown; fine		
69			SC			SAND, trace piece clay: tan; med to 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-468

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-468

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-469

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-469

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP						
37								
38	[Purple dotted pattern]							
39						SAND: tan; med to coarse; heavy mineral banding; heavy minerals (0.5-3%)		
40								
41								
42								
43								
44		SP						
45								
46								
47								
48								
49								
50								
51						SAND: tan; fine; heavy minerals (0.5%)		
52	SP							
53								
54						SAND, trace clay: brown; fine		
55	SC							
56								
57								
58	SC					SAND, clayey: dark brown; 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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-470

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-470

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-471

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-471

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-472

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-472

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: brown; med; heavy minerals (0.5%)			
37						SAND: dark brown; med; heavy minerals (0.5%)			
38		SP							
39									
40		SP					SAND: dark brown/black; med to fine; cemented		
41							SAND: dark reddish brown; med; heavy minerals (0.5-1%)		
42									
43									
44									
45		SP							
46									
47									
48									
49									
50									
51						SAND: orangish brown; med; heavy minerals (<0.5%)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-473

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-473

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: orangish brown; med; heavy minerals (0.5%)			
37									
38									
39									
40									
41									
42									
43							SAND: brown; med		
44							SAND: orangish brown; med; heavy minerals (0.5-1%)		
45									
46									
47					SAND: tan; med; heavy minerals (0.5-1%)				
48									
49									
50									
51					SAND: brown; med; heavy minerals (0.5-1%)				
52									
53					SAND: tan; med; heavy minerals (0.5-1%)				
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-474

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-474

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
49		SC				SAND, trace clay: brown; 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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-475

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-475

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; med; heavy minerals (<0.5-1%)		
37								
38								
39								
40								
41								
42								
43						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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-476

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-476

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55					SAND, trace clay: dark brown; fine; heavy minerals (<0.5-1%)			
56								
57					SAND, silty, trace clay: tan; fine; heavy minerals (<0.5%)			
58								
59					SAND, clayey: dark 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-477

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-477

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51		SP				SAND: dark brown; med to coarse		
52						SAND: brown; med; heavy minerals (0.5%)		
53		SP						
54								
55		SP				SAND: white; med to fine		
56		SP				SAND: tan; fine; heavy minerals (1%)		
57								
58		SC				SAND, trace clay: dark brown; fine; heavy minerals (<0.5-1%)		
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-478

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-478

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45							SAND: orangish brown; med to coarse; heavy minerals (0.5%)	
46								
47				SP				
48								
49								
50								
51		SP			SAND: dark brown; med to fine; heavy minerals (0.5%)			
52								
53		SP			SAND: brown; med to fine			
54								
55		SP			SAND: tan; med to fine; heavy minerals (0.5%)			
56								
57								
58		SP			SAND: brown; med; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-479

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-479

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; med		
37						SAND: dark brown; med; heavy minerals (0.5%)		
38		SP						
39								
40								
41		SP					SAND: tan; med to coarse; heavy minerals (0.5%)	
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-480

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-ADK-18-480

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-21

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-21

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

LOG OF BORING
SA-DPF-18-22

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Description		
2								
3								
4								
5								
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								
32								
33								
34								
35								

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-23

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-23

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-33

SAINT GEORGE, GEORGIA

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 _____

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-33

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-34

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: brown; no humate; heavy minerals (1%)		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15		SP				SAND: orange		
16		SP				SAND: tan to orange; heavy minerals (1-2%)		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27						SAND: light tan to tan; heavy minerals (1-5%)		
28		SP						
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-34

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42							SAND: orange to brown; heavy minerals (3-5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-35

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-35

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-36

SAINT GEORGE, GEORGIA

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

REMARKS

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-36

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-37

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-37

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-38

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-38

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND; clayey; light tan; heavy minerals (1.5%)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46					BORING TERMINATED AT 50 FEET.			
47								
48								
49								
50								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-39

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
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

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-39

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-41

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-41

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36									
37									
38									
39									
40									
41			SP				SAND: light brown; humate		
42									
43									
44			SP				SAND: dark brown to orange		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-106

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-106

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Dotted pattern]	SP				SAND: reddish-brown; coarse		
37								
38	[Dotted pattern]	SP				SAND: orange; coarse		
39								
40	[Dotted pattern]	SP				SAND: dark brown; consolidated		
41								
42	[Dotted pattern]	SP				SAND, silty: light tan		
43								
44	[Dotted pattern]	SP				SAND: reddish-brown; med		
45								
46	[Dotted pattern]	SP				BORING TERMINATED AT 60 FEET.		
47								
48	[Dotted pattern]	SP						
49								
50	[Dotted pattern]	SM						
51								
52	[Dotted pattern]	SP						
53								
54	[Dotted pattern]	SP						
55								
56	[Dotted pattern]	SP						
57								
58	[Dotted pattern]	SP						
59								
60	[Dotted pattern]	SP						

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-107

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-107

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43									
44				SP				SAND: dark brown; consolidated; coarse	
45									
46		SP				SAND: white; coarse			
47									
48		SP				SAND: dark brown; coarse			
49									
50		SP				SAND: reddish-brown; med			
51									
52		CH				CLAY: light tan			
53									
54		CH							
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-108

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-108

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: light brown; coarse		
42								
43		SP						
44								
45								
46	SP				SAND: dark brown; consolidated; coarse			
47	SP				SAND: brown; coarse			
48								
49	SP				SAND: dark brown; consolidated; coarse			
50								
51					SAND: reddish-brown; med			
52								
53								
54	SP							
55								
56								
57								
58		CH				CLAY: grayish-green		
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-111

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-111

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-112

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: light tan; coarse			
2									
3							SAND: dark brown; coarse		
4		SP							
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									
30				SP				SAND: alternating white/brown; coarse	
31									
32							SAND: dark brown; coarse		
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-112

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP				SAND: tan; coarse		
37								
38	[Purple dotted pattern]	SP				SAND: brown; coarse		
39								
40	[Purple dotted pattern]	SM				SAND, silty: dark brown		
41								
42	[Purple dotted pattern]	SM				SAND, silty: reddish-brown		
43								
44	[Purple dotted pattern]	SP				SAND: light brown; med		
45								
46	[Purple dotted pattern]	SM				SAND, silty: reddish-brown		
47								
48	[Purple dotted pattern]	SM				SAND, silty: reddish-brown		
49								
50	[Purple dotted pattern]	SM				SAND, silty: reddish-brown		
51								
52	[Red diagonal hatched pattern]	SC				CLAY, sandy; light tan		
53	[Red diagonal hatched pattern]	SC				CLAY, sandy; light tan		
54	[Purple dotted pattern]	SM				SAND, silty: light tan		
55								
56	[Purple dotted pattern]	SM				SAND, silty: light tan		
57								
58	[Purple dotted pattern]	SM				SAND, silty: light tan		
59								
60	[Purple dotted pattern]	SM				BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-113

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-113

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40						SAND: brown; hard; consolidated; coarse		
41		SP						
42								
43						SAND: light gray; coarse		
44								
45		SP						
46								
47		SP				SAND: brown; coarse		
48								
49	SP				SAND: brownish-grey; coarse			
50								
51	SP				SAND: brown; coarse			
52					SAND, silty: reddish-brown			
53								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-114

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-114

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42		SP				SAND: light brown; coarse		
43		SP				SAND: light grey to white; coarse		
44								
45		SP				SAND: brown; coarse		
46								
47								
48								
49								
50								
51		SM				SAND, silty: light brown		
52								
53								
54								
55								
56								
57						BORING TERMINATED AT 60 FEET.		
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-115

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-116

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-117

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-117

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36									
37									
38									
39									
40									
41							SAND, silty: tan		
42									
43				SM					
44									
45									
46							SAND: light greenish-grey; coarse		
47									
48				SP					
49									
50									
51									
52							CLAY, sandy: greenish-grey		
53									
54									
55									
56				SC					
57									
58									
59									
60									
									BORING TERMINATED AT 60 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-118

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-118

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-119

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-119

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown to black; coarse		
37								
38								
39		SP				SAND: light tan; med		
40								
41								
42								
43								
44								
45		SP				SAND: light brown; med		
46								
47								
48		SC				CLAY, sandy: light tanish-grey		
49								
50								
51								
52								
53								
54		SC				BORING TERMINATED AT 60 FEET.		
55								
56								
57								
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-120

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-120

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND: reddish-brown; coarse		
47								
48								
49								
50								
51								
52								
53								
54								
55		SP				SAND: dark brown; coarse		
56								
57		SP				SAND: white; coarse		
58								
59		SP				SAND: brown; coarse		
60								
						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-121

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-121

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; coarse		
37								
38						SAND: light tan; coarse		
39								
40						SAND: dark brown; coarse		
41								
42						SAND: brown; coarse		
43								
44						SAND: dark brown; coarse		
45								
46						SAND: brown; coarse		
47								
48						SAND: dark brown; coarse		
49								
50						BORING TERMINATED AT 60 FEET.		
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-122

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-122

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47		SP				SAND: reddish-brown; coarse		
48								
49								
50								
51								
52		SP				SAND: dark brown; hard consolidated; coarse		
53								
54								
55								
56								
57		SM				SAND, silty: light tan		
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 ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-123

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-123

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38						SAND: dark brown; consolidated; coarse		
39		SP						
40						SAND: brown; coarse		
41								
42		SP						
43						SAND: white; coarse		
44								
45		SP						
46								
47								
48								
49	SP				SAND: brown; coarse			
50								
51					SAND, silty: dark brown			
52	SM							
53					SAND, silty: reddish-brown			
54								
55	SM							
56								
57					SAND, silty: reddish-brown to tan			
58	SM							
59								
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-124

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-124

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: tan		
37								
38								
39								
40								
41								
42								
43								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-125

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-125

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SM							
37									
38									
39		SC							
40									
41							CLAY, sandy: greenish-grey		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-126

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-126

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM						
37								
38		SM						
39								
40		SP				SAND: white; coarse		
41						CLAY: greenish-grey		
42		CH						
43								
44		CH						
45								
46		SM				SAND, silty: tan		
47								
48		SM						
49								
50							BORING TERMINATED AT 50 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-127

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-127

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 6/7/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		CH				CLAY: greenish-grey; hard		
37								
38		SC				CLAY, sandy: light tan; soft		
39								
40						BORING TERMINATED AT 40 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-128

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				SAND: dark grey; road material		
2								
3								
4								
5			0 - 10	60		SAND: dark brown; coarse; fine humate; heavy minerals (1.5-2.0%)		
6								
7								
8								
9		SP						
10								
11								
12								
13								
14								
15								
16		SP				SAND: dark brown		
17		SP				SAND: light tan to white		
18						SAND: dark brown; humate		
19								
20		SP						
21								
22		SP				SAND: brown		
23						SAND: brown; hard; heavy minerals (1.0%)		
24								
25								
26								
27								
28								
29		SP						
30								
31								
32								
33								
34								
35						SAND, clayey: light tan; heavy minerals (<0.5%)		

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-128

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37								
38								
39		SC						
40								
41							SAND, clayey: grey; heavy minerals (1.0%)	
42								
43								
44								
45		SC						
46								
47								
48								
49								
50								
51								
52								
53								
54		SC						
55							SAND, clayey: light greenish grey	
56								
57								
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-129

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				Road material; mottled tan to grey		
2		SP				SAND: tan; coarse		
3						SAND: dark brown; coarse; heavy minerals (1.5%)		
4			0 - 10	60				
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								
30		SP				SAND: hard/brittle		
31		SP				SAND: brown; coarse; heavy minerals (1.0%)		
32		SP				SAND: grey; very coarse		
33		SP						
34						SAND: brown; coarse; heavy minerals (1.0%)		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-129

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SP				SAND: tan to grey; med to fine		
39		SP				SAND: dark brown; med		
40		SP				SAND: light brown; fine		
41								
42		SP						
43								
44		SP				SAND: dark brown; hard to brittle		
45						SAND: brown to tan; fine		
46								
47	SP							
48								
49					SAND: tan; fine; heavy minerals (1.0-1.5%)			
50	SP							
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		SC						
66								
67								
68								
69								
70							BORING TERMINATED AT 70 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-130

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	50		SAND: dark brown; med		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SP				SAND: light tan; coarse; heavy minerals (2-3%)		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP				SAND: brown; coarse; heavy minerals (1.5%)		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31		SP				SAND: dark brown; hard; brittle		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41		SP				SAND: brown; coarse		
42								
43								
44								
45								
46								
47								
48								
49								
50								
51		SP				SAND: dark grey to brown; coarse		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61		SP				SAND: dark brown; coarse		
62								
63								
64								
65								
66								
67								
68								
69								
70								
71		SP				SAND: reddish brown; coarse		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81		SP				SAND: dark brown; coarse		
82								
83								
84								
85								
86								
87								
88								
89								
90								
91		SP				SAND: hard		
92								
93								
94								
95								
96								
97								
98								
99								
100								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-130

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38						SAND: light brown to tan; coarse		
39		SP						
40						SAND: reddish brown to tan; coarse		
41								
42								
43								
44		SP						
45								
46								
47								
48						SAND: dark brown; hard		
49		SP						
50								
51						SAND: dark brown		
52		SP						
53						SAND		
54		SP						
55		SC				SAND, clayey: dark brown to black; hard		
56					SAND, clay: heavy minerals (3%)			
57								
58								
59	SC							
60								
61					SAND: light tan; fine; heavy minerals (2%)			
62								
63								
64								
65								
66	SP							
67								
68								
69								
70							BORING TERMINATED AT 70 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-131

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-131

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-132

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-132

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38		SP				SAND: grayish-green; coarse		
39		SP				SAND: dark brown; hard		
40						SAND: dark brown; coarse		
41		SP						
42						SAND: tan; heavy minerals (1-1.5%)		
43								
44		SP						
45								
46								
47						SAND: tan grey; coarse; heavy minerals (<0.5%)		
48		SP						
49						SAND: reddish tan; heavy minerals (1%)		
50								
51		SP						
52								
53								
54								
55						SAND: dark brown; heavy minerals (<0.5%)		
56	SP							
57	SC				CLAY, sandy: dark grey			
58					SAND: tan; fine; heavy minerals (<1%)			
59	SP							
60								
61					SAND: dark reddish brown			
62	SP							
63					SAND: tan; med			
64								
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-133

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
34						SAND: dark brown to black		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-133

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SP						
48								
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	SC							
63								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-134

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-134

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: grey; coarse			
37		SP				SAND: dark brown			
38						SAND: dark brown to black layered; med to coarse			
39		SP							
40						SAND: reddish brown; heavy minerals (7%)			
41									
42									
43		SP							
44									
45									
46			SC				SAND, clayey: reddish brown		
47							SAND: tan to white; fine; heavy minerals (1-1.5%)		
48		SP							
49									
50									
51		SP				SAND: dark brown; med			
52		SP				SAND: tan; coarse			
53									
54		SC				SAND: dark brown; hard; brittle			
55									
56						SAND, silty: reddish tan to brown; fine; heavy minerals (0.5-1%)			
57									
58		SM							
59									
60						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-135

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-135

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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						SAND: light tan		
46								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-137

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1		FILL				Road material					
2		SP	0 - 10	55		SAND: light tan; med; heavy minerals (<0.5%)					
3						SAND: dark brown; heavy minerals (1-2%)					
4		SP									
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24		SP				SAND: tan; coarse					
25		SP				SAND: tan to orangish tan; coarse; heavy minerals (1.5%)					
26		SP									
27		SP									
28		SP									
29		SP				SAND: dark grey; coarse					
30		SP				SAND: dark brown to black, coarse, with clean white sand; heavy minerals (1.5%)					
31		SP									
32											
33											
34											
35											

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-137

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan; coarse		
37								
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	SP				SAND: dark brown; med to coarse; hard			
47								
48								
49								
50	SP				SAND: tan; fine			
51								
52	SP				SAND, clayey: greenish grey; fine; heavy minerals (1-1.5%)			
53								
54								
55	SC							
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-138

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	87		SAND: dark brown; coarse; heavy minerals (<1%)		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SP				SAND: orange; coarse; heavy minerals (<1%)		
12								
13								
14								
15		SP				SAND: dark brown; coarse; heavy minerals (1.5%)		
16								
17								
18		SP				SAND: brown to dark grey; coarse		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28		SP				SAND: dark brown with layers; heavy minerals (1.5-2%)		
29								
30								
31								
32								
33		SC				SAND, clayey: tan; heavy minerals (1-1.5%)		
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-138

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37						SAND, trace clay: light tan to white; fine; heavy minerals (1-1.5%)		
38								
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-139

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-139

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: light tan; coarse		
37						SAND: light tan fine; heavy minerals (1%)		
38								
39								
40		SP						
41								
42								
43						SAND, clayey: light grey; woody material		
44	SC							
45								
46						SAND: light tan to grey; fine to med; heavy minerals (1-1.5%)		
47								
48	SP							
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-140

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-140

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-141

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP	0 - 10	50		SAND: light grey to tan; coarse		
2						SAND: tan; coarse		
3								
4		SP						
5								
6								
7								
8								
9						SAND: dark brown; coarse; heavy minerals (1.5-2%)		
10								
11								
12								
13								
14								
15								
16								
17								
18								
19		SP						
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32						SAND: orangish brown; coarse		
33		SP						
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-141

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan to brown; coarse		
37								
38								
39								
40		SP				SAND: reddish brown; very coarse; heavy minerals (3%)		
41								
42								
43								
44								
45								
46		SP				SAND: light tan; coarse; heavy minerals (1.5%)		
47								
48								
49								
50								
51								
52		SP				SAND: dark grey to black; layered		
53								
54								
55								
56		SP				SAND, trace clay: dark red to brown; fine strands with organics; heavy minerals (<0.5%)		
57								
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-142

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-142

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44		SP				SAND: tan; coarse		
45						SAND: white; heavy minerals (1%)		
46								
47		SP						
48								
49								
50	SP				SAND: tan to brown; med			
51								
52					SAND: dark reddish brown; med; heavy minerals (<0.5%)			
53								
54	SP							
55								
56					SAND: dark brown; fine to med			
57	SP							
58								
59	SP				SAND: 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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-143

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		SP	0 - 10	93		SAND: grey; coarse				
2		SP				SAND: orange; coarse				
3		SP				SAND: light tan; med to coarse				
4						SAND: brown to grey; coarse				
5		SP								
6										
7						SAND: dark brown; coarse; heavy minerals (1-1.5%)				
8										
9										
10										
11		SP								
12										
13										
14										
15										
16										
17										
18										
19										
20										
21		SP								
22										SAND: tan; coarse
23									SP	
24										SAND: grey; coarse; heavy minerals (2-3%)
25									SP	
26										SAND: dark grey/black/brown; coarse; heavy minerals (1-1.5%)
27									SP	
28										SAND: orangish tan; coarse; heavy minerals (1%)
29									SP	
30										
31		SP								
32										
33										
34										
35										

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-143

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38							SAND: white; coarse; heavy mineral bands (1%)	
39			SP					
40								
41			SP				SAND: dark brown; med to coarse; hard	
42			SP				SAND: light grey; coarse	
43							SAND: tan/brown; coarse	
44								
45			SP					
46								
47								
48								
49								
50								
51	ML				SILT: dark brown			
52					SILT: tan/orange			
53								
54	ML							
55								
56								
57					SILT: tan; heavy minerals (<0.5%)			
58	ML							
59								
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-145

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-145

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Red dotted pattern]	SP						
37								
38								
39								
40		SP				SAND: dark brown; very coarse		
41						SAND: tan; very coarse; heavy minerals (<0.5-1%)		
42								
43		SP						
44								
45								
46	[Red diagonal lines]	SC				SAND, clayey: brown; fine to med; heavy minerals (1%)		
47		SC				SAND, clayey: brown; fine to med		
48								
49						SAND: dark brown; med; heavy minerals (0.5-1%)		
50		SP						
51								
52						SAND, clayey		
53								
54		SC						
55								
56						CLAY, sandy: greenish-grey		
57		SC						
58								
59		SC				SAND, trace clay: light tan/white; fine; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-146

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: light grey; coarse			
2						SAND: tan to grey; coarse			
3									
4		SP							
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									
23							SAND: dark brown; coarse; heavy minerals (2%)		
24									
25									
26		SP							
27									
28									
29									
30		SP					SAND: dark brown to black; coarse; heavy minerals (2.5-3.0%)		
31		SP					SAND: grey with dark streaks; wash		
32							SAND: dark grey; coarse		
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-146

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SP				SAND: dark brown; coarse		
39						SAND: dark brown; coarse		
40								
41								
42		SP						
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						SAND, clayey: brown; fine		
52		SC						
53						SAND: tan orange; coarse; heavy minerals (1.0%)		
54		SP						
55						SAND, clayey: light grey to greenish grey; heavy minerals (1-1.5%)		
56								
57								
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-147

SAINT GEORGE, GEORGIA

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 _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; coarse			
2						SAND: brown to tan; coarse			
3		SP							
4									
5		SP					SAND: grey; coarse		
6							SAND: brown to grey; coarse		
7									
8		SP							
9									
10									
11							SAND: dark brown; coarse		
12		SP							
13									
14									
15		SP					SAND: brown; coarse; heavy minerals (2.0-3.0%)		
16									
17		SP					SAND: dark brown; coarse; hard; heavy minerals (4.0-5.0%)		
18									
19							SAND: brown; coarse		
20									
21									
22		SP							
23									
24									
25									
26							SAND: tan; coarse; heavy minerals (1.5-2.5%)		
27									
28									
29		SP							
30									
31									
32									
33		SP					SAND: tan to white; coarse; heavy minerals (1.5-2.5%)		
34									
35									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-147

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; coarse		
37						SAND: light tan; med fine to med; heavy minerals (1.5-2.0%)		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48		SP						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-148

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-148

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: brown; coarse			
37						SAND: dark brown; coarse			
38									
39			SP						
40									
41									
42							SAND: brown; coarse		
43			SP						
44							SAND: light tan; coarse		
45			SP						
46							SAND: grayish-brown; coarse		
47									
48		SP							
49									
50						SAND: brown; coarse			
51									
52									
53		SP							
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-149

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-149

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-150

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-150

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 7/7/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-151

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-151

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 7/7/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-152

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-152

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 7/7/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-153

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-153

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 7/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-154

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-154

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: light tan; coarse		
36		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	SP							
57								
58								
59								
60								
61								
62					SAND: light brown; med			
63	SP							
64								
65	SP							
66					SAND: white; coarse			
66					SAND: light tan; med			
67	SP							
68								
69					SAND: white; med			
70	SP							
						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-155

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-155

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43						SAND: reddish-brown; coarse		
44			SP					
45								
46								
47		SP				SAND: brown; consolidated; coarse		
48		SP				SAND: light tan; coarse		
49		SP				SAND: brown; coarse		
50						SAND: light tan; coarse		
51		SP						
52								
53						SAND: brown; med		
54		SP						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-156

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

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

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-156

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: brown; coarse			
37									
38									
39									
40							SAND: reddish-brown; coarse		
41									
42	SP	SP							
43									
44									
45									
46	SP	SP				SAND: light brown; coarse			
47									
48	SP	SP							
49									
50						SAND: light tan to white; coarse			
51	SP	SP							
52									
53						SAND: brown; med			
54									
55									
56	SP	SP							
57									
58									
59									
60						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-157

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-157

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: brown; coarse		
42			SP					
43								
44								
45						SAND: light brown; coarse		
46			SP					
47						SAND: reddish brown; coarse		
48								
49		SP						
50								
51								
52		SP			SAND: light tan; coarse			
53					SAND: dark brown; coarse			
54		SP						
55								
56		SP			SAND: light tan; coarse			
57		SP			SAND: brown; med			
58					SAND: reddish brown; med			
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

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-158

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: light grey; coarse		
2						SAND: dark brown; coarse		
3								
4								
5		SP	0 - 10	60				
6								
7								
8							SAND: brown; coarse; heavy minerals (1%)	
9								
10								
11								
12								
13								
14								
15								
16		SP	10 - 20	50				
17								
18								
19								
20								
21								
22								
23								
24							SAND: light grey to white; coarse; heavy minerals (1-1.5%)	
25		SP						
26								
27								
28							SAND: brown to black; med	
29		SP						
30								
31								
32								
33		SP					SAND: light tan to grey; heavy minerals (<1-1.5%)	
34								
35						SAND: dark brown		

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-158

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-160

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Description		
2								
3								
4						SAND: white to tan; med		
5		SP	0 - 10	50				
6								
7						SAND: dark brown; med		
8		SP						
9								
10						SAND: brown; med		
11								
12		SP						
13								
14								
15						SAND: dark brown; med; hard		
16		SP						
17								
18								
19						SAND: brown; med		
20								
21								
22		SP						
23								
24								
25						SAND: dark brown; med		
26								
27								
28		SP						
29								
30								
31								
32						SAND: dark brown to grey; med		
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-160

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38						SAND: dark brown; med		
39								
40		SP						
41						SAND: consolidated; hard		
42		SP						
43						SAND: brown; med; coarse		
44		SP						
45						SAND: red brown to tan; med		
46								
47		SP						
48								
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-219

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2						SAND: dark brown to black; med; lighter banding			
3									
4									
5									
6		SP							
7									
8									
9									
10									
11							SAND: dark brown to grey; med		
12									
13		SP							
14									
15		SP					SAND: grey; med; heavy minerals (1.0%)		
16							SAND: dark brown to black; med to fine; consolidated (15.5-18); heavy minerals (1.0%)		
17									
18									
19		SP							
20									
21									
22									
23		SP					SAND: light brown; med to coarse; heavy minerals (0.5%)		
24							SAND: grey; med; heavy minerals (0.5-1.0%)		
25		SP							
26							SAND: dark brown to black; med to fine; consolidated (26-27)		
27		SP							
28							SAND: light brown to black; med; heavy minerals (1.0%)		
29		SP							
30							SAND: off white; coarse		
31		SP					SAND: dark brown to black; med; heavy minerals (<0.5%)		
32							SAND: med to dark brown; med to coarse; heavy minerals (<0.5%)		
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-219

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: tan to light brown; med to coarse; heavy minerals (0.5-1.0%)		
42			SP					
43								
44								
45						SAND: med brown; coarse		
46			SP					
47								
48						SAND: dark brown; med to med to fine; heavy minerals (1.5-2.0%)		
49								
50								
51								
52			SP					
53								
54								
55								
56					SAND: reddish brown; fine; black banding; heavy minerals (<0.5%)			
57		SP						
58								
59		SP			SAND: light brown; fine; heavy minerals (1.0-1.5%)			
60					SAND: med brown; fine			
61		SP						
62		SC-SM			SAND, silty, clayey: grey to brown			
63					SAND: light brown; fine			
64		SP						
65		SP			SAND: white; fine			
66		SP			SAND: tan; med; heavy minerals (1.0-1.5%)			
67					CLAY, silty: greenish			
68		CL-ML						
69								
70		SM			SAND, silty: tan; fine			
					BORING TERMINATED AT 70 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-220

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med; organics		
2						SAND: white; med		
3		SP						
4						SAND: dark brown to black; med to fine; consolidated (3-5, 14-16, 19-19.5); heavy minerals (0.5%)		
5								
6								
7								
8								
9								
10								
11								
12								
13		SP						
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24						SAND: med brown to grey; med to coarse; heavy minerals (0.5-1.0%)		
25		SP						
26								
27								
28		SP				SAND: dark brown to black; med to fine		
29						SAND: med to dark brown; med		
30								
31		SP						
32								
33								
34						SAND: tan reddish; med to coarse; heavy minerals (1.5-2.0%)		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-220

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45							SAND: tan; coarse	
46					SAND: dark brown to black; med to fine; black hard cobbles; heavy minerals (1.5-2.0%)			
47								
48					SAND: tan; med to fine; heavy minerals (1.0%)			
49								
50								
51								
52								
53								
54								
55					SAND: light brown; med to fine			
56								
57					SAND: dark brown; med to fine			
58					SAND: black; fine; hard; organics; heavy minerals (<0.5%)			
59								
60					SAND: tan; fine			
61								
62								
63								
64		CL-ML				CLAY, silty: greenish grey		
65								
66								
67		ML				SILT: tan to off white		
68								
69								
70							BORING TERMINATED AT 70 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-221

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-221

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44						SAND: reddish brown; med; heavy minerals (<0.5%)		
45								
46	SP							
47								
48								
49		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
50								
51					SAND: tan to light brown; fine to coarse; heavy minerals (~1.0%)			
52								
53	SP							
54								
55								
56		SP				SAND: dark brown; med		
57								
58		SP				SAND: dark brown; med to fine		
59								
59		SP				SAND: light grey; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-222

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-222

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark brown to black; med; heavy minerals (~1.0%)			
37									
38									
39									
40									
41								SAND: dark brown to grey; med to coarse; heavy minerals (~1.0%)	
42									
43									
44									
45								SAND: dark brown to black; med to fine	
46								SAND: dark brown; med	
47								SAND: light brown; med; heavy mineral bands (2.0-2.5%)	
48								SAND: dark brown; med to fine; consolidated	
49									
50								SAND: dark brown; med	
51								SAND: tan; med; heavy minerals (<0.5%)	
52								SAND: med brown; med	
53									
54									
55								SAND: light brown to tan; med to fine; heavy minerals (~1%)	
56									
57									
58						SAND: dark brown; med; heavy minerals (<0.5%)			
59									
60									
61						SAND: dark brown; med to fine			
62									
63									
64						SAND: med brown; fine			
65									
66									
67		SC-SM				SAND, silty, clayey: light brown; fine			
68									
69						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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-223

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-223

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37						SAND: tan to light brown; med to fine; 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								
55	SP				SAND: med brown; med			
56	SP				SAND: dark brown; fine			
57	SP				SAND: light to med brown; coarse; heavy minerals (<0.5%)			
58	SP							
59		CL-ML			CLAY, silty: dark brown to black			
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-224

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: dark grey; med		
2	XXXXXX	FILL				Road material		
3		SP				SAND: med brown; med		
4		SP				SAND: dark brown; med		
5						SAND: dark brown to dark grey; med		
6								
7		SP						
8								
9								
10								
11						SAND: dark brown; med to fine; consolidated (17.5-21); heavy minerals (0.5-1.0%)		
12								
13								
14								
15								
16								
17		SP						
18								
19								
20								
21								
22								
23								
24								
25						SAND: med reddish to dark brown; med; heavy minerals (<0.5%)		
26								
27		SP						
28								
29								
30								
31		SP				SAND: dark brown; med; heavy minerals (1.0%)		
32								
33								
34		SP				SAND: light to med brown; med; heavy minerals (<0.5%)		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-224

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-225

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2		SP				SAND: light brown; med; white layers med (2.5)			
3									
4							SAND: dark brown to black; med to fine; fine/light consolidation (16.5-22); heavy minerals (<0.5%)		
5									
6									
7									
8									
9									
10									
11									
12									
13		SP							
14									
15									
16									
17									
18									
19									
20									
21									
22									
23		SP					SAND: light brown; med to coarse; heavy minerals (~0.5%)		
24							SAND: med brown; med; heavy minerals (0.5-1.0%)		
25									
26		SP							
27									
28									
29									
30									
31		SP					SAND: dark brown; med		
32							SAND: reddish med brown; med; heavy minerals (1.0-1.5%)		
33									
34		SP							
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-225

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37						SAND: reddish dark brown; med; heavy minerals (<0.5%)		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51						SAND: white to tan; fine		
52						SAND: dark brown; fine		
53								
54						SAND: reddish dark brown; fine; hard cobbles		
55								
56						SAND: reddish brown; fine		
57								
58								
59						SAND: light brown; fine		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-226

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey to off white; med			
2									
3						SAND: dark brown to black; med to fine			
4									
5									
6									
7									
8		SP							
9									
10									
11									
12									
13									
14							SAND: med to dark brown; med; heavy minerals (2.0-3.0%)		
15		SP							
16									
17							SAND: dark brown to black; med to fine; heavy minerals (0.5%)		
18									
19									
20		SP							
21									
22									
23									
24							SAND: med brown; med		
25		SP							
26							SAND: light brown to tan and grey; med; heavy minerals (~1.5%)		
27									
28		SP							
29									
30							Lost		
31									
32									
33						SAND: dark brown to black; med to fine; heavy minerals (1.0-1.5%)			
34									
35	SP								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-226

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37						SAND: tan to brown; med to coarse; heavy minerals (1.0-1.5%)			
38									
39									
40									
41							SAND: reddish brown; med		
42									
43							SAND: dark brown reddish; med; heavy minerals (1.0-2.0%)		
44							SAND: tan to light brown; med; heavy minerals (0.5-1.0%)		
45									
46									
47									
48					SAND: dark brown; med to fine; heavy minerals (<0.5%)				
49									
50									
51									
52									
53									
54									
55									
56									
57					SAND: dark brown to black; med to fine; consolidated				
58					SAND: med brown; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-227

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-227

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 8/6/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-228

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-228

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40							BORING TERMINATED AT 40 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-229

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37		SP				SAND: med brown; med to fine; grey bands; heavy minerals (<0.5%)		
38		SP				SAND: dark brown to black; med to fine		
39								
40								
41								
42						SAND: dark brown; fine; heavy minerals (<0.5%)		
43		SP						
44								
45								
46								
47						SILT, trace clay: tan		
48		CL-ML						
49		SM						
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-230

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-230

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39							SAND: tan; fine; heavy minerals (0.5%)	
40			SP					
41								
42								
43							SILT, clayey: tan	
44			CL-ML					
45							SAND, silty: white	
46	SM							
47					CLAY, silty: grey			
48	CL-ML							
49					SAND: tan; fine; heavy minerals (0.5%)			
50	SP							
						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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-231

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-231

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39		SP				SAND: med brown; med; heavy minerals (0.5-1.0%)		
40								
41		SP				SAND: dark brown to black; med; heavy minerals (0.5%)		
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		SP				SAND: dark brown to black; med to fine		
50								
51	SP				SAND: tan to brown; med; heavy minerals (<0.5%)			
52								
53	SP							
54								
55								
56								
57								
58	ML							
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-232

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-232

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-233

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-233

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42								
43								
44								
45		SP				SAND: light brown; med		
46								
47		SP				SAND: dark brown to black; med to fine		
48								
49	SP				SAND: tan; fine; heavy minerals (~1.0%)			
50								
51	SP				SAND: dark brown to black; med to fine; very fine (56-59)			
52								
53								
54	SP							
55								
56								
57								
58								
59	SM				SAND, silty: 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

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-234

SAINT GEORGE, GEORGIA

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 _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: dark grey; med			
2		SP				SAND: white; med			
3		SP				SAND: med brown; med			
4						SAND: dark brown to black; med to fine; heavy minerals (<0.5%)			
5									
6									
7		SP							
8									
9									
10									
11		SP					SAND: light brown to grey; med; heavy minerals (0.5%)		
12									
13							SAND: dark brown to black; med to fine; heavy minerals (<0.5%)		
14									
15									
16		SP							
17									
18									
19									
20									
21							SAND: dark brown; med; heavy minerals (0.5-1.0%)		
22									
23									
24		SP							
25									
26									
27									
28									
29							SAND: dark brown to black; med; heavy minerals (1.0-1.5%)		
30		SP							
31									
32							SAND: dark brown; med; heavy minerals (1.5-2.5%)		
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-234

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42							SAND: dark brown; med to fine		
43									
44									
45									
46									
47									
48					SAND: grey; med to fine; heavy minerals (1.0-1.5%)				
49									
50									
51									
52									
53					SAND: light brown; med to fine				
54					SAND: dark brown to black; fine; consolidated				
55									
56									
57									
58					SAND: light brown; silt; fine				
59					SAND, silty, clayey: med brown; heavy minerals (<0.5%)				
60					BORING TERMINATED AT 60 FEET.				

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-235

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: dark brown; med			
2		SP				SAND: grey; med			
3		SP				SAND: dark brown to black; med to fine			
4						SAND: grayish tan; med; heavy minerals (~0.5%)			
5		SP							
6									
7						SAND: dark brown to black; med to fine; heavy minerals (<0.5%)			
8									
9									
10									
11									
12		SP							
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									
21							SAND: reddish brown; med to coarse; heavy minerals (0.5-1.0%)		
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									
34							SAND: reddish med to dark brown; med; heavy minerals (<0.5%)		
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-235

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43							SAND: light brown to tan; med to fine; heavy minerals (~1.5%)	
44								
45								
46								
47					SAND: grayish to light brown; fine; heavy minerals (1.0-1.5%)			
48					SAND: dark grayish to med brown; fine			
49								
50								
51					SAND: dark brown to black; med to fine			
52								
53								
54								
55					SAND: reddish dark brown; med			
56					SAND, silty: dark brown to black; heavy minerals (<0.5%)			
57					SILT: tan to light brown			
58								
59								
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-236

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		CL-ML				CLAY, silty: grey		
2		SP				SAND: med grey; med		
3						SAND: dark brown; med		
4		SP						
5								
6						SAND: dark grey; med; heavy minerals (0.5%)		
7								
8		SP						
9								
10								
11						SAND: dark brown to black; med to fine; consolidated		
12								
13								
14		SP						
15								
16								
17								
18								
19								
20						SAND: dark brown; med; heavy minerals (0.5-1%)		
21		SP						
22								
23								
24						SAND: reddish dark brown; med; heavy minerals (0.5-1%)		
25								
26		SP						
27								
28								
29								
30								
31						SAND: med to dark brown; med; heavy minerals (3-3.5%)		
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-DPF-18-236

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43							SAND: med brown; med; hard black cobbles	
44								
45				SP				
46								
47					SAND: tan to light brown; med; heavy minerals (3-3.5%)			
48								
49								
50		SP						
51								
52								
53		SP			SAND: reddish brown; coarse; heavy minerals (3-3.5%)			
54								
55		SP			SAND: dark brown to black; fine			
56		SP			SAND: dark grey; fine			
57		SP			SAND: dark brown; fine			
58		SC-SM				SAND, silty, clayey: tan to light brown; fine		
59								
60							BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-24

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-24

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		CH				CLAY: tan to orange		
47								
48								
49								
50					BORING TERMINATED AT 50 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-25

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-25

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37						No Recovery		
38								
39								
40						SAND: brown		
41								
42								
43								
44		SP						
45								
46								
47								
48								
49		SP				SAND: light tan to white; minerals		
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-26

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-26

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-27

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-27

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-28

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: dark brown; humate; no clay		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20		SP				SAND: tan to orange; minerals (1.5%)		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-29

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-29

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38						SAND: tan		
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-30

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-30

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37								
38		SP						
39								
40							SAND: orange to tan	
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-31

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Lime rock base		
2						SAND: tan		
3		SP						
4								
5								
6						SAND: dark brown; not hard humate; heavy minerals (1%)		
7								
8								
9								
10								
11								
12								
13								
14								
15		SP						
16								
17								
18								
19								
20								
21						SAND, clayey: dark brown; hard clayey humate		
22		SC						
23								
24								
25								
26						SAND: tan to brown		
27								
28								
29								
30								
31		SP						
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-31

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-32

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Road fill		
2						SAND: grey; coarse		
3								
4								
5		SP						
6								
7								
8								
9								
10						SAND: dark brown		
11		SP						
12								
13		SC				SAND, clayey: dark brown; humate; hard		
14								
15								
16		SP				SAND: brown		
17								
18						SAND: tan; heavy minerals (1.5-2%)		
19								
20								
21								
22								
23		SP						
24								
25								
26								
27								
28								
29						SAND: brown; not hard; no clay; heavy minerals (>2%)		
30		SP						
31								
32								
33								
34						SAND: tan; minerals		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-32

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		SP				SAND: orange		
42								
43		SP						
44								
45								
46		SP				SAND: light tan		
47								
48		SP						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-40

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-40

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36									
37									
38									
39									
40									
41									
42							SAND: light brown; heavy minerals (1.5%)		
43			SP						
44									
45									
46					CLAY: dark brown; hard; humate				
47	CH								
48									
49									
50							BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-97

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						5' Recovery		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SP				SAND: dark brown to black		
12								
13								
14								
15								
16								
17								
18								
19		SP				SAND: light brown; coarse (good mineral showing first 2.5')		
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30		SP				SAND: reddish-brown; coarse		
31								
32								
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-97

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37						SAND: reddish-brown; coarse			
38									
39									
40									
41							SAND: gray to dark grey; coarse		
42									
43									
44									
45									
46					SAND: brown; coarse				
47									
48									
49									
50									
51									
52					SAND: dark brown to black; coarse				
53									
54					SAND: brown; coarse				
55		SM			SAND, silty: light brown				
56		CH			CLAY: grey				
57									
58									
59									
60					BORING TERMINATED AT 60 FEET.				

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-98

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-98

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39						SAND: dark brown; coarse		
40			SP					
41								
42						SAND: dark grey; coarse		
43			SP					
44								
45						SAND: dark brown; coarse		
46								
47		SP						
48								
49					SAND: brown; coarse			
50								
51								
52		SP						
53								
54								
55								
56								
57		SP				SAND: light brown; coarse		
58						CLAY: brown to grey		
59		CH						
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-99

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-99

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: light tan; coarse			
37									
38							SAND: dark brown; coarse		
39									
40							SAND: light brown; coarse		
41									
42									
43									
44									
45							SAND: dark brown; coarse		
46									
47							SAND: reddish-brown; coarse		
48									
49									
50									
51									
52									
53									
54									
55					SAND: dark brown; coarse				
56					SAND: light tan; coarse				
57									
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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 _____

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-100

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; coarse		
37								
38								
39								
40		SP				SAND: reddish-brown; coarse		
41								
42		SP				SAND: light tan; coarse		
43								
44								
45		SP				SAND: brown; coarse		
46								
47								
48								
49	SM				SAND, silty: light tan			
50								
51	BORING TERMINATED AT 60 FEET.							
52								
53								
54								
55								
56								
57								
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-101

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-101

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42	SP					SAND: light brown; coarse		
43								
44								
45								
46	SP					SAND: dark brown; coarse		
47								
48	SP					SAND: reddish-brown; fine		
49								
50								
51	SP					SAND: reddish-brown; fine		
52								
53	SM					SAND, silty: light tan		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-102

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-102

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-103

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-103

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-104

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-104

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56				SP				SAND: dark-brown; coarse; consolidated	
57				SP				SAND: tan to white; coarse	
58				SP					
59				SP				SAND: dark brown; coarse; consolidated	
60								BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-105

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-105

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49		SP				SAND: brown; fine; hard sand at contact		
50								
51						SAND: brown; coarse		
52		SP						
53								
54								
55								
56						SAND: dark brown to black; coarse		
57		SP						
58								
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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: _____

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		FILL				Road Fill		
1-2		SP				SAND: brown; med		
2-3		SP				SAND: grey; med		
3-4		SP				SAND: dark brown/black; med to fine		
4-6		SP				SAND: dark grey; med; heavy minerals (0.5%)		
6-8		SP				SAND: dark brown/ black; med to fine		
8-15		SP				SAND: med brown/ black; med; heavy minerals (<0.5%)		
15-18		SP				SAND: light to med brown; med; heavy minerals (<0.5%)		
18-24		SP				SAND: reddish brown; med; heavy minerals (0.5-1%)		
24-33		SP				SAND: reddish tan; med; heavy minerals (2-3%)		

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-237

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-238

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-238

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
39								
40								
41						SAND: med brown; med		
42		SP						
43						SAND: tan; med		
44								
45		SP						
46								
47	SP				SAND: dark brown/black; hard; fine			
48					SAND: reddish brown; med			
49	SP							
50					BORING TERMINATED AT 50 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-239

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-239

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 8/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: light brown reddish; med; heavy minerals (0.5%)			
37									
38									
39									
40									
41							SAND: dark brown; med; coarse bands; heavy minerals (0.5-1%)		
42									
43									
44									
45									
46									
47									
48		SP							
49									
50									
51									
52									
53									
54									
55									
56		SP				SAND: dark brown/black; heavy minerals (1-1.5%)			
57		SP				SAND: dark grey; fine			
58		SC-SM				SAND. silty, clayey: dark grey; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-240

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: light grey orange; med; organics			
2						SAND: dark brown; med			
3		SP							
4									
5							SAND: dark brown/black; med to fine		
6		SP							
7									
8							SAND: dark brown/black; med; heavy minerals (0.5%)		
9		SP							
10							SAND: dark grey; med		
11									
12		SP							
13									
14									
15							SAND: dark brown/black; med to fine; consolidated (18-19.5); heavy minerals (0.5-1%)		
16									
17		SP							
18									
19									
20							SAND: dark brown; med; heavy minerals (<0.5%)		
21		SP							
22									
23							SAND: med brown; heavy minerals (<0.5%)		
24		SP							
25									
26		SP					SAND: light brown; med to coarse		
27							SAND: med to dark brown; med		
28		SP							
29									
30							SAND: white; med to coarse; heavy minerals (<0.5-0.5%)		
31									
32									
33									
34									
35		SP							

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-240

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 8/9/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-241

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-241

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 8/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark brown/black; med to fine; coarse; heavy minerals (0.5-1.5%)			
37									
38									
39									
40									
41									
42									
43								SAND: med brown; med; heavy minerals (1-1.5%)	
44								SAND: white; coarse	
45								SAND: tan/light brown; med; heavy minerals (<0.5%)	
46									
47								SAND: med brown; med	
48						SAND: grayish brown; med; heavy minerals (0.5%)			
49									
50						SAND: grayish tan; med to coarse; heavy minerals (3-4.5%)			
51									
52									
53						SAND: tan; med to coarse; heavy minerals (2-4%)			
54									
55									
56									
57						SAND, silty: dark brown; fine; heavy minerals (<0.5%)			
58		SM							
59									
60						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-242

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: light grey; med		
2		SP				SAND: dark brown/ black; med to fine		
3		SP				SAND: light grey; med		
4		SP				SAND: med brown; med		
5								
6		SP				SAND: dark brown/black; med		
7								
8		SP				SAND: dark grey/black; med; heavy minerals (<0.5%)		
9								
10		SP				SAND: light grey; med; heavy minerals (0.5-1%)		
11								
12		SP				SAND: dark brown/black; med to fine		
13								
14								
15		SP				SAND: dark brown; med; heavy minerals (1%)		
16								
17		SP				SAND: dark brown/black; med to fine; consolidated (17.5-19.5)		
18								
19		SP				SAND: dark brown; med; heavy minerals (<0.5%)		
20								
21								
22								
23								
24		SP						
25								
26								
27								
28		SP				SAND: dark brown/black; med to fine		
29								
30		SP				SAND: dark brown with black banding; med; heavy minerals (<0.5-1%)		
31								
32						SAND: reddish med brown; med; heavy minerals (0.5-1%)		
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-242

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 8/9/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-336

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-336

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
36		SP				SAND: light brown; med; heavy minerals (0.5-1%)				
37										
38										
39										
40										
41										
42										
43										
44										
45										
46		SP				SAND: orangish brown; med to coarse; heavy minerals (1-4%)				
47										
48										
49										
50										
51										
52										
53										
54										
55										
56		SP				SAND: tan; coarse; heavy minerals (<0.5%)				
57										
58										
59										
60										
61										
62										
63										
64										
65										
66		SC				SAND, clayey: brown; fine				
67										
68										
69										
70										
69				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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-337

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-337

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: dark brown; med; heavy minerals (1%)		
42		SP						
43								
44						SAND: brown; med to coarse; heavy minerals (1.5%)		
45		SP						
46					SAND: tan; med to coarse; heavy minerals (1-1.5%)			
47								
48								
49	SP							
50								
51								
52								
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								
57								
58								
59								
60	SP							
61								
62								
63								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-338

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-338

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-339

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 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

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-339

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						SAND: orangish brown; med to coarse; heavy minerals (0.5-5%)		
42								
43								
44								
45			SP					
46								
47								
48								
49								
50								
51		SP				SAND: dark brown; coarse		
52		SP				SAND: grey; fine; heavy minerals (<0.5%)		
53						SAND, trace clay: dark brown; fine		
54		SC						
55								
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.								

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-340

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-340

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-341

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: white; med			
2		SP				SAND: tan; med			
3									
4							SAND: dark brown; med; heavy minerals (<0.5%)		
5			SP						
6									
7									
8							SAND: dark grey; med; heavy minerals (0.5%)		
9			SP						
10									
11							SAND: dark brown; med; heavy minerals (0.5%)		
12									
13			SP						
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							SAND: grayish brown; med to fine; heavy minerals (0.5%)		
21									
22									
23			SP						
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									
33			SP						
34									
35									

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37						SAND: orangish brown; med to coarse; heavy minerals (1%)		
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51		SP				SAND: orangish tan; med to coarse; heavy minerals (0.5%)		
52						SAND: tan; fine; heavy minerals (0.5%)		
53		SP						
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-342

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-342

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-343

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-343

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Red dotted pattern]	SP						
37						SAND: brown; med to coarse; heavy minerals (0.5-1.5%)		
38	[Red dotted pattern]	SP						
39								
40	[Red dotted pattern]	SP						
41								
42	[Red dotted pattern]	SP						
43							SAND: orangish brown; med to coarse; some strong mineral bands; heavy minerals (1.5-5%)	
44	[Red dotted pattern]	SP						
45								
46	[Red dotted pattern]	SP						
47								
48	[Red dotted pattern]	SP						
49								
50	[Red dotted pattern]	SP				SAND: dark brown/black; med; heavy minerals (~1%)		
51	[Red dotted pattern]	SP				SAND: brown; med; heavy minerals (0.5%)		
52	[Red dotted pattern]	SP				SAND: tan; fine		
53	[Red dotted pattern]	SP						
54	[Red dotted pattern]	SP						
55	[Red dotted pattern]	SP						
56	[Red diagonal lines]	SC				SAND, trace clay: brown; fine		
57	[Red dotted pattern]	SP				SAND: black; fine; hard; heavy minerals (0.5%)		
58	[Red diagonal lines]	SC				SAND, clayey; brown; fine; heavy minerals (<0.5%)		
59	[Red diagonal lines]	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

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-344

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-344

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-345

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2						SAND: brown; med		
3						SAND: tan; med		
4						SAND: dark brown; med; heavy minerals (0.5-2%)		
5								
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								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-345

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP						
37								
38	[Purple dotted pattern]	SP						
39								
40							SAND: tan; fine; heavy minerals (0.5-1%)	
41								
42	[Purple dotted pattern]	SP						
43								
44								
45								
46	[Purple dotted pattern]	SP						
47							SAND: brown; fine; heavy minerals (0.5-1%)	
48								
49								
50	[Red diagonal hatched pattern]	SC						
51							SAND, clayey: dark brown; fine; heavy minerals (0.5%)	
52								
53								
54	[Red diagonal hatched pattern]	SC-SM						
55							SAND, silty, clayey: tan; fine; heavy minerals (<0.5%)	
56								
57								
58	[Red diagonal hatched pattern]	SC-SM						
59								
60							BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-346

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-346

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 9/26/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45				SP				
46					SAND: dark brown; med to fine; heavy minerals (2-2.5%)			
47		SP						
48					SAND: tan; med to coarse; heavy minerals (1%)			
49		SP						
50					SAND: med; heavy minerals (~2%)			
51					SAND: grey; med heavy minerals (1.5-2%)			
52		SP						
53					SAND: dark brown; fine; heavy minerals (0.5-1%)			
54		SP						
55		SC						
56						SAND, clayey: dark brown; fine		
57						SAND, clayey: grayish tan; fine; heavy minerals (~0%)		
58		SC						
59		SC-SM						
60						SAND, silty, trace clay: tan; fine; heavy minerals (~0%)		
						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-347

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
10-1-2019.GPJ
TUSCOM RESTORE]
8-71804-LOGS WITH WELLS
PERMITTING SERVICES
804-LOGS RESTORED FROM
TWIN PINES MINERALS
000180200804.00 -

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-347

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 9/26/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-348

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-348

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 9/26/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-349

SAINT GEORGE, GEORGIA

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

REMARKS

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-349

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 9/26/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39		SP				SAND: dark brown; med to fine; heavy minerals (0.5%)		
40								
41						SAND: orangish brown; med to coarse; heavy minerals (1-4%)		
42								
43		SP						
44								
45								
46		SP				SAND: dark brown; med to coarse; heavy minerals (1-1.5%)		
47						SAND: tan; med to fine; heavy minerals (0.5-1%)		
48	SP							
49								
50	SP				SAND: black; med to fine; heavy minerals (0.5-1%)			
51					SAND: tan; fine; heavy minerals (0.5-1%)			
52	SP							
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-350

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: brown; med; organics			
2						SAND: tan; med			
3		SP							
4									
5									
6							SAND: dark brown; med; heavy minerals (<0.5-2.5%)		
7									
8									
9									
10			SP						
11									
12									
13									
14									
15									
16							SAND: grayish tan; med; heavy minerals (0.5-1%)		
17			SP						
18									
19									
20			SP				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									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-350

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36						SAND: reddish brown; med to coarse; heavy minerals (0.5-1%)			
37									
38			SP						
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			SP				SAND: dark brown; fine		
47									
48			SC					SAND, trace clay: dark brown; fine; hard; heavy minerals (0.5%)	
49									
50									
51									
52									
53									
54	SP				SAND: brown; fine				
55									
56	SC					SAND, clayey: tan; fine			
57									
58									
59	SP				SAND: white; fine				
60									
						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-351

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-351

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-352

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2		SP				SAND: tan; med			
3						SAND: grayish brown; med			
4		SP							
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									
23							SAND: brown; med; heavy minerals (0.5%)		
24									
25		SP							
26									
27									
28									
29							SAND: dark brown; med to coarse; heavy minerals (1-1.5%)		
30									
31		SP							
32									
33									
34							SAND: orangish tan; med to coarse; heavy minerals (0.5%)		
35	SP								

Continued Next Page

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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-352

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Red dotted pattern]	SP				SAND: reddish brown; med to coarse; heavy minerals (<0.5-4%)		
37								
38	[Red dotted pattern]	SP				SAND, trace clay: dark brown; med; heavy minerals (1%)		
39								
40	[Red diagonal lines]	SC				SAND: tan; med		
41								
42	[Red diagonal lines]	SP				SAND: brown; med; organics; heavy minerals (0.5-1%)		
43								
44	[Red dotted pattern]	SP				SAND: reddish brown; med; heavy minerals (1-1.5%)		
45								
46	[Red dotted pattern]	SP				SAND: black/dark brown; med to coarse; heavy minerals (1-1.5%)		
47								
48	[Red dotted pattern]	SP				SAND, clayey: dark brown; med; heavy minerals (0.5-1%)		
49								
50	[Red dotted pattern]	SP				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
51								
52	[Red dotted pattern]	SP				SAND, clayey: dark brown; med; heavy minerals (0.5-1%)		
53								
54	[Red dotted pattern]	SP				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
55								
56	[Red dotted pattern]	SP				SAND, clayey: dark brown; med; heavy minerals (0.5-1%)		
57								
58	[Red dotted pattern]	SP				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
59								
60	[Red diagonal lines]	SC				SAND, clayey: dark brown; med; heavy minerals (0.5-1%)		
61								
62	[Red diagonal lines]	SC				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
63								
64	[Red diagonal lines]	SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
65								
66	[Red diagonal lines]	SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
67								
68	[Red diagonal lines]	SC-SM				SAND, silty, clayey: grey; fine; heavy minerals (<0.5%)		
69								
70	[Red diagonal lines]	SC-SM				BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-353

SAINT GEORGE, GEORGIA

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 _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7684-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-353

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41							SAND: tan orangish; coarse to med; heavy minerals (0.5-7%)		
42									
43									
44									
45									
46									
47							SAND: orangish brown; med to coarse; heavy minerals (0.5-4%)		
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60							SAND: tan grayish; coarse; heavy minerals (0.5-1%)		
61									
62									
63									
64							SAND: dark brown; med		
65							SAND: brown; fine		
66							SAND: white; fine		
67							SAND, clayey: tan; fine; heavy minerals (<0.5%)		
68									
69									
70									BORING TERMINATED AT 70 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-354

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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									
12							SAND: dark brown; med to coarse; heavy minerals (0.5%)		
13									
14		SP							
15									
16									
17		SP					SAND: reddish brown; med to coarse; heavy minerals (0.5%)		
18									
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									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-354

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41							SAND: tan/light brown; med to coarse; heavy minerals (<0.5-1.5%)	
42								
43								
44								
45								
46								
47								
48								
49								
50						SAND: reddish brown; med to coarse; heavy minerals (<0.5-1.5%)		
51								
52								
53								
54								
55								
56								
57								
58								
59								
59		SC				SAND, clayey: brown; fine; heavy minerals (~0%)		
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-355

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2								
3		SP				SAND: light tan/white; med		
4		SP				SAND: grey; med 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								
21						SAND: brown; med; heavy minerals (0.5-1%); hardpan at 24.5'		
22								
23								
24								
25								
26		SP						
27								
28								
29								
30								
31								
32								
33								
34							SAND: brown; med to coarse; heavy minerals (0.5%)	
35	SP							

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-355

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-356

SAINT GEORGE, GEORGIA

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:

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-356

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-357

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-357

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-358

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-358

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42							SAND: orangish tan; med to coarse; heavy minerals (1.5-3%)		
43									
44									
45									
46									
47									
48									
49									
50									
51							SAND: tan; med to coarse; heavy minerals (0.5-2%)		
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									
63									
64							SAND, clayey tan; fine; heavy minerals (<0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-359

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2		SP				SAND: dark brown; med		
3						No Recovery		
4								
5								
6								
7								
8								
9								
10								
11						SAND: dark brown; med to coarse; heavy minerals (<0.5%)		
12								
13								
14								
15								
16		SP						
17								
18								
19								
20								
21								
22	SP					SAND: brown; med to coarse; heavy minerals (<0.5%)		
23								
24						SAND: dark brown; med; heavy minerals (0.5-1.5%)		
25								
26	SP							
27								
28								
29								
30								
31						SAND: brown; med to coarse; heavy minerals (0.5-1%)		
32								
33	SP							
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: orangish brown; med to coarse; heavy minerals (3-4%)		
37								
38								
39								
40								
41		SP				SAND: tan; med to coarse; heavy minerals (1-8%)		
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59		SC				SAND, clayey: dark 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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-360

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-360

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-361

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-361

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-362

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

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

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-362

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43							SAND: orangish brown; med to coarse; heavy minerals (0.5%)	
44			SP					
45								
46								
47								
48							SAND: brown; med; heavy minerals (1-1.5%)	
49			SP					
50								
51							SAND: tan/light brown; med; heavy minerals (<0.5-1%) (~10 @ 53)	
52								
53								
54								
55								
56			SP					
57								
58								
59								
60								
61								
62			SP				SAND: brown; med	
63			SP				SAND: dark brown; med	
64			SP				SAND: tan/brown; mixed	
65			SC				SAND, clayey: brown; med to fine	
66								
67							SAND, clayey: white; fine; heavy minerals (<0.5%)	
68			SC					
69								
70							BORING TERMINATED AT 70 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-363

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SP				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								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-363

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/7/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; med		
37						SAND: dark brown; med; heavy minerals (<0.5-1.5%)		
38								
39								
40								
41								
42								
43								
44		SP						
45								
46								
47								
48								
49								
50								
51		SP				SAND: grey; med to coarse		
52						SAND: dark brown; med; heavy minerals (<0.5%)		
53		SP						
54								
55		SP				SAND: grey and brown; mixed med to coarse		
56						SAND: dark brown; med to coarse; heavy minerals (<0.5-0.5%)		
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 ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-364

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-364

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/7/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-365

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: grey; med		
2						SAND: brown; med		
3						SAND: dark brown; med; heavy minerals (0.5-1%)		
4		SP				SAND: brown; med; heavy minerals (1-1.5%)		
5						SAND: dark brown; med; hard consolidated (16-19.5); heavy minerals (0.5%)		
6						SAND: brown; med to coarse; heavy minerals (<0.5-1.5%)		
7								
8		SP						
9								
10								
11		SP						
12								
13								
14								
15								
16		SP						
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28		SP						
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-365

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/7/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-366

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-366

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/7/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-367

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med			
2		SP				SAND: tan; med			
3									
4		SP					SAND: white; med		
5									
6		SP					SAND: grayish tan; med		
7									
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									
23							SAND: dark brown; med; heavy minerals (<0.5-0.5%)		
24									
25									
26									
27		SP							
28									
29									
30									
31									
32									
33							SAND: light tan; med to coarse; heavy minerals (1-2.5%)		
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-367

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-368

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-368

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: tan; med to coarse; heavy minerals (0.5-1%)			
37									
38									
39									
40							SAND: dark brown; med to coarse		
41									
42							SAND: brown; med to coarse; heavy minerals (0.5-1%)		
43									
44									
45									
46									
47					SAND: dark brown; med to coarse; heavy minerals (0.5%)				
48									
49									
50									
51					SAND: brown; med to coarse; heavy minerals (0.5-7%)				
52									
53									
54									
55									
56									
57					SAND: tan; med to coarse; heavy minerals (0.5-1%)				
58									
59									
60									
61									
62									
63		SC				CLAY, sandy: grey; fine			
64									
65									
66							CLAY, sandy: tan; fine		
67									
68					SAND, clayey: grey; fine				
69					SAND, clayey: 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-369

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-369

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36									
37									
38									
39									
40									
41									
42			SP				SAND: dark brown; med to coarse		
43									
44							SAND: orangish brown; med to coarse; heavy minerals (0.5-4%)		
45									
46									
47									
48	SP								
49									
50									
51									
52									
53									
54					SAND: tan; med to coarse; heavy minerals (<0.5-1%)				
55									
56	SP								
57									
58									
59									
60									
61	SC				SAND, clayey: dark brown; fine; heavy minerals (0.5%)				
62									
63					SAND, silty, clayey: light tan; fine				
64	SC-SM								
65									
66					SAND, trace clay: grey; fine; heavy minerals (0.5%)				
67	SC								
68					SAND, clayey: tan; fine; heavy minerals (0.5%)				
69	SC								
70									
						BORING TERMINATED AT 70 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-370

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-370

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND: grey; med to coarse; heavy minerals (0.5%)		
47						SAND: dark brown; med; organics		
48	SP							
49					SAND: grayish tan; med; heavy minerals (<0.5%)			
50	SP				SAND: grayish brown; med; heavy minerals (0.5%)			
51								
52	SP							
53					SAND: dark brown; med to fine			
54								
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-371

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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						SAND: dark brown; med; heavy minerals (1.5-5%)		
7								
8								
9								
10								
11								
12								
13		SP						
14								
15								
21						SAND: tan; med to coarse; heavy minerals (2-2.5%)		
22								
23								
24								
25								
26		SP						
27								
28								
29								
30								
31							SAND: dark brown; med; heavy minerals (0.5-1.5%)	
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-371

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43							SAND: tan; med	
44							SAND: dark brown; med	
45							SAND: grey; med; heavy minerals (0.5-1%)	
46								
47					SAND: brown/dark brown; med to fine			
48								
49								
50					SAND: tan; fine; heavy minerals (0.5-1%)			
51					SAND: brown; fine			
52								
53								
54					SAND: light brown/tan; fine; heavy minerals (0.5-1%)			
55								
56								
57					SAND: dark brown/grey; fine			
58								
59								
60					SAND: tan; fine; heavy minerals (0.5-1%)			
61					No Recovery			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-372

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-372

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/9/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-373

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-373

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL A. Bushey
 LOCATION Saint George, Georgia DATE(S) DRILLED 10/9/2018

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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%)		
39								
40								
41								
42		SP						
43								
44								
45								
46								
47								
48	SP					SAND: dark brown; med		
49	SP					SAND: tan; med to coarse; heavy minerals (2-3.5%)		
50								
51								
52								
53								
54								
55								
56								
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.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-374

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-374

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47		SP				SAND: brown; med to coarse; heavy minerals (0.5-2%)		
48								
49								
50								
51		SP				SAND: orangish brown; med to coarse; heavy minerals (1-2.5%)		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
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		SC				SAND, clayey: tan; fine		
68		SC						
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

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-375

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-375

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-376

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-KEY-18-376

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-2

SAINT GEORGE, GEORGIA

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		

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-2

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36	[Dotted pattern]	SP				SAND: med brown			
37						SAND: light brown			
38	[Dotted pattern]	SP							
39									
40									
41									
42									
43									
44	[Dotted pattern]	SP							
45									
46									
47							SAND: light brown; minerals		
48									
49									
50									
51									
52									
53									
54									
55	[Diagonal hatching]	SC				SAND, clayey: light brown			
56									
57									
58									
59	[Dotted pattern]	SP				SAND: light tan; minerals			
60									
61	[Diagonal hatching]	SC							
62									
63									
64									
65									
66									
67							SAND, clayey: light grey; fine; minerals		
68									
69									
70									
71									
72									
73									
74									
75									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-2

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 2/27/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76								
77								
78		SP						
79								
80							SAND: light grey; coarse; trace heavy minerals	
81								
82								
83								
84								
85								
86								
87								BORING TERMINATED AT 87 FEET.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-3

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-3

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS					
			INTERVAL (feet)	% RECOVERY	PID (ppm)								
36		SP				SAND: brown; minerals							
37													
38													
39													
40													
41													
42													
43													
44													
45													
46		SP				SAND: light tan; minerals							
47													
48													
49													
50													
51													
52													
53													
54													
55													
56		SP				SAND: light gray and white							
57													
58													
59													
60													
61													
62				CH							SAND: brown; clay; hard		
63											CLAY: gray; fat; hard		
64				CH							BORING TERMINATED AT 67 FEET.		
65													
66													
67													

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-4

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				Topsoil		
2						SAND: tan and orange		
3						SAND: dark brown; with Fe2O3 nodules		
4					SAND: tan and orange			
5		SP				SAND: dark brown; minerals		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23		SP				SAND: tan and orange		
24						SAND: dark brown; minerals		
25		SP						
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-4

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Dotted pattern]	SP				SAND: brown and orange		
37								
38								
39								
40								
41	[Dotted pattern]	SP				SAND: light brown and tan		
42								
43								
44								
45								
46								
47								
48						SAND: orange		
49								
50								
51								
52								
53								
54						SAND: orange and tan; minerals		
55								
56								
57								
58						SAND: light tan fine; minerals		
59								
60								
61								
62								
63								
64								
65								
66								
67						BORING TERMINATED AT 67 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



geotechnical // analytical // materials // environmental

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			

10/2/19 Report:ENVY LOG - NO WELL

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SP						
24								
25								
26								
27						SAND: tan; coarse		
28								
29								
30								
31								
32								
33		SP						
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-5

SAINT GEORGE, GEORGIA

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-6

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-6

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: orange; coarse		
37								
38								
39								
40		SP				SAND: light tan		
41								
42								
43								
44								
45								
46								
47								
48		SP				SAND: dark brown; no visible minerals		
49								
50								
51								
52								
53								
54								
55								
56								
57						BORING TERMINATED AT 57 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-7

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-7

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP				SAND: tan/orange		
37								
38	[Purple dotted pattern]	SP				SAND: light tan		
39								
40								
41								
42								
43								
44								
45								
46	[Purple dotted pattern]	SP				CLAY, sandy: tan; some minerals		
47								
48	[Purple dotted pattern]	SP				SAND, sandy: light grey; some minerals		
49								
50	[Purple dotted pattern]	SP						
51								
52	[Purple dotted pattern]	SP						
53								
54	[Purple dotted pattern]	SP						
55								
56	[Purple dotted pattern]	SP						
57								
58	[Red diagonal hatched pattern]	SC						
59								
60	[Red diagonal hatched pattern]	SC						
61								
62	[Red diagonal hatched pattern]	SC						
63								
64	[Red diagonal hatched pattern]	SC						
65								
66	[Red diagonal hatched pattern]	SC						
67								
68	[Red diagonal hatched pattern]	SC						
69								
70	[Red diagonal hatched pattern]	SC						
71								
72	[Red diagonal hatched pattern]	SC						
73								
74	[Red diagonal hatched pattern]	SC						
75								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-7

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76								
77								
78		SP						
79								
80							SAND: light grey; coarse; very little minerals	
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-8

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-8

SAINT GEORGE, GEORGIA

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-8

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/1/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-9

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-9

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND, clayey: grey; coarse; trace mineral		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48		SP				SAND: grey		
49								
50								
51								
52								
53								
54								
55								
56								
57								
58		CH				CLAY: dark grey to grey; fat		
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-9

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76						BORING TERMINATED AT 77 FEET.		
77								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-10

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-10

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/2/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-11

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: brown/light tan		
2								
3								
4								
5								
6								
7								
8		SP				SAND: dark brown; humate		
9								
10								
11								
12								
13								
14								
15		SC				SAND, clayey: dark brown; humate		
16								
17								
18		SP				SAND: orange; coarse		
19								
20								
21								
22								
23								
24								
25		SP				SAND: light tan to grey		
26								
27		SP				SAND: dark grey/black; no humate		
28								
29								
30								
31								
32								
33								
34		SC				SAND, clayey: dark brown; humate		
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-11

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/2/2018

Continued from Previous Page

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-12

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-12

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/2/2018

Continued from Previous Page

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-12

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/2/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		SC				SAND, clayey: light tan		
77						BORING TERMINATED AT 77 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-13

SAINT GEORGE, GEORGIA

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
REMARKS			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: tan/brown			
2									
3									
4									
5		SP				SAND: brown; humate; heavy minerals (1-2% @20)			
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24		SP				SAND: tan/brown; humate; heavy minerals (2% @32) (2-4% @47)			
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-13

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL J. Powell
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/2/2018

Continued from Previous Page

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

Continued Next Page

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.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-14

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-14

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
36		SP								
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
61										
62										
63								CLAY, sandy: grey; heavy minerals (1%)		
64				SC						
65										
66										
67										BORING TERMINATED AT 67 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-15

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5								
6	SP					SAND: dark brown; heavy minerals (1%)		
7								
8								
9								
10	SC					SAND, clayey: dark brown; humate; heavy mineral (<0.5%)		
11								
12								
13								
14								
15								
16						SAND: brown; med; coarse; heavy minerals (<2%)		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33	SP							
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-15

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51				SM				SAND, silty; brown; fine	
52									
53								SAND: orange; med	
54				SP					
55									
56									
57								SAND: tan to light tan; heavy minerals (1%)	
58									
59									
60									
61		SP							
62									
63									
64									
65									
66						SAND: white; trace heavy minerals			
67									
68									
69									
70									
71		SP							
72									
73									
74									
75									

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-15

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-16

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-16

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42								
43						SAND: tan to brown; high heavy minerals (>8%)		
44								
45			SP					
46								
47								
48								
49						SAND: light tan		
50								
51								
52								
53								
54			SP					
55								
56								
57								
58								
59								
60						SAND: dark brown		
61								
62			SP					
63								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-17

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: brown; med		
2								
3								
4								
5								
6								
7								
8		SP				SAND: dark brown; med to coarse		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18		SP				SAND: dark brown; heavy mineral (>4.5%)		
19								
20								
21								
22								
23								
24								
25								
26								
27								
28		SP				SAND: light grey; coarse; trace minerals		
29								
30								
31								
32								
33								
34								
35								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-17

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]							
37								
38								
39								
40								
41		SP				SAND: orange; coarse; some minerals (<1%)		
42								
43								
44								
45								
46								
47		SP				SAND: orange; fine		
48								
49								
50								
51								
52								
53								
54								
55		SC				SAND, clayey: orange; hard		
56								
57		SP				SAND: light tan to white; heavy mineral (<1%)		
58								
59								
60								
61								
62								
63								
64								
65								
66								
67		SC				SAND, clayey: light tan; trace minerals		
68								
69								
70								
71								
72								
73								
74								
75								

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-17

SAINT GEORGE, GEORGIA

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-18

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-18

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57					SAND: light tan			
58								
59								
60								
61								
62								
63								
64								
65		SC				CLAY, sandy: grey; fat		
66								
67							BORING TERMINATED AT 67 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41						CLAY: tan/grey; hard		
42		CH						
43								
44								
45		CH						
46						CLAY: tan; soft		
47								
48								
49		CH						
50						CLAY: green/grey; sand		
51								
52								
53		SC						
54								
55								
56								
57						SAND: grey; coarse; some minerals		
58		SP						
59								
60								
61								
62								
63								
64								
65								
66								
67							BORING TERMINATED AT 67 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-20

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-20

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
36		SP								
37										
38										
39										
40										
41							SAND: light tan; coarse			
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59				CH				CLAY: humate; bank and roots		
60										
61				CH				CLAY: tan; hard		
62										
63								SAND: light tan; fine; heavy minerals (1%)		
64										
65										
66				SP						
67										
68										
69										
70										
71								CLAY: grey; fat		
72										
73										
74				CH						
75										

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-86

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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		SP							
9									
10									
11									
12									
13									
14		SP				SAND: dark grey			
15		SP				SAND: dark brown/black			
16						SAND: brown; heavy minerals (1%)			
17		SP							
18									
19									
20						SAND: tan/orange; fine; hard; heavy minerals (1-1.5%)			
21									
22		SP							
23									
24									
25									
26						SAND: tan; coarse; heavy minerals (1-1.5%)			
27									
28		SP							
29									
30									
31									
32		SC				SAND, clayey: tan			
33									
34							SAND, clayey: greenish grey; heavy minerals		
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-86

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				(<0.5%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-87

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-87

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-88

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-88

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SC				SAND, clayey: tan; med; organized			
37									
38									
39									
40									
41									
42			CH				CLAY: tan; fat; heavy minerals (1.5%)		
43									
44									
45							SAND, clayey: tan; fine; heavy minerals (<0.5%)		
46									
47		SC							
48									
49									
50									
51		SC				SAND, clayey: greenish grey			
52									
53									
54									
55									
56									
57									
58									
59									
60						Redo dropped 10 inches, no recovery, no sample			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-89

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-89

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan; fine to med		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND, clayey: tan; fine; heavy minerals (1%)		
47								
48								
49								
50								
51								
52								
53								
54								
55								
56		SC				BORING TERMINATED AT 60 FEET.		
57								
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-90

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2	[Dotted pattern]					SAND: dark brown; unconsolidated		
3		SP						
4						SAND: tan; coarse; heavy minerals (1.5%)		
5		SP				SAND: dark brown; unconsolidated		
6	[Dotted pattern]							
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								
18						SAND: reddish brown; coarse; heavy minerals (<0.5%)		
19		SP						
20								
21						SAND: dark brown		
22								
23		SP						
24								
25								
26						SAND: grey; coarse; heavy minerals (1.5%)		
27		SP				SAND: dark brown; consolidated; hard		
28								
29		SP						
30						SAND: tan; coarse; heavy minerals (1%)		
31								
32		SP						
33								
34						SAND: light brown; coarse; heavy minerals (1.5%)		
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-90

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SC				SAND, clayey: tan; med; heavy minerals (1%)		
39								
40								
41								
42								
43								
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-92

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-92

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SC				SAND: tan; clay; fine; heavy minerals (1.5%)			
37									
38									
39									
40		SC				SAND, clayey: tan; very soft; heavy minerals (2%)			
41									
42									
43									
44									
45									
46		SC				SAND, clayey: light grey; coarse; heavy minerals (1%)			
47									
48									
49									
50									
51									
52									
53									
54									
55									
56		SC				SAND, clayey: grey; coarse			
57									
58									
59									
60									
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-93

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-93

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP						
37								
38								
39								
40								
41								
42								
43		SP				SAND: orangish tan; fine to med; heavy minerals (0.5%)		
44								
45								
46								
47		SC				SAND, clayey		
48								
49								
50		SP				SAND: tan; very coarse; occasional quartz		
51								
52								
53		SP				SAND: tan		
54								
55								
56								
57								
58								
59								
60								
61		SP						
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-95

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-95

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56		SC				SAND, clayey: tan; fine		
57								
58		SC				SAND, clayey: tan; heavy minerals (0.5-1%)		
59								
60		SP				SAND: tan; coarse; heavy minerals (0.5-1%)		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-96

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-96

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: consolidated; hard			
37									
38									
39									
40							SAND: tan to orange; coarse		
41							SAND: brown; coarse; heavy minerals (1-1.5%)		
42									
43							SAND: orange to tan; med		
44									
45									
46						SAND: tan; med; heavy minerals (1-1.5%)			
47									
48									
49									
50									
51									
52									
53									
54									
55									
56		SC				SAND, clayey: tan			
57									
58									
59									
60							BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-161

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Road material; grey		
2						SAND: light tan; med		
3		SP						
4						SAND: brown to grey; med; heavy minerals (1.5%)		
5			0 - 10	70				
6								
7								
8								
9								
10								
11		SP						
12								
13								
14								
15								
16								
17						SAND: dark brown; med; coarse; heavy minerals (1-4%)		
18								
19								
20								
21								
22								
23								
24		SP						
25								
26								
27								
28								
29								
30						SAND: brown to red; med; heavy minerals (2-3%)		
31								
32								
33								
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-161

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52							SAND: tan brown to red; fine	
53					SAND: white; med; heavy minerals (<1%)			
54								
55								
56					SAND: brown grey; med; heavy minerals (<0.5%)			
57								
58								
59								
60							BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-162

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: reddish brown; coarse; high zircon; heavy minerals (1.5-2%)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50		SP				SAND: light tan; med; heavy minerals (2-2.5%)		
51		SC				SAND, clayey: brown; hard		
52						SAND: light tan; med		
53		SP						
54								
55								
56						SAND: dark reddish brown; med; no heavy minerals (<0.5%)		
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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-164

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-164

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: brown; coarse		
37						SAND: light brown; medium		
38								
39		SP						
40								
41								
42						SAND: light tan to white; fine to medium		
43								
44								
45		SP						
46								
47								
48						SAND, clayey: light brown		
49		SC						
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-165

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-165

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		SP				SAND: light tan; fine to medium		
42								
43								
44								
45								
46								
47	CH				CLAY: brown			
48								
49								
50							BORING TERMINATED AT 50 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-166

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-166

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 7/10/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-167

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-167

SAINT GEORGE, GEORGIA

PROJECT NUMBER 000180200804.00 PROFESSIONAL M. Fowler
 LOCATION Saint George, Georgia DATE(S) DRILLED 7/10/2018

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL

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



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-168

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-168

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39		SP				SAND: med brown; coarse		
40								
41		SP				SAND: dark brown; consolidated; coarse		
42								
43						SAND: brown; coarse		
44								
45								
46		SP						
47								
48								
49								
50								
51	SP				SAND: dark brown; coarse			
52								
53	SP				SAND: light tan; coarse			
54								
55	SP				SAND: reddish brown; med			
56								
57					SAND: brown; med			
58	SP							
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-169

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-169

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44		SP				SAND: light tan; med		
45								
46								
47								
48								
49								
50					No Recovery			
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 8-71804-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.



geotechnical // analytical // materials // environmental

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-170

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown; coarse		
37		SP				SAND: grayish brown; coarse		
38						SAND: dark brown; coarse		
39		SP						
40								
41		SP				SAND: dark brown; consolidated; coarse		
42		SP				SAND: grayish brown; coarse		
43						SAND: brown to reddish brown; coarse		
44								
45		SP						
46								
47								
48					SAND: brown; medium			
49								
50	SP							
51								
52								
53					SAND: light brown; coarse			
54								
55	SP							
56								
57					SAND: light tan; coarse			
58	SP							
59								
60							BORING TERMINATED AT 60 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-171

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-171

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown; coarse		
37		SP				SAND: grayish-brown; coarse		
38						SAND: dark brown; coarse		
39		SP						
40								
41		SP				SAND: dark brown; coarse		
42		SP				SAND: grayish-brown; coarse		
43						SAND: brown to reddish-brown; coarse; good mineral		
44		SP						
45								
46								
47								
48						SAND: brown; med		
49								
50	SP							
51								
52								
53						SAND: light brown; coarse		
54								
55	SP							
56								
57						SAND: light tan; coarse		
58	SP							
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-172

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-172

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan; coarse		
37								
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		SP						
57								
58						SAND: reddish brown; coarse		
59								
60		SP						
61								
62						SAND: light tan; fine to med		
63								
64		SP						
65								
66								
67		CH				CLAY: tan		
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-173

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
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

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-173

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-174

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-174

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42		SP				SAND: dark brown; consolidated; coarse SAND: reddish brown; coarse		
43								
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 SAND: tan to white; coarse		
55								
56	SP							
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 8-71804-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.



geotechnical // analytical // materials // environmental

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-175

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38							SAND: brown; coarse	
39								
40							SAND: light brown; coarse	
41								
42								
43								
44							SAND: brown; coarse; hard nodules	
45							SAND: light brown; coarse	
46								
47							SAND: dark brown; coarse; plant matter SAND: light brown; coarse	
48								
49								
50					SAND: light tan to white; coarse			
51								
52								
53					SAND: brown; med SAND: brown; fine to med			
54								
55								
56								
57					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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-176

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-176

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-177

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-177

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49		SP				SAND: dark brown; consolidated; coarse		
50		SP				SAND: brown; coarse		
51						SAND: dark brown; consolidated; coarse		
52		SP						
53								
54						SAND: brown; coarse		
55		SP						
56								
57						SAND, clay streaks: dark brown; coarse; dark grey streaks		
58		SC						
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-178

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-178

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39								
40								
41								
42	SP							
43								
44	SP							
45								
46								
47								
48	SP							
49								
50	SP							
51								
52	SP							
53								
54	SP							
55								
56	SP							
57								
58	SP							
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-179

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING SA-LON-18-179

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42		SP				SAND: dark brown; consolidated; coarse SAND: reddish-brown; coarse; heavy minerals (1.5-2%)		
43								
44			SP					
45								
46								
47								
48		SP				SAND: dark brown; coarse; hard nodules; heavy minerals (1.5%) SAND: reddish-brown; coarse		
49								
50		SP						
		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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-181

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-181

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38								
39						SAND: brown; med; heavy minerals (0.5-1%)		
40								
41		SP						
42								
43								
44								
45						SAND: reddish; coarse		
46		SP						
47								
48						SAND: tan; coarse; heavy minerals (3-4%)		
49		SP						
50								
51								
52		SP				SAND: black; med		
53		SP				SAND: light grey; coarse to med		
54								
55						SAND: tan to brown; very fine; heavy minerals (<0.5%)		
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) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-182

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-182

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-183

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-183

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: orange to tan; med to coarse; heavy minerals (<0.5-1.5%)		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SP				SAND: brown; med; heavy minerals (<0.5%) SAND: tan; med to coarse grained		
47								
48								
49		SP				SAND: dark brown; med		
50								
51		SC				SAND, trace clay: brown; fine; visible mineral banding; heavy minerals (~10% @ 59)		
52								
53								
54								
55								
56								
57								
58								
59		SP				SAND: light brown; med to coarse; heavy minerals (1-1.5%) SAND, clayey: grey; heavy minerals (1-1.5%)		
60								
61		SC				CLAY: grey		
62								
63		SP				SAND: white; coarse; heavy minerals (<0.5%)		
64								
65		CH				BORING TERMINATED AT 70 FEET.		
66								
67		SC						
68								
69		CH						
70								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-184

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-184

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49		SP						
50		SP				SAND: dark brown; consolidated; coarse; heavy minerals (<0.5%)		
51						SAND: brown; coarse		
52		SP				SAND: dark brown; consolidated; coarse		
53								
54						SAND: brown; coarse; heavy minerals (<0.5%)		
55		SP						
56								
57								
58		SC				SAND, clayey; dark brown; coarse; dark clay streaks; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-185

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-185

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-188

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: tan; coarse; organics			
2									
3		SP				SAND: brown to light brown; med to coarse			
4									
5		SP				SAND: dark brown to black; med; heavy minerals (1.5%)			
6									
7									
8									
9									
10									
11		SP							
12									
13									
14									
15									
16									
17							SAND: med brown; med to coarse; heavy minerals (<0.5%)		
18		SP							
19									
20									
21		SP							
22							SAND: med brown; coarse; dark brown to black consolidated layer; mineral banding from 28-30; heavy minerals (1.5%)		
23									
24									
25									
26									
27		SP							
28									
29									
30									
31							SAND: reddish brown; coarse; mineral banding from 36-38; heavy minerals (4%)		
32									
33									
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-188

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42		SP				SAND: med brown med to fine; heavy minerals (0.5-1%)		
43						SAND: reddish tan; coarse; heavy minerals (<0.5%)		
44								
45								
46		SP						
47								
48								
49								
50								
51	SP				SAND: light brown to tan; coarse			
52								
53					SAND: med brown to dark brown; fine to med; heavy minerals (0.5-1%)			
54	SP							
55								
56								
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.			

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-189

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-189

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark brown to black; med to coarse			
37									
38		SP				SAND: light brown to grey; coarse			
39									
40									
41							SAND: med to brown; coarse; heavy minerals (<0.5%)		
42									
43		SP							
44									
45									
46			CL-ML				SILT, clayey: dark brown		
47		SP					SAND: light grey; coarse		
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									
53	SP					SAND: light brown; med			
54		SC				SAND, clayey: dark brown/reddish; fine; heavy minerals (0.5%)			
55						SAND: tan; coarse; heavy minerals (<0.5%)			
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-190

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-190

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46					SAND: dark brown to black; fine; consolidated			
47					SAND: light brown; coarse; heavy mineral banding 48-49			
48								
49								
50								
51								
52					SAND, silty; med brown; fine			
53								
54								
55								
56					SILT, clayey; light brown to med brown; heavy minerals <0.5%			
57					SAND: light brown; med to fine			
58					SAND: light brown; coarse			
59								
60					SILT, clayey; tan; hard			
						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-191

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: light brown; coarse; organics		
2						SAND: tan; coarse		
3						SAND: light brown; coarse; heavy miners (1-1.5%)		
4						SAND: dark brown; med		
5						SAND: light grey; coarse; heavy minerals (0.5%)		
6						SAND: dark brown to black; med		
7						SAND: dark brown to black; med to fine; consolidated		
8						SAND: dark brown to black; med; heavy minerals (1.0%)		
9						SAND: dark brown to black; med to fine; consolidated		
10						SAND: light brown to light grey; coarse; heavy minerals (1.0%)		
11						SAND: tan to reddish; coarse; heavy minerals (1.5%)		
12						SAND: med brown; coarse		
13						SAND: light brown; coarse; heavy minerals (2.5-3%)		
14						SAND: tan; med to coarse; heavy minerals (3%)		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-191

SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-192

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-192

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				fine SAND: dark brown; coarse; organic layer		
37						SAND: tan; coarse; high ilmenite; heavy minerals (9-10%)		
38								
39								
40								
41		SP						
42								
43								
44								
45								
46	SP					SAND: light brown; coarse		
47						SAND: med brown to dark brown; med to fine; heavy minerals (0.5%)		
48	SP							
49								
50						SAND: brown; coarse; heavy minerals (3-4%)		
51								
52	SP							
53								
54								
55						SAND: dark brown to black; med to fine; consolidated		
56	SP							
57						SAND, silty: dark brown; fine		
58	SM							
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-193

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-193

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: med brown to dark brown; coarse; heavy minerals (2-3%)		
37						SAND: brown; coarse; heavy minerals (1%)		
38		SP						
39								
40		SP				SAND: black to dark brown; organic		
41		SP				SAND: med brown; med to coarse; heavy minerals (<0.5%)		
42								
43		SP				SAND: tan to light brown; coarse; heavy minerals (1%)		
44								
45							SAND: med brown; heavy minerals (0.5-1%)	
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 8-71804-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.



geotechnical // analytical // materials // environmental

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

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-194

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SP				SAND: tan; med to fine; black fine layer; heavy minerals (1%)		
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.								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-195

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-195

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SP				SAND: brown; coarse		
39		SP				SAND: tan to reddish; fine		
40		SP				SAND: med brown; coarse		
41		SP				SAND, silty: reddish brown; fine to silt; heavy mineral (<0.5%)		
42		SM						
43								
44								
45		CL-ML						
46					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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-196

SAINT GEORGE, GEORGIA

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: _____

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-197

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SP				SAND: dark grey; med		
2		SP						
3		SP				SAND: tan; med to coarse		
4						SAND: dark brown; med		
5								
6		SP						
7								
8								
9		SP				SAND: dark brown to black; med to fine; consolidated; heavy minerals (0.5%)		
10						SAND: dark brown; med		
11								
12		SP						
13								
14								
15		SP				SAND: dark brown to black; med to fine; consolidated		
16						SAND: med brown; med to coarse; heavy minerals (0.5-1%)		
17		SP						
18								
19								
20						SAND: med brown; heavy minerals (2-2.5%)		
21								
22								
23		SP						
24								
25								
26								
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						
32						SAND: dark grey to black; med to fine		
33		SP				SAND: dark grey to black; consolidated		
34								
35								

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-197

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: med brown to dark brown; med		
37						SAND: med brown; med; heavy minerals (1-1.5%)		
38								
39								
40		SP						
41								
42								
43						SAND: tan; med to fine; heavy minerals (1-1.5%)		
44								
45								
46		SP						
47								
48						SAND, clayey: tan; med to fine		
49		SC						
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-198

SAINT GEORGE, GEORGIA

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:

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-198

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-199

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: dark grey; med			
2						SAND: dark brown; med to fine			
3		SP							
4									
5							SAND: dark brown to black; fine to med		
6									
7									
8									
9		SP							
10									
11									
12									
13							SAND: grey to tan; med to coarse		
14		SP							
15									
16		SC					SAND, clayey: dark brown; fine to med		
17							SAND: tan to brown; fine to med		
18		SP							
19									
20							SAND: tan; med to coarse		
21									
22									
23		SP							
24									
25									
26									
27									
28									
29		CH					CLAY: greenish grey; fat		
30							BORING TERMINATED AT 30 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-200

SAINT GEORGE, GEORGIA

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

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-200

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND, clayey: tan; small clay band		
37								
38		SC-SM				SAND, silty; clayey: tan; heavy minerals (1%)		
39								
40								
41		CL-ML				CLAY, silty: greenish grey; soft		
42								
43								
44								
45		SM				SAND, silty: greenish grey; heavy minerals (<0.5%)		
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



geotechnical // analytical // materials // environmental

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-201

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: med brown; med to coarse; heavy minerals (0.5%)		
37								
38								
39								
40								
41		SP				SAND: tan; med to fine		
42								
43								
44								
45								
46		SM				SAND, silty: tan; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-202

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
10-1-2019.GPJ
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE)

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-202

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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		SP				SAND: tan to light brown; fine; heavy minerals (<0.5%)			
48									
49									
50		SP				SAND: med brown; med			
51						SAND: dark brown; fine to med			
52									
53		SP				SAND: med brown; fine			
54									
55									
56		SM				SAND, silty: tan; fine			
57									
58									
59									
60						BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-203

SAINT GEORGE, GEORGIA

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:

10/2/19 Report ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-203

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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					SAND, silty: tan; fine; heavy minerals (<0.5%)			
59	SM							
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-205

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-205

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38		SP						
39						SAND: dark brown; fine SAND: tan; med to coarse; heavy minerals (1-3%)		
40								
41								
42								
43								
44								
45								
46		SP						
47								
48								
49								
50								
51								
52								
53						SAND: white; med to coarse		
54		SP						
55						SAND: dark brown; med		
56		SP						
57						SAND: dark brown; fine; organics; heavy minerals (<0.5%)		
58		SP						
59						SAND, silty: tan; fine		
60		SM						
61		SP				SAND: tan; med to coarse; heavy minerals (<0.5%)		
62								
63		SC-SM				SAND, silty, clayey: light brown to grey		
64								
65						SAND: tan; med		
66								
67		SP						
68								
69								
70								
71						SAND: white; coarsening downward; med to fine		
72								
73								
74								
75								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-206

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-206

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown to grey; med; heavy minerals (1.0%)		
37						SAND: reddish tan; coarse; fine; heavy minerals (1.5%)		
38		SP						
39								
40								
41		SP				SAND: med brown; med		
42		SP				SAND: dark brown; med		
43		SP				SAND: tan; med to coarse		
44		SP						
45								
46		SP				SAND: dark brown; med to fine		
47		SP				SAND: tan; coarse to med		
48		SP						
49								
50					SAND: med brown; fine			
51	SP							
52								
53					SAND: med brown to dark brown; fine			
54	SP							
55					SAND, clayey: dark grey to orange; fine			
56		SC						
57	SP				SAND: tan; med to coarse			
58					SAND, silty, clayey: tan; fine			
59		SC-SM						
60	SP				SAND: tan; med to fine			
						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-207

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark brown to black; med to fine			
37		SP				SAND: light brown; med to coarse			
38						SAND: med brown; med; heavy minerals (0.5%)			
39									
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-208

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: grey; med to coarse; organics			
2						SAND: dark grey; med			
3		SP							
4									
5									
6		SP					SAND: dark brown to black; med to fine		
7							SAND: black; med to fine; hard humate; heavy minerals (0.5-1.0%)		
8		SP							
9									
10							SAND: dark brown; med		
11		SP							
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		SP							
20									
21		SP					SAND: tan; med to coarse; heavy minerals (1.5-2.0%)		
22									
23		SP					SAND: light to med grey; med to coarse; heavy minerals (1.0%)		
24							SAND: dark black; med to fine; humate		
25		SP							
26									
27		SP							
28									
29		SP					SAND: dark brown; med to fine; lightly consolidated		
30									
31		SP					SAND: dark grey; med		
32							SAND: dark brown to black; med		
33							SAND: med brown; med; heavy minerals (~1.5%)		
34									
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-208

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39								
40								
41		SP				SAND: med brown; med; heavy minerals (1.5%)		
42								
43								
44		SP						
45								
46		SP				SAND: tan; med to coarse; heavy minerals		
47						SAND: tan; med; heavy minerals (0.5-1.0%)		
48		SP						
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENVY 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.



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-209

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL

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



geotechnical // analytical // materials // environmental

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

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: med brown to grey; med; organics			
2		SP				SAND: dark grey; med			
3									
4							SAND: dark brown to black; med to fine; hard; heavy minerals (0.5-1.0%)		
5									
6		SP							
7									
8									
9									
10									
11		SP					SAND: dark brown to black; med		
12									
13		SP					SAND: dark grey; med		
14							SAND: brown; med to fine		
15		SP							
16							SAND: tan; med; heavy minerals (0.5%)		
17									
18									
19		SP							
20									
21									
22									
23		SP					SAND: grayish tan; med to fine; heavy minerals (0.5%)		
24							SAND: tan; med to coarse; heavy minerals (<0.5%)		
25									
26									
27		SP							
28									
29									
30							BORING TERMINATED AT 30 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-211

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-211

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37								
38		SP				SAND: white; med		
39		SP				SAND: tan; med; heavy mineral (~1.0%)		
40							BORING TERMINATED AT 40 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-212

SAINT GEORGE, GEORGIA

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			

10/2/19 Report ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-212

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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									
50							SAND: tan to light brown; med to fine; heavy minerals (1.0-1.5%)		
51									
52									
53		SP							
54									
55									
56									
57									
58									
59	SP					SAND: grey; med; black hard med/fine cobbles			
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.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-213

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING SA-LON-18-213

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: tan to off white; fine; heavy minerals (1-1.5%)		
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-214

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-214

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				BORING TERMINATED AT 40 FEET.		
37								
38								
39								
40								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-215

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-215

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: dark brown to black; med		
37		SP				SAND: med brown to dark brown; med to fine		
38						SAND: tan; med; heavy minerals (0.5-1.0%)		
39								
40		SP						
41								
42						SAND: tan; med to fine		
43		SP						
44								
45		SP				SAND: reddish tan; heavy minerals (0.5%)		
46		SP				SAND: tan; med to fine		
47								
48					SAND: tan; med			
49								
50	SP							
51								
52								
53	SP				SAND: tan; coarse			
54					CLAY, silty: greenish grey			
55								
56		CL-ML						
57								
58								
59								
60	CL-ML				SILT, trace clay: greenish grey			
					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-216

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: orangeish tan; med; organics			
2									
3		SP				SAND: tan to grey; med; transition			
4									
5									
6									
7									
8		SP					SAND: dark brown; med; organics		
9									
10									
11									
12		SP					SAND: black; med		
13									
14									
15							SAND: dark brown to black; med to fine; consolidated; heavy minerals (0.5%)		
16		SP							
17									
18									
19							SAND: dark brown to black; med to fine; consolidated		
20		SP							
21									
22									
23									
24		SP					SAND: dark brown to black; med to fine; consolidated		
25									
26							SAND: light brown to med brown; med to fine; heavy minerals (~2.5%)		
27		SP							
28									
29									
30									
31		SP					SAND: dark brown; med		
32									
33							SAND: dark grey to brown; med; heavy minerals (0.5-1.0%)		
34		SP							
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-216

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37		SP				SAND: dark brown to black; med to fine; consolidated		
38								
39								
40		SP				SAND: dark brown; med; heavy minerals (0.5%)		
41								
42								
43		SP				SAND: dark brown; med to med/coarse		
44								
45		SP				SAND: light brown to tan; med to coarse; heavy minerals (0.5-1.0%)		
46								
47		SP				SAND: dark grey; med to fine		
48								
49		SP				SAND: tan; med; heavy minerals (<0.5%)		
50								
51								
52	SP				SAND: med brown; fine to med/fine			
53								
54	SP				SAND: grey; fine			
55	SC-SM				SAND, silty, clayey: grey to tan			
56					SAND: tan to white; med to fine			
57								
58	SP							
59								
60					BORING TERMINATED AT 60 FEET.			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-217

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-217

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: brown; med to coarse			
37		SP							
38		SP				SAND: tan; med; heavy minerals (<0.5%)			
39		SP				SAND: brown; med to fine			
40									
41						SAND: med brown; med to fine; heavy minerals (<0.5%)			
42		SP							
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 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-218

SAINT GEORGE, GEORGIA

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

10/2/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page

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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-LON-18-218

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP						
37								
38								
39		SP				SAND: dark brown; med		
40								
41						SAND: med brown; med; with black hard; fine sand cobbles; heavy minerals (1-1.5%)		
42		SP						
43								
44		SP				SAND: light brown; med to coarse		
45								
46		SP				SAND: med brown; med to fine		
47								
48	SP				SAND: tan			
49								
50								
51	SP				SAND: med brown; fine			
52								
53								
54								
55	SP				SAND: light brown; fine			
56								
57								
58	SP				SAND: tan; med to fine; heavy minerals			
59								
60								
						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-TIA-18-109

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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			SP						
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23			SP				SAND: brown; coarse		
24			SP						
25			SP				SAND: white; coarse		
26			SP				SAND: brown; coarse		
27			SP				SAND: white; coarse		
28			SP						
29			SP				SAND: grayish-brown; coarse		
30							SAND: dark brown; coarse		
31									
32									
33									
34			SP						
35									

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-TIA-18-109

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	SP				SAND: light to reddish-brown; med		
37								
38	[Purple dotted pattern]	SM				SAND, silty: light tan		
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50					CLAY, sandy: greenish-grey			
51								
52					SAND, silty: light tan			
53								
54					BORING TERMINATED AT 60 FEET.			
55								
56	[Red diagonal hatched pattern]	SC						
57	[Red diagonal hatched pattern]	SC						
58	[Purple dotted pattern]	SM						
59	[Purple dotted pattern]	SM						
60	[Purple dotted pattern]	SM						

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/2/19 Report ENV LOG - NO WELL



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-TIA-18-110

SAINT GEORGE, GEORGIA

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			

10/2/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

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

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

LOG OF BORING
SA-TIA-18-110

SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP							
37									
38									
39									
40									
41									
42									
43							SAND: tan; coarse		
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 8-71804-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.

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	666281.5127
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

Continued on Next Page

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**



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		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				
2										
3										
4										
5										
6										
7				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;		
8										
9				SM				Sand, White (7.5YR 8/1); consolidated,		
10				SC				SAND, clayey: light brown (7.5 YR 5/3); fine (15%); med (80%); clay (5%); well sorted; subround; unconsolidated;		
11										
12				SM				SAND, silty: dark brown (7.5 YR 3/2); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
13										
14										
15										
16										
17								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		
18										
19										
20										
21										
22				SM						
23										
24										
25										
26										
27										
28										
29										
30										
31								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		
32										
33										
34										
35										

Continued Next Page

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.



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37								
38								
39								
40								
41			SC-SM				SAND, silty, clay lense: greyish green (5 GY 5/2); fine (75%); silt (25%); well sorted; round; unconsolidated	
42								
43								
44								
45								
46								
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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.



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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								
3		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		
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16		SC				SAND, clayey: brown (7.5 YR 5/3); dark brown (7.5 YR 3/2); fine (10%); med (50%); clay (<1%); round		
17								
18								
19								
20								
21		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		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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

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.



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SM				SAND, silty: grey (7.5 YR 5/1); fine (5%); med (95%); well sorted; round; unconsolidated; organics		
2								
3		SM				SAND, silty: dark brown (7.5 YR 3/3); fine (10%); med (90%); well sorted; round; unconsolidated; fine black grains		
4								
5								
6								
7		SC				SAND, clayey: light brown (7.5 YR 6/4); well sorted; round		
8								
9								
10								
11								
12								
13		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		
14								
15								
16								
17		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		
18								
19								
20								
21								
22								
23								
24								
25						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		
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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

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.



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			

9/16/19 Report:ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		SM				SAND, silty: dark grey (7.5 YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated				
2										
3										
4										
5										
6								SAND, silty: black (7.5 YR 2.5/1) fine (60%); med (35%); silt (<5%); well sorted; rounded; consolidated		
7										
8										
9										
10										
11										
12								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		
13										
14										
15										
16										
17								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		
18										
19										
20										
21								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		
22										
23										
24										
25										
26								SAND, clayey: light yellowish brown (2.5 Y 6/3); fine (60%); med (35%); silt (<5%); well sorted		
27										
28										
29								CLAY, silty: pale olive (5 Y 6/3); fine (75%); med (25%); well sorted; round		
30										
31								SAND, clayey: pale brown (2.5 Y 7/3); fine (60%); med (35%); clay (<5%); well sorted; subround		
32										
33								SAND, silty: pale brown (2.5 Y 7/3); fine (60%); med (35%); silt (<5%); well sorted; round to subround; unconsolidated; moist		
34										
35										

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		CL				CLAY, silty, sandy; light greyish green (5 GY 6/2); fine (75%); med (25%); well sorted; subround to round		
46								
47		SC				SAND, clayey; pale brown (2.5 Y 7/3); fine (55%); med (40%); clay (<5%); well sorted; round		
48								
49								
50						BORING TERMINATED AT 50 FEET.		



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		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		
12								
13								
14								
15								
16		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		
17								
18								
19								
20		SC				SAND, silty: strong brown (7.5 YR 5/6); fine (60%); med (35%); clay (<5%); well sorted; round; moist		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM						
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SC-SM				SAND, clayey, silty; pale brown (10 YR 6/3); fine (65%); med (35%); clay (<1%); well sorted; round to subround; unconsolidated; wet		
47								
48								
49								
50								
						BORING TERMINATED AT 50 FEET.		



geotechnical // analytical // materials // environmental

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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		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				
2										
3										
4										
5										
6										
7										
8										
9										
10										
11								SAND, silty: dark brown (7.5 YR 3/3) with black grains; fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
12										
13										
14										
15								SAND, silty: dark brown (7.5 YR 3/3) with black grains; fine (60%); med (35%); silt (<5%); well sorted; round; semi-consolidated		
16										
17								SAND, silty: reddish yellow (7.5 YR 6/6); fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
18										
19										
20										
21								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		
22										
23										
24										
25										
26										
27										
28										
29										
30								BORING TERMINATED AT 30 FEET.		

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			30 - 40	0				

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY 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.



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		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				
2						SAND, silty: very dark grayish brown (10 YR 3/2); fine (45%); med (50%); silt (<5%); well sorted; round to subround; semi-consolidated				
3						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				
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16								SAND, silty: yellowish brown (10 YR 5/4) to grey (5 YR 6/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
17										
18										
19										
20										
21								SAND, silty: brown (10 YR 4/3); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; wet		
22										
23										
24								SAND, silty: very pale brown (10 YR 7/4); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; wet		
25										
26										
27										
28										
29										
30										
31								CLAY, sandy: pale brown (10 YR 6/3); fine (75%); med (10%); clay (15%); well sorted; round; wet		
32										
33										
34										
35										

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND, clayey: pale brown (10 YR 6/3); fine (40%); med (50%); clay (10%); well sorted; round; wet		
37								
38								
39								
40								
41		SC				SAND, clayey: grey (10 YR 5/1); fine (40%); med (50%); clay (10%); well sorted; round; fine; wet		
42								
43								
44								
45								
46						BORING TERMINATED AT 60 FEET.		
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report\ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SM				SAND, silty: dark grey (10 YR 4/1); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated; organics		
2						SAND, silty: black (10 YR 2/1); fine (45%); med (50%); silt (<5%); well sorted; round; consolidated		
3						SAND, silty: very dark grey (5 YR 3/1); black (10YR 2/1); fine (45%); med (50%); silt (<5%); well sorted; round; semi-consolidated		
4						SAND, silty: very dark grey (5 YR 3/1); black (10YR 2/1); fine (45%); med (50%); silt (<5%); well sorted; round; unconsolidated		
5						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		
6						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		
7						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		
8						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		
9						SAND, clayey: very pale brown (10 YR 7/3); fine (55%); med (40%); clay (5%); well sorted; round; wet		
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SC							
37									
38									
39									
40									
41			SC				SAND, clayey: light greyish-green (5 GY 6/2); fine (75%); clay (25%); well sorted; round; wet		
42									
43									
44									
45									
46									
47									
48									
49									
50						BORING TERMINATED AT 50 FEET.			



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2						SAND, silty: black (10 YR 2/1); fine (60%); med (35%); silt (5%); well sorted; round; semi-consolidated		
3						SAND, silty: black (10 YR 2/1); fine (60%); med (35%); silt (5%); well sorted; round; unconsolidated		
4						SAND, silty: dark brown (10 YR 3/3); fine (60%); med (35%); silt (5%); well sorted; round; unconsolidated		
5						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		
6						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		
7						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		
8						SAND, silty: brown (10 YR 5/3); grey (10 YR 6/1) mottles; fine (65%); med (30%); silt (5%); well sorted; round; unconsolidated		
9						SAND, clayey: dark yellowish brown (10 YR 4/6); fine (70%); med (20%); clay (10%); well sorted; round		
10						SAND, clayey: yellowish brown (10 YR 5/4); fine (60%); med (30%); clay (10%); well sorted; round		
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC	40 - 50	0		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								
41	SC		40 - 50	0		SAND, clayey: pale yellow (5 Y 7/3); fine (65%); med (25%); clay (10%); well sorted; round; wet		
42								
43								
44								
45								
46						No Recovery		
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4									
5									
6									
7		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			
8									
9									
10									
11		SM				SAND, silty: strong brown (7.5 YR 4/6) mottles; fine (60%); med (35%); silt (5%); well sorted; round; unconsolidated			
12									
13									
14									
15		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			
16									
17									
18									
19		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			
20									
21									
22									
23		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			
24									
25									
26									
27		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			
28									
29									
30									
31		SM							
32									
33									
34									
35									

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3		SM				SAND, silty: brown (7.5 YR 5/4); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
4								
5		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		
6								
7								
8								
9								
10								
11		SM				SAND, silty: strong brown (7.5 YR 5/6); fine (10%); med (90%); silt (<1%); well sorted; round to subround; unconsolidated		
12								
13								
14								
15		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		
16								
17								
18		SM				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		
19								
20								
21								
22		SP				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		
23								
24		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		
25								
26								
27		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		
28								
29								
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; unconsolidated		
31								
32								
33								
34								
35								

Continued Next Page

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.



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: pale brown (10 YR 6/3); fine (30%); med (60%); silt (10%); well sorted; round; unconsolidated; wet		
37		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		
38								
39		SC				SAND, clayey: light greenish grey (GLE Y 8/1); fine (45%); med (45%); clay (10%); well sorted; round		
40								
41								
42								
43		CL				CLAY, silty, sandy: light greyish green (5 GY 6/2); fine (70%); clay (30%); well sorted; round; moist		
44								
45								
46		CL				BORING TERMINATED AT 50 FEET.		
47								
48		CL				BORING TERMINATED AT 50 FEET.		
49								
50		CL				BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report\ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1	[Graphic Log: 1-6 ft interval with purple dots]	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		
2								
3								
4								
5								
6								
7	[Graphic Log: 7-10 ft interval with purple dots]	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		
8								
9								
10								
11								
12	[Graphic Log: 12-15 ft interval with purple dots]	SM				SAND, silty: dark brown (7.5 YR 3/3); fine (20%); med (75%); silt (5%); well sorted; round; unconsolidated		
13								
14								
15								
16								
17	[Graphic Log: 17-20 ft interval with purple dots]	SP				SAND: dark brown (7.5 YR 3/3); black (7.5 YR 2.5/1); fine (10%); med (90%); well sorted; round; semi-consolidated		
18								
19								
20								
21								
22	[Graphic Log: 22-25 ft interval with purple dots]	SM				SAND, silty: black (10 YR 2/1); fine (10%); med (90%); well sorted; round to subround; consolidated		
23								
24								
25								
26								
27								
28	[Graphic Log: 28-31 ft interval with purple dots]	SP				SAND, silty: very dark brown (10 YR 2/2); brown (10 YR 4/3); fine (10%); med (90%); well sorted; round to subround; unconsolidated		
29								
30								
31								
32	[Graphic Log: 32-35 ft interval with purple dots]	SM				SAND: white (10 YR 8/1); pale brown (10 YR 6/3); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated		
33								
34								
35								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: dark brown (10 YR 3/3); fine (25%); med (65%); silt (10%); well sorted; round; unconsolidated; moist		
37								
38		SC				SAND; clayey, brown (10 YR 5/3); grey (10 YR 6/1); fine (70%); med (10%); silt (20%); well sorted; subround; wet		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4									
5									
6		SM				SAND, silty: very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated			
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		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			
17									
18									
19									
20		SM				SAND, silty: black (10 YR 2/1); fine (85%); med (15%); well sorted; round; semi-consolidated; moist			
21									
22									
23		SM				SAND, silty: black (10 YR 2/1); fine (85%); med (15%); well sorted; round; consolidated; moist			
24									
25		SM				SAND, silty: black (10 YR 2/1); fine (85%); med (15%); well sorted; round; semi-consolidated; moist			
26									
27		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			
28									
29									
30		SM							
31									
32									
33									
34									
35									

Continued Next Page

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.



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
37								
38		SM				SAND, silty: moist very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated; wet		
39								
40		SM				SAND, clayey: pale brown (10 YR 6/3); light olive grey (5 Y 6/2); fine (40%); med (55%); silt (<5%); well sorted; subround		
41								
42		SM				SAND, silty: olive brown (2.5 Y 4/4); fine (30%); med (70%); silt (<1%); well sorted; round; unconsolidated; wet		
43								
44		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		
45								
46		SC				BORING TERMINATED AT 60 FEET.		
47								
48		SC						
49								
50		SM						
51								
52		SC						
53								
54		SC						
55								
56		SC						
57								
58		SC						
59								
60		SC						



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		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				
2										
3										
4										
5										
6										
7								SAND, silty: pale brown (10 YR 6/3); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated		
8										
9								SAND, silty: Black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round; semi-consolidated		
10										
11								SAND, silty: very dark grayish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; round; unconsolidated		
12										
13								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		
14										
15										
16								SAND, silty: black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; round; semi-consolidated; wet		
17										
18										
19										
20										
21								SAND: pale brown (10 YR 6/3); light grey (10 YR 7/1); fine (20%); med (75%); silt (<5%); round; unconsolidated; moist		
22										
23										
24										
25										
26								SAND, silty: very dark greyish brown (10 YR 3/2) with black grains; fine (60%); med (35%); silt (<5%); round; unconsolidated; moist		
27										
28										
29										
30										
31								SAND: light yellowish brown (10 YR 6/4); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
32										
33										
34										
35										

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		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			
37									
38									
39									
40									
41		SM				SAND, silty: yellowish brown (10 YR 5/4); brown (10 YR 4/3); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated			
42									
43									
44									
45		SM				SAND, silty: brown (10 YR 4/3); black (10 YR 2/1); fine (25%); med (70%); silt (<5%); well sorted; round; unconsolidated			
46									
47		SM				SILT, sandy: yellowish red (5 YR 4/6); black nodules; fine (70%); med (20%); silt (<10%); well sorted; unconsolidated			
48									
49									
50									
51		SC				SAND; clayey, silty: grey (7.5 YR 6/1); fine (75%); med (20%); silt (<5%); well sorted; round; moist			
52									
53									
54									
55									
56									
57									
58									
59									
60									
						BORING TERMINATED AT 60 FEET.			



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			

9/16/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3								
4								
5								
6		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		
7								
8								
9								
10								
11								
12								
13								
14								
15								
16		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		
17								
18								
19								
20								
21		SM				SAND, silty: black (7.5 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round; semi-consolidated; moist		
22								
23								
24								
25								
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		
27								
28								
29								
30								
31		SM				SAND, silty: grey (5 YR 6/1); black (10 YR 2/1); fine (35%); med (60%); silt (<5%); round; unconsolidated		
32								
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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

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.



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3								
4								
5								
6								
7								
8								
9								
10	SM					SAND, silty: black (10 YR 2/1); fine (40%); med (55%); silt (<5%); well sorted; round; semi-consolidated; moist		
11								
12								
13								
14								
15								
16	SM					SAND, silty: brown (10 YR 5/3); dark grey (10 YR 4/1); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
17								
18								
19								
20								
21								
22	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		
23								
24								
25								
26								
27								
28	SM					SAND, silty: grey (10 YR 6/1); brown (10 YR 5/3); fine (20%); med (75%); silt (<5%); well sorted; round; unconsolidated		
29								
30								
31								
32								
33								
34	SM							
35								

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report\ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: dark brown (10 YR 3/3) with black grains; fine (55%); med (40%); silt (<5%); well sorted; round; unconsolidated		
37								
38								
39								
40								
41		SM				SAND, silty: olive brown (2.5 Y 4/3); black banding and nodules; fine (60%); med (35%); silt (<5%); well sorted; round; unconsolidated		
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.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4		SM					SAND, silty: black (7.5 YR 2/1); fine (40%); 35%); silt (<5%); well sorted; round to subround; semi-consolidated; moist		
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19		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									
21							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		
22		SM							
23									
24									
25									
26		SM					SAND, silty: dark brown (7.5 YR 3/2); fine (40%); med (35%); silt (<5%); well sorted; round; semi-consolidated; moist		
27									
28		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		
29									
30									
31							SAND, silty: pale brown (10 YR 6/3); brown (10 YR 5/3); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated		
32									
33									
34		SM							
35									

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: very pale brown (10 YR 8/2); fine (15%); med (80%); silt (<5%); well sorted; round; unconsolidated		
37								
38		SP				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		
39								
40		SC-SM				SAND, silty; white (10 YR 8/1); fine (30%); med (70%); silt (<1%); well sorted; round; unconsolidated		
41								
42		SC-SM				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		
43								
44		SC-SM				SAND, silty; white (10 YR 8/1); fine (30%); med (70%); silt (<1%); well sorted; round; unconsolidated		
45								
46		SM				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		
47								
48		SM				SAND, silty; white (10 YR 8/1); fine (30%); med (70%); silt (<1%); well sorted; round; unconsolidated		
49								
50		SC				SAND; light grey (2.5 Y 7/1); white (2.5 Y 8/1); fine (20%); med (70%); silt (<10%); well sorted; round; unconsolidated		
51								
52		SC				SAND; light grey (2.5 Y 7/1); white (2.5 Y 8/1); fine (20%); med (70%); silt (<10%); well sorted; round; unconsolidated		
53								
54		SC				SAND; light grey (2.5 Y 7/1); white (2.5 Y 8/1); fine (20%); med (70%); silt (<10%); well sorted; round; unconsolidated		
55								
56		SP				SAND; light grey (2.5 Y 7/1); white (2.5 Y 8/1); fine (20%); med (70%); silt (<10%); well sorted; round; unconsolidated		
57								
58		SP				SAND; light grey (2.5 Y 7/1); white (2.5 Y 8/1); fine (20%); med (70%); silt (<10%); well sorted; round; unconsolidated		
59								
60						BORING TERMINATED AT 60 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4									
5		SM				SAND, silty: black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; round to subround; semi-consolidated; moist			
6									
7									
8									
9									
10									
11		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			
12									
13									
14									
15									
16									
17									
18									
19		SP				SAND: (white 5 YR 8/1); fine (15%); med (85%); silt (<5%); well sorted; round; unconsolidated			
20									
21		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			
22									
23		SC				SAND, clayey: strong brown (7.5 YR 5/6); fine (60%); med (35%); clay (<5%); well sorted; round			
24									
25									
26									
27		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			
28									
29									
30									
31									
32									
33									
34									
35									

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

9/16/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND; Clayey: pale brown (10 YR 6/3); fine (65%); med (30%); clay (<5%); well sorted; round		
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4		SM				SAND, silty: black (7.5 YR 2.5/1); fine (30%); med (65%); silt (<5%); well sorted; round; semi-consolidated			
5									
6									
7									
8									
9									
10		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			
11									
12									
13									
14									
15									
16									
17									
18									
19									
20		CL				CLAY: strong brown (7.5 YR 5/6); fine (80%); silt (20%); well sorted; round; hard			
21									
22		SC				SAND, clayey: strong brown (7.5 YR 5/6); fine (75%); med (10%); clay(15%); well sorted; round			
23									
24									
25									
26		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			
27									
28									
29		SM				SAND, silty: very pale brown (10 YR 7/3); fine (30%); med (55%); silt (<5%); well sorted; round; unconsolidated			
30									
31									
32		SM				SAND, silty, clayey: very pale brown (10 YR 7/3); fine (50%); med (50%); clay/silt (<1%); well sorted; round; unconsolidated			
33									
34									
35									

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC-SM						
37								
38		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 CLAY, marl: light greenish grey (GLE Y 4/1); well sorted; round; fat		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SP				SAND: dark grey (10 YR 4/1); light grey (10 YR 7/1); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated			
2						SILT, sandy: dark brown (10 YR 4/4); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated			
3		SM							
4									
5									
6						SAND, silty: black (10 YR 2.5/1); well sorted; round; semi-consolidated; slightly moist			
7									
8									
9									
10		SM							
11									
12									
13									
14									
15									
16							SAND, silty: yellowish red (5 YR 5/6); some fine black grains; fine (40%); med (55%); silt (<5%); well sorted; round; semi-consolidated		
17		SM							
18									
19									
20									
21							SAND, clayey: brown (7.5 YR 4/4); hard nodules; fine (60%); med (30%); clay (<10%); well sorted; round; wet		
22	SC								
23									
24									
25									
26							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		
27									
28									
29									
30									
31									
32		SM							
33									
34									
35									

Continued Next Page



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

9/16/19_Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36								
37		CL				CLAY, marl, silty; light greenish grey (GLEYS 8/1); well sorted; round; fat		
38								
39								
40						BORING TERMINATED AT 40 FEET.		



geotechnical // analytical // materials // environmental

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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SM				SAND, silty: dark grey (7.5 YR 4/1); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated			
2									
3									
4									
5									
6		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			
7									
8									
9									
10									
11									
12		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			
13									
14									
15									
16									
17									
18									
19									
20									
21		SC				SAND; clayey: yellow (10 YR 8/8); fine (50%); med (40%); clay (<10%); well sorted; round; wet			
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report\ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		CL				CLAY, sandy: very pale brown (10 YR 8/2); fine (70%); med (10%); silt (20%); well sorted; round; wet		
37								
38		SC				SAND, clayey: very pale brown (10 YR 8/2); fine (55%); med (40%); clay (<5%); well sorted; round; wet		
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
BORING TERMINATED AT 50 FEET.								



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4									
5									
6		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			
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17		SM				SAND, silty: strong brown (7.5 YR 5/6); nodules; black bands; fine (10%); med (85%); silt (<5%); well sorted; round; unconsolidated			
18									
19									
20									
21									
22									
23									
24									
25									
26		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			
27									
28									
29									
30									
31						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			
32									
33									
34									
35									

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3		SC				SAND, clayey: light olive brown (2.5 Y 6/3); fine (30%); med (65%); silt (<5%); well sorted; round to subround		
4								
5		SM				SAND, silty: black (2.5 Y 2.5/1); fine (45%); med (50%); silt (<5%); well sorted; round to subround; semi-consolidated		
6								
7								
8								
9								
10								
11		SM				SAND, silty: dark yellowish brown (10 YR 4/6); black mottles; fine (15%); med (80%); silt (<5%); well sorted; round to subround; unconsolidated		
12								
13								
14								
15								
16								
17		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		
18								
19								
20								
21								
22								
23		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		
24								
25								
26								
27								
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								
31		SC				SAND; clayey, silty: brownish yellow (10 YR 6/6); fine (60%); med (30%); clay/silt (<10%); well sorted; round; wet		
32								
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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

9/16/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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		SM				SAND, silty: brown (5Y 6/3); fine (30%); med (65%); silt (<5%); well sorted; round; unconsolidated			
3									
4		SM							
5									
6							SAND, silty: black (7.5 YR 2.5/1); fine (30%); med (65%); silt (<5%); semi-consolidated		
7									
8									
9									
10									
11		SM							
12									
13									
14									
15									
16							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		
17		SM							
18									
19									
20									
21		SM					SAND, silty: brown (7.5 YR 4/4); black mottles; fine (40%); med (55%); silt (<5%); well sorted; round; unconsolidated		
22									
23									
24		SC					SAND, clayey: reddish yellow (7.5 YR 6/6); fine (40%); med (55%); clay (<5%); well sorted; round		
25									
26		SC							
27									
28									
29									
30									
31		SC					SAND, clayey: pale yellow (5 Y 7/4); fine (50%); med (40%); clay (<5%); well sorted; round; wet		
32									
33							CLAY, sandy: pale yellow (5 Y 7/4); fine (70%); med (10%); silt (20%); well sorted; round; wet		
34									
35									

Continued Next Page



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

Continued from Previous Page

9/16/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2		SM				SAND, silty: very dark brown (7.5 YR 2.5/3); fine (10%); med (85%); silt (<5%); well sorted; round; unconsolidated		
3								
4		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		
5								
6								
7		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		
8								
9								
10								
11	SM				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			
12								
13								
14								
15								
16	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			
17								
18	SC				SAND; clayey: pale brown (2.5 Y 7/3); fine (60%); med (25%); clay (<15%); well sorted; round; wet			
19								
20								
21	SC							
22								
23								
24								
25	SC							
26								
27	SC							
28								
29								
30	SC							
31								
32								
33								
34								
35								

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		CL				CLAY; sandy: light yellowish brown (2.5 Y 6/4); fine (80%); silt (20%); well sorted; round; wet		
37								
38		SC				SAND, clayey: clay lenses; light yellowish brown (2.5 Y 6/4); fine (60%); med (20%); clay (20%); well sorted; round		
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
BORING TERMINATED AT 50 FEET.								



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4									
5									
6									
7		SM				SAND, silty: black (7.5 YR 2.5/1); fine (15%); med (35%); silt (10%); well sorted; round; semi-consolidated			
8									
9									
10									
11		SM							
12									
13		SM				SAND, silty: black (7.5 YR 2.5/1); fine (15%); med (35%); silt (10%); well sorted; round; consolidated			
14									
15									
16									
17		SM				SAND, silty: black (7.5 YR 2.5/1); fine (15%); med (35%); silt (10%); well sorted; round; semi-consolidated			
18									
19		SM							
20									
21									
22									
23									
24									
25		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			
26									
27		SM							
28									
29									
30		SM				SAND, silty: brown (7.5 YR 5/4); black mottles; fine (30%); med (65%); silt (5%); well sorted; round; unconsolidated; moist			
31									
32		SC				SAND, clayey: brown (7.5 YR 5/4); white (7.5 YR 8/1) mottles; fine (75%); clay (25%); well sorted; round; moist			
33									
34									
35									

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Red diagonal hatching]	SC				SAND, clayey: white (7.5 YR 8/1); fine (75%); clay (25%); well sorted; round; moist		
37								
38	[Red diagonal hatching]	SC				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		
39								
40	[Red diagonal hatching]	SC				CLAY, sandy: light olive brown (2.5 Y 5/3); greyish green (5 GY 5/2); well sorted; wet; moist		
41								
42	[Red diagonal hatching]	CL				BORING TERMINATED AT 50 FEET.		
43								
44	[Red diagonal hatching]	CL						
45								
46	[Red diagonal hatching]	CL						
47								
48	[Red diagonal hatching]	CL						
49								
50	[Red diagonal hatching]	CL						

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				SAND, clayey: light yellowish brown (10 YR 6/4); fine (75%); clay (25%); well sorted; round; wet		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51		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		
52								
53								
54								
55								
56		CL				CLAY, sandy: light olive grey (5 Y 6/2); well sorted; round; moist		
57								
58								
59								
60								
						BORING TERMINATED AT 60 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		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			
2									
3									
4									
5									
6									
7		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		
8									
9		SM					SAND, silty: dark brown (7.5 YR 3/2); fine (35%); med (60%); silt (5%); well sorted; round; unconsolidated; moist		
10									
11									
12							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		
13									
14		SM							
15									
16									
17									
18		SM					SAND, silty: strong brown (7.5 YR 5/6); fine (10%); med (90%); silt (<1%); well sorted; round to subround; unconsolidated; moist		
19									
20									
21		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		
22									
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									
28							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		
29									
30									
31									
32									
33									
34		SP							
35									

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC						
37								
38								
39								
40								
41							SAND, clayey: yellowish brown (10 YR 5/6); fine (65%); med (20%); clay (15%); well sorted; round; wet	
42								
43								
44								
45								
46					SAND; clayey light olive gray (5 Y 6/2); fine (70%); med (5%); clay (25%); well sorted; round; wet			
47								
48								
49								
50								
51					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					CLAY, sandy, silty: light olive grey (5 Y 6/2); dark blueish grey (GLEYS 2 4/1. 5 PB); fine (80%); clay (20%); well sorted; round;			
59								
60								
							BORING TERMINATED AT 60 FEET.	



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3								
4								
5								
6								
7		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		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
21		SP				SAND: pale brown (10 YR 6/3); brown (10 YR 5/3); fine (10%); med (90%); silt (<1%); well sorted; round; unconsolidated; moist		
22								
23								
24								
25								
26								
28		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		
29								
30								
31								
32								
33								
34								
35								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36	[Purple dotted pattern]	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		
37								
38								
39								
40								
41	[Purple dotted pattern]	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		
42								
43								
44								
45	[Purple dotted pattern]	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		
46								
47								
48								
49								
50	[Red diagonal hatching]	SC				SAND, clayey: dark brown (10 YR 3/3); brown (7.5 YR 5/3); fine (40%); med (50%); silt (10%); well sorted; round		
51								
52								
53								
54								
55								
56	[Red diagonal hatching]	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		
57								
58								
59								
60								
61	[Red diagonal hatching]	SC				SAND, clayey: light olive grey (5 Y 6/2); dark blueish grey (GLE Y 2/4, 1/5 PB) mottles; fine (70%); clay (30%); wet		
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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SM				SAND, silty: dark grey (10 YR 4/1); dark greyish brown grains; fine (5%); med (95%); silt (<1%); well sorted; subround; unconsolidated; moist			
2									
3									
4									
5									
6		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			
7									
8									
9									
10		SM				SAND, silty: black (10 YR 2/1); fine (5%); med (95%); silt (<1%); well sorted; subround; semi-consolidated; moist			
11									
12									
13		SM				SAND, silty: black (10 YR 2/1); fine (5%); med (95%); silt (<1%); well sorted; subround; unconsolidated; moist			
14									
15									
16									
17		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			
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		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		
37								
38								
39								
40								
41		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		
42								
43								
44								
45								
46		SC				Sand, clayey: greyish olive (5 GY 5/2); dark blueish grey (GLE Y 2 4/1, 5 PB) mottles; fine (80%); clay (20%); round to subround; wet		
47								
48								
49								
50								
						BORING TERMINATED AT 50 FEET.		



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		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		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11		SM				SAND, silty: very dark greyish brown (10 YR 3/2); fine (10%); med (85%); silt (5%); well sorted; unconsolidated; moist		
12								
13								
14								
15		SM				SAND, silty: black (10 YR 2/1); fine (10%); med (85%); silt (5%); well sorted; consolidated; moist		
16								
17								
18								
19		SM				SAND, silty: very dark greyish brown (10 YR 3/2); fine (10%); med (85%); silt (5%); well sorted; unconsolidated; moist		
20								
21								
22								
23								
24								
25								
26		SP				SAND: very dark greyish brown (10 YR 3/2); fine (15%); med (85%); silt (<1%); well sorted; round; consolidated; moist		
27								
28								
29								
30		SM				SAND, silty: grey (10 YR 6/1); fine (15%); med (85%); silt (<1%); well sorted; round; unconsolidated; moist		
31								
32		SM				SAND: grey (10 YR 6/1); light grey (10 YR 7/1)		
33								
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
5								
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								
11								
12								
13		SM	10 - 20	80		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
14								
15								
16								
17								
18		SP				SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
19								
20								
21								
22								
23								
24		SP	20 - 30	90		SAND (quartz): light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25								
26								
27								
28		SP				SAND, silty (quartz): dark grayish brown (10YR 3/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
29								
30								
31		SM				SAND (quartz): white (10YR 8/1); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
32								
33								
34								
35		SM	30 - 40	100		SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		SC-SM	50 - 60	80		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		
47								
48		SC-SM	60 - 70	70		SAND (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; fine black grains (<1%)		
49								
50		SP	70 - 80	100		SAND, clayey (quartz): dark gray (GLEYS 1 4/1); fine (50%); med (40%); coarse (5%); clay (<5%); well sorted; subround; fine black grains (<1%); wet		
51								
52		CH	70 - 80	100		CLAY: dark greenish gray (GLEYS 1 4/10Y); fat; reacts with HCL		
53								
54		CL	70 - 80	100		CLAY: white (GLEYS 8/N); lean; chalky; reacts with HCL		
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80						BORING TERMINATED AT 80 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-76\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5	[Graphic Log: Sand with silt]	SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet		
6								
7								
8								
9	[Graphic Log: Sand with silt]	SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10								
11								
12								
13								
14	[Graphic Log: Sand with silt]	SM	10 - 20	100		SAND, silty (quartz): black (10YR 2/1); fine(75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
15								
16								
17								
18	[Graphic Log: Sand with silt]	SP				SAND (quartz): yellowish brown (10YR 5/6); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
19								
20								
21								
22								
23								
24								
25	[Graphic Log: Sand with silt]	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		
26								
27								
28								
29								
30								
31								
32	[Graphic Log: Sand with silt]	SM						
33	[Graphic Log: Sand with silt]	SP				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; fine black grains		
34								
35	[Graphic Log: Sand]	CL				SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
36								
37	[Graphic Log: Clay]							
38	[Graphic Log: Clay]					CLAY, sandy: pale brown (10YR 6/3); fine grain; fine black grains (<1%)		
39	[Graphic Log: Sand with silt]	SC-SM				SAND, silty clay (quartz): light gray (10YR 7/1); fine grain; fine black grains (<1%)		
40						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1						No Recovery				
2		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic material (wood); moist				
3								SAND, silty (quartz): dark brown (10YR 3/3); fine (60%); med (30%); silt (<5%); well sorted; subround; semi-consolidated; wet		
4									SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
5		SM								
6		SM								
7										
8										
9										
10		SM								
11										
12										
13										
14		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (25%); silt (<5%); well sorted; subround; well consolidated; wet				
15						SAND, silty (quartz): dark brown (10YR 3/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet				
16										
17										
18		SM								
19										
20										
21										
22										
23		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				
24										
25			20 - 30	80						
26										
27		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				
28										
29										
30										
31										
32		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)				

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
33		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		
34								
35		SP					SAND (quartz): gray (10YR 5/1); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%)	
36								
37								
38								
39	SC		40 - 50	90		SAND, clayey: light brownish gray (10YR 6/2); fine grain; fine black grain (<1%); 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1						No Recovery					
2											
3											
4		SM	0 - 10	70		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		SM									
7		SM									
8											
9						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet					
10											
11						SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet					
12		SM	10 - 20	80		SAND, silty (quartz): very grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet					
13											
14											
15		SM							SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16											
17						SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)					
18											
19											
20											
21											
22											
23											
24											
25		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					
26		SP									
27											
28						SAND (quartz): gray (10YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
29											
30						SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
31		SC	30 - 40	80		SAND, clayey: light brownish gray (10YR 6/2); fine grain; fine black grain (<1%)					
32											
33											
34						SAND (quartz): gray (10YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet					
35											
36											
37											
38											
39											
40						BORING TERMINATED AT 40 FEET.					

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.



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2						SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic material (wood and roots); moist		
3		SM						
4								
5			0 - 10	90				
6						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7								
8		SM						
9								
10								
11		SM				SAND, silty (quartz): dark yellowish brown (10YR 4/6); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
12								
13		SM						
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		
15		SM	10 - 20	80				
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		
17		SM						
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		
19		SM						
20						SAND, silty (quartz): dark gray brown (10YR 4/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
21		SP						
22						SAND, silty (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
23								
24		SC				SAND (quartz): very pale brown (10YR 7/3); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
25			20 - 30	80		SAND, clayey: light brownish gray (10YR 6/2) fine grained		
26								
27		SP				SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
28								
29						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		
30								
31								
32								
33								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
34		SC-SM	30 - 40	90				
35								
36								
37		CL	40 - 50	90		CLAY, sandy: light brownish gray (10YR 6/2); fine grained; wet		
38								
39								
40								
41								
42		SC-SM				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		
43								
44								
45			50 - 60	0		No Recovery		
46								
47								
48								
49								
50								
51						BORING TERMINATED AT 60 FEET.		
52								
53								
54								
55								
56								
57								
58								
59								
60								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



**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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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						
5		0 - 10	80			SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
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								
13						SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		
14								
15			10 - 20	90				
16								
17								
18								
19								
20		SM						
21								
22								
23								
24								
25								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
26		SM	20 - 30	90		SAND, silty (quartz): black (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
27								
28								
29		SM	30 - 40	70		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
30								
31								
32		SM	30 - 40	70		SAND, silty (quartz): brown (10YR 4/8); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
33								
34								
35		SM	40 - 50	90		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
36								
37								
38		SM	40 - 50	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
39								
40								
41		SM	40 - 50	90		SAND, silty (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%)		
42								
43								
44		SM	40 - 50	90		SAND, silty (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%)		
45								
46								
47		SM	40 - 50	90		SAND, silty (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%)		
48								
49								
49		SC-SM	40 - 50	90		Sand, silty and clayey (quartz): brown (10YR 4/3); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
50								
50	BORING TERMINATED AT 50 FEET.							



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		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		SM						
6		SM						
7						SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
8						SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
10								
11								
12								
13		SM	10 - 20	80		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
14								
15								
16						SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
17								
18								
19		SM						
20								
21								
22								
23								
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		
26								
27								
28								
29		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		
30		SP						
31								
32						SAND (quartz): light gray (10YR 7/1); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
33								
34		SM	30 - 40	100		SAND, silty (quartz): very dark grayish brown (10YR 3/2); fine (75%); med (20%); silt (<5%); well sorted; semi-consolidated		
35								
36								
37						SAND (quartz): pale brown (10YR 6/3); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
38								
39								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SM				SAND, silty (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
47								
48								
49						SAND, silty and clayey (quartz): light yellowish brown (10YR 6/4); fine grained; fine black grain (<1%); wet		
50								
51								
52								
53		SC-SM						
54								
55			50 - 60	90		SAND, silty and clayey (quartz): light brownish gray (10YR 6/2); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; wet		
56								
57								
58								
59	SC-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).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1						No Recovery					
2											
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						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet					
6		SM									
7											
8											
9		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet					
10											
11			10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated					
12											
13		SM									
14											
15											
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											
21		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet					
22		SP									
23											
24		SM	20 - 30	90		SAND (quartz): gray (10YR 5/1); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
25						SAND, silty (quartz): dark yellowish brown (10YR 4/4); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
26						SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subrounded; unconsolidated; wet					
27		SM									
28											
29											
30		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated					
31											
32											
33											
34						SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)					

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
35		SP	30 - 40	90				
36								
37		SM						
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		SC-SM				SAND, silty and clayey (quartz): very dark gray (10YR 3/1); well sorted; subround; fine grained; fine black grains (<1%); wet		
42								
43								
44								
45		SM	40 - 50	80		SAND, silty (quartz): gray (10YR 5/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated		
46								
47		SM				CLAY, sandy: light brownish gray (10YR 6/2); fine grained; fine black grain (<1%)		
48								
49		CL						
50								
BORING TERMINATED AT 50 FEET.								

9/16/19_Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ



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

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
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								
7						SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
8		SM						
9								
10								
11								
12								
13		SM	10 - 20	90		SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
14								
15						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16		SM						
17								
18								
19								
20		SM				SAND, silty (quartz): brown (10YR 5/3); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated;		
21								
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		SM						
26						SAND, silty (quartz): brown (10YR 5/2); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
27								
28		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%)		
29								
30								
31						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated		
32								
33								
34		SM						

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
35		SP	30 - 40	100		SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)		
36								
37		SM	40 - 50	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
38								
39		SM	40 - 50	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
40								
41		SC-SM	50 - 60	90		SAND, silty and clayey (quartz): yellowish brown (10YR 5/4); fine grained		
42								
43		SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet		
44								
45	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
46								
47	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
48								
49	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
50								
51	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
52								
53	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
54								
55	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
56								
57	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
58								
59	SC-SM	50 - 60	90		SAND, silty and clayey (quartz): very pale brown (10YR 8/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; wet			
60								
60						BORING TERMINATED AT 60 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
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								
7								
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								
12								
13		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
14								
15			10 - 20	100				
16						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated		
17								
18								
19								
20								
21		SM						
22								
23								
24								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
25			20 - 30	80				
26								
27		SM						
28								
29		SM						
30								
31		SM						
32								
33								
34								
35			30 - 40	80				
36								
37		SP						
38								
39		SM						
40								
41		SM						
42								
43								
44								
45		SM	40 - 50	80				
46								
47								
48								
49		SM						
50								
						BORING TERMINATED AT 50 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5		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		
6								
7						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8								
9								
10		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		
11								
12								
13								
14								
15								
16								
17								
18								
19		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		
20								
21								
22								
23								
24								
25								
26								
27								
28		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
29								
30								
31								
32								
33								
34								
35		SC-SM	30 - 40	70		SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; fine black grains (<1%); wet		
36								
37								
38								
39								
40								
						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
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		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7								
8								
9		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
10								
11								
12								
13		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
14								
15								
16								
17								
18								
19								
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%)		
21								
22								
23								
24								
25								
26								
27								
28								
29		SM				SAND, silty (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
30								
31								
32								
33								
34		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)		
35								
36								
37								
38		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		
39								
40						BORING TERMINATED AT 40 FEET.		

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.



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5								
6						SAND, silty (quartz): very dark brown (10YR 2/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7								
8								
9								
10		SM	10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
11								
12								
13								
14								
15								
16		SM						
17								
18								
19								
20								
21		SM	20 - 30	90		SAND, silty (quartz): dark brown (10YR 3/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
22								
23								
24								
25		SM				SAND, silty (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
26								
27								
28								
29								
30						SAND, silty and clayey (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
31								
32		SC-SM	30 - 40	80		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
33								
34								
35								
36								
37								
38		SC-SM						
39								
40						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1						No Recovery			
2		SM	0 - 10	90		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist			
3									
4		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet			
5									
6									
7									
8									
9							SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10									
11		SM	10 - 20	90					
12									
13									
14									
15							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		SM							
17									
18									
19									
20									
21							SAND (quartz): light brownish gray (10YR 6/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
22		SP	20 - 30	100					
23									
24		SP				SAND (quartz): light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet			
25									
26							SAND (quartz): light brownish gray (10YR 6/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
27		SP							
28									
29									
30									
31									
32									
33							SAND, clayey: greenish gray (GLEYS 1 7/10Y); fine-medium grained; fine black grains (<1%); wet		
34									
35									
36		SC							
37									
38									
39									
40									
						BORING TERMINATED AT 40 FEET.			



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS				
			INTERVAL (feet)	% RECOVERY	PID (ppm)							
1		SM	0 - 10	90		No Recovery						
2						SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic (wood); wet						
3						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet						
4						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet						
5						SM			10 - 20	80		SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet
6												SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet
7												SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet
8						SM						SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)
9												SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet
10						SM						
11												
12						SM						
13												
14						SM						
15												
16						SM						
17												
18						SM						
19												
20						SM						
21												
22						SM						
23												
24						SM						
25												
26						SM						
27												
28						SM						
29												
30						SM						
31												
32						SM						
33												
34						SM						
35												
36						SM						
37												
38						SM						
39												
40						SC-SM						
						BORING TERMINATED AT 40 FEET.						



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
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						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7								
8								
9								
10		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		
11								
12								
13								
14								
15								
16								
17								
18								
19								
20		SC-SM	20 - 30	90		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine-grained; fine black grains (<1%); wet		
21								
22								
23								
24								
25								
26								
27								
28		SP				SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%)		
29								
30								
31		SC-SM	30 - 40	80		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine (60%); med (35%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42						SAND, silty and clayey (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; fine black grains (<1%); wet		
43								
44								
45								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		SC-SM	40 - 50	90				
47								
48								
49								
50								
51						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		
52								
53								
54								
55			50 - 60	70				
56								
57								
58								
59								
60								
61								
62		SC-SM						
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76		CH				CLAY: greenish gray (GLEY 3/10GY); fat; reacts with HCL		
77								
78								
79		CL				CLAY: light greenish gray (GLEY 8/5GY); 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic; wet; moist		
4								
5						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
6		SM						
7								
8								
9		SM						
10								
11								
12								
13		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		
14								
15		SM						
16								
17		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18								
19								
20		SM				SAND, silty (quartz): pale brown (10YR 6/3); fine grained; fine black grain (<1%); wet		
21								
22		SP						
23								
24		SM	20 - 30	80		SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%);		
25								
26						SAND, silty (quartz): pale brown (10YR 6/3); fine grained; fine black grain (<1%); wet		
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.		



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS				
			INTERVAL (feet)	% RECOVERY	PID (ppm)							
1						No Recovery						
2												
3												
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist						
5												
6												
7		SM	10 - 20	80		SAND, silty (quartz): dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet						
8												
9												
10												
11												
12												
13												
14												
15												
16		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; contains gravel sized well consolidated pieces; dark grayish brown (10YR 4/2)						
17												
18												
19												
20												
21												
22												
23		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												
25												
26		SM	20 - 30	90		SAND, silty (quartz): light gray (10YR 7/1); fine grained; fine black grains (<1%); wet						
27												
28												
29												
30												
31		SC-SM	30 - 40	90		SAND, silty and clayey (quartz): light gray (10YR 7/1); fine grained; fine black grains (<1%); wet						
32												
33												
34												
35												
36												
37												
38												
39												
40						BORING TERMINATED AT 40 FEET.						



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-76804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
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			0 - 10	90		SAND (quartz): light gray (10YR 7/2); fine (50%); med (50%); well sorted; sub round; unconsolidated; fine black grains (<1%); moist					
5		SM									
6			10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet					
7											
8											
9		SM									
10			10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet					
11		SM									
12											
13			10 - 20	80		SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet					
14		SM									
15		SM									
16		SM	10 - 20	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet					
17											
18											
19			10 - 20	80		SAND, silty (quartz): grayish brown (10YR 5/2); fine (75%); med (20%); silt (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
20		SM									
21											
22			10 - 20	80		SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; sub round; unconsolidated; fine black grains (<1%); wet					
23											
24		SP	10 - 20	80		SAND, silty (quartz): light gray (10YR 7/2); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)					
25											
26			10 - 20	80		BORING TERMINATED AT 40 FEET.					
27											
28											
29											
30											
31											
32		SM									
33											
34											
35											
36											
37											
38											
39											
40											

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.



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			

9/16/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
4		SM				SAND, silty (quartz): gray (10YR 6/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
5		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
6								
7		SM	10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
8		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
10								
11		SM	20 - 30	80		SAND, silty (quartz): very dark brown (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; semi-consolidated		
12		SM				SAND, silty and clayey (quartz): brown (10YR 5/2); fine grained; fine black grains (<1%); wet		
13		SM				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		
14								
15		SM	30 - 40	90		SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
16		SM				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		
17		SM						
18								
19		SC-SM						
20								
21		SC-SM						
22								
23								
24		SC-SM						
25								
26		SC-SM						
27								
28		SC-SM						
29								
30		SP						
31								
32		SC-SM						
33								
34		SC-SM						
35								
36		SC-SM						
37								
38		SC-SM						
39								
40						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic (roots); moist		
6								
7								
8		SM	10 - 20	80		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9								
10								
11								
12								
13								
14								
15		SM	10 - 20	80		SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
16								
17								
18								
19								
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		
22								
23								
24								
25		SM	20 - 30	90		SAND, silty (quartz): gray (10YR 5/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
26								
27		SM	20 - 30	90		SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
28								
29								
30								
31		SC-SM	30 - 40	100		SAND, silty and clayey (quartz): light brownish gray (10YR 6/2); fine grained; well sorted; subround; fine black grains (<1%); wet		
32								
33								
34								
35		SP	30 - 40	100		SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; fine black grains (<1%); wet		
36								
37								
38		SC-SM	30 - 40	100		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; fine black grains (<1%); wet		
39								
40						BORING TERMINATED AT 40 FEET.		

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.



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
5		SM						
6		SM				SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (45%); silt (<5%); well sorted; subround; unconsolidated; 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		SM						
11								
12								
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		
15		SM						
16						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
17								
18								
19		SP				SAND (quartz): brown (10YR 5/3); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20								
21						SAND, silty (quartz): dark yellowish brown (10YR 3/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
22								
23								
24		SM	20 - 30	90				
25		SM						
26								
27								
28								
29		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30								
31						SAND, silty and clayey (quartz): yellowish brown (10YR 3/4); fine (75%); med 20%); silt/clay (<5%); well sorted; subround; wet		
32								
33								
34								
35		SC-SM	30 - 40	90				
36		SC-SM						
37								
38								
39								
40								

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
41		SC-SM				SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; wet		
42								
43								
44								
45								
46								
47								
48								
49								
50								
						BORING TERMINATED AT 50 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS				
			INTERVAL (feet)	% RECOVERY	PID (ppm)							
1						No Recovery						
2												
3												
4		SM	0 - 10	60		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med(45%); silt (<5%); well sorted; subround; unconsolidated; wet						
5												
6		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						
7												
8												
9												
10												
11												
12												
13												
14						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well consolidated; well sorted; subround; wet						
15						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet						
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26		SP	20 - 30	100		SAND (quartz): light gray (10YR 7/2); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%)						
27						SAND, silty (quartz): brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet						
28		SM										

Continued Next Page

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.



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report\ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
29		SM	30 - 40	100		SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30		SM						
31		SM						
32		SM						
33		SM						
34		SM						
35		SM						
36		SM						
37		SM						
38		SM						
39	SM							
40	SM							
41	SM							
42	SM							
43	SM							
44	SM							
45	SP	40 - 50	90		SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet			
46	SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; fine black grains (<1%); wet			
47								
48								
49								
50						BORING TERMINATED AT 50 FEET.		

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.



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist SAND (quartz): pale brown (10YR 6/3); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
5		SP						
6		SM						
7		SM						
8								
9		SM	10 - 20	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
10		SM						
11								
12		SM						
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
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		SM						
25								
26		SM						
27								
28								
29								

Continued Next Page

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.



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
30		SM	30 - 40	100		SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
31								
32								
33								
34								
35								
36								
37								
38								
39								
40		SM	40 - 50	100		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; 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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report\ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5								
6						SAND, silty (quartz): dark grayish brown (10YR 4/2); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
7		SM						
8								
9								
10						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
11								
12		SM	10 - 20	80				
13								
14								
15						SAND, silty (quartz): very dark brown (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16		SM						
17								
18								
19						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20		SM	20 - 30	80				
21								
22								
23						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
24		SM						
25								
26		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27								
28								
29		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
30								
31						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
32		SM	30 - 40	100				
33								
34								
35								
36		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
37								
38		SM				SAND, silty (quartz): light gray (10YR 7/1); fine (50%); med (45%); silt (5%); well sorted; subround;		
39								
40								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
49		SM						
50						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
						BORING TERMINATED AT 50 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4	[Graphic Log: Sand with silt]	SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
5								
6								
7	[Graphic Log: Sand with silt]	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								
11								
12								
13								
14								
15			10 - 20	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16								
17								
18								
19								
20								
21								
22								
23								
24								
25			20 - 30	90		SAND, silty (quartz): brown (10YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
26								
27								
28								
29								
30								
31								
32								
33								
34								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
35		SM	30 - 40	80		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
36								
37		SC	40 - 50	90		SAND, clayey: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
38								
39		SP	40 - 50	90		SAND (quartz): white (10YR 8/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
40								
41		SC	40 - 50	90		SAND, clayey: light grey (10YR 7/1); fine grained; fine black grains (<1%); wet		
42								
43		SC-SM	40 - 50	90		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; wet		
44								
45		SC	40 - 50	90		SAND, clayey: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
46								
47		SC-SM	40 - 50	90		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		
48								
49		SC	40 - 50	90		SAND, clayey: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
50								
51		SC-SM	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
52								
53		SC	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
54								
55		SC-SM	40 - 50	90		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		
56								
57		SC	40 - 50	90		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		
58								
59		SC-SM	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
60								
61		SC	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
62								
63		SC-SM	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
64								
65		SC	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
66								
67		SC-SM	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
68								
69		SC	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
70								
71		SC-SM	40 - 50	90		SAND, silty and clayey (quartz): dark gray (GLE Y 1 4/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
72								

Continued Next Page

9/16/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
74		SC-SM						
75								
76								
77								
78								
79								
80								
81							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	
82								
83								
84								
85								
86								
87								
88		SC-SM						
89								
90								
91								
92								
93								
94								
95								
96					CLAY: dark greenish gray (GLEY 1 4/10Y); fat; reacts with HCL			
97		CH						
98								
99					CLAY, silty: white (GLEY 1 8/N); lean; chalky; reacts with HCL			
100		CL						
						BORING TERMINATED AT 100 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist		
4		SM						
5		SM				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				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
9								
10								
11								
12								
13			10 - 20	90		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
14		SM						
15								
16								
17								
18		SP				SAND (quartz): gray (10YR 5/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
19								
20		SM	20 - 30	100		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
21		SM						
22								
23		SP				SAND (quartz): gray (10YR 6/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
24								
25		SP						
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								
29		SM				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
30								
31		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		
32		SM						
33								
34								
35						SAND, silty (quartz): dark yellowish brown (10YR 3/4); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
36								
37								
38		SC-SM				SAND, silty (quartz): brown (10YR 5/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
39								
40						SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; fine black grains (<1%); wet		
						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1						No Recovery				
2										
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist				
4		SM								
5								SAND, silty (quartz): very dark gray (10YR 3/1); 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; well consolidated; wet				
8										
9										
10										
11			10 - 20	90		SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet				
12		SM								
13										
14										
15										
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			20 - 30	100		SAND (quartz): light gray (10YR 7/1); fine (50%); med (45%); well sorted; subround; unconsolidated; fine black grains (<1%); wet				
24		SP								
25										
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										
30		SC-SM				SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; fine black grains (<1%); wet				
31		SM								
32			30 - 40	100		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						SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
35										
36						SAND, silty and clayey (quartz): light gray (10YR 7/1); fine grained; fine black grains (<1%); wet				
37										
38		SC-SM								
39										
40						BORING TERMINATED AT 40 FEET.				



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics;		
4		SM						
5								
6								
7						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
9		SM						
10								
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		SM						
17		SM						
18						SAND, silty (quartz): brown (10YR 5/3); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
19		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%)		
20						SAND, silty and clayey (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); unconsolidated; wet		
21		SC-SM	20 - 30	90				
22								
23								
24								
25						SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
26								
27								
28		SM						
29								
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	30 - 40	90				
35								
36								
37						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		SC-SM						
39								
40								
						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SP	0 - 10	70		SAND (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organic material; moist		
5		SM						
6		SM						
7						SAND, silty (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics (roots)		
8						SAND, silty (quartz): very dark gray (10 YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
9						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10								
11		SM						
12								
13								
14								
15								
16		CL				CLAY, silty: dark yellowish brown (10YR 4/4); well compacted; hard; small amount of fine quartz sand		
17								
18								
19								
20								
21								
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						SAND, silty and clayey (quartz): light gray (10YR 7/2); fine grained; fine black grains (<1%); wet		
26								
27								
28								
29								
30								
31								
32		SC-SM						
33								
34								
35								
36								
37								
38								
39								
40								
						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1						No Recovery				
2										
3										
4		SM	0 - 10	70		SAND, silty (quartz): gray (10 YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics				
5		SM				SAND, silty (quartz): gray (10 YR 4/1); fine (50%); med (45%); silt (<5%); well sorted; unconsolidated; wet				
6										
7		SM							SAND, silty (quartz); very dark gray (10 YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
8										
9										
10		CL				CLAY, silty and sandy: dark yellowish brown (10 YR 4/4); fine; well compacted				
11										
12										
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		SP								
16						SAND (quartz): light gray (10 YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)				
17						SAND, silty and clayey (quartz): light gray (10 YR 7/2); fine; fine black grains (<1%)				
18										
19										
20										
21		SC-SM								
22										
23										
24										
25			20 - 30	100						
26										
27						CLAY, sandy: brown (10 YR 5/3); fine; moist; fine black grains (<1%)				
28										
29										
30										
31										
32										
33		CL								
34										
35										

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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%); coarse (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		
70	CL				CLAY: lean; does react with HCl		Top of Hawthorn	
					BORING TERMINATED AT 70 FEET.			



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
3						SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
4								
5		SM	0 - 10	80				
6								
7								
8								
9								
10		CL	10 - 20	80		CLAY, silty and sandy (quartz): brown (10YR 5/3); well compacted; fine black grains (<1%); wet		
11								
12								
13								
14								
15								
16								
17		SP	10 - 20	80		SAND (quartz): light gray (10YR 7/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18								
19		SM	10 - 20	80		SAND, silty (quartz): brown (10YR 4/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
20								
21								
22		SM	20 - 30	100		SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
23								
24								
25		SC-SM	20 - 30	100		SAND, silty and clayey (quartz): gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
26								
27								
28								
29								
30								
31								
32								
33								
34								
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		
36								
37								
38								
39								
40						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2		SM	0 - 10	80		SAND, silty (quartz): dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
3								
4		CL	0 - 10	80		CLAY, silty and sandy: dark yellowish brown (10YR 4/4); well compacted; fine black grains (<1%); wet		
5								
6		SP	10 - 20	100		SAND (quartz): light gray (10YR 7/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
7								
8		SM	10 - 20	100		SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
9								
10		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
11								
12		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
13								
14		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
15								
16		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
17								
18		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
19								
20		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21								
22		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
23								
24		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
25								
26		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
27								
28		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
29								
30		SM	20 - 30	50		SAND, silty (quartz): light yellowish brown (10YR 6/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
31								
						BORING TERMINATED AT 30 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
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		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8		SM						
9		SM						
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								
13		CL	10 - 20	90		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%)		
14		CL						
15		CL						
16		SP				CLAY, silty and sandy: dark yellowish brown (10YR 4/4); well compacted; fine black grains (<1%); wet		
17		SP				SAND (quartz): light gray (10YR 7/1); fine (75%); med (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
18		SP						
19		SP						
20		SP				SAND (quartz): gray (10YR 6/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21		SP						
22		SP						
23		SP						
24		SP						
25		SP	20 - 30	100		SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; fine black grains (<1%); wet		
26		SP						
27		SC-SM						
28		SC-SM						
29		SC-SM						
30		SC-SM						
31		SC-SM				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		SC-SM						
33		SC-SM						
34		SC-SM						
35		SC-SM	30 - 40	50				
36		SC-SM						
37		SC-SM						
38		SC-SM						
39		SC-SM						
40		SC-SM						
						BORING TERMINATED AT 40 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM						
4		SC-SM						
5			0 - 10	80		SAND, silty and clayey (quartz): dark gray (10YR 4/1); fine (50%); med (45%); silt/clay (<5%); well sorted; subround; semi-consolidated; 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								
11						CLAY, silty and sandy: gray (10YR 6/1); fine grained; well sorted; subround; fine black grains (<1%); wet		
12		CL						
13								
14								
15			10 - 20	100				
16		SP				SAND (quartz): white (10YR 8/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
17								
18						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		
19								
20								
21		SC-SM						
22								
23								
24								
25			20 - 30	90				
26						CLAY, silty and sandy: gray (10YR 6/1); fine grained; well sorted; subround; fine black grains (<1%); wet		
27		CL						
28								
29								
30						BORING TERMINATED AT 30 FEET.		



geotechnical // analytical // materials // environmental

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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SM	0 - 10	100		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
2		SC-SM						
3								
4								
5								
6		SM						
7								
8								
9								
10								
11		CL	10 - 20	90		CLAY, silty and sandy: dark yellow brown (10YR 4/4); well compacted; fine black grains (<1%); moist		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21		SP	20 - 30	100		SAND (quartz): light gray (10YR 7/2); fine (75%); med (25%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
22								
23								
24								
25								
26								
27								
28	SC-SM							
29								
30								
31		CL	30 - 40	100		CLAY, silty and sandy: brown (10YR 5/3); fine grained; fine black grains (<1%); wet		
32								
33								
34								
35								
36								
37								
38								
39								
40								

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.



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1						No Recovery					
2											
3											
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; organics; moist					
5		SM									
6											
7											
8		SM				SAND, silty (quartz): grayish brown (10YR 5/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet					
9						SAND, silty (quartz): black (10YR black); fine (75%); med (25%); silt (<5%); well sorted; subround; well consolidated; wet					
10											
11											
12		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet					
13											
14											
15			10 - 20	100		CLAY, silty and sandy: dark yellowish brown (10YR 4/4); fine grained; well sorted; subround; fine black grains (<1%); moist					
16		CL									
17											
18											
19											
20											
21		SP				SAND (quartz): light gray (10YR 7/2); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
22											
23											
24		SC-SM	20 - 30	100		SAND, silty and clayey (quartz): brown (10YR 5/3); fine grained; fine black grains (<1%); wet					
25											
26											
27											
28						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					
29		SC-SM									
30											
31											
32											
33											
34		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					
35											
36		SM									
37											
38		SC-SM				SAND, silty (quartz): light gray (10YR 7/2); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
39						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					
40											
						BORING TERMINATED AT 40 FEET.					



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SM				SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
4						SAND, silty (quartz): yellowish brown (10YR 5/4); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; fine black grains (<1%);		
5		SM				SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
6		SP				CLAY, silty and sandy: pale brown (10YR 6/3); well compacted; fine grained; fine black grains (<1%); moist		
7						CL		
8		SM				SAND (quartz): light gray (10YR 7/2); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
9		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
10		SM				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		
11	SM	SAND, silty and clayey (quartz): pale brown (10YR 6/3); fine grained; well sorted; subround; unconsolidated; fine black grains (<1%); wet						
12	SM							
13	SM							
14	SM							
15	SM							
16	SM							
17	SM							
18	SM							
19	SM							
20	SM							
21	SM							
22	SM							
23	SM							
24	SC-SM	20 - 30	90					
25	SC-SM							
26	SC-SM							
27	SC-SM							
28	SC-SM							
29	SC-SM							
30						BORING TERMINATED AT 30 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM						
4		SC-SM						
5			0 - 10	80		SAND, silty and clayey (quartz): brown (10 YR 5/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
6		SM						
7						SAND, silty (quartz): dark brown (10 YR 3/3); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
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		CL						
13								
14								
15			10 - 20	100		SAND (quartz): light gray (10 YR 7/2); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
16		SP						
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								
22		SC-SM						
23								
24								
25			20 - 30	100				
26								
27						SAND, silty and clayey (quartz): pale brown (10 YR 6/3); fine; well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
28		SC-SM						
29								
30						BORING TERMINATED AT 30 FEET.		

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.



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM				SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organic materials		
4								
5			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		
6		SC-SM						
7								
8								
9								
10								
11		SC-SM				SAND, silty and clayey (quartz): gray (10YR 6/1); fine; wet; fine black grains (<1%)		
12								
13								
14								
15			10 - 20	100		SAND, silty (quartz): light gray (10YR 7/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
16								
17								
18								
19								
20								
21		SM						
22								
23								
24			20 - 30	100				
25								
26								
27								
28								
29								
30								
31						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%)		
32								
33								
34								
35		SC-SM	30 - 40	50				
36								
37								
38								
39								
40								
41						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%)		
42								
43								
44								
45								

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		SC-SM	40 - 50	100				
47								
48								
49								
50		CL	50 - 60	90		CLAY, sandy: gray (GLEY 1 6/N); med-coarse		
51								
52								
53								
54								
55								
56		CH				CLAY: greenish grey (GLEY 5/10GY); fat; moist; does not react with HCl		
57								
58								
59								
60		CH				CLAY: greenish gray (GLEY 1 6/10GY) ; fat; moist; does react with HCl		
BORING TERMINATED AT 60 FEET.								

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



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1	[Dotted pattern]	SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (95%); silty (<5%); well sorted; subround; unconsolidated; wet; organics		
2								
3	[Dotted pattern]	SM				SAND, silty: 10yr 6/2 (Light Brownish-Gray); med (60%); fine (35%); silt <5%, well sorted; subround; semi-consolidated; wet		
4								
5	[Dotted pattern]	SM				SAND: 10yr 2/1 (Black); med (50%); fine (50%) ; well sorted; subround; well consolidated; moist		
6								
7	[Dotted pattern]	SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (15%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
8								
9	[Dotted pattern]	SP				No Recovery		
10								
11	[Dotted pattern]	SM				SAND: fine (90%); med (10%); well sorted; subround; wet; unconsolidated; <1% fine black grains		
12								
13	[Dotted pattern]	SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); subround; well sorted; unconsolidated; wet		
14								
15	[Dotted pattern]	SM				SAND: 10yr 6/2 (Light Brownish-Gray); med (50%); fine (50%); well sorted; subround; unconsolidated		
16								
17	[Dotted pattern]	SP				CLAY, sandy: 10yr 5/2 (Grayish-Brown); lean; wet		
18								
19	[Dotted pattern]	SM				SAND, silty: 10yr 6/2 (Light Brownish-Gray); fine (90%); silt (<10%); well sorted; subround; wet; unconsolidated		
20								
21	[Dotted pattern]	SM				SAND, silty, clayey: 5yr 5/1 (Gray); wet; well sorted; subround		
22								
23	[Dotted pattern]	SP						
24								
25	[Dotted pattern]	SM						
26								
27	[Dotted pattern]	SM						
28								
29	[Dotted pattern]	SM						
30								
31	[Dotted pattern]	SM						
32								
33	[Dotted pattern]	SM						
34								
35	[Dotted pattern]							

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SC-SM							
37									
38		SC							
39									
40							SAND, clayey: 5yr 5/1 (Gray); wet		
41									
42									
43									
44									
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									
66					SAND: GREY 1 7/10yr (Light Greenish-Gray); med (50%); fine (50%); wet; subround; well soft; wet				
67									
68		SP							
69									
70									
71									
72					SAND, clayey: GLEY 1 6/10y (Greenish-Gray); fine (60%); med (30%); clay (<10%)				
73									
74		SC							
75									

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76								
77								
78						MARL, clay: dense; fat; GLEY 1 4/5G (Dark Greenish-Gray)		
79								
80								
81								
82		CH						
83								
84								
85								
86								
87								
88								
89	CH				Mixture of clay marl and marl; stone gravel			
90								
91								
92	CH				CLAY MARL: GLEY 1 4/5G (Dark Greenish-Gray); dense			
93								
94								
95								
						BORING TERMINATED AT 95 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1	[Graphic Log: 1-6 ft interval with purple dots]	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		
2								
3								
4								
5								
6								
7	[Graphic Log: 7-8 ft interval with purple dots]	SP				SAND: fine (60%); med (40%); well sorted; sub round; unconsolidated; wet; (<1%) fine black grains		
8		SP						
9								
10	[Graphic Log: 10-11 ft interval with purple dots]	SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt <5%; well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
11		SP						
12								
13								
14	[Graphic Log: 14-15 ft interval with purple dots]	SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
15		SM						
16								
17								
18								
19	[Graphic Log: 19-20 ft interval with purple dots]	SM				SAND, silty: 10yr 2/1 (Black); fine (90%); med (5%); silt (<5%); well sorted; subround; well consolidated; wet		
20								
21								
22								
23	[Graphic Log: 23-24 ft interval with purple dots]	SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
24								
25								
26								
27								
28								
29								
30								
31								
32								
33	[Graphic Log: 33-34 ft interval with purple dots]	SP				SAND: 10yr 5/3 (Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
34								
35								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
44						SAND, silty: 10yr 3/3 (Dark Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
51						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		
59						Fine black grains and coarse white clear grains (well consolidated layer); similar to nodules noted above		
60						SAND: 10yr 5/4 (Yellowish-Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
63						SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; wet; unconsolidated; (<1%) fine black grains		
65						SAND, clayey: 10yr 4/4 (Dark Yellowish-Brown); fine-grained sand; well sorted; subround; moist		
66						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)		
69						SAND: med (50%); fine (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
72		CH			CLAY: 10yr 5/1 (Gray); fat			
73					SAND: 10yr 5/1 (Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains			

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		SP						
77								
78								
79								
80						SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
81								
82			SP					
83								
84								
85								
86						SAND: 10yr 8/1 (White); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
87								
88								
89								
90			SP					
91								
92								
93								
94								
95					SAND, clayey: 10yr 7/2 (Light Gray); fine (80%); med (15%); clay (5%); well sorted; subround; wet; (<1%) fine black grains			
96								
97		SC						
98								
99								
100					SAND: 10yr 8/3 (Very Pale Brown); fine (90%); med (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains			
101								
102								
103								
104		SP						
105								
106								
107								
108								
109					SAND: 10yr 5/1 (Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains			
110								
111								
112								
113								
114		SP						
115								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
116								
117		CH				CLAY: GLEY 2 4/10BG (Dark Greenish-Gray); fat; reacts with HCl		
118								
119								
120								
121								
122								
123								
124								
125								BORING TERMINATED AT 125 FEET.

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SM				SAND, silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; moist; unconsolidated 10yr 4/3 (Brown)		
2								
3		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; semi-consolidated		
4								
5		SM				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; semi-consolidated		
6								
7		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated		
8								
9		SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet		
10								
11		SP				SAND, silty: 10yr 2/1 (Black); fine (80%); med (15%); silt (<5%); subround; well sorted; well consolidated; moist		
12								
13		SP				SAND: 10yr 3/4 (Dark yellowish-brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
14								
15		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
16								
17		SP				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
18								
19		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
20								
21		SP				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
22								
23		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
24								
25		SP				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
26								
27		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
28								
29		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
30								
31		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
32								
33		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
34								
35		SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; moist		
36								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; (<1%) fine black grains		
37								
38		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; (<1%) fine black grains		
39								
40		SP				SAND: fine (60%); med (40%); well sorted; subround; wet; unconsolidated; (<1%) fine black grains		
41								
42		SP				SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet		
43								
44		SP				SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet		
45								
46		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (90%); clay (<10%); lean; well sorted; subround; moist		
47								
48		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (90%); clay (<10%); lean; well sorted; subround; moist		
49								
50		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (90%); clay (<10%); lean; well sorted; subround; moist		
51								
52		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (90%); clay (<10%); lean; well sorted; subround; moist		
53								
54		SP				SAND: GLEY 1 6/10yr (Greenish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		
55								
56		SP				SAND: GLEY 1 6/10yr (Greenish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		
57								
58		SP				SAND: GLEY 1 6/10yr (Greenish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		
59								
60		SP				SAND: GLEY 1 6/10yr (Greenish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		
61								
62		SP				SAND: GLEY 1 6/10yr (Greenish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; saturated		
63								
64		SC				SAND, clayey: GLEY 1 6/10y (Greenish-Gray); fine (60%); med (35%); clay (<5%); well sorted; subround; wet; (<1%) fine black grain		
65								
66		SC				SAND, clayey: GLEY 1 6/10y (Greenish-Gray); fine (60%); med (35%); clay (<5%); well sorted; subround; wet; (<1%) fine black grain		
67								
68		SC				SAND, clayey: GLEY 1 6/10y (Greenish-Gray); fine (60%); med (35%); clay (<5%); well sorted; subround; wet; (<1%) fine black grain		
69								
70		SP				SAND: GLEY 1 5/5yr (Greenish-Gray); med (60%); fine (40%); well sorted; subround; wet/saturated; (<1%) fine black grains		
71								
72		SP				SAND: GLEY 1 5/5yr (Greenish-Gray); med (60%); fine (40%); well sorted; subround; wet/saturated; (<1%) fine black grains		
73								
74		SP				SAND: GLEY 1 5/5yr (Greenish-Gray); med (60%); fine (40%); well sorted; subround; wet/saturated; (<1%) fine black grains		
75								

Continued Next Page

9/16/19 Report:ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		SP						
77								
78								
79								
80								
81								
82								
83								
84								
85								
86		CH				MARL (Fat Clay): GLEY I 4/5G (Dark Greenish-Gray)		
87						Shelby Tube Push		
88								
89								
90								
91								
92								
93								
94								
95						BORING TERMINATED AT 95 FEET.		



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet				
2										
3										
4										
5										
6		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); clay (<5%); well sorted; subround; wet				
7										
8										
9										
10										
11										
12		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				
13										
14										
15										
16								SAND: 10yr 5/2 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
17										
18										
19		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				
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP				SAND: 5y 5/1 (Gray); fine (50%); med (50%); well sorted; subround; wet; (<1%) fine black grains		
37								
38								
39								
40								
41								
42								
43								
44								
45								
46		SC				SAND, clayey: GLEY 6/1 (Gray); fine (60%); med (30%); clay (<10%); well sorted; subround; wet		
47								
48								
49								
50								
51								
52								
53								
54								
55								
56		CH				MARL (Fat Clay): GLEY 1 4/5Gy (Dark Greenish-Gray)		
57								
58								
59								
60								
61								
62								
63								
64								
65								
66		CL-ML				CLAY; silty: GLEY 1 7/N (Light Gray); dry		
67								
68								
69								
70						BORING TERMINATED AT 70 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPF

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
3		SP				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
4								
5								
6		SM						
7		SM						
8		SM						
9		SM						
10		SM						
11		SM						
12		SM						
13		SM						
14		SM						
15		SM						
16		SM						
17		SM						
18		SM						
19		SM						
20		SP						
21		SP						
22		SM						
23		SM						
24		SM						
25		SM						
26		SM						
27		SM						
28		SM						
29		SM						
30		SM						
31		SP						
32		SP						
33		SP						
34		SC						
35		SP						

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SC				(50%); med (45%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		
37						SAND: 10yr 7/1 (Light Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
38		SP				SAND, clayey: 10yr 4/2 (Brown); fine (80%); med (15%); clay (5%); well sorted; subround; wet		
39						SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet		
40								
41								
42		SC				SAND, clayey: 10yr 5/2 (Brown); fine (95%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54		SC				SAND, clayey: 10yr 4/1 (Dark Gray); fine (75%); med (20%); clay (5%); well sorted; subround; wet; (<1%) fine black grains		
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								

Continued Next Page

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.



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76								
77								
78		CH						
79								
80								
81								
82		CH						
83								
84								
85								
86								
87								
88		GP						
89								
90		CH						
91								
92		CH					Thin layer of gravel site material	
93								
							CLAY: GLEY 2 5/5 BG (Greenish-gray); fat BORING TERMINATED AT 93 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
1		SM				SAND, silty: 10yr 5/1 (Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics			
2		SM							
3		SM							
4		SP					SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; organics; wet		
5		SP							
6		SM					SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
7		SM					SAND, silty: 10yr 3/1 (Very Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8		SM							
9		SP							
10		SP					SAND: 10yr 6/4 (Light Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet		
11		SP							
12		SP							
13		SP							
14		SP							
15		SP							
16		SP							
17		SP							
18		SP							
19		SP							
20		SM					SAND, silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
21		SM							
22		SM							
23		SM							
24		SM							
25		SM							
26		SP					SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
27		SP					SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
28		SP							
29		SP					SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet		
30		SP							
31		SP					SAND: 10yr 4/1 (Dark Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
32		SM							
33		SM					SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet		
34		SM							
35		SM							

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (85%); med (10%); silt (<5%); well sorted; subround; unconsolidated; wet		
37								
38		SP				SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
39								
40		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
41								
42		SP				SAND: 10yr 4/1 (Dark Gray); fine (90%); med (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
43								
44		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (95%); silt (5%); well sorted; subround; well consolidated; wet		
45								
46		SP				SAND: 10yr 5/6 (Yellowish-Brown); fine grained; well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
47								
48		CL				CLAY, sandy: 10yr 7/1 (Light Gray); fine; unconsolidated; wet; <1% fine black grains		
49								
50		SP				SAND: 10yr 8/1 (White); fine; well sorted; subround; unconsolidated; saturated; (>1%) fine black grains		
51								
52		SM						
53								
54		SP						
55								
56		SM						
57								
58		SP						
59								
60		SM						
61								
62		SP						
63								
64		CL						
65								
66		SP						
67								
68		SM						
69								
70		SP						
71								
72		SM						
73								
74		SP						
75								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
78								
79								
80						CLAY, sandy: 10yr 4/1 (Dark Gray); fine; (<1%) fine black grains; wet		
81								
82								
83		CL						
84								
85								
86								
87						CLAY, sandy: GLEY I 7/1 (Light Gray); fine; well sorted; subround; unconsolidated; saturated; (<1%) fine black grains		
88								
89								
90								
91								
92								
93								
94								
95								
96		CL						
97								
98								
99								
100								
101								
102								
103								
104								
105								
106		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)		
108						CLAY: chalky dry clay (Light Gray)		
109								
110								
111								
112								
113								
114								
115		CH						

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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

9/16/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
116								
117								
118								
119								
120						BORING TERMINATED AT 120 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1		SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
2								
3								
4		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
5								
6								
7								
8		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; moist/wet; well consolidated		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20		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		
21								
22		SM				SAND: 10yr 3/1 (Very Dark Gray); fine (75%); med (25%); well sorted; subround; wet; unconsolidated		
23								
24		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; unconsolidated		
25								
26		SC				SAND, silty: 10yr 6/2 (Light Brownish-Gray); fine (95%); silt (<5%); well sorted; subround; wet; unconsolidated; (<1%) black fine grains		
27								
28		SC				SAND, clayey: 10 YR 5/3 (Brown); fine (75%); med (15%); clay (10%); well sorted; subround; moist; (<1%) fine black grains		
29								
30		SC				SAND: GLEY I 7/N (Light Gray); fine (75%); med		
31								
32		SC						
33								
34		SC						
35								

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				(25%); well sorted; subround; saturated			
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52		SP				SAND: GLEY I 6/N (Gray); fine (50%); med (50%); well sorted; subround; saturated; unconsolidated			
53									
54									
55									
56									
57									
58									
59									
60									
61									
62		CH				MARL (Fat Clay): GLEY I 5/10 Y (Greenish-Gray); fossiliferous			
63			CH				MARL (Fat Clay): GLEY I 5/5Gy (Greenish-Gray); mottled GLEY I 8/N (Light Greenish-Gray); med; fossiliferous; hard clay (dry) nodules		
64									
65				CH				MARL (Fat Clay): GLEY 5/Gy (Greenish-Gray); fossiliferous	
66									
67									
68									
69									
70									
71									
72									
73									
74									
75									

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

9/16/19 Report:ENVY LOG - NO WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76								
77								
78								
79		CH						
80		CH						
						CLAY: nodules; dry MARL(Fat Clay): GLEY 1 4/N (Dark Greenish-Gray); fossiliferous; dense BORING TERMINATED AT 80 FEET.		



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			

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS													
			INTERVAL (feet)	% RECOVERY	PID (ppm)																
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				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains															
4		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; wet															
5		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; wet															
6		SM				10 - 20			80		SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; well consolidated										
7											SM	20 - 30	90		SAND: 10yr 5/3 (Brown); med (60%); coarse (30%); fine (10%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains						
8															SM						
9																		SM			
10																					SM
11	SM																				
12	SM																				
13	SM																				
14	SM																				
15	SM																				
16	SM																				
17	SM																				
18	SM																				
19	SM																				
20	SM																				
21	SM																				
22	SM																				
23	SM																				
24	SM																				
25	SM																				
26	SM																				
27	SM																				
28	SM																				
29	SM																				
30	SM																				
31	SM																				
32	SM																				
33	SM																				
34	SM																				
35	SM																				

Continued Next Page

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.



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

9/16/19_Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS								
			INTERVAL (feet)	% RECOVERY	PID (ppm)											
36		SP	30 - 40	70												
37			40 - 50	80												
38																
39																
40		SP	40 - 50	80												
41																
42																
43																
44																
45																
46																
47																
48																
49																
50																
51									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			
52																
53																
54																
55																
56																
57		SP	60 - 70	70		SAND: 10yr 5/1 (Gray); fine (75%); med (25%); well sorted; subround; wet; unconsolidated; (<1%) black grains										
58																
59																
60																
61																
62																
63		SP	60 - 70	70		SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; wet; unconsolidated										
64																
65																
66																
67																
68																
69		SP	60 - 70	70		SAND: 10yr 7/1 (Light Gray); fine (90%); med (10%); well sorted; subround; wet; unconsolidated										
70																
71																
72																
73										SP	60 - 70	70		SAND, clayey: 10yr 6/1 (Gray); fine (95%); clay (5%); well sorted; subround; saturated 10yr 6/1 (Gray)		
74																
75																

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		SC						
77								
78								
79								
80		SP	80 - 90	60				
81								
82								
83								
84		SC						
85								
86								
87								
88		SC						
89								
90								
91								
92		SP						
93								
94								
95								
96		SP	90 - 100	70				
97								
98								
99								
100								
101								
102								
103								
104		SP						
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
116		SP						
117								
118								
119								
120								
121		CH						
122						CLAY (marl): GLEY 1 5/10 GY (Greenish-gray); fat; fossiliferous		
123								
124								
125								
126								
127								
128						MARL stone		
129		CH						
130		CH				CLAY: marl GLEY 1 6/5 GY (Greenish-Gray); fat		
131		CH				Shelby Tube Push		
132								
133						BORING TERMINATED AT 133 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2						No Recovery		
3						No Recovery		
4						No Recovery		
5			0 - 10	0		No Recovery		
6						No Recovery		
7						No Recovery		
8						No Recovery		
9						No Recovery		
10						No Recovery		
11						No Recovery		
12						No Recovery		
13		SM				SAND, silty: very dark brown (quartz); fine (50%); med (25%); coarse (20%); silt (<5%); well sorted; subround; moist; unconsolidated		
14		SC-SM				SAND, silty, clayey: very dark brown (quartz); fine (75%), med (20); silt/clay (<5%), well sorted, subround, semi consolidated, moist		
15			10 - 20	80		SAND, silty: (quartz); fine (50%), med (25%), coarse (20%), silt (<5%); well sorted; subround		
16		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		
17		SM				SAND: dark yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; moist; unconsolidated; FBG (<1%)		
18		SM				SAND: dark brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
19						SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<15%)		
20		SP				SAND: yellowish brown (quartz), fine 50%, med		
21								
22								
23								
24								
25		SP	20 - 30	70				
26								
27								
28								
29								
30								
31		SP						
32								
33								
34								
35								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U. S. C. S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
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						SAND: (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)				
40						SAND: (quartz); fine (50%); med (25); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)				
41		SP	40 - 50	80		SAND: dark brown (quartz); med (60%); fine (20%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)				
42		SP				SAND: brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)				
43									SAND: grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
44										
45		SP	50 - 60	60		SAND: dark yellowish brown (quartz); fine (40%); med (40%); coarse (20%); well sorted; subround; unconsolidated; moist				
46										
47		SP				SAND: dark yellowish brown (quartz); fine (40%); med (40%); coarse (20%); well sorted; subround; unconsolidated; moist				
48										
49										
50										
51										
52										
53	SP	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					
54										
55	SM				SAND: grayish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; unconsolidated; subround; moist; FBG (<1%)					
56										
57										
58	SP				SAND: (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)					
59										
60										
61										
62										
63										
64										
65										
66										
67										
68	SP				SAND: brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)					
69										
70										
71										
72	SP									
73										
74										
75	SP									

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		SC	70 - 80	80		SAND, clayey: dark grayish brown (quartz); fine (80%); med (15%); clay (<5%); well sorted; subround; moist; semi-consolidated CLAY, sandy: grey; fine		
77								
78		CL	80 - 90	90		SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
79								
80		CL	80 - 90	90		SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
81								
82		CL	80 - 90	90		SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
83								
84		CL	80 - 90	90		SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
85								
86		CL	80 - 90	90		SAND: brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
87								
88		SP	90 - 100	80		SAND: yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
89								
90		SP	90 - 100	80		SAND: yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
91								
92		SC-SM	90 - 100	80		SAND, silty, clayey: brownish grey (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
93								
94		SP	90 - 100	80		SAND: yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
95								
96		SP	90 - 100	80		SAND: yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
97								
98		SP	90 - 100	80		SAND: brown (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
99								
100		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
101								
102		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
103								
104		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
105								
106		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
107								
108		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
109								
110		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
111								
112		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
113								
114		SP	100 - 110	60		SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
115								
						No Recovery		

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
116								
117								
118								
119								
120								
121						CLAY: dark green; fat; does not react with HCl		
122		CH						
123								
124		SC						
125						SAND, clayey: light grayish green; fine (50%); med (25%); coarse (20%); clay (<5%); well sorted; subround; unconsolidated; does not react with HCl		
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						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		CL-ML				Shelby tube crushed in - 6 to 8 inches of clay retrieved		
						BORING TERMINATED AT 135 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13		SM				SAND, silty; very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
14		SC-SM	10 - 20	80		SAND, silty, clayey; black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
15								
16						SAND, silty; very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
17								
18								
19								
20								
21		SM						
22								
23								
24								
25								
26						SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
27		SP						
28								
29								
30						SAND: brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
31								
32								
33								
34								
35		SP						

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36			30 - 40	70				
37								
38								
39								
40								
41						SAND: yellowish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
42								
43		SP						
44								
45			40 - 50	80				
46		SP				SAND: light yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
47								
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								
61		SP				SAND: grayish brown (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
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						CLAY: dark grey; fat		
68		CH						
69								
70						No Recovery		
71								
72								
73								
74								
75								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		SP				SAND: dark grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
79						No Recovery		
80								
81								
82								
83								
84								
85		SP	80 - 90	50		SAND: dark grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
86								
87								
88								
89								
90						No Recovery		
91								
92								
93								
94								
95		SP	90 - 100	50		SAND: dark grey (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
96								
97								
98								
99								
100		CL				CLAY: light greenish grey; lean; does react with HCl		
101								
102								
103								
104								
105		CL				CLAY, sandy: grayish green; med; fine; does not react with HCl		
106								
107								
108		CH				CLAY: dark green; fat		
109								
110						BORING TERMINATED AT 110 FEET.		



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5			0 - 10	40				
6								
7		SP				SAND: dark grey (quartz); med (60%); fine (20%); coarse (20%); well sorted; subround; unconsolidated; dry		
8		SM						
9		SM				SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
10								
11						SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
12		SM						
13						SAND, silty: brown (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
14		SM						
15		SP	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)		
16		SC-SM						
17		SM						
18		SM				SAND: dark yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		
19								
20		SP				SAND, silty, clayey: dark yellowish brown mottled with grey (quartz); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; moist		
21								
22		SC-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		
23								
24		SP	20 - 30	90		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%)		
25								
26		SM				SAND: very dark grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
27								
28		SM						
29		SP				SAND, silty, clayey: dark yellowish brown (quartz); fine (90%); med (5%); silt/clay (<5%); well sorted; subround; unconsolidated		
30								
31						SAND: yellowish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
32								
33								
34						SAND, silty: pale brown (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist;		
35								

Continued Next Page



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

9/16/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP	30 - 40	80		FBG (<1%); contains well cemented silt (siltstone); very dark brown pebbles		
37						SAND: light brownish grey (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
38						SAND: grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%); relatively thin (<0.25 inch) clay lenses		
39								
40								
41								
42		CH				CLAY: greenish grey; fine (40%); med (30%); coarse (30%); fat; does not react with HCL; sand stringers and lenses		
43								
44								
45								
46								
47								
48		SC				SAND, clayey: greenish grey; fine (40%); med (30%); coarse (30%); does not react with HCL		
49								
50								
51								
52		SC				SAND, clayey: greenish grey; fine (40%); med (30%); coarse (30%); does not react with HCL		
53								
54								
55								
56		SC				SAND, clayey: fine (40%); med (40%); coarse (20%); fossiliferous; calcareous; does react with HCl		
57								
58								
59								
60		CH				CLAY: dark greenish grey; fat; does not react with HCl		
						BORING TERMINATED AT 60 FEET.		



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS				
			INTERVAL (feet)	% RECOVERY	PID (ppm)							
1						No Recovery						
2												
3												
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)						
6		SP										
7		SM										
8		SM										
9		SM										
10		SP										
11										SAND, silty: dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
12		SM										
13										SAND, silty: (quartz); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist		
14		SM										
15						SAND: dark yellowish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)						
16						SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist						
17		SM										
18						SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist						
19						SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated						
20						SAND, silty: dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist						
21												
22												
23												
24												
25												
26												
27		SM										
28												
29												
30												
31												
32												
33												
34												
35												

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
36		SP				SAND: dark yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
37									
38									
39									
40		SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
41									
42									
43									
44									
45									
46									
47									
48									
49									
50		SP				SAND: pale brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
51									
52									
53									
54									
55									
56									
57									
58									
59									
60		SP				SAND: grayish brown (quartz); med (50%); fine (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
61									
62									
63									
64									
65									
66									
67									
68									
69									
70		SP				SAND, clayey: dark grayish green; fine (75%); med (20%); coarse (5%), fat			
71									
72		SC				CLAY, sandy: dark grayish green; fine grained; fossiliferous (shell fragments); does react with HCl			
73									
74									
75									

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		CL						
77						CHALK: white; dry		
78		CHALK						
79		SM				SAND, silty; light grayish green (quartz); fine grained; reacts with HCl		
80						CLAY: dark grey; fat; mottled		
81		CH						
82		CL				CLAY: grayish green; lean; gravel size fragments		
83						CLAY: fine grained; fat; sand runners		
84		CH						
85								
86						CLAY: dark green; fat		
87								
88		CH						
89								
90						BORING TERMINATED AT 90 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5		SP	0 - 10	60		SAND: very dark grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
6		SM				SAND, silty: grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
7								
8		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; moist		
9								
10		SM						
11								
12								
13		SM	10 - 20	80		SAND, silty: very dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
14								
15		SM						
16								
17		SM						
18		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		
19								
20		SM						
21								
22		SP	20 - 30	80		SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
23		SP				SAND, silty: grayish brown (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist		
24								
25		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
26		SC-SM				SAND: light brownish grey (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		
27								
28		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		SP						
30								
31								
32		SP				SAND: light brownish grey (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
33								
34								
35						SAND: grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG		

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP	30 - 40	70		(<1%) SAND: dark brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
37		SP						
38		SC	40 - 50	80		SAND: light brownish grey (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
39								
40		CH	40 - 50	80		SAND: dark grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
41								
42		CH	40 - 50	80		SAND, clayey: dark grey (quartz); fine (60%); med (30%); coarse (5%); clay (<5%); well sorted; subround; moist		
43								
44		SC	40 - 50	80		CLAY: dark greenish grey; fat; fine (40%); med (30%); coarse (30%); sand stringers and lenses		
45								
46		CH	40 - 50	80		SAND, clayey: dark greenish grey (quartz); fine (90%); med (5%); clay (<5%); well sorted; subround; moist; FBG (<1%)		
47								
48		CH	40 - 50	80		CLAY: greenish grey/white; fat; calcareous; does react with HCl		
49								
50						No Recovery		
51								
52		CH	40 - 50	80		CLAY: greenish grey; fat; calcareous; reacts with HCl		
53								
54		CH	40 - 50	80		CLAY: dark greenish grey; fat; intermittent layers of calcareous crumbly dark greenish grey and light grey material; does react with HCl		
55								
56		CH	40 - 50	80				
57								
58		CH	40 - 50	80				
59								
60						BORING TERMINATED AT 60 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						Missing from sample		
2								
3								
4			0 - 10	40				
5		SM				SAND, silty: very dark brown (quartz); fine (5%); med (40%); coarse (50%); silt (<5%); subround; well sorted; unconsolidated; moist		
6								
7								
8			10 - 20	40				
9		SP				SAND: med brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
10								
11			20 - 30	80				
12		SM				SAND, silty: very dark brown (quartz); fine (70%); med (20%); coarse (10%); well sorted; subround; unconsolidated; wet		
13								
14			10 - 20	40				
15		SP				SAND: brown (quartz); fine (30%); med (70%); well sorted; unconsolidated; moist		
16								
17								
18								
19			20 - 30	80				
20		SM				SAND, silty: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; moist		
21								
22								
23								
24			20 - 30	80				
25		SM				SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted, subround, moist, well consolidated		
26								
27								
28			20 - 30	80				
29		SM				SAND: dark brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist		
30								
31								
32			20 - 30	80				
33		SP						
34								
35								

Continued Next Page



geotechnical // analytical // materials // environmental

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SP	30 - 40	60		SAND: med brown (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist		
37								
38		SP	40 - 50	80		SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
39								
40		SC-SM	40 - 50	80		CLAY, sandy: dark grey; med/fine; well sorted; subround; moist; FBG (<1%)		
41								
42		SC-SM	40 - 50	80		SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
43								
44		SM	40 - 50	80		SAND, silty, clayey: black grains (quartz); fine (95%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
45								
46		SM	40 - 50	80		SAND, silty: light grey (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; wet; FBG (<1%)		
47								
48		SP	40 - 50	80		SAND, silty: blackish grey; fine 95%, silt <5%, well sorted, subround, unconsolidated, FBG <1%		
49								
50		SP	50 - 60	70		SAND: (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
51								
52		SC-SM	50 - 60	70		SAND, silty, clayey: dark grey (quartz); fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; clay nodules		
53								
54		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		
55								
56		SC-SM	50 - 60	70		SAND, silty, clayey: med brown; fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
57								
58		SM	50 - 60	70		SAND, silty: med brown (quartz); fine (70%); med (25%); silt (<5%); well sorted; subround; moist; FBG (<1%)		
59								
60		SM	50 - 60	70		SAND, silty: yellowish brown (quartz); fine (95%); silt (<5%); well sorted; subround; moist; FBG (<1%)		
61								
62		SM	50 - 60	70		SAND, silty: dark grey/green (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
63								
64		SM	50 - 60	70				
65								
66		SM	50 - 60	70				
67								
68		SM	50 - 60	70				
69								
70		SM	50 - 60	70				
71								
72		SM	50 - 60	70				
73								
74		SM	50 - 60	70				
75								

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
76		SM	70 - 80	40				
77								
78								
79								
80								
81								
82								
83								
84		SP	80 - 90	80		SAND: (quartz); fine (10%); med (50%); coarse (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
85								
86		CH				CLAY: dark green mottled; fat; does not react with HCl		
87								
88								
89								
90						CLAY: dark green and white; fat; calcareous; does react with HCl		
91						CLAY: very light greenish grey; fat; does react with HCl		
92								
93								
94								
95						CLAY: dark green; fat; does react with HCl		
96								
97						CLAY: dark green and white; dry; crumbles		
98								
99						CLAY: dark green; fat		
100								
BORING TERMINATED AT 100 FEET.								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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		

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No recovery		
2								
3								
4		SP	0 - 10	60		SAND: grey (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; organics (wood roots)		
5								
6		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood)		
7								
8		SP				SAND, silty: dark yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
9								
10		SM				SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist		
11								
12		SM				SAND, silty: dark brown; fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
13								
14		SC-SM	10 - 20	100		SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay <5%, well sorted, subround, well consolidated, moist		
15								
16		SC-SM				SAND, silty, clayey: dark brown (quartz); fine (15%); med (40%); coarse (40%); silt (<5%); well sorted; subround; consolidated; moist		
17								
18						SAND, silty: brown (quartz); fine (40%); med (30%); coarse (25%); silt (<5%); well sorted; subround; unconsolidated; moist		
19								
20								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
21		SM	20 - 30	90				
22								
23		SM	20 - 30	90				
24								
25		SM	20 - 30	90				
26								
27		SM	20 - 30	90				
28								
29		SC-SM				SAND, silty, clayey; black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
30		SM				SAND, silty; dark brown; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
31		SM	30 - 40	100				
32								
33		SM	30 - 40	100				
34								
35		SM	30 - 40	100				
36								
37		SP	30 - 40	100				
38								
39		SP	30 - 40	100				
40								
41		SP	30 - 40	100				
42								

Continued Next Page



geotechnical // analytical // materials // environmental

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
43		SM	40 - 50	90		SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); 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%)		
44								
45		SP	50 - 60	80				
46								
47								
48								
49								
50								
51								
52								
53								
54								
55			60 - 70	80		SAND, silty, clayey: dark brown; fine (80%); med (15%); silt (<5%); well sorted; subround;		
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
66		SC-SM				semi-consolidated; moist		
67								
68		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
69		CL				CLAY, sandy: dark brown; fine		
70						SAND, silty, clayey: grayish brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
71								
72								
73								
74		SC-SM						
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%);		

Continued Next Page

9/16/19 Report: ENV LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								

Continued Next Page

9/16/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
112		SC	110 - 120	100				
113								
114								
115								
116								
117		CH				CLAY: dark grey green; fat; does react with HCL		
118								
119								
120						BORING TERMINATED AT 120 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL



geotechnical // analytical // materials // environmental

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

9/16/19 Report:ENVY LOG - NO WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		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)		
4								
5								
6						SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
7								
8								
9								
10		SM	10 - 20	80				
11								
12								
13								
14								
15								
16		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
17								
18								
19						SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
20								
21		SM						
22								
23								
24								
25		SP	20 - 30	80		SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
26								
27						SAND, silty: dark brown (quartz); fine (70%); med (20%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
28								
29								
30		SM						
31								
32								
33								
34								
35		SC-SM	30 - 40	70		SAND, silty, clayey: black (quartz); fine (95%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
36								
37						SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
38								
39								
40								
41								
42								
43		SM						
44								
45								

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46			40 - 50	80				
47								
48								
49								
50								
51								
52		SP					SAND: grayish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
53								
54		SP						
55								
56								
57								
58								
59								
60		SP					SAND: dark grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
61								
62								
63								
64		CL					CLAY, sandy: grayish brown; fine; FBG (<1%)	
65								
66								
67								
68							SAND, clayey: light brownish grey (quartz); fine (95%); clay (5%); well sorted; subround; moist; FBG (<1%)	
69								
70								
71								
72		SC						
73								
74								
75								
76							SAND: fine (60%) med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
77								
78		SP						
79								
80								
81								
82								
83								
84		SP					SAND: fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
85								
86		SC-SM					SAND, silty, clayey: (quartz); fine (75%); med (20%); silty/clay (<5%); well sorted; subround; moist; FBG (<1%)	
87								
88		SP					SAND: (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	
89								
90							No Recovery	
91								
92								
93								
94								
95								
96			90 - 100	0				

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
97								
98								
99								
100		SP	100 - 110	80		SAND: grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
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		CH	120 - 130	80		CLAY: grayish green; fat		
123								
124								
125								
126								
127								
128								
129		CL				CLAY: grayish green; lean; dry		
130						BORING TERMINATED AT 130 FEET.		



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		

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4		SM	0 - 10	70		SAND, silty (quartz): gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics		
5								
6								
7								
8								
9								
10		SM						
11								
12								
13								
14								
15		SM	10 - 20	80		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16								SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist
17								
18								
19								
20								
21								
22		SM						
23								
24								
25			20 - 30	100				
26								
27								
28		SC-SM				SAND, silty, clayey (quartz): light gray (10YR 7/1); fine; wet; fine black grains (<1%)		
29								
30								
31								
32		SC-SM				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%)		
33								
34								
35			30 - 40	100				
36								
37		SC-SM				SAND, silty, clayey (quartz): pale brown (10YR 6/3); fine; wet; fine black grains (<5%)		
38								
39								
40						SAND, silty, clayey (quartz): light gray (10YR 7/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
41								
42								
43		SC-SM						
44								
45								

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		CL	40 - 50	90				
47								
48		CL				CLAY, sandy: gray (10YR 6/1); fine; med; well sorted; subround; wet; fine black grains (<1%)		
49								
50		SC-SM				SAND, silty, clayey (quartz): light grayish brown (10YR 6/2); fine (60%); med (30%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
51								
52		SC-SM	50 - 60	50				
53								
54		SC-SM						
55								
56		SC-SM						
57								
58		SC-SM						
59								
60		SC-SM				No Recovery		
61								
62		SC-SM						
63								
64		SC-SM						
65								
66		SC-SM	60 - 70	0				
67								
68		SC-SM						
69								
70		SC-SM				No Recovery		
71								
72		SC-SM						
73								
74		SC-SM						
75								
76		SC-SM	70 - 80	0				
77								
78		SC-SM						
79								
80		SC-SM				SAND, silty, clayey (quartz): greenish grey (GLEYS 5/10Y); fine (60%); med (30%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; wet; does not react with HCl		
81								
82		SC-SM						
83								
84		SC-SM						
85								
86		CH	80 - 90	80		CLAY: greenish gray (GLEYS 5/5GY); fat; moist; does not react with HCl		
87								
88		CL				CLAY: light greenish grey (GLEYS 7/10Y); lean; chalky; dry; does react with HCl		
89								
90		CL				BORING TERMINATED AT 90 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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								
5			0 - 10	90		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		SP				SAND (quartz): yellowish brown (10YR 5/6); fine (50%); med (45%); coarse (5%); well sorted; subround; fine black grains (<1%); wet		
14		SM						
15								
16		SM				SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
17								
18								
19								
20		SM				SAND, silty (quartz): gray (10YR 5/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
21								
22								
23								
24								
25			20 - 30	90		CLAY, silty and sandy: yellowish brown (10YR 5/4); fine grained; well compacted; fine black grains (<1%); moist		
26		CL						
27								
28								
29								
30								
31								
32								
33		SM				SAND, silty (quartz): light gray (10YR 7/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
34								
35			30 - 40	70				
36								
37								
38								
39								
40								
41		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		
42								
43								
44								
45								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46			40 - 50	80		SAND, silty and clayey (quartz): gray (GLEY 1 5/N); fine (50%); med (40%); coarse (5%); silt/clay (<5%); well sorted; subround; unconsolidated; wet		
47			50 - 60	80				
48								
49								
50								
51								
52								
53								
54		SC-SM						
55			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						
67		CH				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		
68		CH				CLAY: greenish gray (GLEY 5/10GY); fat; reacts with HCL; moist		
69		CL				CLAY: light gray (GLEY 7/N); lean; chalky; odor when broken; reacts with HCL		
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 - NO WELL



geotechnical // analytical // materials // environmental

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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material		
4		SM						
5		SM						
6			10 - 20	100		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
7		SM						
8								
9			20 - 30	100		SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10								
11		SM						
12			30 - 40	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
13								
14		SM						
15			30 - 40	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
16								
17		SM						
18			20 - 30	100		SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
19								
20		SM						
21			30 - 40	90		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		SM						
24			30 - 40	90		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; wet; fine black grains (<1%)		
25								
26		SM						
27			30 - 40	90		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%)		
28								
29		SM						
30			30 - 40	90		SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
31								
32		SM						
33			30 - 40	90		SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
34								
35		SM						
36			30 - 40	90		SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
37								
38		SM						
39			30 - 40	90		SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
40								
41		SM						
42			30 - 40	90		SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
43								
44		SM						
45			30 - 40	90		SAND, silty (quartz): brown (10YR 4/3); fine (60%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
44								
45		SM						

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		SM	40 - 50	100		med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
47						SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
48								
49								
50								
51		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%)		
52								
53								
54								
55								
56								
57								
58								
59								
60								
61		CL	60 - 70	100		CLAY, sandy: gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
62								
63								
64								
65								
66								
67								
68								
69								
70								
71		CL	70 - 80	50		CLAY, sandy: gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
72								
73								
74								
75								
76								
77								
78								
79								
80								
81		CL	80 - 90	70		CLAY, sandy: gray (10YR 6/1); fine grained; fine black grains (<1%); wet		
82								
83								
84								
85								
86								
87								
88								
89								
90								
91		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		
92								
93								
94								
95								
96								

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
97								
98								
99								
100						No Recovery		
101								
102								
103								
104								
105			100 - 110	0				
106								
107								
108								
109								
110								
111		CL				CLAY, sandy: greenish gray (Gley 1 6/10Y); med-course; does not react with HCL; wet		
112								
113		CH				CLAY, fat: greenish gray (Gley 1 6/5GY); does not react with HCL		
114								
115				110 - 120	100		CLAY, fat: light greenish gray (Gley 7/10GY); reacts with HCL	
116								
117								
118								
119								
120						BORING TERMINATED AT 120 FEET.		



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
DRILLING COMPANY	Twin Pines	GROUND ELEVATION	171.03 Ft. AMSL
DRILLER	A. Blackwood	DEPTH TO WATER	
DRILLING METHOD	Sonic	WATER ELEVATION	
REMARKS			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
1						No Recovery		
2								
3								
4								
5		SM	0 - 10	60		SAND, silty: gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics; moist		
6								
7						SAND, silty: very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
8								
9								
10		SM						
11								
12								
13								
14								
15			10 - 20	100				
16		SM				SAND, silty: black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
17								
18		SM				SAND, silty: dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
19								
20		SM				SAND, silty: black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
21								
22		SM						
23		SP						
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		
26								
27		SM				SAND, silty: black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
28								
29						SAND, silty: very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
30								
31								
32								
33								
34						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		
35			30 - 40	90				
36								
37								
38								
39								
40		SM						
41								
42								
43								
44								
45								

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46			40 - 50	90				
47								
48								
49								
50								
51								
52		SP						
53								
54		SM	50 - 60	100				
55								
56		SM						
57								
58		CL						
59								
60								
61								
62		SC-SM	60 - 70	100				
63								
64		CL						
65								
66								
67								
68		SC-SM						
69								
70								
71								
72								
73								
74								
75								
76		SM	70 - 80	50				
77								
78								
79								
80								
81								
82								
83								
84								
85								
86		SC-SM	80 - 90	50				
87								
88								
89								
90								
91								
92								
93								
94								
95								
96			90 - 100	50				
96								

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-76804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
97		SM	100 - 110	90		(40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
98								
99								
100								
101								
102								
103								
104								
105								
106								
107	CH	110 - 120	100		CLAY: greenish gray (GLEY 1 5/10GY); fat; does not react with HCL; moist			
114								
115								
116								
117	CL				CLAY: light gray (GLEY 1 7/N); lean; chalky; reacts with HCL; odor when broken; dry			
118	CH				CLAY: greenish gray (GLEY 1 5/5GY); fat			
119								
120								
						BORING TERMINATED AT 120 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1						No Recovery				
2										
3		SM	0 - 10	80		SAND, silty (quartz): gray (10YR 5/1); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; organics; moist				
4										
5		SM							SAND, silty (quartz): very dark gray (10YR 3/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet	
6		SM								
7		SM				SAND, silty (quartz): black (10YR 2/1); fine (75%); med (20%); silt (<5%); well sorted; subround; subround; semi-consolidated; wet				
8										
9		SM								
10										
11		SM	10 - 20	100		SAND, silty (quartz): dark gray (10YR 4/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet				
12										
13		SM								
14										
15										
16						SAND, silty (quartz): dark yellowish brown (10YR 4/4); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet				
17										
18										
19										
20										
21		SM	20 - 30	100						
22										
23		SM								
24										
25										
26										
27										
28										
29										
30										
31										
32						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				
33										
34										
35										
36										
37										
38										
39		SM	30 - 40	100						
40										
41		SM								
42										
43										
44										
45										

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		SM	40 - 50	90		SAND, silty (quartz): brown (10YR 4/3); fine (50%); med (35%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; fine black grains (<1%); wet		
47								
48		SM	50 - 60	100		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		
49								
50		SM	60 - 70	90		SAND, silty and clayey (quartz): brown (10YR 4/3); fine grained; well sorted; subround; fine black grains (<1%); wet		
51								
52		CL	70 - 80	80		SAND, silty and clayey (quartz): gray (10YR 6/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet		
53								
54		SC-SM	80 - 90	90		CLAY, silty and sandy: light gray (10YR 7/1); fine grained; fine black grains (<1%); wet		
55								
56		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
57								
58		CL	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 6/1); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; fine black grains (1%); wet		
59								
60		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
61								
62		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
63								
64		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
65								
66		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
67								
68		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
69								
70		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
71								
72		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
73								
74		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
75								
76		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
77								
78		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
79								
80		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
81								
82		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
83								
84		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
85								
86		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
87								
88		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
89								
90		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
91								
92		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
93								
94		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
95								
96		SC-SM	90 - 100	0		SAND, silty and clayey (quartz): gray (10YR 5/1); fine grained; fine black grains (<1%); wet		
97								

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
97								
98								
99								
100								
101						No Recovery		
102								
103								
104								
105			100 - 110	0				
106								
107								
108								
109								
110								
111						CLAY: greenish gray; fat; does not react with HCL; moist		
112								
113								
114								
115		CL						
116			110 - 121	91				
117								
118								
119								
120		CL				CLAY: light greenish gray; lean; chalky; dry		
121						BORING TERMINATED AT 121 FEET.		



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7604-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1						No Recovery					
2											
3		SM	0 - 10	80		SAND, silty (quartz); gray (10YR 5/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; organics (wood); moist					
4											
5						SAND, silty (quartz); dark gray (10YR 4/1); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; organics (wood); wet					
6		SM									
7											
8											
9											
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									
16						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					
17		SC-SM									
18											
19		SC-SM				SAND, silty and clayey (quartz); dark gray (10YR 4/1); fine grained; well sorted; subround; fine black grains (<1%); wet					
20											
21						SAND, silty and clayey (quartz); brown (10YR 5/3); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet					
22		CL									
23						w/within clay lenses (<1/8 inch)					
24		SP	20 - 30	80		CLAY, sandy: gray (10YR 5/1); fine grained; fine black grains (<1%); wet					
25											
26		CL				SAND (quartz); light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
27											
28						CLAY, sandy: gray (10YR 5/1); fine grained; fine black grains (<1%); wet					
29		SP									
30						SAND (quartz); light gray (10YR 7/1); fine (50%); med (50%); well sorted; subround; unconsolidated; fine black grains (<1%); wet					
31											
32						SAND, silty and clayey (quartz); gray (10YR 6/1); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; fine black grains (<1%); wet					
33			30 - 40	100							
34											
35											
36		SC-SM									
37											
38											
39											
40											
41						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					
42											
43											
44											
45											

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
46		SC-SM	40 - 50	90				
47								
48								
49								
50								
51								
52								
53								
54			50 - 60	80				
55								
56								
57								
58								
59								
60								
61		SC-SM				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		
62								
63		CH	60 - 70	100		CLAY: dark gray (GLEY 1 4/N); fat; does not react with HCL; moist		
64								
65								
66								
67		CL				CLAY: light green gray (GLEY 1 7/10Y); lean; chalky; reacts with HCL; moist		
68								
69								
70							BORING TERMINATED AT 70 FEET.	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - NO WELL

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 Borings³							
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	
REMARKS		TOP OF CASING	131.88 Ft. AMSL
		GROUND ELEVATION	131.70 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
5		SP				SAND: pale yellow brown to grayish-brown (quartz); fine (80%); med (20%); well sorted; subround; unconsolidated; moist			
		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			
		SM				SAND, silty: grayish black to black (quartz); fine (70%); silt (20%); well sorted; subround; unconsolidated; saturated			
		SP				SAND: pale brown with mottled pale orange (quartz); medium (95%); silt (5%); well sorted; subround; unconsolidated; saturated			
		SP				SAND: pale brown with mottled pale orange (quartz); fine (10%); medium (90%); well sorted; subround; unconsolidated; saturated			
		SP				SAND: very pale orange (quartz); fine (40%); medium (60%); well sorted; subround; unconsolidated; saturated			
		SC				SAND, clayey: medium gray (quartz); fine (70%); medium (30%); well sorted; subround; unconsolidated; saturated			
		SP				SAND: very pale orange (quartz); fine (40%); medium (60%); well sorted; subround; unconsolidated; saturated			

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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						SAND: medium light gray (quartz); well sorted; subround; unconsolidated; saturated			
55		SP							
60									
65						SAND: medium gray (quartz); well sorted; subround; unconsolidated; saturated			
70		SP							

Continued Next Page



**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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		CH				CLAY: bluish gray; fat; does not react with HCl		
		CH				CLAY with gravel: medium light gray; fat; calcareous; does not react with HCl		
		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		
85		CL				CLAY: dry; crumbly; gravel size fragments; does react with HCl		
90								
						BORING TERMINATED AT 90 FEET.		



**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	
REMARKS		TOP OF CASING	140.51 Ft. AMSL
		GROUND ELEVATION	140.22 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
0 - 5		SP				SAND: brownish gray (quartz); med (60%); fine (40%); well sorted; subround; unconsolidated; moist			
5 - 10		SP				SAND: grayish black to black (quartz); med (10%); fine (90%); well sorted; subround; semi-consolidated; moist			
10 - 15		SP				SAND: grayish black to black (quartz); med (80%); fine (20%); well sorted; subround; consolidated; saturated			
15 - 20		SP				SAND: grayish black to black (quartz); med (80%); fine (20%); well sorted; subround; consolidated; saturated			
20 - 25		SM				SAND, silty: black (quartz); medium (15%); fine (85%); well sorted; subround; semi-consolidated; saturated; organics (silt)			
25 - 30		SP				SAND: mottled very pale orange and dark yellowish-brown (quartz); med (60%); fine (40%); poorly sorted; subround; unconsolidated; saturated			
30 - 35		SC				SAND, clayey: dark yellowish-brown to pale brown (quartz); med (25%); fine (75%); clay (40%); poorly sorted; subround; unconsolidated; saturated			

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
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		SC				SAND: medium light gray (quartz); medium (95%); fine (5%); well sorted; subround; unconsolidated; saturated			
65		SP							
70		SP							

Continued Next Page



**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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		SP				SAND: medium light gray (quartz); medium (95%); fine (5%); well sorted; subround; unconsolidated; saturated	<p>Screened Interval (0.01-inch PVC)</p> <p>2.0-inch PVC</p> <p>Well Tip</p>	
85		CH				CLAY: light gray; fat; highly calcareous; moderate reaction with HCl		
		CH				CLAY: medium light gray; fat; highly calcareous; does not react with HCl		
		CH				CLAY, with gravel: medium light gray; fat; gravel (30%); highly calcareous; does not react with HCl		
90		CH				CLAY: medium bluish-gray; fat; highly calcareous; moderate reaction with HCl		
BORING TERMINATED AT 90 FEET.								



**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	
REMARKS		TOP OF CASING	150.80 Ft. AMSL
		GROUND ELEVATION	150.52 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
0-5			0-10	50		NO RECOVERY			
5-7		SM				SAND; silty; Gray; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, wet			
7-9		SM				SAND; silty; Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet, <1% fine black grains			
9-10			10-20	50		SAND; silty; Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet			
10-12		SM				SAND; silty; Very Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet			
12-14		SM				SAND; silty; Gray; fine (50%), med. (40%), coarse (<5%), silt (<1%); well sorted, subround, unconsolidated, wet, <1% fine black grains			
14-16		SM				SAND; silty; Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist			
16-18			20-30	90		SAND; silty; Very Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, semi-consolidated, moist			
18-20		SM				SAND; silty; Light Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist			
20-22		SM				SAND; silty; Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist			
22-24			30-40	90		SAND; Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains			
24-26		SM				SAND; silty; Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist			
26-28		SP							
28-30		SM							
30-32									← Natural Pack

Continued Next Page

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



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SM				well sorted, subround, unconsolidated, moist SAND; silty; Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, moist		
		SM				SAND; silty; Dark Yellowish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist		
40			40-50	90				
		SP				SAND; Light Brown; fine (75%), med. (25%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SC-SM				SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
45								
		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								
		SC-SM	60-70	90				
		SM				SAND; silty; Gray; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
65								
		CL	70-80	100		CLAY; sandy, Dark Gray, does not react with HCL		
70								
		CH				CLAY; fat, Dark Grayish Green, does not react w/ HCL		

Screened Interval
(0.01-inch PVC)

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).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 log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.



**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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80-82		CL				CLAY; lean, Grayish Green, does react w/ HCL	<p>2.0-inch PVC</p> <p>Well Tip</p>	
82-84		CH				CLAY; fat, Dark Grayish Green, does not react w/ HCL		
84-88		CL				CLAY; lean, Light Green, does react w/ HCL, moist		
88-90		CL	80-90	100		CLAY; crumbly, dry, Light Greenish White, odor, does react w/ HCL		
BORING TERMINATED AT 90 FEET.								



**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	
REMARKS		TOP OF CASING	166.44 Ft. AMSL
		GROUND ELEVATION	166.08 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
0-1		SM				SAND, silty; dusky brown (quartz); fine to medium grained sand; silt (25%); well sorted; subround; unconsolidated; moist; organics (roots)			
1-2		SM				SAND, silty; light gray (quartz); fine to medium grained sand; silt (25%); well sorted; subround; unconsolidated; moist			
2-3		SM				SAND, silty; light brown (quartz); fine to medium grained sand; silt (15%); well sorted; subround; unconsolidated; moist			
3-5		SM				SAND, silty; brownish-black to black (quartz); fine (60%); silt (40%); well sorted; subround; semi-consolidated; saturated			
5-10		SM				SAND, silty; dark yellowish-brown (quartz); med. (85%); silt (15%); fairly well sorted; subround; semi-consolidated; saturated			
10-15		SM				SAND, silty; moderate brown (quartz); med. (85%); silt (15%); fairly well sorted; subround; semi-consolidated; saturated			
15-20		SP				SAND: black (quartz); fine (15%); med (85%); fairly well sorted; subround; semi-consolidated; saturated			
20-25		SP				SAND: brownish-black (quartz); fine (15%); med (85%); fairly well sorted; subround; unconsolidated; saturated			
25-30		SP				SAND: moderate brown to light brown (quartz); med (40%); coarse (60%); fairly well sorted; subround; unconsolidated; saturated			
30-35						SAND: light brown to grayish-brown (quartz); med (40%); coarse (60%); fairly well sorted; subround; unconsolidated; saturated			

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
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		

← Natural Pack

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).GPJ 9/16/19 Report:ENV LOG - WELL



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
100		SP				SAND, clayey: very pale orange (quartz); fine (90%); med (10%); well sorted; subround; unconsolidated; wet		
105		SP						
110						No recovery		

Screened Interval
(0.01-inch PVC)

2.0-inch PVC

Continued Next Page



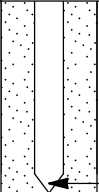
TWIN PINES MINERALS
 SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
120						BORING TERMINATED AT 120 FEET.		



**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	
REMARKS		TOP OF CASING	167.87 Ft. AMSL
		GROUND ELEVATION	167.53 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
0-10			0-10	0		NO RECOVERY			
10-20		SM	10-20	90		SAND; silty; Dark Grayish Black; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist			
20-30		SM	20-30	90		SAND; silty; Dark Yellowish Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, moist			
		SM				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			
						SAND; silty; Dark Brown; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist			
30-40		SM	30-40	90					

Continued Next Page



**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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		
45		SP				SAND; Gray; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
		SM				SAND; silty; Dark Grayish Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, unconsolidated, moist		
50		SM	50-60	80				
		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		
65		SC-SM				SAND; clayey, silty; Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
		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		

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - WELL



**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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80-85		SC				SAND; clayey, Light Grayish Brown, fine (60%), med. (35%), clay (<5%), well sorted, subround, moist, <1% fine black grains	<p>Screened Interval (0.01-inch PVC)</p> <p>2.0-inch PVC</p> <p>Well Tip</p>	
80-90		SC-SM	80-90	100		SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, moist		
85-90						SAND; Gray; fine (50%), med. (50%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
90-100		SP	90-100	100				
100-105		CH	100-110	100		CLAY; fat, Dark Grayish Green, does not react w/ HCL		
105-110		CL				CLAY; lean, Light Green, crumbly, does react w/ HCL		
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).GFPJ 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 log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.



**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	
REMARKS		TOP OF CASING	168.45 Ft. AMSL
		GROUND ELEVATION	168.31 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
						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%); silt/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%)			

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
38	[Dotted pattern]	SP				SAND: light grayish brown (quartz); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40	[Dotted pattern]	SP				SAND: dark yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
45	[Dotted pattern]	SP						
50	[Dotted pattern]	SP				SAND: dark yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		← Natural Pack
55	[Dotted pattern]	SP						
60	[Dotted pattern]	SM				SAND, silty: dark brown (quartz); fine (95%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
65	[Dotted pattern]	SM				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'		
70	[Diagonal lines]	SC				SAND, clayey: dark grey; fine (75%); med (25%)		
72	[Dotted pattern]	SP				SAND: grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
74	[Diagonal lines]					CLAY, sandy: light grayish brown; fine; FBG (<1%)		

9/16/19 Report:ENVY 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

Continued Next Page



**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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		CL						
80		SC-SM				SAND, silty, clayey; light grayish brown (quartz); fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%);		
85		SP				SAND: grayish brown (quartz); fine (75%); med (20%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
90		SP				SAND: grey (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
95		SP				SAND: greenish grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
100		SP				SAND: dark greenish grey (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; FBG (<5%)		
105		SP						
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		

Screened Interval
(0.01-inch PVC)

2.0-inch PVC

Continued Next Page

9/16/19_Report:ENVY 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

Continued from Previous Page

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		CL				CLAY, sandy; dark green; fine; does not react with HCl		
		CH				CLAY: dark green; fat; does not react with HCl		
120		CL				CLAY: dry; crumbly; gravel size fragments; does react with HCl		
BORING TERMINATED AT 120 FEET.								



**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	
REMARKS		TOP OF CASING	165.63 Ft. AMSL
		GROUND ELEVATION	165.49 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report ENVY LOG - WELL
MAPROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
5		SM	0-10	90		NO RECOVERY			
						SAND; silty; Gray; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics, <1% fine black grains			
						SAND; silty; Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics			
						SAND; silty; Dark Grayish Brown; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics			
						SAND; clayey, silty; Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, semi-consolidated, wet, <1% fine black grains			
						SAND; silty; Very Dark Brown; fine (75%), med. (20%), silt (<5%); well sorted, subround, semi-consolidated, wet			
						SAND; silty; Gray; fine (50%), med. (40%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, moist, w/ organics			
						SAND; silty; Dark Grayish Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet			
						SAND; silty; Very Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, semi-consolidated, wet			
						SAND; silty; Black; fine (75%), med. (20%), silt (<5%); well sorted, subround, well consolidated, moist			
10		SM	10-20	90		SAND; silty; Very Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist			
						SAND; silty; Yellowish Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, wet, <5% fine black grains			
15		SM	20-30	90					
20		SM	30-40	90					
25		SP							
30									

Continued Next Page



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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		Natural Pack
45								
50		SC	50-60	90		SAND; Gray; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains SAND; clayey, silty, Grayish Brown; fine (75%), med. (20%), clay/silt (<5%); well sorted, subround, semi-consolidated, wet SAND; Light Gray; fine (50%), med. (50%); well sorted, subround, unconsolidated, moist, <1% fine black grains SAND; clayey; Brown; fine (60%), med. (35%), clay (<5%); well sorted, subround, moist, <1% fine black grains		
55						SAND; clayey; Light Yellowish Brown; fine (75%), med. (20%), clay (<5%); well sorted, subround, moist, <1% fine black grains		
60		SP	60-70	90		Same as above but higher clay content SAND; Light Grayish Brown; fine (75%), med. (25%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
65						SAND; Grayish Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated, moist, <1% fine black grains		
70		SC	70-80	50		SAND; Dark Gray; fine (50%), med. (50%); well sorted, subround, unconsolidated, w/ clay nodules, moist, <1% fine black grains SAND; clayey; Dark Gray; fine (75%), med. (20%), clay (<5%); well sorted, subround, moist, <1% fine black grains		

Continued Next Page



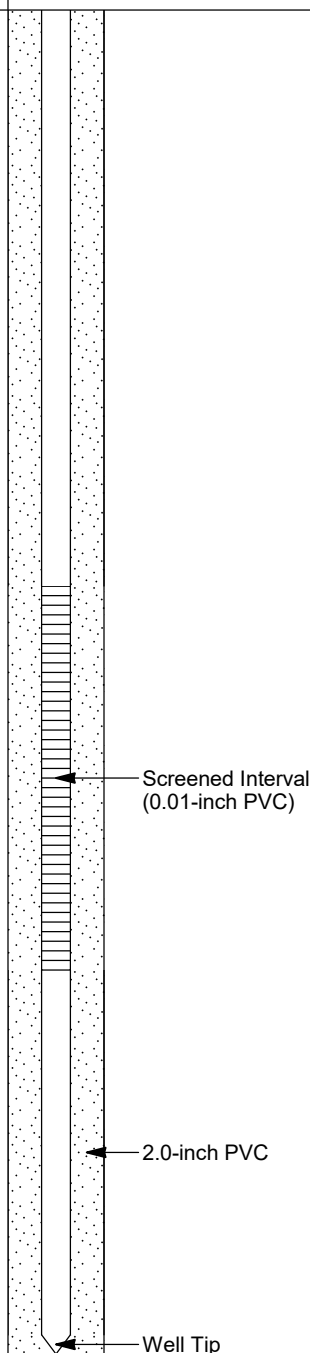
**TWIN PINES MINERALS
SAINT GEORGE, GEORGIA**

**LOG OF PIEZOMETER
UD25
& PIEZOMETER
CONSTRUCTION**

PROJECT NUMBER 000180200804.00 PROFESSIONAL T. Hall
 LOCATION Saint George, Georgia DATE(S) DRILLED 2/6/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80								
85		SP	80-90	90		SAND; Gray; fine (60%), med. (35%), coarse (5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
90			90-100	0		NO RECOVERY		
95								
100		CH	100-110	100		CLAY; fat, Dark Greenish Gray, does not react w/ HCL		
105		CH				Does react w/ HCL		
		CH				CLAY; fat, Dark Greenish Gray, does react w/ HCL		
		CH				does react w/ HCL		
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

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



**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	
REMARKS		TOP OF CASING	148.81 Ft. AMSL
		GROUND ELEVATION	148.55 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
			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			

Continued Next Page



**TWIN PINES MINERALS
SAINT GEORGE, GEORGIA**

**LOG OF PIEZOMETER
UD3
& PIEZOMETER
CONSTRUCTION**

PROJECT NUMBER 000180200804.00 PROFESSIONAL T. Hall
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/6/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP	40-50	60		SAND: med brown (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist	<p align="right">← Natural Pack</p>	
45		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%)		
		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%)		
55		SC-SM				SAND, silty, clayey: dark grey (quartz); fine (85%); med (10%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; clay nodules		
		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%)		

Continued Next Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - WELL



**TWIN PINES MINERALS
SAINT GEORGE, GEORGIA**

**LOG OF PIEZOMETER
UD3
& PIEZOMETER
CONSTRUCTION**

PROJECT NUMBER 000180200804.00 PROFESSIONAL T. Hall
 LOCATION Saint George, Georgia DATE(S) DRILLED 3/6/2019

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		SM	80-90	80			<p>Screened Interval (0.01-inch PVC)</p> <p>2.0-inch PVC</p> <p>Well Tip</p>	
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			
90		CH	90-100	100	CLAY: dark green and white; fat; calcareous; does react with HCl CLAY: very light greenish grey; fat; does react with HCl			
		CH			CLAY: dark green; fat; does react with HCl			
95		CH			CLAY: dark green and white; dry; crumbles			
		CH			CLAY: dark green; fat			
100		CH						
					BORING TERMINATED AT 100 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



**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	
REMARKS		TOP OF CASING	165.23 Ft. AMSL
		GROUND ELEVATION	165.00 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
0-1		SP				SAND: grey (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%); organic material			
1-2		SM				SAND, silty: dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist			
2-3		SP				SAND: light brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
3-5		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
5-13		SM							
13-15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist			
15-17		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; less consolidated; moist			
17-20		SM				SAND, silty: dark brown (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated			
20-23		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist			
23-28		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)			
28-32		SM							
32-33		SP				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (>1%-<5%)			

Continued Next Page



**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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
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%)		
		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%)		
		CL				CLAY, sandy: grayish brown; fine; moist; FBG (<1%)		
65		SC-SM				SAND, silty: light grayish brown (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (>1%-<5%)		
		SM						

Continued Next Page



**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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80	[Red diagonal lines]	SC-SM				SAND, silty, clayey: grayish brown (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; moist/wet	<p>Screened Interval (0.01-inch PVC)</p> <p>2.0-inch PVC</p> <p>Well Tip</p>	
85	[Red diagonal lines]	SC				SAND, clayey: light grayish brown (quartz); fine (50%); med (45%); silt/clay (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
90	[Purple dots]	SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
95	[White]					No Recovery		
100	[Purple dots]	SP				SAND: grayish green (quartz); fine (50%); med (45%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
101	[Orange diagonal lines]	CL				CLAY: grayish green; lean; highly calcareous; does react with HCL		
102	[Red diagonal lines]	CH				CLAY: dark green; fat; calcareous material		
103	[Orange diagonal lines]	CL				CLAY: grayish green; lean; highly calcareous; does react with HCL		
104	[White]	GW				CHALKY: gravel; dry; crumbly; matrix material		
105	[Red diagonal lines]	CH				CLAY: dark green; fat; calcareous bands; reacts with HCL		
106	[Red diagonal lines]	CH				CLAY: light grayish green; fat; does react		
110	[White]	GW				CHALKY: gravel; dry; crumbly; matrix material		
						BORING TERMINATED AT 110 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL



**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	
REMARKS		TOP OF CASING	166.84 Ft. AMSL
		GROUND ELEVATION	166.76 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
			0-10	70		NO RECOVERY			
5		SM				SAND; silty; Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, w/organics, wet			
		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						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



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

Continued from Previous Page

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40			40-50	100				
45		SC-SM				SAND; clayey, silty; Dark Yellowish Brown; fine (75%), med. (20%), silt (<5%); well consolidated; wet SAND; Light Brown; fine (60%), med. (40%); well sorted, subround, unconsolidated; moist; <1% fine black grains		
		SP						
50			50-60	80		SAND; silty; Dark Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated; wet		
55								
60			60-70	80				
		SM						
65								
70			70-80	100				
						SAND; Light Brown; fine (75%), med. (25%); well sorted,		

← Natural Pack

Continued Next Page



**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

Continued from Previous Page

9/16/19_Report:ENVY LOG - WELL
 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPFJ
 MAPROJECTS2018000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80-82		SP				subround, unconsolidated; moist; <1% fine black grains		
82-84		SM				SAND; silty; Grayish Brown; fine (75%), med. (20%), silt (<5%); unconsolidated; wet		
84-85		CH	80-90	100		CLAY; Dark Gray, Fat, does not react w/HCL, wet		
85-90		CL				CLAY; Dark Gray, sandy, does not react w/HCL, wet		
90-95		SP	90-100	70		SAND; Grayish Brown, fine (50%), med. (50%); unconsolidated; wet, <1% fine black grains		
95-98		SP				SAND; Grayish Brown, fine (50%), med. (25%), coarse (25%); wet, <1% fine black grains		
98-100		SP				SAND; Grayish Brown, fine (50%), med. (50%); unconsolidated; wet, <1% fine black grains		
100-110			100-110	0		NO RECOVERY		
110-112		SP	110-120	80		SAND; White, fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated; wet, <1% fine black grains		
112-115						SAND; Gray, fine (50%), med. (25%), coarse (25%); well		

Screened Interval (0.01-inch PVC)

Continued Next Page

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



**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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SP				sorted, subround, unconsolidated; wet, <1% fine black grains		<p>2.0-inch PVC</p> <p>Well Tip</p>
-120		CH	120-130	100		CLAY; Light Green, fat; does react w/ HCL		
		CL				CLAY; Light Green; w/ gravel, lean, does react w/ HCL		
		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		CH						
						BORING TERMINATED AT 130 FEET.		



**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	
REMARKS		TOP OF CASING	172.14 Ft. AMSL
		GROUND ELEVATION	172.06 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
0-10			0-10	80		NO RECOVERY			
5		SM				SAND; silty; Grayish Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, w/organics, wet			
		SM				SAND; silty; Yellowish Brown; fine (60%), med. (30%), coarse (5%), silt (<5%); well sorted, subround, unconsolidated, wet			
10		SM	10-20	100		SAND; silty; Dark Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, wet			
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			

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
40		SP	40-50	90					
45									
50			50-60	90					
55		SM	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						SAND; clayey, silty, Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, semi-consolidated, moist			
			SC-SM				SAND; silty, Brown; fine (60%), med. (35%), silt (<5%); well sorted, subround, unconsolidated, moist		
			SM				SAND; silty, Grayish Brown; fine (50%), med. (45%), silt (<5%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
70			70-80	100					
	SC-SM				SAND; clayey, silty, Light Grayish Brown; fine (75%), med. (20%), silt/clay (<5%); well sorted, subround, unconsolidated, <1% fine black grains				

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		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		
80		CL	80-90	90		CLAY; sandy, Gray, fine grained, wet; <1% fine black grains		
		SP				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				
		SP				SAND; Light Grayish Brown; fine (50%), med. (50%), coarse (10%); well sorted, subround, unconsolidated, wet, <1% fine black grains		
95								
		SP				SAND; Light Grayish Brown; fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated, wet,		
100			100-110	80				
		SP				SAND; Grayish Brown; fine (50%), med. (45%), coarse (5%); well sorted, subround, unconsolidated, wet,		
105								
		SP						
110			110-120	80				
						SAND; clayey, silty, Dark Gray; fine (50%), med. (40%), clay (5%), silt (5%); well sorted, subround, unconsolidated, wet		

Continued Next Page

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
UD67
& PIEZOMETER
CONSTRUCTION

PROJECT NUMBER 000180200804.00 PROFESSIONAL T. Hall
LOCATION Saint George, Georgia DATE(S) DRILLED 3/5/2019

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SC-SM					<p>Screened Interval (0.01-inch PVC)</p> <p>2.0-inch PVC</p> <p>Well Tip</p>	
-120		CH	120-130	100		CLAY; Dark Gray, fat, does not react w/ HCL		
-125		CL				CLAY; Dark Gray; crumbly, dry, does react w/ HCL		
-130		CH				CLAY; Dark Green, moist, does react w/ HCL		
						BORING TERMINATED AT 130 FEET.		



**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	
REMARKS		TOP OF CASING	150.51 Ft. AMSL
		GROUND ELEVATION	150.25 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
						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			

Continued Next Page



**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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
35 - 40		SP				SAND: moderate yellowish-brown (quartz); coarse (60%), med (40%); well sorted; subround; unconsolidated; saturated			
40 - 45		SP				SAND: moderate yellowish-brown (quartz); med (5%), fine (95%); well sorted; subround; unconsolidated; saturated			
45 - 50		SP				SAND: very pale orange (quartz); med (80%), fine (20%); well sorted; subround; unconsolidated; saturated			
50 - 65		SP				SAND: very pale orange (quartz); med (80%), fine (20%); well sorted; subround; unconsolidated; saturated			
65 - 70		SC				SAND, clayey: very pale orange (quartz); med (50%), fine (50%); clay (<5%); well sorted; subround; slightly consolidated; saturated			
70 - 75		SC				SAND, clayey: very pale orange (quartz); med (50%), fine (50%); clay (<5%); well sorted; subround; unconsolidated; saturated			

← Natural Pack

Continued Next Page

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



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		SC				SAND, clayey: very pale orange (quartz); med (50%), fine (50%); clay (<5%); well sorted; subround; unconsolidated; saturated	<p>Screened Interval (0.01-inch PVC)</p> <p>2.0-inch PVC</p> <p>Well Tip</p>	
		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		
		SP				SAND: medium gray (quartz); medium (90%), fine (10%); well sorted; subround; unconsolidated; saturated		
		SP				SAND: medium gray (quartz); coarse (90%), fine (10%); well sorted; subround; unconsolidated; saturated		
		SC				SAND, clayey: medium gray (quartz); coarse (90%), fine (10%); well sorted; subround; unconsolidated; saturated		
		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		
		CH				CLAY: bluish gray; fat; highly calcareous poorly sorted gravel; does react with HCL		
110						BORING TERMINATED AT 110 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-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 log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.



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			

9/16/19 Report:ENV LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
1						NO RECOVERY					
2		SM	0 - 10	80		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											
6											
7		SM				SAND, silty: Black (quartz); fine (75%); med (20%); silt (<5%); subround; well sorted; well consolidated; moist					
8											
9											
10		SM				SAND, silty: Very Dark Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet					
11											
12											
13											
14											
15		SC-SM	10 - 20	90		SAND, clayey, silty: Dark Grayish Brown (quartz); fine (50%); med (45%); silt/clay (<5%); subround; well sorted; semi-consolidated; moist					
16											
17											
18											
19											
20						SAND: Grayish Brown (quartz); fine (50%); med (50%); subround; well sorted; unconsolidated; wet, <1% fine black grains					
21											
22											
23											
24		SP	20 - 30	80							
25											
26											
27											
28											
29											
30											
31											
32						SAND: Dark Yellowish Brown (quartz); fine (60%); med (40%); subround; well sorted; unconsolidated; wet, <1% fine black grains					
33											
34											
35											

Continued Next Page



geotechnical // analytical // materials // environmental

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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
36		SP	30 - 40	100		SAND: Yellowish Brown (quartz); fine (50%); med (50%); subround; well sorted; unconsolidated; wet, <1% fine black grains					
37			38	39	40				41		
42		SP	40 - 50	90							
43			44	45	46				47	48	49
50			SP	50 - 60	90						
51				52	53				54	55	56
BORING TERMINATED AT 60 FEET.											

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.



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			

9/16/19 Report:ENVY LOG - NO WELL
M:\PROJECTS\2018\00180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS		
			INTERVAL (feet)	% RECOVERY	PID (ppm)					
1		SM				SAND, silty: Dark Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; moist, w/ organics				
2										
3										
4										
5										
6				SM				SAND, silty: Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet		
7										
8										
9										
10				SM				SAND, silty: Dark Grayish Brown (quartz); fine (75%); med (20%); silt (<5%); subround; well sorted; semi-consolidated; wet		
11										
12				SM				SAND, silty: Black (quartz); fine (75%); med (20%); silt (<5%); subround; well sorted; well consolidated; wet		
13										
14										
15				SM				SAND, silty: Grayish Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
16										
17										
18				SM				SAND, silty: Gray (quartz); fine (50%); med (40%); coars (5%); silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
19										
20										
21				SM				SAND, silty: Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
22										
23										
24				SM				SAND, silty: Brown (quartz); fine (60%); med (35%); silt (<5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
25										
26										
27										
28										
29										
30				SP				SAND: Grayish Brown (quartz); fine (60%); med (40%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
31										
32										
33										
34										
35										

Continued Next Page



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

Continued from Previous Page

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - NO WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	REMARKS
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
36		SM				SAND, silty: Dark Brown (quartz); fine (50%); med (45%); silt (<5%); subround; well sorted; unconsolidated; moist		
37								
38								
39								
40								
41		SP				SAND: Grayish Brown (quartz); fine (60%); med (35%), coarse (5%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
42								
43		SC-SM				SAND, clayey, silty: Dark Grayish Brown (quartz); fine (75%); med (20%), clay/silt (5%); subround; well sorted; semi-consolidated; moist		
44								
45								
46								
47								
48								
49								
50								
51		SP				SAND: Light Grayish Brown (quartz); fine (60%); med (40%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
52								
53								
54		SP				SAND: Grayish Brown (quartz); fine (50%); med (50%); subround; well sorted; unconsolidated; wet, <1% fine black grains		
55								
						BORING TERMINATED AT 55 FEET.		

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/OWA3D	PIEZOMETER	90	171.84	11/08/18	Betts	C. Pendarvis	T. Hall	Sonic	203579.2608	672985.6825	171.81
PZ39S/OWA3S	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

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)
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

Continued on Next Page

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

Continued on Next Page

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



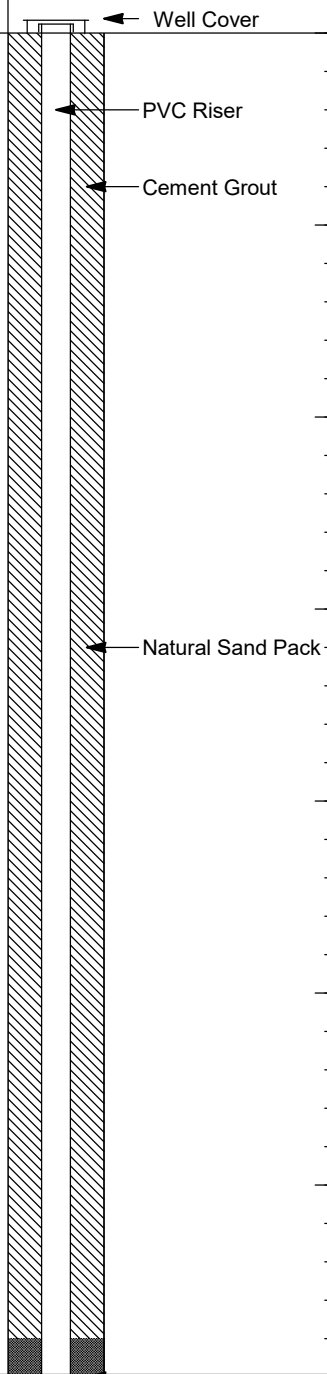
**TWIN PINES MINERALS
SAINT GEORGE, GEORGIA**

**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
REMARKS		TOP OF CASING	123.10 Ft. AMSL
		GROUND ELEVATION	123.09 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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		
10		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
10-20		SM	10-20	80		SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
15		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
20		SP						
20-30		SP	20-30	80		SAND: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25		SP						
30		SP				SAND: grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30-40		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		



Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SC	40-50	70				<p>Bentonite Seal</p> <p>0.010-in Slotted Screen</p> <p>Well tip</p>
45								
50		CL						
BORING TERMINATED AT 50 FEET.								



**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
REMARKS		TOP OF CASING	123.04 Ft. AMSL
		GROUND ELEVATION	122.98 Ft. AMSL
		DEPTH TO WATER	1.98 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM				SAND, silty: 10yr 5/3 (Brown); med (60%); fine (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
		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.		



**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
REMARKS		TOP OF CASING	126.03 Ft. AMSL
		GROUND ELEVATION	126.02 Ft. AMSL
		DEPTH TO WATER	2.01 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5		SM				SAND, silty: 10yr 5/3 (Brown); fine (70%); med (20%); silt (<10%); well sorted; subround; unconsolidated; small and large wood material; saturated		
5 - 15		SP				SAND: fine (50%); med (50%); well sorted; subround; consolidated; moist 10yr 2/1 (Black)		
15 - 18		SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (20%); med (75%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
18 - 20		SM				SAND, silty: 10yr 4/3 (Brown); fine (20%); med (75%); silt (<5%); well sorted; subround; less consolidated; wet		
20 - 20						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	123.56 Ft. AMSL
		GROUND ELEVATION	123.50 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		SM				SAND, silty; dark brown (quartz); fine (95%); silt (<5%); well sorted; subround; unconsolidated; wet; organic material (wood)		
10		SP				SAND: very dark brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist		
10-20			10-20	80				
15		SP				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
20		SM				SAND, silty; yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25		SP				SAND: light grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30		SC-SM				SAND, silty, clayey; grey (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
38-40								Bentonite Seal
40-45		SP				SAND: dark grayish brown (quartz); fine (75%); med (25%); well sorted subround; unconsolidated; moist; FBG (<1%)		Natural Sand Pack
45-50								Screened Interval (0.01-inch PVC)
50						BORING TERMINATED AT 50 FEET.		Well Tip



**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
REMARKS		TOP OF CASING	123.80 Ft. AMSL
		GROUND ELEVATION	123.77 Ft. AMSL
		DEPTH TO WATER	2.4 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
						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.		



**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
REMARKS		TOP OF CASING	123.89 Ft. AMSL
		GROUND ELEVATION	123.94 Ft. AMSL
		DEPTH TO WATER	3.24 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet		
10		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet		
15		SC				SAND, clayey: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); clay (<5%); well sorted; subround; semi-consolidated; wet		
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.		



**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
REMARKS		TOP OF CASING	124.37 Ft. AMSL
		GROUND ELEVATION	124.62 Ft. AMSL
		DEPTH TO WATER	3.14 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
5 - 10		SC				SAND, clayey: 10yr 5/2 (Grayish Brown); fine (75%); med (20%); clay (<5-10%); well sorted; subround; semi-consolidated; wet		
10 - 15		SM				SAND, silty: 10yr 6/2; fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
15 - 20		SP				SAND: 10yr 5/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
20 - 20		SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
20 - 20						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	124.26 Ft. AMSL
		GROUND ELEVATION	124.39 Ft. AMSL
		DEPTH TO WATER	2.44 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM				SAND, silty: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; organic material		
		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.		



**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
REMARKS		TOP OF CASING	123.41 Ft. AMSL
		GROUND ELEVATION	123.08 Ft. AMSL
		DEPTH TO WATER	1.73 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM			SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet			
		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			
20					BORING TERMINATED AT 20 FEET.			



**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
REMARKS		TOP OF CASING	130.08 Ft. AMSL
		GROUND ELEVATION	130.19 Ft. AMSL
		DEPTH TO WATER	2.68 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5	[Pattern]	SM				SAND, silty: 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; organic material		
5 - 7	[Pattern]	SP				SAND: 10yr 5/2 (Grayish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet		
7 - 15	[Pattern]	SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet		
15 - 20	[Pattern]	SM				SAND, silty: 10yr 4/4 (Dark Yellowish-Brown); fine (60%); med (35%); silt (25%); well sorted; subround; wet; (<1%) black fine grains		
20 - 20						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	135.06 Ft. AMSL
		GROUND ELEVATION	135.39 Ft. AMSL
		DEPTH TO WATER	2.2 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5	[Pattern]	SM				SAND, silty; 10yr 5/4 (Yellowish-Brown); fine (95%); silt (<5%); well sorted; subround; unconsolidated; moist		
5 - 10	[Pattern]	SM				SAND, silty; 10yr 2/1 (Black); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; moist		
10 - 15	[Pattern]	SP				SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; saturated		
15 - 20	[Pattern]	SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet		
20 - 22	[Pattern]	SP				SAND: 10yr 4/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; saturated		
22 - 24	[Pattern]	SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; unconsolidated		
24 - 26	[Pattern]	SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated		
26 - 28	[Pattern]	SP				SAND: fine (50%); med (50%); well sorted; subround; unconsolidated; saturated		
28 - 30	[Pattern]	SP				BORING TERMINATED AT 30 FEET.		



**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
REMARKS		TOP OF CASING	145.97 Ft. AMSL
		GROUND ELEVATION	145.72 Ft. AMSL
		DEPTH TO WATER	2.86 Ft. BMP
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5	[Purple dotted pattern]	SM				SAND; silty; 10yr 4/3 (Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
5 - 10	[Purple dotted pattern]	SM				SAND; silty; 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10 - 15	[Purple dotted pattern]	SP				SAND; 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; semi-consolidated; wet		
15 - 20	[Purple dotted pattern]	SP				SAND; 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet		
20 - 25	[Purple dotted pattern]	SP				SAND; 10yr 4/4 (Dark Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet		
25 - 30	[Purple dotted pattern]	SP				SAND; 10yr 3/4 (Dark Yellowish-Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
30 - 30	[Purple dotted pattern]	SM				SAND; silty; 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet		
30 - 30						BORING TERMINATED AT 30 FEET.		



**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
REMARKS		TOP OF CASING	148.10 Ft. AMSL
		GROUND ELEVATION	147.48 Ft. AMSL
		DEPTH TO WATER	3.03 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 1	[Pattern]	SP				SAND: 10yr 8/1 (white); fine (75%); med (25%); well sorted; subround; unconsolidated; dry; (<1%) fine black grains		
1 - 2	[Pattern]	SP				SAND: 10yr 4/1 (Dark Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; (<1%) fine black grains		
2 - 5	[Pattern]	SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
5 - 10	[Pattern]	SM				SAND: silty; fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; 10yr 2/1 (Black)		
10 - 15	[Pattern]	SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med(20%); silt (<5%); well sorted; subround; semi-consolidated		
15 - 20	[Pattern]	SP				SAND: 10yr 5/1 (Gray); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	138.18 Ft. AMSL
		GROUND ELEVATION	137.52 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
						No Recovery		
5		SM				SAND, silty: (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; moist; unconsolidated; organic material (wood/roots)		
		SM				SAND, silty: dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
10						SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
		SM						
20		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
25		SC				SAND, clayey: grayish brown (quartz); fine (75%); med (20%); clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30		SP				SAND: light grayish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

Continued Next Page



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

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40						No Recovery		
45						No Recovery		
55						BORING TERMINATED AT 55 FEET.		



**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
REMARKS		TOP OF CASING	138.00 Ft. AMSL
		GROUND ELEVATION	138.16 Ft. AMSL
		DEPTH TO WATER	1.52 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5		SM				SAND, silty: 10yr 4/1 (Dark Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; organics (Roots)		
5 - 10		SM				SAND, silty: 10yr 4/1 (Dark Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10 - 20		SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
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.		



**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
REMARKS		TOP OF CASING	157.63 Ft. AMSL
		GROUND ELEVATION	157.47 Ft. AMSL
		DEPTH TO WATER	2.55 Ft. BMP
		WATER ELEVATION	

9/16/19 Report:ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
5 - 20		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet		
20 - 28		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
28 - 30		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
30 - 30		SP				SAND: 10yr 4/1 (Dark Gray); med (60%); coarse (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
30 - 30						BORING TERMINATED AT 30 FEET.		



**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
REMARKS		TOP OF CASING	167.66 Ft. AMSL
		GROUND ELEVATION	167.32 Ft. AMSL
		DEPTH TO WATER	2.36 Ft. BMP
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 2.5	[Dotted pattern]	SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (60%); med (40%)		
2.5 - 5	[Dotted pattern]	SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
5 - 8	[Dotted pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
8 - 12	[Dotted pattern]	SM				SAND, silty: 10yr 3/2 (Very Dark Grayish Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
12 - 18	[Dotted pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; well consolidated; wet		
18 - 22	[Dotted pattern]	SP				SAND: 10yr 3/3 (Dark Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet		
22 - 24	[Dotted pattern]	SP				SAND: 10yr 3/1 (Very Dark Gray); fine (60%); med (40%); well sorted; subrounded; unconsolidated; wet		
24 - 28	[Dotted pattern]	SP				SAND: 10yr 2/2 (Very Dark Brown); fine (60%); med (30%); coarse (10%); saturated		
28 - 30	[Dotted pattern]	SP						
30 - 30						BORING TERMINATED AT 30 FEET.		



**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
REMARKS		TOP OF CASING	166.84 Ft. AMSL
		GROUND ELEVATION	166.95 Ft. AMSL
		DEPTH TO WATER	2.47 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 4	[Pattern]	SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
4 - 5	[Pattern]	SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (60%); med (40%); well sorted; subround; wet; unconsolidated		
5 - 7	[Pattern]	SM				SAND, silty: 10yr 3/2 (Very Dark Gray Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
7 - 10	[Pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (40%); silt (<5%); well consolidated; wet		
10 - 15	[Pattern]	SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); unconsolidated; wet		
15 - 20	[Pattern]	SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); well consolidated; wet		
20 - 25	[Pattern]	SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (35%); med (60%); silt (<5%); well sorted; subround; semi-consolidated; wet		
25 - 27	[Pattern]	SP				SAND: 10yr 4/2 (Dark Yellowish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet		
27 - 29	[Pattern]	SP				SAND: 10yr 5/3 (Brown); fine (40%); med (60%); unconsolidated; (<1% fine black grains		
29 - 30	[Pattern]	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.		



**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
REMARKS		TOP OF CASING	160.41 Ft. AMSL
		GROUND ELEVATION	160.43 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5	[Pattern]	SM				SAND, silty: (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics		
5 - 10	[Pattern]	SP				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
10 - 15	[Pattern]	SM				SAND, silty: very dark brown (quartz); fine (35%); med (60%); silt (<5%); well sorted; subround; semi-consolidated; moist		
15 - 20	[Pattern]	SP				SAND: dark brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
20 - 22	[Pattern]	SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
22 - 24	[Pattern]	SP				SAND: dark brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
24 - 26	[Pattern]	SP				SAND: dark yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
26 - 30	[Pattern]	SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP				SAND: dark grey (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		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%)		
50		SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						BORING TERMINATED AT 50 FEET.		

9/16/19 Report:ENV LOG - WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

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



**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
REMARKS		TOP OF CASING	160.42 Ft. AMSL
		GROUND ELEVATION	160.60 Ft. AMSL
		DEPTH TO WATER	3.01 Ft. BMP
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		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		
20		SP				SAND: 10yr 3/3 (Dark brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet		
20						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	161.01 Ft. AMSL
		GROUND ELEVATION	160.89 Ft. AMSL
		DEPTH TO WATER	4.01 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-1		SM				SAND, silty		
1-5		SP				SAND: 10yr 5/4 (Yellowish-Brown); fine (20%); med (80%); well sorted; subround; wet		
5-10		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated; moist		
10-12		SC				SAND, clayey(seam): 10yr 2/1 (Black); fine (40%); med (50%); clay (10%); well sorted; subround; unconsolidated; moist		
12-15		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated; moist		
15-18		SC				SAND, clayey: 10yr 3/6 (Dark Yellowish-Brown); fine (40%); med (50%); clay (10%); well sorted; subround		
18-20		SP				SAND: 10yr 2/1 (Black); fine (50%); med (50%); well sorted; subround; consolidated; moist		
20-22		SP				SAND: fine (50%); med (50%); well sorted; subround; less consolidated; moist		
22-25						No Recovery		
25-28		SP				SAND: 10yr 3/3 (Dark Brown); fine (25%); med (75%); well sorted; subround; unconsolidated; moist		
28-30		SP				SAND: 10yr 3/3 (Dark Brown); fine (25%); med (75%); well sorted; subround; well consolidated; moist		
30-32		SM				SAND, silty: 10yr 3/4 (Dark Yellowish Brown); fine (10%); med (50%); silt (<5%); well sorted; subround; wet; (10%) fine black grains		

Continued Next Page



**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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENVY LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
						No Recovery		
40		SC				SAND, clayey: coarse (60%); med (40%); well sorted; subround; unconsolidated; (<1%) fine black grains; saturated @ 39'		
		SP				SAND: med (90%); coarse (10%); wells sorted; subround; unconsolidated		
45		SM				SAND, silty: 10yr 5/4 (Yellowish-Brown); fine (20%); med (75%); silt (<5%); well sorted; subround; consolidated		
						BORING TERMINATED AT 45 FEET.		



**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
REMARKS		TOP OF CASING	161.75 Ft. AMSL
		GROUND ELEVATION	161.58 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
						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.		



**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
REMARKS		TOP OF CASING	164.26 Ft. AMSL
		GROUND ELEVATION	164.38 Ft. AMSL
		DEPTH TO WATER	2.05 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		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)		
		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				SAND: 10yr 4/3 (Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
10		SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
		SP				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.								



**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
REMARKS		TOP OF CASING	169.87 Ft. AMSL
		GROUND ELEVATION	169.57 Ft. AMSL
		DEPTH TO WATER	2.46 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5		SP				SAND: 10yr 5/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
5 - 10		SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
10 - 15		SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
15 - 20		SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated		
20 - 20						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	168.46 Ft. AMSL
		GROUND ELEVATION	168.43 Ft. AMSL
		DEPTH TO WATER	3.02 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5	[Pattern]	SM				SAND, silty: 10yr 6/1 (Gray); fine (60%); med (35%); well sorted; subround; unconsolidated; moist; (<1% fine black grains		
5 - 5.5	[Pattern]	SP				SAND: 10yr 5/4 (Yellowish Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
5.5 - 6	[Pattern]	SP				SAND: 10yr 6/2 (Light Brownish-Gray); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
6 - 10	[Pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; wet		
10 - 15	[Pattern]	SM				SAND, silty: 10yr 6/3 (Pale Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
15 - 20	[Pattern]	SM				SAND, silty: 10yr (Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
20 - 25	[Pattern]	SM				SAND, silty: 10yr 2/2 (Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet		
25 - 30	[Pattern]	SM				SAND, silty: 10yr 4/3 (Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
30 - 35	[Pattern]	SM				SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (50%); med (40%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
35 - 38	[Pattern]							

Continued Next Page




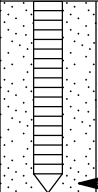
TWIN PINES MINERALS
SAINT GEORGE, GEORGIA

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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM	
			INTERVAL (feet)	% RECOVERY	PID (ppm)				
40		SP				BORING TERMINATED AT 40 FEET.			0.010-in Slotted Screen Well Tip



**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
REMARKS		TOP OF CASING	168.33 Ft. AMSL
		GROUND ELEVATION	168.18 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
						No Recovery		
5	[Purple dotted pattern]	SP			SAND: yellowish brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
	[Purple dotted pattern]	SP			SAND: light brownish grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; FBG (<1%)			
10	[Purple dotted pattern]	SM			SAND, silty; black (quartz); fine (70%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist			
						BORING TERMINATED AT 10 FEET.		



**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
REMARKS		TOP OF CASING	164.90 Ft. AMSL
		GROUND ELEVATION	164.61 Ft. AMSL
		DEPTH TO WATER	1.6 Ft. BMP
		WATER ELEVATION	

9/16/19_Report ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-1	[Pattern]	SM				SAND, silty: 10yr 5/1 (Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics		
1-2	[Pattern]	SM				SAND, silty: 10yr 4/4 (Dark Yellowish Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics		
2-3	[Pattern]	SM				SAND, silty: 10yr 4/2 (Dark Grayish-Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
3-4	[Pattern]					SAND, silty: 10yr 2/1 (Black); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; wet		
4-18	[Pattern]	SM						
18-20	[Pattern]	SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated; wet		
20-20						BORING TERMINATED AT 20 FEET.		



**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
REMARKS		TOP OF CASING	170.48 Ft. AMSL
		GROUND ELEVATION	170.54 Ft. AMSL
		DEPTH TO WATER	2.55 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5	[Pattern]	SM				SAND, silty: 10yr 3/3 (Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics		
5-6	[Pattern]	SM				SAND, silty: 10yr 54 (Yellowish-Brown), fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
6-7	[Pattern]	SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (80%); med (15%); silt (<5%); well sorted; subround; unconsolidated; wet		
7-10	[Pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (50%); med (45%); silt (<5%); well sorted; subround; well consolidated; wet		
10-15	[Pattern]	SP				SAND: 10yr 3/4 (Dark Yellowish-Brown); fine (40%); med (60%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
15-20	[Pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; sub round; wet; well consolidated		
20-25	[Pattern]	SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; wet		
25-30	[Pattern]	SP				SAND: 10yr 4/4 (Dark Yellowish-Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
30-35	[Pattern]	SP				SAND: 10yr 6/3 (Pale Brown); fine (60%); med (40%); well sorted; subround; unconsolidated; wet; (<1% fine black grains		
35-40	[Pattern]	SM				SAND, silty: 10yr 3/2 (Very Dark Grayish-Brown); fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; wet		
						BORING TERMINATED AT 40 FEET.		



**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
REMARKS		TOP OF CASING	170.18 Ft. AMSL
		GROUND ELEVATION	170.17 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
						No Recovery		
5		SM			SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)			
		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			
10		SM			SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist			
BORING TERMINATED AT 10 FEET.								



**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
REMARKS		TOP OF CASING	169.44 Ft. AMSL
		GROUND ELEVATION	169.31 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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.		



**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
REMARKS		TOP OF CASING	169.54 Ft. AMSL
		GROUND ELEVATION	169.44 Ft. AMSL
		DEPTH TO WATER	1.8 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5	[Graphic Log: Gray sand with silt]	SM				SAND, silty: 10yr 5/1 (Gray); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; abundant organics		
5-6	[Graphic Log: Very Dark Brown sand with silt]	SM				SAND, silty: 10yr 3/1 (Very Dark Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
6-7	[Graphic Log: Brown sand with silt]	SM				SAND, silty: 10yr 5/3 (Brown); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet		
7-8	[Graphic Log: Very Dark Brown sand with silt]	SM				SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet		
8-10	[Graphic Log: Black sand with silt]	SM				SAND, silty: 10yr 2/1 (Black); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet		
10-11	[Graphic Log: Very Dark Brown sand with silt]	SM	11-20	89		SAND, silty: 10yr 3/1 (very Dark Brown); fine (75%); med (20%); silt (5%); well sorted; subround; unconsolidated; wet		
11-20	[Graphic Log: Dark Brown sand with silt]	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.		

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



**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
REMARKS		TOP OF CASING	169.65 Ft. AMSL
		GROUND ELEVATION	169.68 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\20180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		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)		
		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	10-20	90		SAND, silty: grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
15		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
20			20-30	80				
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%)		
		SP				SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
		SM				SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; FBG (<1%)		
30						SAND, silty: black (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; semi-consolidated; moist		
						SAND: dark brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		

Continued Next Page

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



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP						
45		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			
		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%)			
55					BORING TERMINATED AT 55 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:ENVY LOG - WELL



**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
REMARKS		TOP OF CASING	169.61 Ft. AMSL
		GROUND ELEVATION	169.99 Ft. AMSL
		DEPTH TO WATER	2.06 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5	[Pattern]	SM				SAND, silty: 10yr 5/1 (Gray); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; (<1%) fine black grains; organics		
5-6	[Pattern]	SM				SAND, silty: 10yr 3/1 (Very Dark Gray); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; wet; organics		
6-7	[Pattern]	SP				SAND: 10yr 5/3 (Brown); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
7-10	[Pattern]	SM	10-20	80		SAND, silty: 10yr 2/2 (Very Dark Brown); fine (75%); med (20%); silty (<5%); well sorted; subround; unconsolidated; wet		
10-12	[Pattern]	SP				SAND: 10yr 4/1 (Dark Gray); fine (50%); med (50%); well sorted; subround; unconsolidated; wet; (<1%) fine black grains		
12-17	[Pattern]	SM				SAND, silty: 10yr 2/1 (Black); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
17-20	[Pattern]	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.		



**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
REMARKS		TOP OF CASING	169.22 Ft. AMSL
		GROUND ELEVATION	168.99 Ft. AMSL
		DEPTH TO WATER	2.58 Ft. BMP
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SP				SAND: 10yr 5/3 (Brown); fine (75%); med (25%); well sorted; subround; unconsolidated; wet; organic material (roots)		
		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.		



**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
REMARKS		TOP OF CASING	168.06 Ft. AMSL
		GROUND ELEVATION	168.01 Ft. AMSL
		DEPTH TO WATER	2.73 Ft. BMP
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SP	11-20	78				
		SP						
		SM						
10		SM						
15		SM						
20		SP						21-30
25	SP							
30								
BORING TERMINATED AT 30 FEET.								



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	
REMARKS		TOP OF CASING	168.17 Ft. AMSL
		GROUND ELEVATION	168.02 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

10/28/19 Report: ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SP				SAND: 10yr 5/1 (Gray); med (50%); fine (50%); well sorted; sub round; unconsolidated; wet		
10						BORING TERMINATED AT 10 FEET.		



**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
REMARKS		TOP OF CASING	173.99 Ft. AMSL
		GROUND ELEVATION	174.13 Ft. AMSL
		DEPTH TO WATER	2.89 Ft. BMP
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		SM	0-10	40		SAND, silty: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; subround; wet; abundant wood material		
11-20		SM	11-20	89		SAND, silty: 10yr 3/4 (Dark Yellowish Brown); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; wet		
21-30		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.		



**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
REMARKS		TOP OF CASING	173.92 Ft. AMSL
		GROUND ELEVATION	173.70 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SP				SAND: 10yr 5/2 (Grayish-Brown); fine (75%); med (20%); silt (<5%); well sorted; sub round; wet; abundant wood material		
10						BORING TERMINATED AT 10 FEET.		



**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
REMARKS		TOP OF CASING	153.88 Ft. AMSL
		GROUND ELEVATION	153.95 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		<p>Well Cover Cement Surface Seal Bentonite Grout</p>
5		SP				SAND (quartz): greyish brown (10 YR 5/2); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
		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		
10-20		SM	10-20	100		SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
20		SP				SAND (quartz): grey (10 YR 5/1); fine (70%); med (30%); well sorted; subround; unconsolidated; wet		
20-30		SM ML	20-30	100		SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet SILT: black (10 YR 2/1); silt (100%); hard; moist		
25		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
30		SP				SAND (quartz): brown (10 YR 5/3); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
30-40		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		

Continued Next Page

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



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
35-40		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		
40-45		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		
45-47		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		
47-50		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		
50						BORING TERMINATED AT 50 FEET.		



**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
REMARKS		TOP OF CASING	154.04 Ft. AMSL
		GROUND ELEVATION	153.98 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5	SP				SAND (quartz): greyish brown (10 YR 5/2); fine (60%); med (40%); well sorted; subround; unconsolidated; wet			
	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					SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet			
15	SM							
20	SP				SAND (quartz): grey (10 YR 5/1); fine (70%); med (30%); well sorted; subround; unconsolidated; wet			
BORING TERMINATED AT 20 FEET.								



**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
REMARKS		TOP OF CASING	138.02 Ft. AMSL
		GROUND ELEVATION	137.97 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM			
			INTERVAL (feet)	% RECOVERY	PID (ppm)						
0-10		SM	0-10	90		No Recovery					
						SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet					
						SAND, silty (quartz): dark yellowish brown (10 YR 4/4); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet					
						SAND, silty (quartz): black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; subround; semi-consolidated; wet					
						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					
						10-20			SM	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
						15-20			SP	100	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
						20-30			SP	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										
SP	SAND (quartz): dark yellowish brown (10 YR 4/6); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet										
30-40	SP	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							

Continued Next Page



**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

9/16/19_Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SC				(25%); clay (<5%); fine black grains (<1%); well sorted; subround; semiconsolidated; wet		
		SP				SAND (quartz): light gray (10 YR 7/2); fine (65%); med (35%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
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						
50						BORING TERMINATED AT 50 FEET.		



**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
REMARKS		TOP OF CASING	137.50 Ft. AMSL
		GROUND ELEVATION	137.65 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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		
		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.		



**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
REMARKS		TOP OF CASING	135.90 Ft. AMSL
		GROUND ELEVATION	135.90 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		<p>Well Cover Cement Surface Seal Bentonite Grout</p>
5	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		
10	SM					SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
10	SP					SAND (quartz): yellowish brown (10 YR 5/4); fine (70%); med (30%); fine black grain (<1%); well sorted; subround; unconsolidated, wet		
10	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		
20	SM		20-30	100		SAND, silty (quartz): dark yellowish brown (10 YR 4/6); fine (65%); med (30%); silt (<5%); FBG (<1%); well sorted; subround; unconsolidated; wet		
20	SM					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		
25	SP					SAND (quartz): yellowish brown (10 YR 5/4); fine (70%); med (30%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		
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		
30						SAND, silty (quartz): yellowish brown (10 YR 5/4); fine (75%); med (20%); silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		

Continued Next Page



**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

9/16/19_Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SM						
40-50			40-50	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated; wet		
45		SP						
50		CL				CLAY: dark greenish grey (GLE Y 1 564/1); soft to firm; with 10% HCL; calcarious reacts with 10% HCL; moist		
50-60			50-60	90		SAND, clayey: dark grey (GLE Y 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 (GLE Y 1 5/10Y); firm; moist		
60		CL				CLAY: dark greenish grey (GLE Y 1 564/1); greenish grey (GLE Y 1 6/10Y); very hard; reacts with 10% HCL; moist		
65		CL						
70								
BORING TERMINATED AT 70 FEET.								



**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
REMARKS		TOP OF CASING	135.92 Ft. AMSL
		GROUND ELEVATION	135.76 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			0-2	100		Shelby Tube Sample		
5		SP	2-12	100		SAND (quartz): dark grey (10 YR 4/1); fine (65%); med (35%); silt traces; well sorted; subround; unconsolidated; moist		
		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.		



**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
REMARKS		TOP OF CASING	139.68 Ft. AMSL
		GROUND ELEVATION	139.79 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		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		
		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		
		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		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		
		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		

Continued Next Page



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

9/16/19_Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP				No Recovery		
45		SP	40-50	80		SAND (quartz): light grey (10 YR 7/2); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
50		SP				SAND (quartz): grey (10 YR 5/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
						BORING TERMINATED AT 50 FEET.		



**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
REMARKS		TOP OF CASING	139.94 Ft. AMSL
		GROUND ELEVATION	139.85 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		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		
		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.								



**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
REMARKS		TOP OF CASING	123.91 Ft. AMSL
		GROUND ELEVATION	123.63 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM	0-10	90		No Recovery		
						SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; moist		
						SAND, silty (quartz): dark brown (10 YR 3/3); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet		
						SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; fine black grain (<1%) wet		
10		SM	10-20	70		SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
						No Recovery		
15		SM	10-20	70		SAND, silty (quartz): very dark brown (10 YR 2/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
20		SM	20-30	100		SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
						SAND, silty (quartz): light grey (10 YR 7/2); fine (70%); med (25%); silt (<5%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		
25		SM	20-30	100				
30		SM	30-40	100		SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); fine black grain (<1%); well sorted; subround; unconsolidated; wet		

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP						
40-50		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			
50		CL			CLAY: dark greenish grey (GLEYS 1 4/10GY); hard to very hard; moist			
50-60		CL	50-60	100	CLAY: dark greenish grey (GLEYS 1 4/10GY); hard to very hard; moist			
55		GC			GRAVEL, clayey; grey (GLEYS 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 (GLEYS 1 5/65/1); hard, sporadic gravel in upper 5 feet; strong reaction with 10% HCL; moist			
60					BORING TERMINATED AT 60 FEET.			

9/16/19_Report:ENVY 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

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



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	
REMARKS		TOP OF CASING	123.73 Ft. AMSL
		GROUND ELEVATION	123.40 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

10/28/19 Report:ENV LOG - WELL
10-1-2019.GPJ
MA\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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		
10		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): 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.		



**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
REMARKS		TOP OF CASING	124.48 Ft. AMSL
		GROUND ELEVATION	124.19 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SM	0-10	50		No Recovery		
5-10		SM				SAND, silty (quartz): dark grey (10 YR 4/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
10-20			10-20	0		SAND, silty (quartz): brown (10 YR 5/3); fine (65%); med (30%); silt (<5%); FBG (<1%); well sorted; subround; unconsolidated; wet No Recovery		
20-25		SP	20-30	80		No Recovery		
25-30						SAND (quartz): light grey (10 YR 7/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
30-35			30-40	80		No Recovery		
35-40						SAND (quartz): light grey (10 YR 7/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP						<p>Bentonite Seal</p> <p>Natural Sand Pack</p> <p>Screened interval (0.01-inch PVC)</p> <p>Well Tip</p>
40-50		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		
45		SM				SAND, silty (quartz): grey (GLE Y 1 5/n); fine (60%); med (35%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
50		CL				CLAY: greenish gray (GLE Y 1 SG 6/1); hard; moist		
BORING TERMINATED AT 50 FEET.								



**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
REMARKS		TOP OF CASING	124.39 Ft. AMSL
		GROUND ELEVATION	124.19 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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		
10		SP				SAND (quartz): fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
10-15			10-15	100		SAND (quartz): fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
15						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	119.17 Ft. AMSL
		GROUND ELEVATION	118.99 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		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): 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		
10-20		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		
20-30		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		
30-40		SP	30-40	100		SAND (quartz): grey (10 YR 6/1); fine (70%); med (30%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
		SP				SAND (quartz): dark grey (10 YR 4/1); fine (70%); med (30%);		

Continued Next Page



**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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 9/16/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP				fine black grains (<1%); well sorted; subround; unconsolidated; wet	<p>(0.01-inch PVC)</p> <p>Well Tip</p>	
45		CL	40-50	100		CLAY: dark grey (GLEY 1 4/n) to greenish grey (GLEY 1 565/1); soft to firm; wet		
50						BORING TERMINATED AT 50 FEET.		



**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
REMARKS		TOP OF CASING	119.17 Ft. AMSL
		GROUND ELEVATION	118.93 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

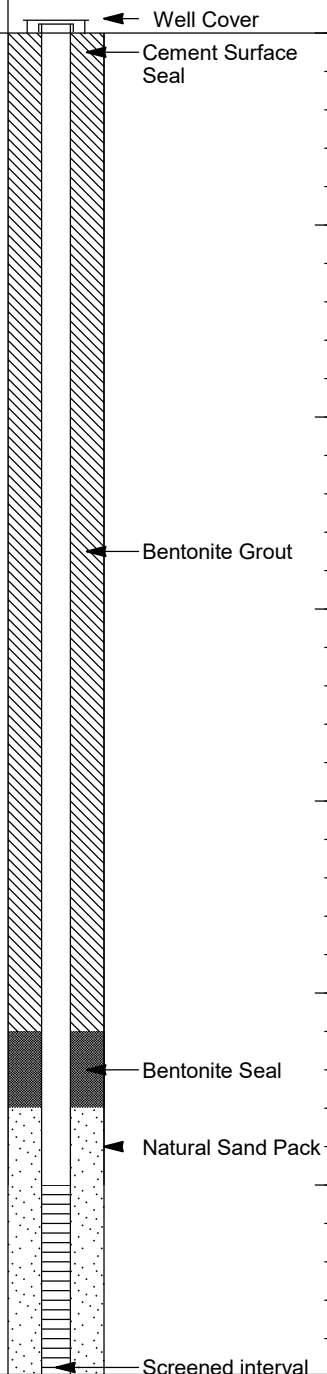
SAINT GEORGE, GEORGIA

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	
REMARKS		TOP OF CASING	119.18 Ft. AMSL
		GROUND ELEVATION	119.20 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

10/28/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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 brownish 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		
10-20		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		
		SM				SAND, silty (quartz): greyish brown (10 YR 5/2); fine (70%); med (25%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
		SM				SAND, silty (quartz): grey (10 YR 6/1); fine (70%); med (25%); silt (<5%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
20-30		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		
		SP				SAND (quartz): grey (10 YR 5/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround: unconsolidated; wet		
30-40		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		



Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		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 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL



**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
REMARKS		TOP OF CASING	118.83 Ft. AMSL
		GROUND ELEVATION	118.81 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM	0-8	75		No Recovery		
						SAND, silty (quartz): dark greyish brown (10 YR 4/2); fine (70%); med (25%); silt (<5%); well sorted; subround; unconsolidated; wet		
						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.		



**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
REMARKS		TOP OF CASING	118.40 Ft. AMSL
		GROUND ELEVATION	118.26 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP SC	0-10	80		NO RECOVERY		
						SAND (quartz): dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (65%); med (35%); well sorted; subround; unconsolidated; <1% FBG		
						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		
5-10		SC	10-20	60		NO RECOVERY		
						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		
						SAND (quartz): gray (10YR 6/1); fine (75%); med (20%), silt (<5%); well sorted; subround; unconsolidated; wet, <1% FBG		
10-15		SC SM	20-30	60		NO RECOVERY		
						SAND (quartz): gray (10YR 6/1); fine (75%); med (20%), silt (<5%); well sorted; subround; unconsolidated; wet, <1% FBG		
						SAND (quartz): gray (10YR 6/1); fine (75%); med (20%), silt (<5%); well sorted; subround; unconsolidated; wet, <1% FBG		
15-20		SM	30-40	80		NO RECOVERY; CLAY ON OUTSIDE OF TUBE		
						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;		
20-25		SM						
25-30		SM						
30-35		SC-SM						

Continued Next Page

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



**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

9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		CL				soft to firm; strong reaction to HCL		
		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		
BORING TERMINATED AT 40 FEET.								



**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
REMARKS		TOP OF CASING	118.26 Ft. AMSL
		GROUND ELEVATION	118.00 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	50		NO RECOVERY		
5	SP SM					SAND (quartz); dark gray (10 YR 4/1) & light gray (10YR 7/1); fine (65%); med (35%); well sorted; subround; unconsolidated; <1% FBG SAND (quartz); yellow (10YR 7/8); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated;		
10	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 BORING TERMINATED AT 10 FEET.		



**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
REMARKS		TOP OF CASING	171.93 Ft. AMSL
		GROUND ELEVATION	171.69 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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.			



**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
REMARKS		TOP OF CASING	171.81 Ft. AMSL
		GROUND ELEVATION	171.84 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SM SP	0-10	50		No Recovery		
5-10						SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
10-20		SM	10-20	90		SAND: light grey (quartz); fine (60%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
20-30		SM	20-30	30		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
30-40						SAND, silty: black (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated; moist		
40-50		SP	30-40	40		No Recovery		
50-60						SAND: dark brown (quartz); fine (20%); med (60%); coarse (20%); well sorted; subround; unconsolidated; wet		
60-70		SP				SAND: dark brown (quartz); fine (20%); med (60%); coarse (20%); well sorted; subround; unconsolidated; wet		

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
38-40	SP SM SM					SAND: yellowish brown (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40-50			40-50	90		SAND, silty: very dark brown (quartz); fine (50%); med (40%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%) SAND, silty: dark grayish brown (quartz); fine (30%); med (60%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
50-60	SP		50-60	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		
60-70			60-70	80				
65-67	SC-SM SP					SAND, silty, clayey: dark brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist		
67-69	SC-SM					SAND: light brown grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%) SAND, silty, clayey: dark brown (quartz); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; unconsolidated; moist		
69-71	SP					SAND: light brown (quartz); fine (70%); med (30%); well sorted; subround; unconsolidated; moist; FBG (<1%) SAND: brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
71-73	SC-SM					SAND, silty, clayey: light brown (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
73-75						CLAY, silty, clayey: grey; fine; FBG (<1%)		

← Grout

9/16/19 Report:ENV LOG - WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

Continued Next Page

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



**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

9/16/19 Report:ENVY LOG - WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		CL	80-90	80		SAND: white (quartz); fine (40%); med (30%); coarse (30%); well sorted; subround; unconsolidated; moist CLAY, sandy: dark grey; fine SAND: grayish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%) SAND, silty, clayey: light grey (quartz); fine (15%); med (60%); coarse (20%); silt/clay (<5%); well sorted; subround; moist; FBG (<1%)		
		SP						
		CL						
		SP						
90		SC-SM						
BORING TERMINATED AT 90 FEET.								



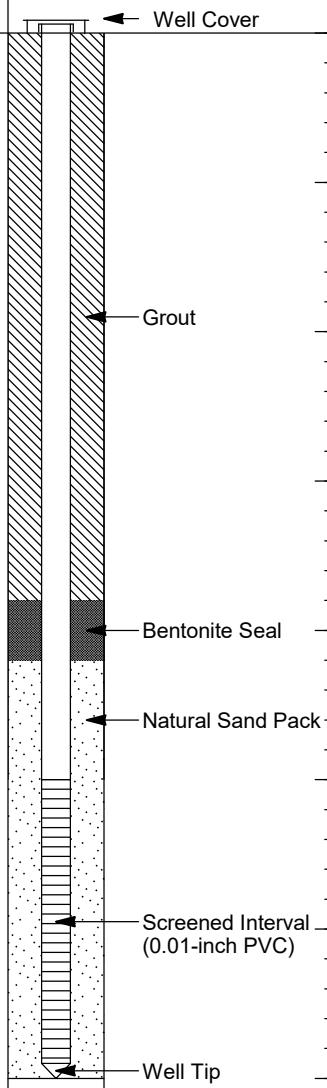
**TWIN PINES MINERALS
SAINT GEORGE, GEORGIA**

**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
REMARKS		TOP OF CASING	171.94 Ft. AMSL
		GROUND ELEVATION	171.76 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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%)		
10-20		SM	10-20	90		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
20-30		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%)		
30-35		SP	30-35	180		SAND: light grey (quartz); fine (40%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist		
		SP				SAND: light grey (quartz); fine (40%); med (20%); coarse (20%); well sorted; subround; unconsolidated; moist		
35						BORING TERMINATED AT 35 FEET.		





**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
REMARKS		TOP OF CASING	169.70 Ft. AMSL
		GROUND ELEVATION	169.48 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		SM				SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood/roots)		
		SM				SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SM				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		
		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; moist; semi-consolidated		
15		SM				SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	161.19 Ft. AMSL
		GROUND ELEVATION	161.04 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		SM	0-10	90		No Recovery		
SAND, silty: dark brown (quartz); fine (60%); med (33%); silt (<5%); well sorted; subround; unconsolidated; moist								
SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist								
10-15	SM	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.		



**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
REMARKS		TOP OF CASING	147.46 Ft. AMSL
		GROUND ELEVATION	147.36 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			0-10	70		No Recovery		
5		SP				SAND: grey (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; organics (roots)		
		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		SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
15		SM				BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	161.88 Ft. AMSL
		GROUND ELEVATION	161.68 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SM	0-10	90		No Recovery		
						SAND, silty: grey (quartz); fine (50%); med (25%); coarse (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)		
						SAND, silty: dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
						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; well consolidated; moist		
						SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
						SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
15		SM						
BORING TERMINATED AT 15 FEET.								



**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
REMARKS		TOP OF CASING	154.07 Ft. AMSL
		GROUND ELEVATION	154.24 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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			10-15	200		SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SM						
15						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	166.67 Ft. AMSL
		GROUND ELEVATION	166.58 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	50		No Recovery		<p>Well Cover</p> <p>Grout</p> <p>Bentonite Seal</p>
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		
10-20		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%)		
20-30		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		
30-40		SP	30-40	80		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		
	SC-SM					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%)		

Continued Next Page



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40	[Purple dotted pattern]	SP	40-50	90		SAND: dark yellowish brown; fine (70%); med (20%); coarse (10%); well sorted; subround; unconsolidated; moist; possibly less coarse material	[Piezometer diagram showing screened interval and well tip]	
45								
50	[Colorful pattern]	SC-SM 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) SAND, silty: very dark brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
BORING TERMINATED AT 50 FEET.								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-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 log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.



**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
REMARKS		TOP OF CASING	166.72 Ft. AMSL
		GROUND ELEVATION	166.64 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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.		



**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
REMARKS		TOP OF CASING	139.99 Ft. AMSL
		GROUND ELEVATION	139.98 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			0-10	60		No Recovery		
5	SM SP				SAND, silty: dark grayish brown; fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (roots/grass)			
	SM				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			
10	SP				SAND, silty: brown (quartz); fine (60%); med (30%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist			
	SM				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.		



**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
REMARKS		TOP OF CASING	138.47 Ft. AMSL
		GROUND ELEVATION	138.30 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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		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		SM						
						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	132.78 Ft. AMSL
		GROUND ELEVATION	132.95 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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		
12.5		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		
27.5		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



**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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SP				SAND: med brown (quartz); fine (30%); med (60%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40		SP	40-50	90		SAND: light/pale brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist		
		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%)		
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				SAND, clayey: (quartz); med (40%); coarse (60%); well sorted; subround; unconsolidated; moist; thin (<0.25-inch) clay layers; FBG (<1%)		
50		SC				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		
		SC				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.		

9/16/19_Report:ENV LOG - WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ



**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
REMARKS		TOP OF CASING	133.20 Ft. AMSL
		GROUND ELEVATION	133.04 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		SM	0-10	20		SAND, silty; very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; wet; organics		
5								
10						BORING TERMINATED AT 10 FEET.		



**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
REMARKS		TOP OF CASING	143.01 Ft. AMSL
		GROUND ELEVATION	142.97 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
			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	SC-SM		10-15	200	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			
	SM				SAND, silty: (quartz); fine (60%); med (20%); coarse (15%); silt (<5%); well sorted; subround; unconsolidated; moist			
15					BORING TERMINATED AT 15 FEET.			



**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
REMARKS		TOP OF CASING	127.87 Ft. AMSL
		GROUND ELEVATION	127.64 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	40		No Recovery		
5		SP				SAND: dark grey (quartz); fine (40%); med (60%); well sorted; subround; unconsolidated; moist; organic (roots and wood)		
10		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
10-15			10-15	200				
15		SM				SAND, silty: dark brown (quartz); fine (60%); med (30%); coarse (5%); silty (<5%); well sorted; subround; unconsolidated; moist SAND, silty: black (quartz); fine (80%); med (15%); silt (<5%); well sorted; subround; well consolidated		
						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	115.73 Ft. AMSL
		GROUND ELEVATION	115.56 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SM	0-10	80		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		
5-10		SM			SAND, silty: black (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; well consolidated; moist			
10-15		SM	10-20	80		SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist		
15-20		SM			SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
20-25		SM			SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist			
25-30		SM	20-30	60		SAND, silty: grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
30-35		SM			SAND, silty: dark brown (quartz); fine (75%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)			
35-40		SM	30-40	50				

Continued Next Page



**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

9/16/19 Report: ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SP				SAND: (quartz); fine (40%); med (50%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SM				SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
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%)		
45		SM				SAND, silty: (quartz); fine (90%); med (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		CL				CLAY, sandy: dark grey; med/fine		
50		SC				SAND, clayey: yellowish brown (quartz); fine (25%); med (60%); coarse (10%); clay (<5%)		
BORING TERMINATED AT 50 FEET.								



**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
REMARKS		TOP OF CASING	115.84 Ft. AMSL
		GROUND ELEVATION	115.78 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		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.		



**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
REMARKS		TOP OF CASING	111.44 Ft. AMSL
		GROUND ELEVATION	111.27 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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			
10	SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist			
10-15			10-15	0		No recovery - washout		
15						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	111.51 Ft. AMSL
		GROUND ELEVATION	111.31 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	50		No Recovery		
5		SM				SAND, silty; dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
10		SC-SM	10-15	200		SAND, silty, clayey; black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
15		SM				SAND, silty; dark yellowish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	125.13 Ft. AMSL
		GROUND ELEVATION	124.90 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		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 Same: dark gray (10YR 4/1) Same: brown (10YR 5/3) Same: dark gray (10YR 4/1) Same: Brown (10YR 5/3) Same: very dark gray (10YR 9/1) Same: yellowish brown (10YR 5/4)		
		SM						
		SM						
		SM						
		SM						
		SM						
		SM						
		SM						
10			10-20	100		SAND, silty (quartz): pale brown (10YR 6/3); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; wet		
20		SM	20-30	100				
30			30-40	100				

Continued Next Page



**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

9/16/19_Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP				SAND, (quartz): light gray (10YR 7/2); fine (65%); med (35%); well sorted, subround; unconsolidated; <1% FBG; wet		
40-50			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		
50						BORING TERMINATED AT 50 FEET.		



**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
REMARKS		TOP OF CASING	125.10 Ft. AMSL
		GROUND ELEVATION	125.03 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	70		NO RECOVERY		
5		SP				SAND, (quartz): dark gray (10YR 4/1); fine (65%); med (35%); well sorted; subround; unconsolidated; wet;		
		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.		



**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
REMARKS		TOP OF CASING	174.92 Ft. AMSL
		GROUND ELEVATION	174.69 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SP SM SP SM	0-10	80		No Recovery		
						SAND (quartz): greyish brown (10 YR 5/2); fine (50%); med (45%); coarse (<5%); well sorted; subround; unconsolidated; wet		
						SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
						SAND (quartz): grey (10 YR 5/1); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
10		SM SM SM	10-20	100		SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
						SAND, silty (quartz): very dark grey (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
						SAND, silty (quartz): dark brown (10 YR 3/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
20		SM SM SM	20-30	100		SAND, silty (quartz): black (10 YR 2/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
						SAND, silty (quartz): black (10 YR 2/1); fine (70%); med (25%); silt (<5%); well sorted; subround; well consolidated; wet		
						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		SM SM SM	30-40	90		No Recovery		
						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		

Continued Next Page



**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

9/16/19_Report:ENV LOG - WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
		SM						
		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			
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						
50								
						BORING TERMINATED AT 50 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

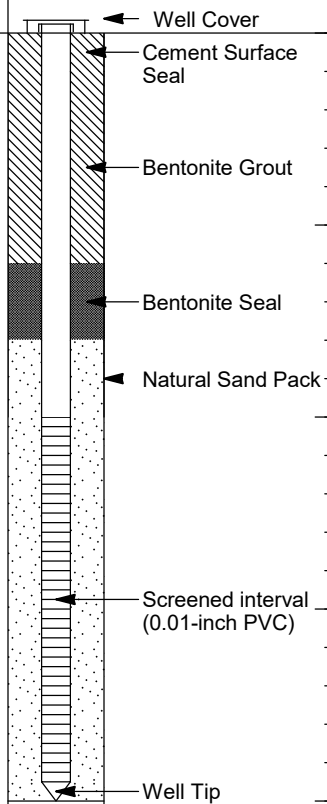
SAINT GEORGE, GEORGIA

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	
REMARKS		TOP OF CASING	174.83 Ft. AMSL
		GROUND ELEVATION	174.74 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

10/28/19 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) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		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		
		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): very dark brown (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
		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		
20		SM				SAND, silty (quartz): black (10 YR 2/1); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; wet		
						BORING TERMINATED AT 20 FEET.		





**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
REMARKS		TOP OF CASING	171.58 Ft. AMSL
		GROUND ELEVATION	171.42 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	40		No Recovery		
	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		
10-20			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		
	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		
20-30			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		
	SP					SAND (quartz): light brownish grey (10 YR 6/2); fine (70%); med (30%); FBG (<1%); well sorted; subround; unconsolidated; wet		
30-40			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		

Continued Next Page



**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

9/16/19_Report:ENV LOG - WELL
 M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40		SP				SAND (quartz); brown (10 YR 4/3); fine (60%); med (40%); fine black grains (<1%); well sorted; subround; unconsolidated; wet		
		SM	40-50	80		SAND, silty (quartz); very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet No Recovery		
45		SM				SAND, silty (quartz); very dark greyish brown (10 YR 3/2); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; wet		
50		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		
BORING TERMINATED AT 50 FEET.								



**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
REMARKS		TOP OF CASING	171.50 Ft. AMSL
		GROUND ELEVATION	171.26 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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		
		SM				SAND, silty (quartz): very dark grey (10 YR 3/1); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet		
10						BORING TERMINATED AT 10 FEET.		



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	
REMARKS		TOP OF CASING	165.89 Ft. AMSL
		GROUND ELEVATION	165.62 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

10/28/19 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) 10-1-2019.GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-10	100		SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated		
		SM						
		SP						
5-10		SM				SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated		
10-15		SM	10-20	100		SAND (quartz): dark brown (10 YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated		
15-20		SM				SAND (quartz): yellowish brown (10YR 5/4); fine (60%); med (40%); well sorted; subround; unconsolidated		
20-25		SM	20-30	100		SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; semi-consolidated; wet		
25-30		SM				SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; well consolidated; wet		
30-35		SM				SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; well consolidated; wet		
35-40		SM	30-40	100		SAND (quartz): black (10YR 2/1); fine (65%); med (30%), silt (<5%); well sorted; subround; well consolidated; wet		
40-45		SM				SAND (quartz): very dark grayish brown (10YR 3/2); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		
45-50		SM				SAND (quartz): dark grayish brown (10YR 4/2); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
35-40		SP				SAND (quartz): dark yellowish brown (10YR 4/6); fine (70%); med (30%); well sorted; subround; unconsolidated; <1% FBG		
40-50		SP	40-50	100		SAND (quartz): gray (10YR 6/1); fine (70%); med (30%); well sorted; subround; unconsolidated; 2-3% FBG		
50		SM				SAND (quartz): gray (10YR 6/1); fine (65%); med (30%), silt (<5%); well sorted; subround; unconsolidated; wet		
BORING TERMINATED AT 50 FEET.								

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 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 log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.



**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
REMARKS		TOP OF CASING	165.68 Ft. AMSL
		GROUND ELEVATION	165.57 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		SP SM SP SM	0-10	100		<p>SAND (quartz): light gray (10YR 7/1); fine (60%); med (40%); well sorted; subround; unconsolidated</p> <p>SAND (quartz): dark brown (10 YR 5/3); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated</p> <p>SAND (quartz): yellowish brown (10YR 5/4); fine (60%); med (40%); well sorted; subround; unconsolidated</p> <p>SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated</p>		
10-14		SM	10-14	100		<p>SAND (quartz): very dark gray (10 YR 3/1); fine (60%); med (35%); silt (<5%); well sorted; subround; wet; unconsolidated</p>		
15						BORING TERMINATED AT 15 FEET.		



**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
REMARKS		TOP OF CASING	139.98 Ft. AMSL
		GROUND ELEVATION	139.55 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		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		
5-10		SM			SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet			
10-15		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		
20-25		SM				SAND (quartz): dark brown (10 YR 3/3); fine (70%); med (30%); well sorted; subround; unconsolidated; wet		
25-30		SP				SILT, sandy: very dark grey (10 YR 3/1); sand (~10%); firm to hard; moist		
30-35		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		
35-40		SM						

Continued Next Page



**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

9/16/19 Report:ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
38-40		SM				SAND, silty (quartz): greyish brown (10 YR 5/2); fine (90%); silt (5-10%); fine black grains (<1%); poorly sorted; subround; unconsolidated; wet		
40-42		SP				SAND (quartz): white (10 YR 8/1); fine (60%); med (40%); fine black grains (1-2%); well sorted; subround; unconsolidated; wet		
42-44		CL				CLAY: grey (10 YR 5/1); hard; nonreactive; moist		
44-45		SM	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		
50						BORING TERMINATED AT 50 FEET.		



**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
REMARKS		TOP OF CASING	140.02 Ft. AMSL
		GROUND ELEVATION	139.67 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

9/16/19_Report:ENVY 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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PIEZOMETER DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-10	100		SAND (quartz): grey (10 YR 5/1); fine (65%); med (35%); well sorted; subround; unconsolidated; wet		
		SM						
		SM						
5-10	SM	SAND, silty (quartz): yellowish brown (10 YR 5/6); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet						
10-15	SM	SAND, silty (quartz): very dark greyish brown (10 YR 3/2); fine (65%); med (30%); silt (<5%); well sorted; subround; unconsolidated; wet						
15							BORING TERMINATED AT 15 FEET.	

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	11/30/18	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
REMARKS		TOP OF CASING	174.74 Ft. AMSL
		GROUND ELEVATION	171.56 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

7/2/19 Report ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5		SP				SAND: light brown to tan; med; subround		
10		SM				SAND, silty: black (quartz); fine; argillaceous; hardpan		
20		SP				SAND: light brown, tan, yellowish grey; med; clean		
30		SP				SAND: dark brown, tan, yellowish grey; med		
40						SAND: darker brown (5YR 3/2); fine; well sorted; subround		

Continued Next Page

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



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
50	[Purple dotted pattern]	SP					[Well diagram showing filter pack sand (16/30) from 50 to 60 feet]	
55								
60	[Purple dotted pattern]	SP				SAND: darker brown (5YR 3/2); fine; well sorted; subround	[Well diagram showing screened interval (0.01-inch PVC) from 60 to 75 feet]	
65								
70	[Purple dotted pattern]	CL				CLAY, sandy: dark yellowish brown (10YR 4/2); fine to med; saturated	[Well diagram showing screened interval (0.01-inch PVC) from 75 to 90 feet]	
75						SAND: well sorted		
80	[Purple dotted pattern]	SP					[Well diagram showing screened interval (0.01-inch PVC) from 90 to 95 feet]	
85								
90	[Red diagonal hatched pattern]	CH				CLAY: dark green; fat	[Well diagram showing screened interval (0.01-inch PVC) from 95 to 95 feet]	
95						CLAY, sandy: dark greenish grey; fat		

Continued Next Page

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



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

7/2/19 Report ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
100		CL						
105								
110								
115								
BORING TERMINATED AT 116 FEET.								

Well Tip

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



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	
REMARKS	Same as OWA-1S for 0-12	TOP OF CASING	172.16 Ft. AMSL
		GROUND ELEVATION	171.78 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 Report:ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	60		No recovery		
5		SP SM SM SP				<p>SAND: (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; dry; organic (wood and roots)</p> <p>SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic (fibrous) material</p> <p>SAND, silty: dark yellowish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)</p> <p>SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist</p> <p>SAND, silty: dark brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)</p>		
BORING TERMINATED AT 12 FEET.								



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	
REMARKS		TOP OF CASING	172.23 Ft. AMSL
		GROUND ELEVATION	171.97 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

Report: ENV LOG - WELL

10/28/19 10-1-2019.GPJ M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7\804-LOGS WITH WELLS (TUSCOM RESTORE)

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5			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				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		
		SC-SM				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		
		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		
		SP				SAND: dark yellowish brown (quartz); fine (30%); med (50%); coarse (20%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
35		SP						
40		SM	40-50	90		SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
							← Grout	



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
50-60	[Purple dotted pattern]	SP	50-60	80		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%)		
60-70			80					
65	[Red diagonal lines]	SC-SM				SAND, silty, clayey: dark brown; fine (80%); med (15%); silt (<5%); well sorted; subround; semi-consolidated; moist	<p>Bentonite Seal</p> <p>Filter Pack Sand (20/40)</p> <p>Screened Interval (0.01-inch PVC)</p> <p>Well Tip</p>	
	[Blue vertical lines]	SP						
	[Orange diagonal lines]	CL				SAND: brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%) CLAY, sandy: dark brown; fine		
70-80	[Red diagonal lines]	SC-SM	70-80	70		SAND, silty, clayey: grayish brown (quartz); fine (95%); silt/clay (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
	[Blue vertical lines]							
	[Orange diagonal lines]	CL				CLAY, sandy: dark grey; fine		
	[Red diagonal lines]	CH				CLAY: dark grey; fat		
	[Blue vertical lines]	SP				SAND: dark grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
	[Red diagonal lines]	CH				CLAY: dark grey; fat		
90						BORING TERMINATED AT 90 FEET.		

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE) 10-1-2019.GPJ 10/28/19 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 log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

SAINT GEORGE, GEORGIA

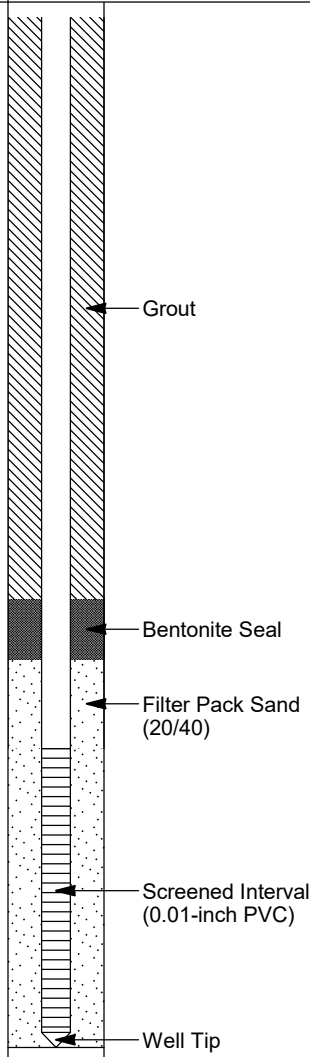
LOG OF OBSV. WELL
OWA1S
& OBSV. WELL
CONSTRUCTION

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	
REMARKS		TOP OF CASING	172.12 Ft. AMSL
		GROUND ELEVATION	171.93 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

7/2/19 Report ENV LOG - WELL

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-7804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
5						No recovery		
5-6	SP					SAND: (quartz); fine (20%); med (40%); coarse (40%); well sorted; subround; unconsolidated; dry; organic (wood and roots)		
6-7	SM					SAND: very dark brown (quartz); silty; fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; organic (fibrous) material		
7-8	SM					SAND: dark yellowish brown (quartz); silty; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
8-9	SP					SAND: light brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist		
9-10	SM					SAND: dark brown (quartz); silty; fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; semi-consolidated; FBG (<1%)		
10-12	SC-SM					SAND: black (quartz); silty; clayey; fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
12-14	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		
14-16	SM					SAND: brown (quartz); silty; fine (40%); med (30%); coarse (25%); silt (<5%); well sorted; subround; unconsolidated		
16-18	SM							
18-20	SM							
20-22	SM							
22-24	SM							
24-26	SM							
26-28	SM							
28-30	SM							
30-32	SC-SM					SAND: black (quartz); silty; clayey; fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
32-34	SM					SAND: dark brown (quartz); silty; fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
34-35	SP					SAND: dark yellowish brown (quartz); fine (30%); med (50%); coarse (20%); well sorted; subround; unconsolidated; moist		
35						BORING TERMINATED AT 35 FEET.		





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	
REMARKS		TOP OF CASING	172.27 Ft. AMSL
		GROUND ELEVATION	172.04 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	60		No Recovery		
5	SP					SAND: grey (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; dry; FBG (<1%); organic material (roots)		
10	SM					SAND, silty; very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
						BORING TERMINATED AT 12 FEET.		



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	
REMARKS		TOP OF CASING	172.34 Ft. AMSL
		GROUND ELEVATION	172.10 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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).GFPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5			0-10	60		No Recovery		
5-10		SP				SAND grey (quartz), fine 50%, med 40%, coarse 10%, well sorted, subround, unconsolidated, dry, FBG (<1%), organics (roots)		
10-15		SM	10-20	80		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
15-20		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
20-25		SM	20-30	80		SAND, silty: dark brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; moist		
25-30		SP				SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30-35		SP				SAND: (quartz); fine (60%); med (30%); coarse (10%); well sorted; subround; unconsolidated; moist		
35-40		SC-SM				SAND, silty, clayey: black (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
40-45		SP	30-40	100		SAND: dark yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%)		

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40	[Purple dotted pattern]	SP	40-50	90		SAND: yellowish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)	[Well diagram showing grout at 40-50 ft]	
45		SP				SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%)		
50	[Purple dotted pattern]	SC-SM SP	50-60	70		SAND, silty, clayey: very dark brown (quartz); fine (80%); med (15%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist	[Well diagram showing grout at 50-60 ft]	
55		SM						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 SAND, silty: (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)
60	[Purple dotted pattern]	SM	60-70	80		SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated	[Well diagram showing grout at 60-70 ft]	
65		SC-SM						SAND, silty, clayey: dark brown (quartz); fine (95%); silt/clay (>5%); well sorted; subround; semi-consolidated
70	[Purple dotted pattern]	SP				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 SAND: light grey (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	[Well diagram showing grout at 70-75 ft]	
75		SC-SM				SAND: grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%) SAND, silty, clayey: light grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%); organic material (wood fragments)		

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 Report ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80-90		SC-SM SP SC CH SP	80-90	70		<p>SAND, silty, clayey: dark grayish brown (quartz); fine (60%); med (35%); silt/clay (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)</p> <p>SAND: white (quartz); fine (50%); med (50%); FBG (<1%)</p> <p>SAND, clayey: dark grey (quartz); fine (50%); med (25%); coarse (20%); clay (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%); fat clay nodules</p> <p>CLAY: dark grey; fat</p> <p>SAND: dark grey (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)</p>		<p>Bentonite Seal</p> <p>Filter Pack Sand (20/40)</p> <p>Screened Interval (0.01-inch PVC)</p> <p>Well Tip</p>
BORING TERMINATED AT 90 FEET.								



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

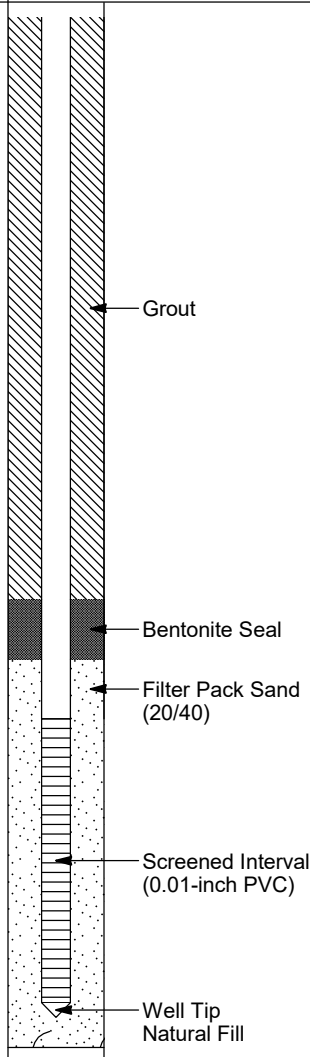
SAINT GEORGE, GEORGIA

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	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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)		
10		SM				SAND, silty: very 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%); silt/clay (<5%); well sorted; subround; well consolidated; moist		
20		SM				SAND, silty: dark brown (quartz); fine (60%); med (25%); coarse (10%); silt (<5%); well sorted; subround; unconsolidated; moist		
25		SP				SAND: yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30		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		
35		SP				SAND: dark yellowish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; FBG (<1%)		
						BORING TERMINATED AT 35 FEET.		





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

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-5	100		SAND: black (10YR 2/1); poorly graded; med; saturated		
5-10		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		
10-15		SP	10-15	100		SAND: very dark brown (2.5YR 2.5/2); poorly graded; med; saturated		
15						BORING TERMINATED AT 15 FEET.		



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
REMARKS		TOP OF CASING	172.44 Ft. AMSL
		GROUND ELEVATION	172.16 Ft. AMSL
		DEPTH TO WATER	1.25 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-5	100		SAND: black (10R 2/1); poorly graded; med; moist		
5-10		SP	5-10	100		SAND: reddish grey (2.5YR 7/1); poorly graded; med; moist 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		
10-15		SP	10-15	100		SAND: black (10R 2/1); poorly graded; med; saturated		
15						BORING TERMINATED AT 15 FEET.		



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
REMARKS		TOP OF CASING	172.28 Ft. AMSL
		GROUND ELEVATION	172.09 Ft. AMSL
		DEPTH TO WATER	0.7 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-5	100		SAND: black (5YR 2.5/1); poorly graded; med		
5-10		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		
10-15		SP	10-15	100		SAND: black (5YR 2.5/1); poorly graded; med; saturated		
15						BORING TERMINATED AT 15 FEET.		

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
REMARKS		TOP OF CASING	174.41 Ft. AMSL
		GROUND ELEVATION	172.46 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0 - 5		SP				SAND: light brown to black		
5 - 10						SAND, sandy: black; med to fine; consolidated; hardpan at 15'		
10 - 20		SM				SAND: very dark brown to almost black; few organics		
20 - 30								
30 - 40		SP				SAND, sandy: light brown to tan (yellowish brown); fine to med; well sorted; subround		

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
50		SM						
55								
60		SC				SAND, clayey; medium bluish grey to medium dark grey; fine; well sorted; argillaceous		Filter Pack Sand (16/30)
65								
70								
75								
80						SAND, clayey; black; no reaction		
85								Screened Interval (0.01-inch PVC)
90		SC						
95								

Continued Next Page



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 Report ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	PUMP WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
100						SAND: black		
105		SP						
110								
115						BORING TERMINATED AT 115 FEET.		Well Tip



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	
REMARKS	Same as OWB-1S and OWB-1D for 0-12	TOP OF CASING	172.38 Ft. AMSL
		GROUND ELEVATION	172.17 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		SM	0-10	80		No Recovery		
5		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (wood/roots)		
10		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
BORING TERMINATED AT 12 FEET.								



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	
REMARKS		TOP OF CASING	172.49 Ft. AMSL
		GROUND ELEVATION	172.36 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organic material (wood/roots/shoots)		
5-10						SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
10-20		SM	10-20	80				
15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated; moist		
20						SAND, silty: brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; semi-consolidated; moist; FBG (<1%)		
20-30		SM	20-30	80				
25		SP				SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
25-30						SAND, silty: dark brown (quartz); fine (70%); med (20%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30-40		SM	30-40	70				
		SC-SM				SAND, silty, clayey: black (quartz); fine (95%); silt/clay (<5%);		

Continued Next Page



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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40	[Purple dotted pattern]	SM	40-50	80		well sorted; subround; well consolidated; moist SAND, silty: dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)	[Well diagram with grout seal]	
45								
50	[Purple dotted pattern]	SP	50-60	80		SAND: grayish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	[Well diagram with grout seal]	
55								
60	[Purple dotted pattern]	SP	60-70	80		SAND: dark grayish brown (quartz); fine (50%); med (25%); coarse (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)	[Well diagram with grout seal]	
65								
65	[Orange diagonal pattern]	CL				CLAY, sandy: grayish brown; fine; FBG (<1%)	[Well diagram with grout seal]	
70	[Red diagonal pattern]	SC	70-80	60		SAND, clayey: light brownish grey (quartz); fine (95%); clay (5%); well sorted; subround; moist; FBG (<1%)		[Well diagram with grout seal and Bentonite Seal]
75								

Continued Next Page

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



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

M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 Report ENV LOG - WELL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		SP	80-90	80		SAND: fine (60%) med (30%); coarse (10%); well sorted; subround; unconsolidated; moist; FBG (<1%)	<p>Filter Pack Sand (20/40)</p> <p>Screened Interval (0.01-inch PVC)</p> <p>Well Tip</p>	
85		SP				SAND: fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
		SC-SM				SAND, silty, clayey: (quartz); fine (75%); med (20%); silty/clay (<5%); well sorted; subround; moist; FBG (<1%)		
90		SP				SAND: (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						BORING TERMINATED AT 90 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

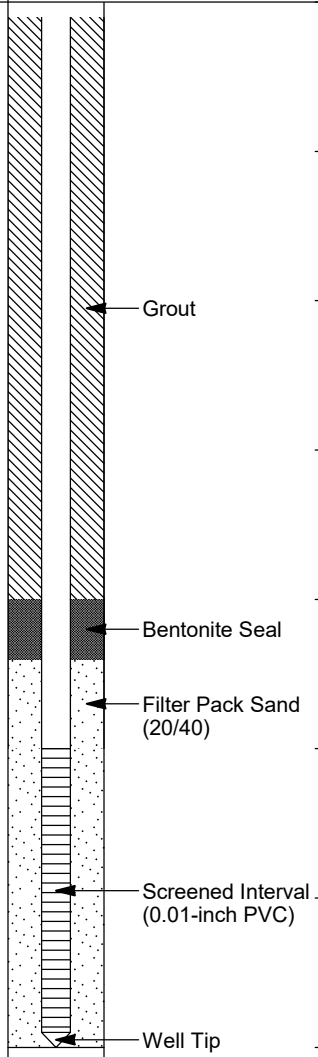
SAINT GEORGE, GEORGIA

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	
REMARKS		TOP OF CASING	172.43 Ft. AMSL
		GROUND ELEVATION	172.34 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

7/2/19 Report ENV LOG - WELL
M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		SM				SAND, silty: dark grey (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist; organics (wood/roots)		
10		SM				SAND, silty: dark grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist		
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 (<1%)		
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.		





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	
REMARKS	Same as OWB-2S and OWB-2D for 0-12 interval	TOP OF CASING	172.47 Ft. AMSL
		GROUND ELEVATION	172.59 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10		SM	0-10	80		No Recovery		
5		SM				SAND, silty; dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
10		SM				SAND, silty; dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
10-20		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.		



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	
REMARKS		TOP OF CASING	172.76 Ft. AMSL
		GROUND ELEVATION	172.75 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
		SM				SAND, silty: dark grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
10-20		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		
20-30		SP	20-30	80		SAND: grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30-40		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		
		SM				SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
40-50		SM	40-50	80		SAND: dark yellowish brown (quartz); fine (60%); med (30%); coarse (10%); well sorted subround; moist; FBG (<1%)		← Grout

Continued Next Page



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

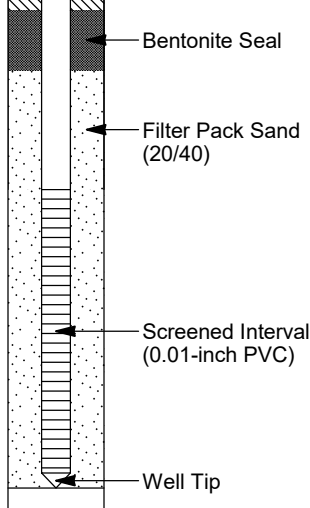
SAINT GEORGE, GEORGIA

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			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
50	[Purple dotted pattern]	SP	50-60	80				
55								
60	[Blue vertical lines]	SM	60-70	80		SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%)		
65							CLAY: dark grayish brown; sandy; fine	
70	[Orange diagonal lines]	CL						
75								
70	[Purple dotted pattern]	SM	70-80	0		SAND, silty: grayish brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; FBG (<1%) No Recovery		
80	[Purple dotted pattern]	SP	80-90	70		SAND: (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated FBG (<1%)		
85							SAND, silty, clayey: (quartz); fine (75%); med (20%); silt/clay (<5%); well sorted; subround; moist; FBG (<1%)	
90	[Orange diagonal lines]	SC-SM						
90	[Purple dotted pattern]	SP				SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist		
BORING TERMINATED AT 90 FEET.								



M:\PROJECTS\2018\000180200804.00 - TWIN PINES MINERALS PERMITTING SERVICES\804-LOGS RESTORED FROM 8-71804-LOGS WITH WELLS (TUSCOM RESTORE).GPJ 7/2/19 Report ENV LOG - WELL



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	
REMARKS		TOP OF CASING	172.79 Ft. AMSL
		GROUND ELEVATION	172.86 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			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		Grout
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%)		Bentonite Seal
25								Filter Pack Sand (20/40)
30		SM				SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Screened Interval (0.01-inch PVC)
35		SM				SAND, silty: very dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; well consolidated		
		SM				SAND, silty: brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		Well Tip
						BORING TERMINATED AT 35 FEET.		



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
REMARKS		TOP OF CASING	172.84 Ft. AMSL
		GROUND ELEVATION	172.57 Ft. AMSL
		DEPTH TO WATER	0.3 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-5	100		SAND: black (10R 2/1); poorly graded; med; saturated		
5-10		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		
10-15		SP	10-15	100		SAND: black (5YR 2.5/1); poorly graded; med; saturated		
15						BORING TERMINATED AT 15 FEET.		



TWIN PINES MINERALS SAUNDERS-LONCALA RESERVE

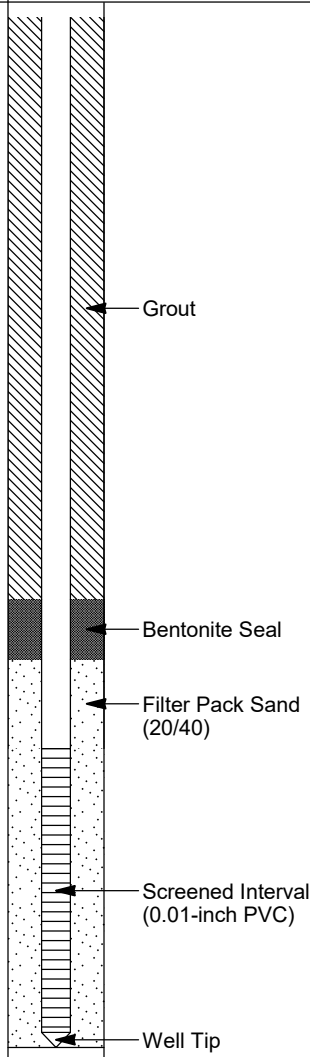
SAINT GEORGE, GEORGIA

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	
REMARKS		TOP OF CASING	171.76 Ft. AMSL
		GROUND ELEVATION	171.69 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	70		No Recovery		
5	SM SP SM					SAND, silty: dark brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
						SAND: light grayish brown (quartz); fine (50%); med (50%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						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		
10-20		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		
20-30		SM	20-30	70				
25						SAND, silty: dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
						SAND: grayish brown (quartz); silty; fine (60%); med (40%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
30-35		SP	30-35	200				
35	SM SP					SAND, silty: dark brown (quartz); fine (50%); med (40%); silt (<5%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						SAND: dark yellowish brown (quartz); silty; fine (50%); med (40%); coarse (10%); well sorted; subround; unconsolidated; FBG (<1%)		
BORING TERMINATED AT 35 FEET.								





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	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-10			0-10	80		No Recovery		
5		SM				SAND, silty: light grayish brown (quartz); fine (50%); med (45%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%); organics (roots/grass)		
		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%)		
		SM				SAND, silty: dark yellowish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
10-20		SM	10-20	80		SAND, silty: (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; unconsolidated; moist		
15		SM				SAND, silty: black (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; well consolidated		
		SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; semi-consolidated; moist		
20-30		SM	20-30	60		SAND, silty: dark grayish brown (quartz); fine (60%); med (35%); silt (<5%); well sorted; subround; unconsolidated; moist		
25								
30-40		SP	30-40	80		SAND: grayish brown (quartz); fine (60%); med (40%); well sorted; subround; unconsolidated; FBG (<1%)		
		SM				SAND, silty: dark brown (quartz); fine (50%); med (40%); coarse (5%); silt (<5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
						SAND: dark yellowish brown (quartz); fine (50%);		

Continued Next Page



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

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
40-50	[Purple dotted pattern]	SP	40-50	90		med (40%); coarse (10%); well sorted; subround; moist; FBG (<1%)		
50-60	[Purple dotted pattern]	SP	50-60	90				
54-55	[Purple dotted pattern]	SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; well consolidated		
55-56	[Purple dotted pattern]	SP				SAND: dark yellowish brown (quartz); fine (50%); med (40%); coarse (10%); well sorted; subround; moist; FBG (<1%)		
56-57	[Purple dotted pattern]	SM				SAND, silty: very dark brown (quartz); fine (75%); med (20%); silt (<5%); well sorted; subround; moist; well consolidated		
57-60	[Purple dotted pattern]	SP				SAND: yellowish brown (quartz); fine (60%); med (35%); coarse (5%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
60-70	[Orange diagonal lines]	CL	60-70	90		CLAY, sandy: grayish brown; fine; well sorted; subround; moist; FBG (<1%)		
70-80	[Purple dotted pattern]	SP	70-80	0		SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%) No Recovery		

Continued Next Page



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

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
80		SP	80-90	80		SAND: light grayish brown (quartz); fine (75%); med (25%); well sorted; subround; unconsolidated; moist; FBG (<1%)		
85								
90						BORING TERMINATED AT 90 FEET.		



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
REMARKS		TOP OF CASING	172.68 Ft. AMSL
		GROUND ELEVATION	172.40 Ft. AMSL
		DEPTH TO WATER	1 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-5	100		SAND: black (10R 2/1); poorly graded; med; saturated		
5-10		SP	5-10	100		SAND: yellowish brown (10YR 3/6) and brown (10YR 4/3); poorly graded; med; moist		
10-15				10-15	0			No Recovery
15						BORING TERMINATED AT 15 FEET.		



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
REMARKS		TOP OF CASING	172.80 Ft. AMSL
		GROUND ELEVATION	172.56 Ft. AMSL
		DEPTH TO WATER	0.8 Ft. BMP
		WATER ELEVATION	

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

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE			LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE	OBSV. WELL DIAGRAM
			INTERVAL (feet)	% RECOVERY	PID (ppm)			
0-5		SP	0-5	100		SAND: black (10YR 2/1); poorly graded; med; saturated		
5-10		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				
10-15			10-15	0		No Recovery		
15						BORING TERMINATED AT 15 FEET.		

APPENDIX G

GEOPHYSICAL LOGS

Attached Documents:
Geophysical Logs



Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

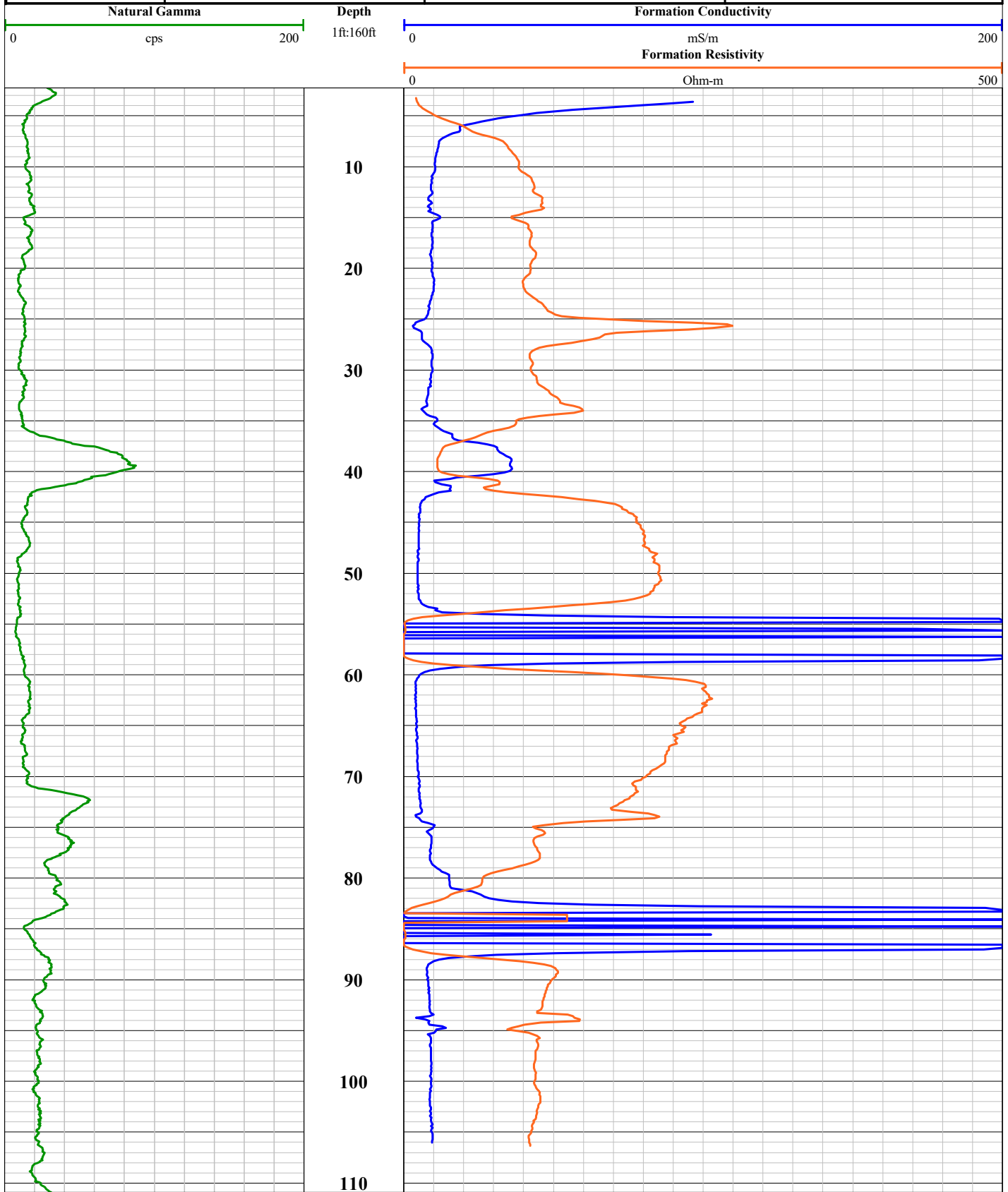
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401

Phone: (205) 345-0816

DATE LOGGED: 21 March 2019

WELL: PW-A

www.ttlusa.com





Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

DATE LOGGED: 21 March 2019

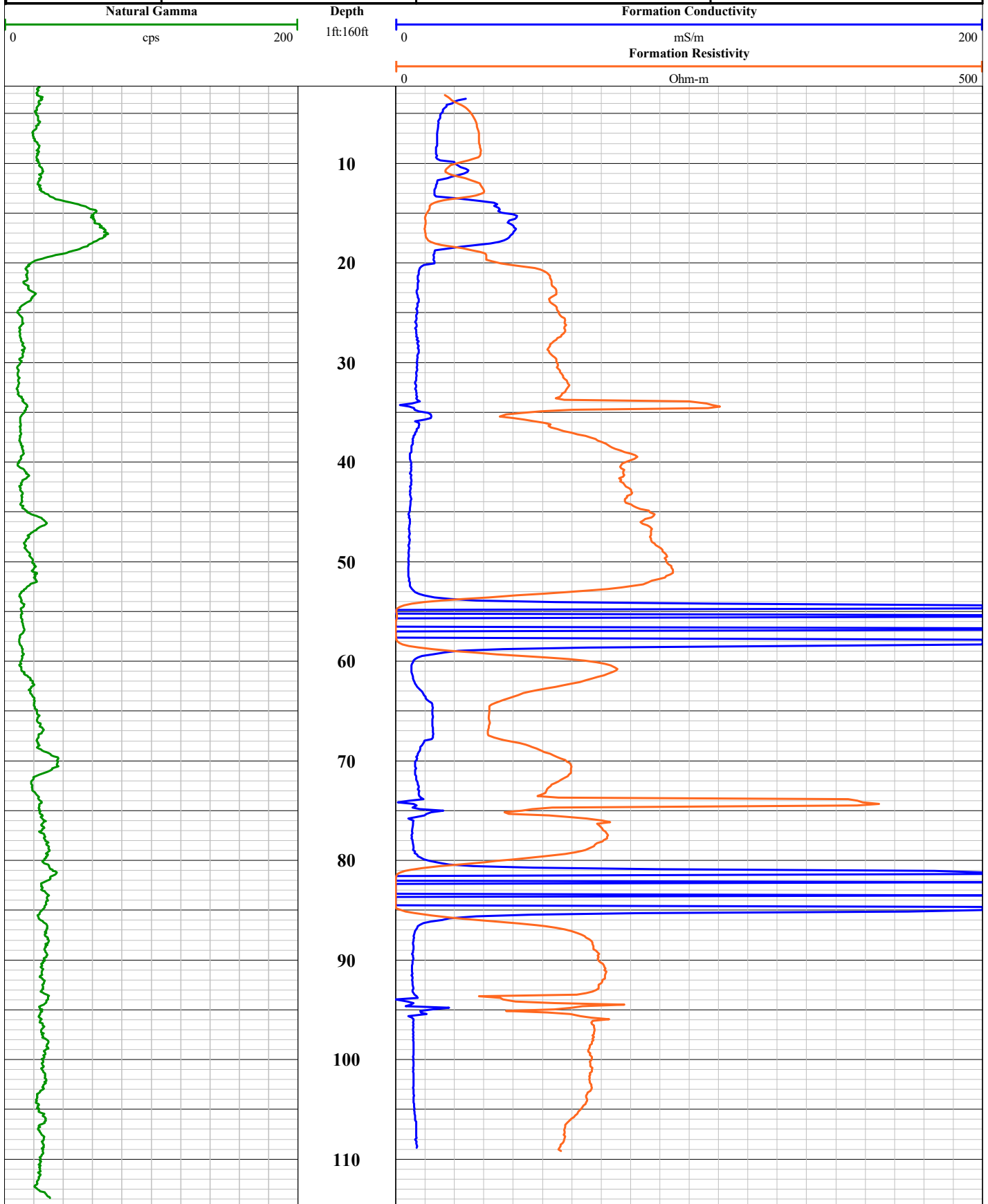
WELL: PW-B

TTL USA

3516 Greensboro Ave, Tuscaloosa, AL, 35401

Phone: (205) 345-0816

www.ttlusa.com





Geophysical Summary Plot

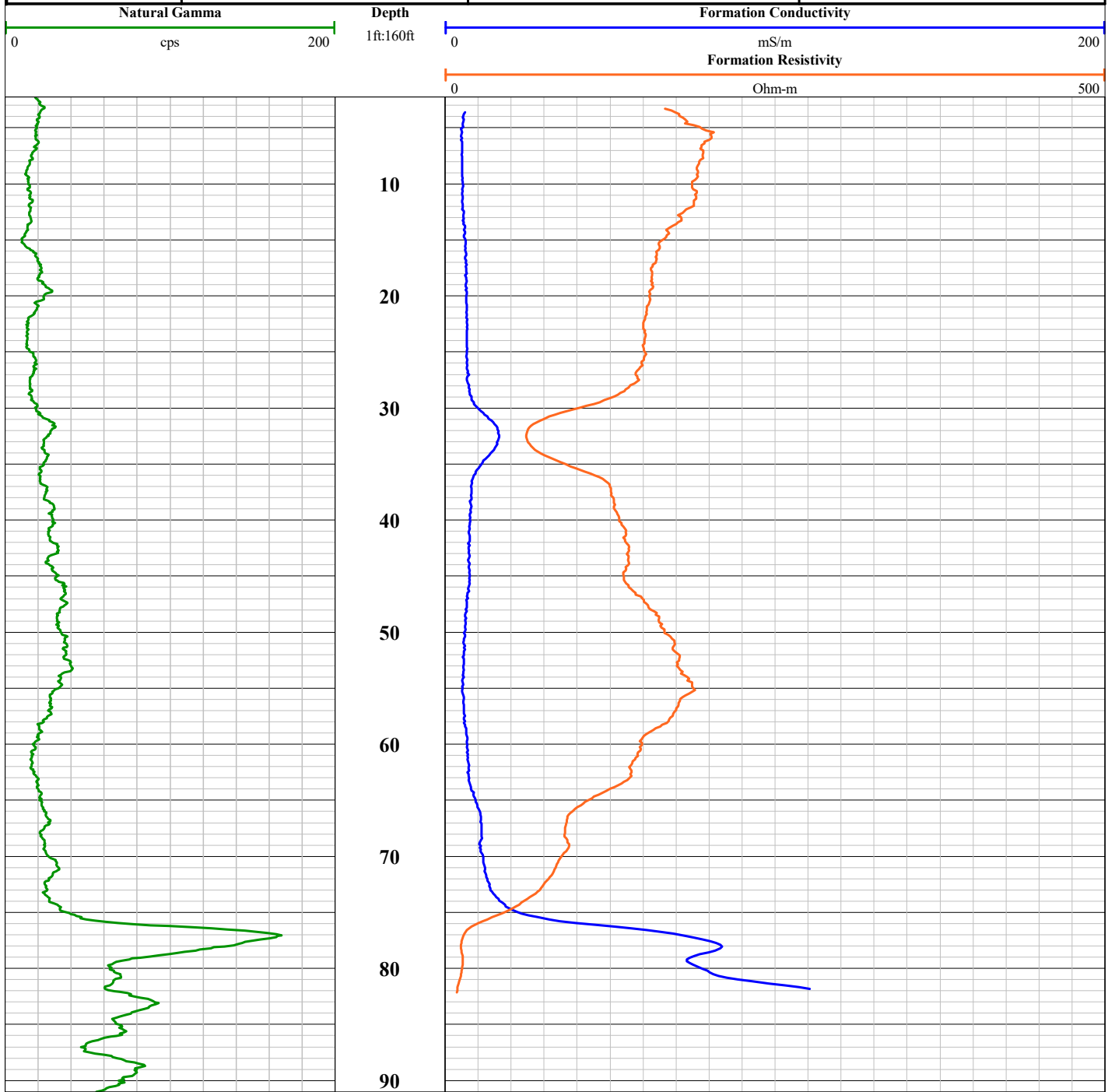
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 20 March 2019

WELL: UD-10





Geophysical Summary Plot

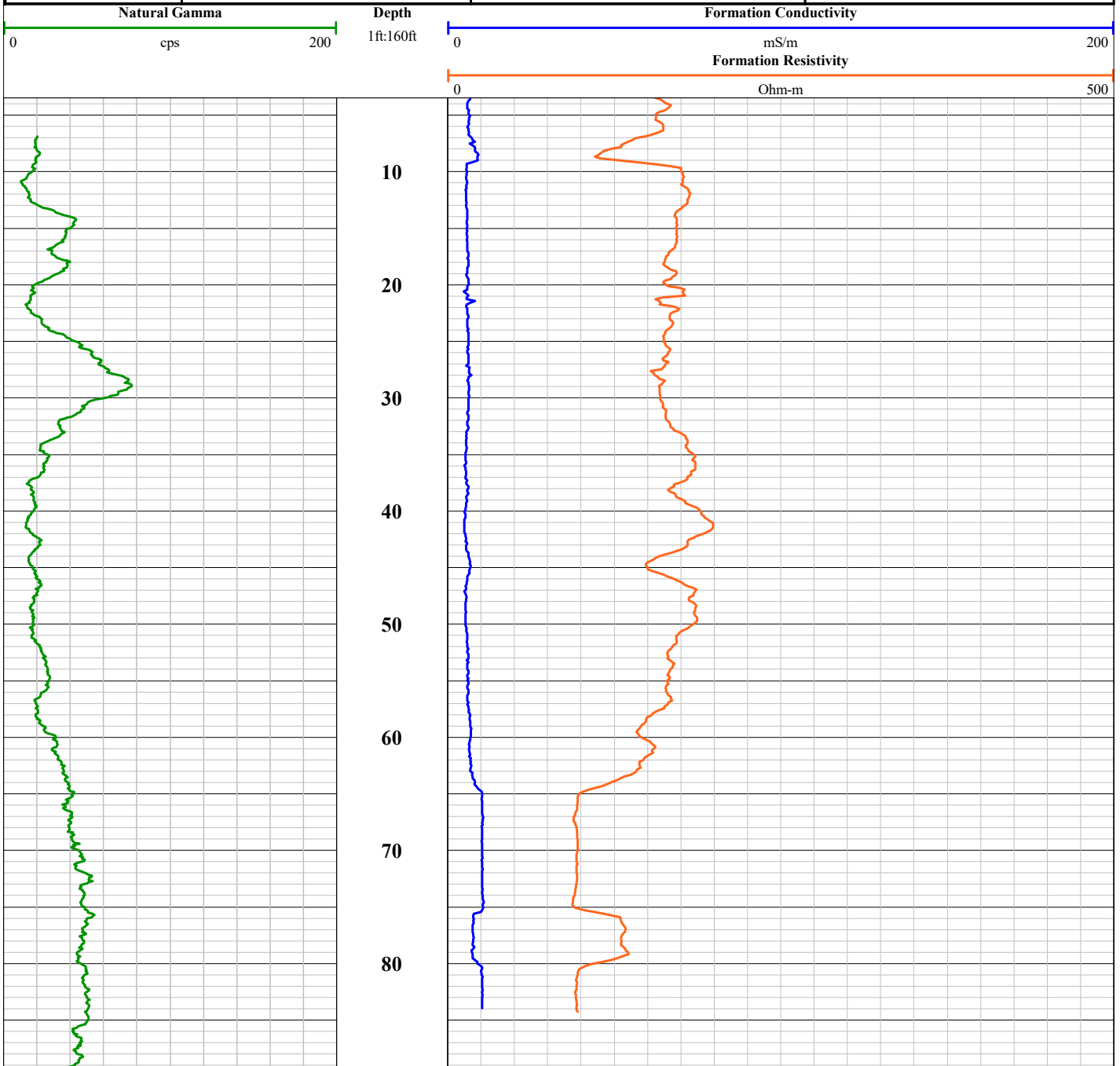
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 21 March 2019

WELL: UD-25





Geophysical Summary Plot

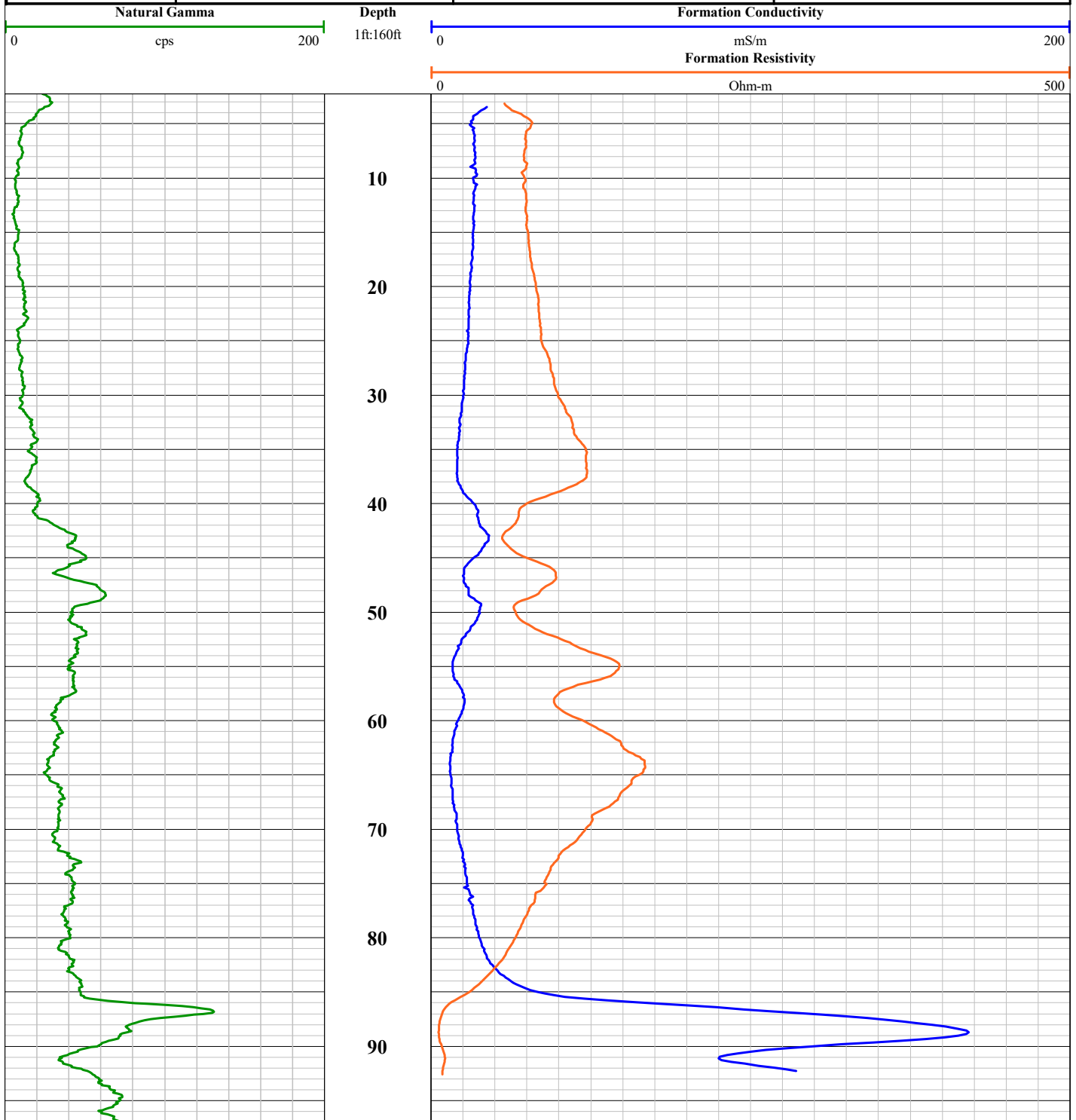
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 19 March 2019

WELL: UD-43





Geophysical Summary Plot

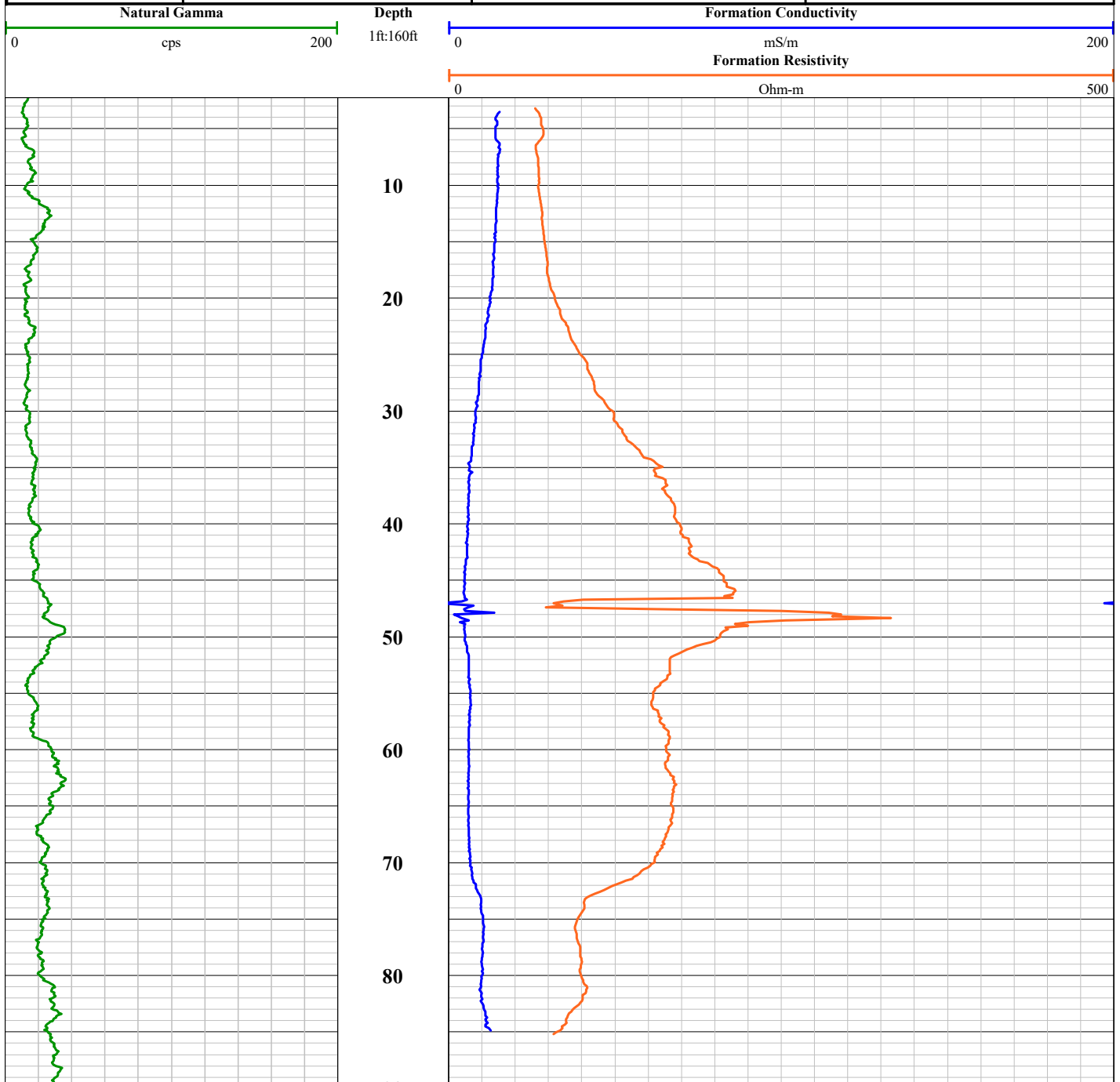
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 19 March 2019

WELL: UD-51





Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

DATE LOGGED: 19 March 2019

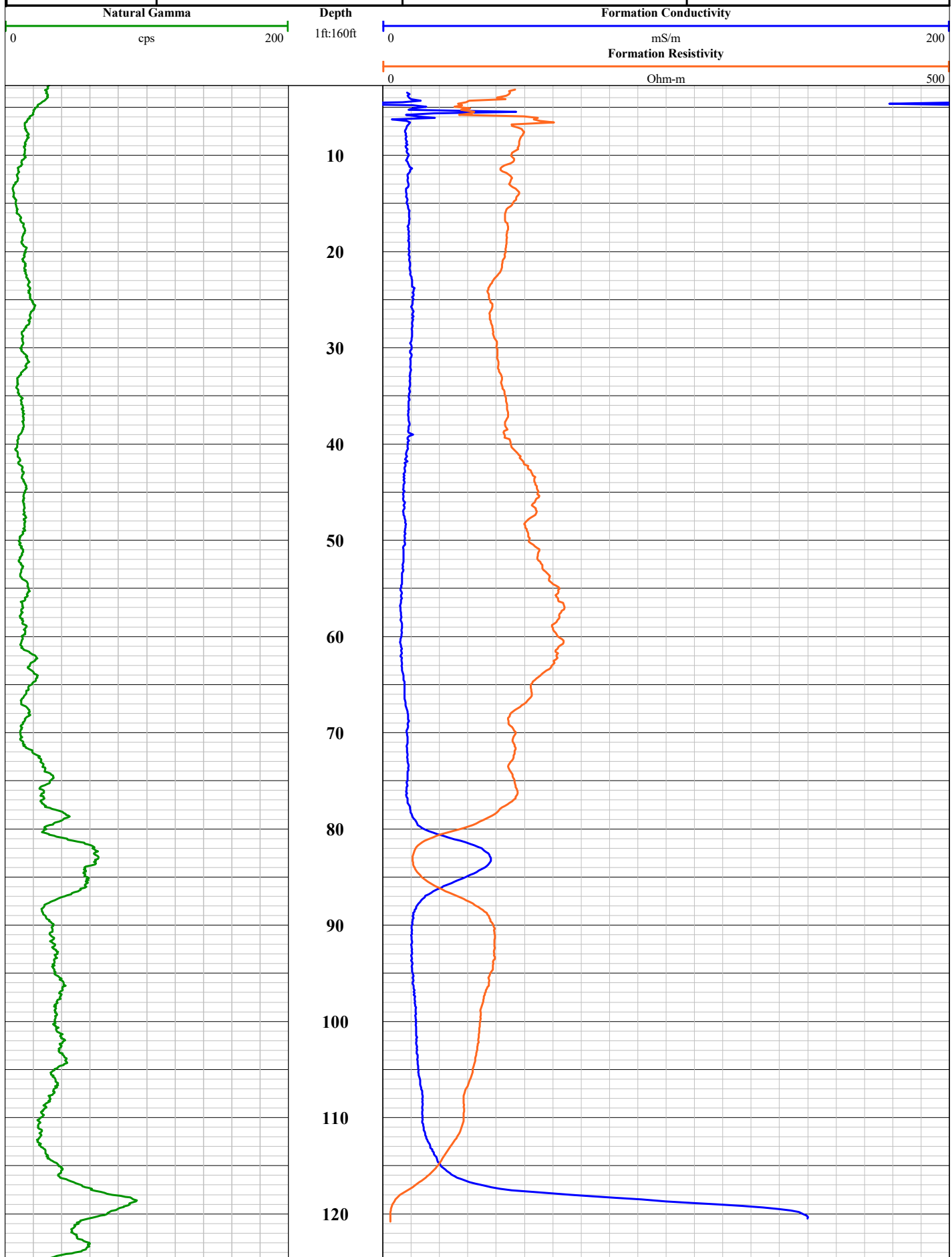
WELL: UD-65

TTL USA

3516 Greensboro Ave, Tuscaloosa, AL, 35401

Phone: (205) 345-0816

www.ttlusa.com





Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

DATE LOGGED: 20 March 2019

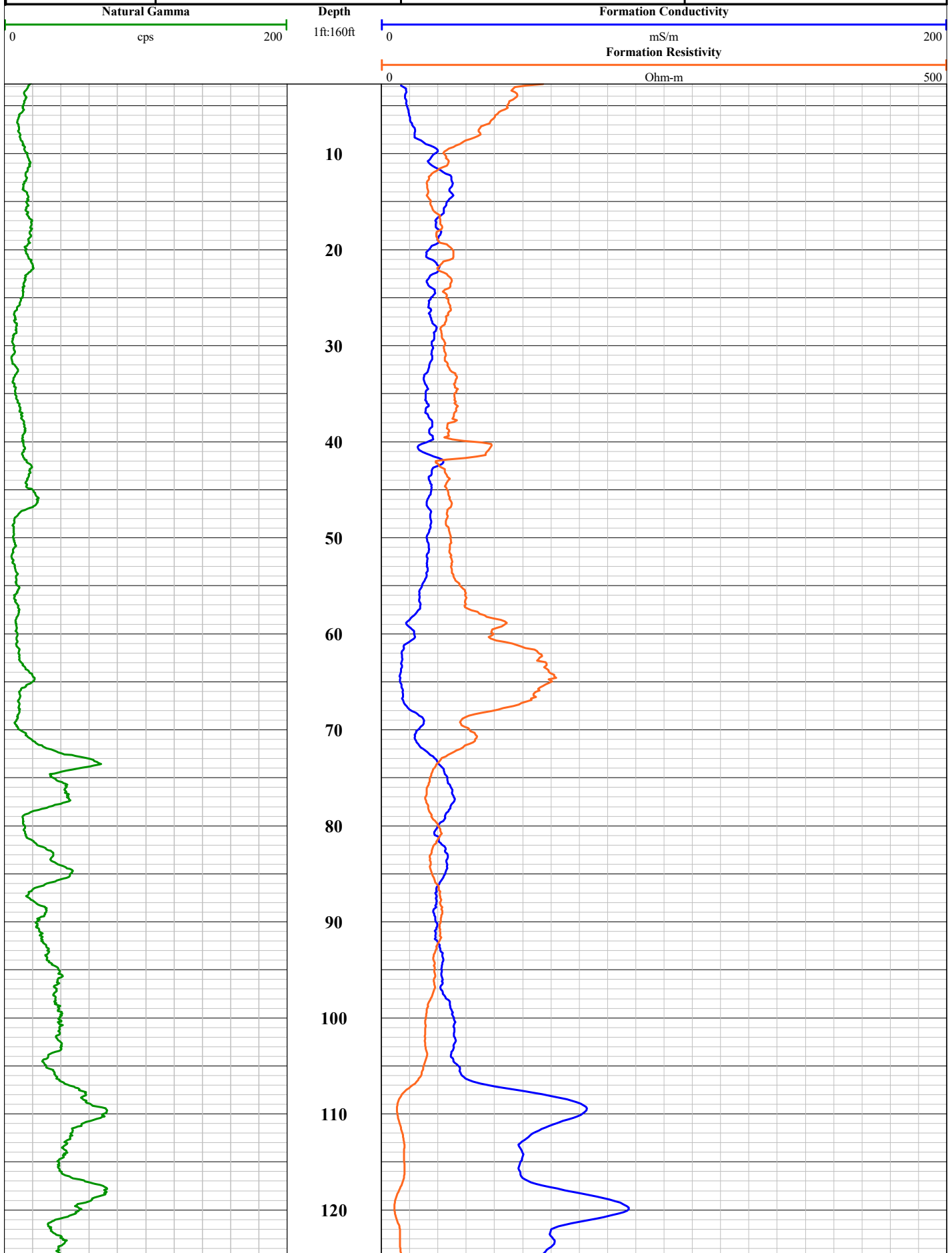
WELL: UD-67

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

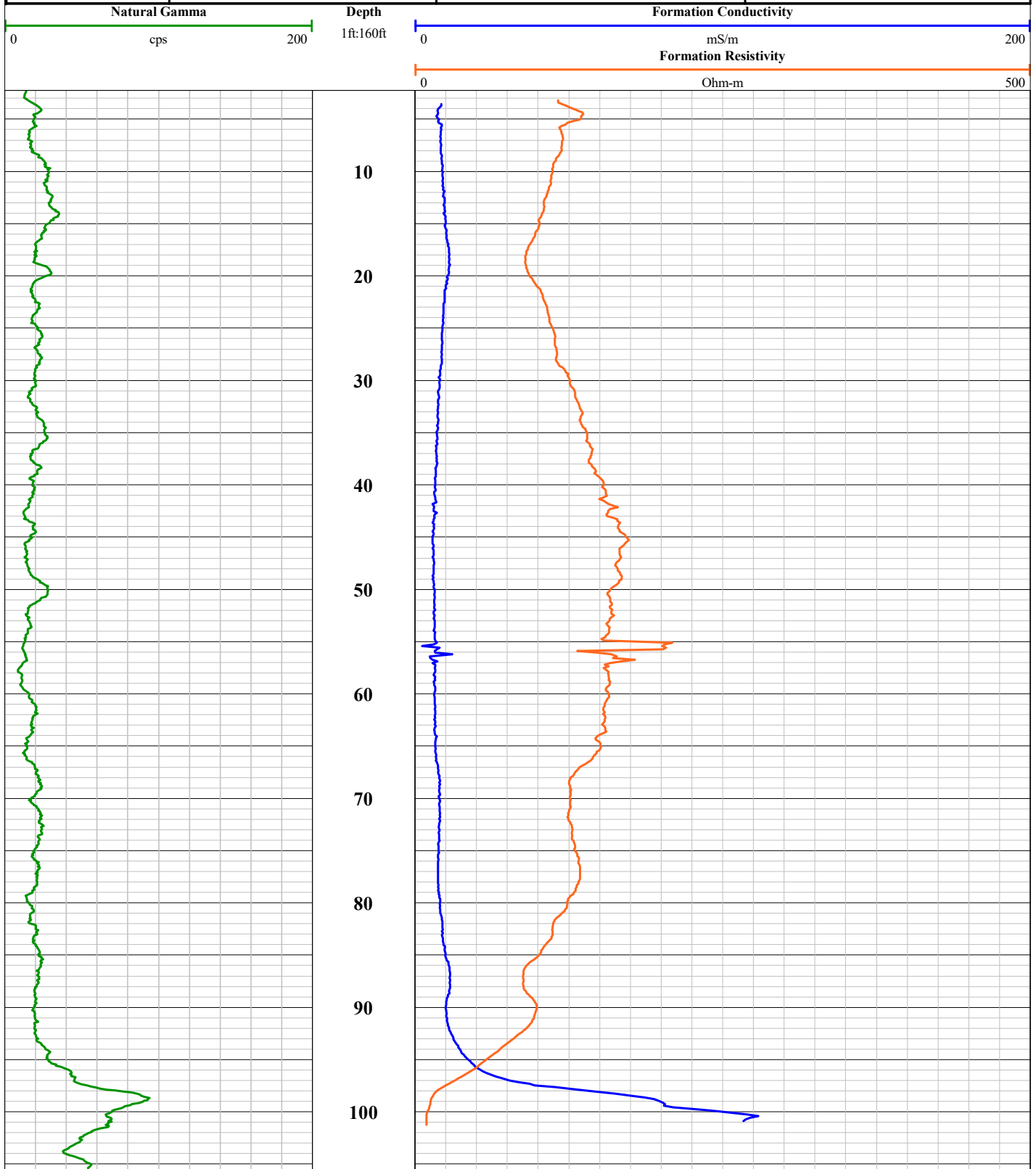
WELL: UD-93

TTL USA

3516 Greensboro Ave, Tuscaloosa, AL, 35401

Phone: (205) 345-0816

www.ttlusa.com





Geophysical Summary Plot

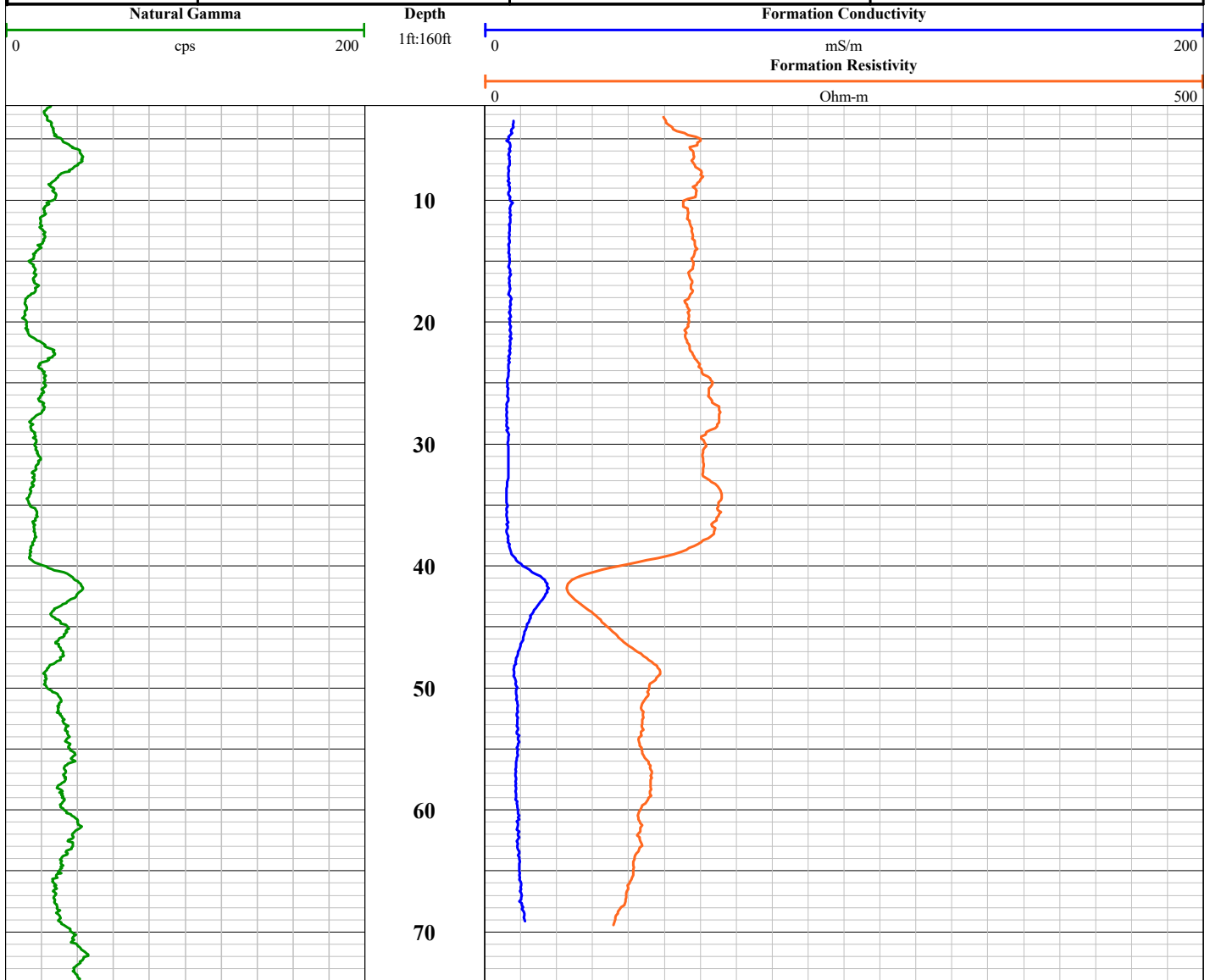
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 20 March 2019

WELL: UD-126





Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

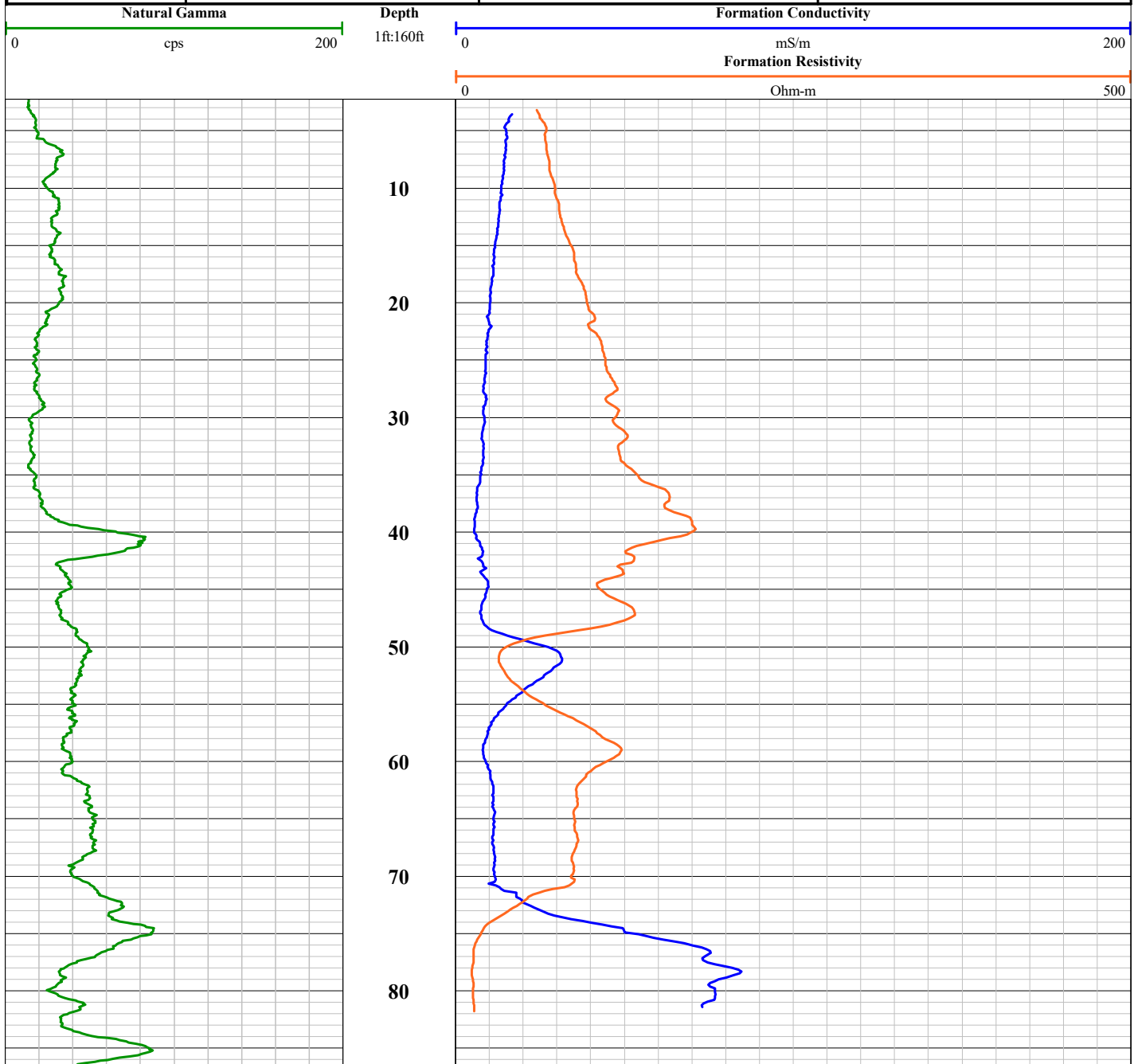
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401

Phone: (205) 345-0816

DATE LOGGED: 21 March 2019

WELL: UD-128

www.ttlusa.com





Geophysical Summary Plot

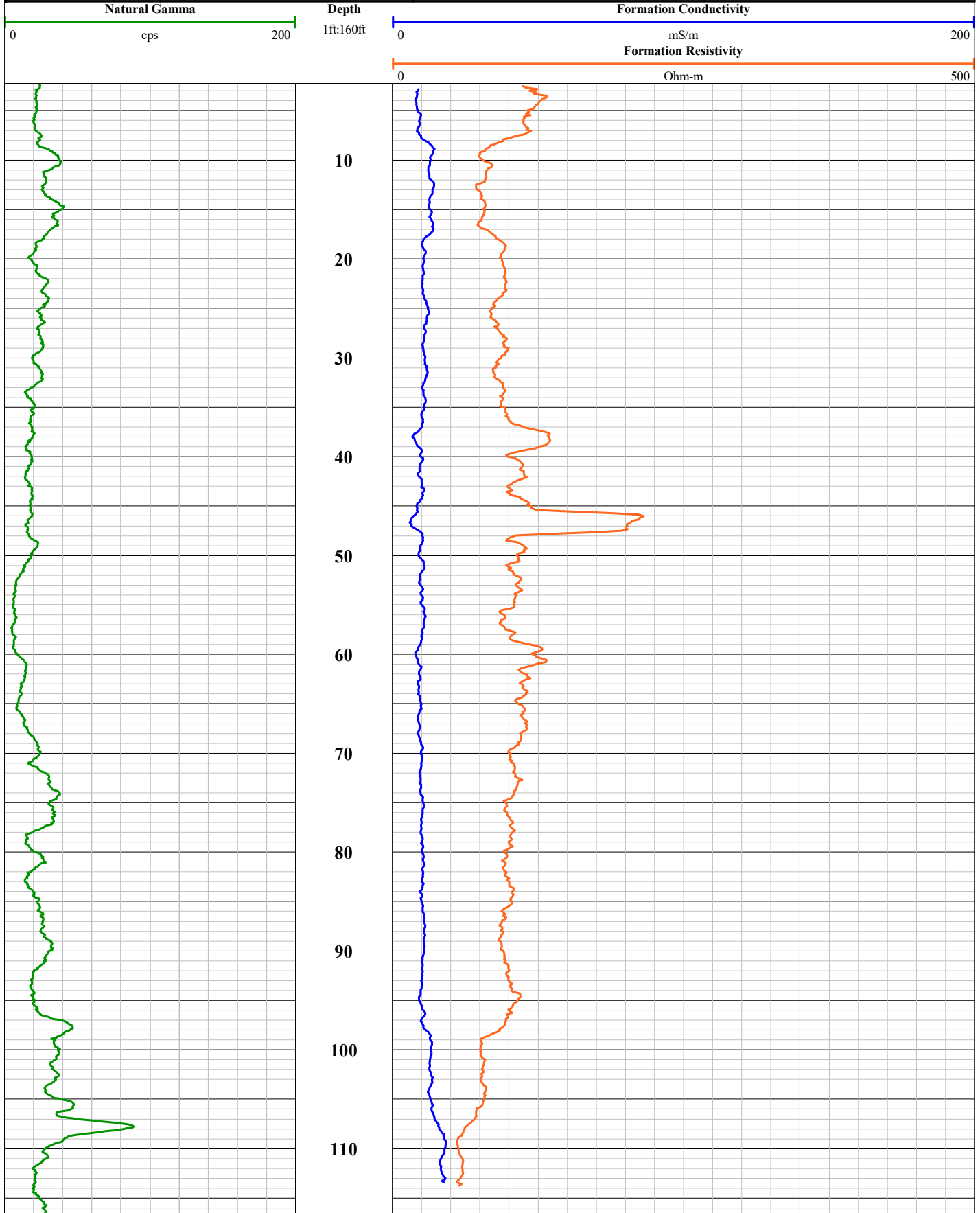
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 20 March 2019

WELL: UD-179





Geophysical Summary Plot

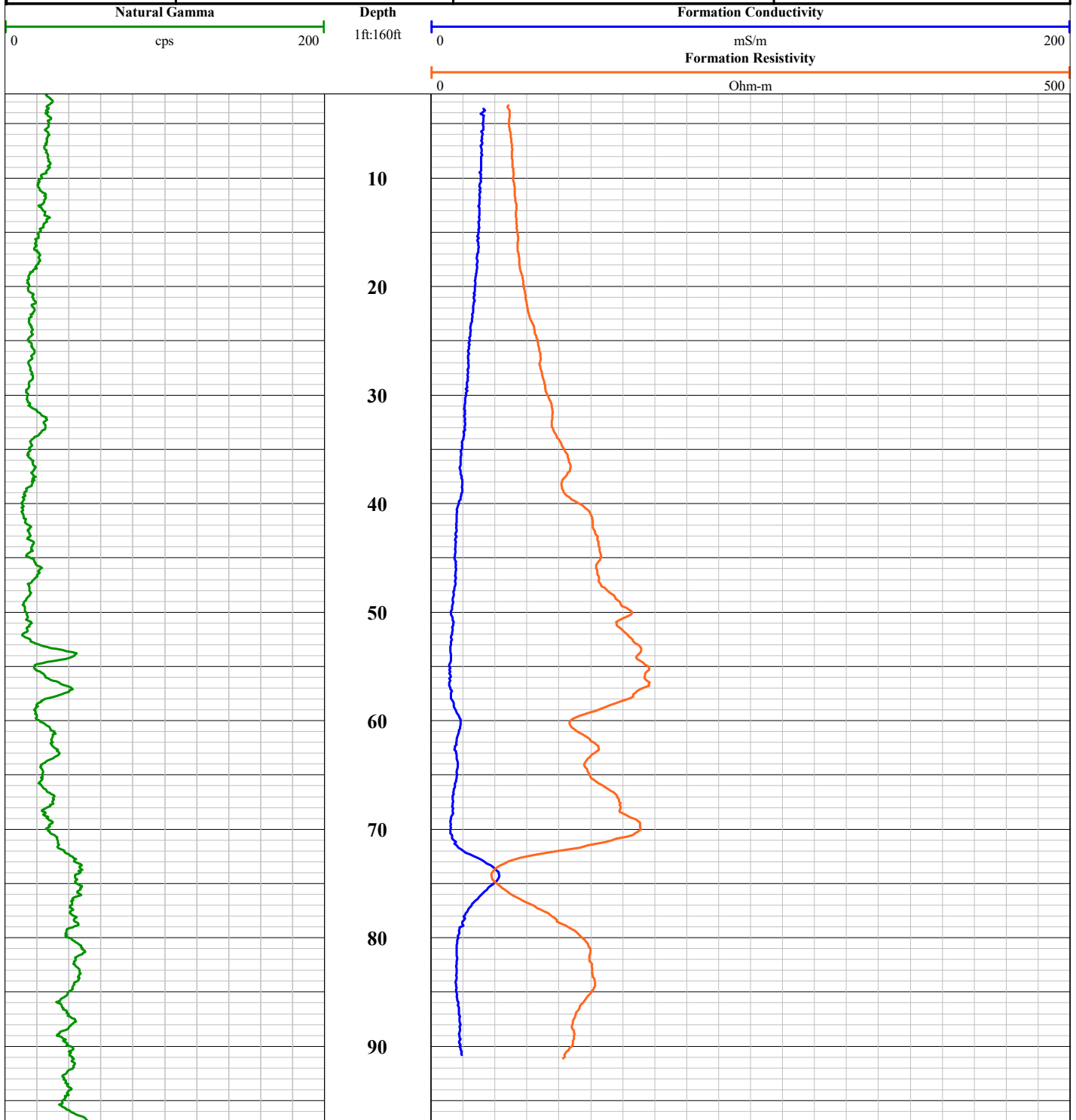
COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 21 March 2019

WELL: UD-231





Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

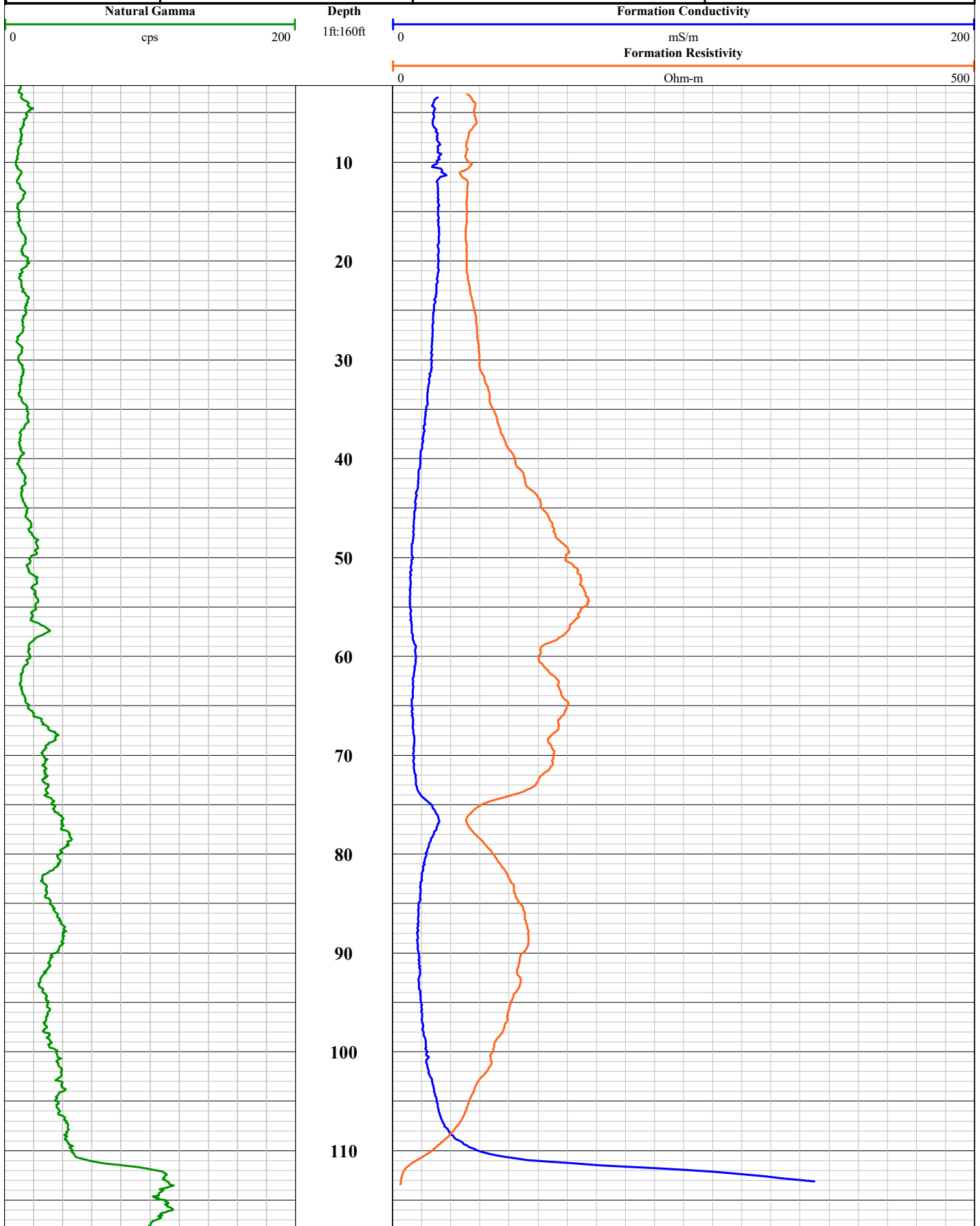
TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401

Phone: (205) 345-0816

DATE LOGGED: 19 March 2019

WELL: UD-238

www.ttlusa.com





Geophysical Summary Plot

COMPANY: TTL, Inc.

PROJECT: Twin Pines - Phase IIA

TTL USA
3516 Greensboro Ave, Tuscaloosa, AL, 35401
Phone: (205) 345-0816
www.ttlusa.com

DATE LOGGED: 22 March 2019

WELL: EB-16

